

NF VALIDATION
Validation of alternative analytical methods
Application in food microbiology

Summary report

Validation study according to the ISO 16140-2

iQ-Check *Listeria monocytogenes* II

(Certificate number: BRD 07/10 - 04/05)

**for the detection of *Listeria monocytogenes*
in food products and environmental samples**

Qualitative method

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This report consists of 249 pages, including 9 appendices.

Only copies including the totality of this report are authorised.

Competencies of the laboratory are certified by COFRAC accreditation for the analyses marked with the symbol♦.

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LIST OF ABBREVIATIONS

Method & protocol

CFU	Colony Forming Units
DW	Deep Well
FDRS	Free DNA Removal Solution
ILS	Interlaboratory Study
MCS	Method Comparison Study
RLOD	Relative Level of Detection
RT	Relative Trueness
RTC	Ready to cook
RTE	Ready to eat
RTRH	Ready to reheat
SE	Relative Sensitivity
SP	Relative Specificity
IC	Internal Control

Interpretation

AL	Acceptability Limit
alt	Alternative method
$\bar{D}$	Average difference
FN	False Negative results
FP	False Positive results
FNR	False Negative Ratio
FPR	False Positive Ratio
LOD	Limit of Detection
NA	Negative agreement
NA _{FN} (alt)	Negative Agreement due to false negative alternative-method results
ND	Negative Deviation
ND _{FN} (alt)	Negative Deviation due to false negative alternative-method results
PA	Positive Agreement
PA _{FP} (alt)	Positive Agreement due to false positive alternative-method results
PD	Positive deviation
PD _{FP} (alt)	Positive Deviation due to false positive alternative-method results
ref	Reference method
TNA	Total Negative Agreement
TND	Total Negative Deviation

Raw data

-	No typical colonies but presence of background microflora
(x)	Number of colonies in the plate
*	Dilution of the extract in case of inhibition according to the alternative protocol (1/10)
(F)	New extraction with the use of FDRS
1/2	50% level of target analyte
d	Doubtful result
H+	Characteristic <i>Listeria</i> colonies with halo
H-	Characteristic <i>Listeria</i> without halo
i	Inhibition
ne	New DNA extraction
NC	Non-characteristic colony
NI	No identification
ni	Not isolated colony
No amp	Non characteristic PCR curve
m	Minority level of target analyte
M	Majority level of target analyte
p	Pure culture level of target analyte
st	Plate without any colony
A-	No typical colonies with high level of background flora
B-	No typical colonies with medium level of background flora
C-	No typical colonies with medium level of background flora
L.mono	<i>Listeria monocytogenes</i>
L.inno	<i>Listeria innocua</i>
L.seel	<i>Listeria seeligeri</i>
L.welsh	<i>Listeria welshimeri</i>
L.ivan	<i>Listeria ivanovi</i>
w	Weak reaction
Bold typing	artificially inoculated samples

Quality Assurance documents related to this study can be consulted upon request from **Bio-Rad**.

The technical protocol and the result interpretation were carried out according to the ISO 16140-2 (2016), ISO 16140-2/A1 (2024) and the AFNOR technical rules (Revision 12).

Validation protocols	▪ ISO 16140-1 (2016): Microbiology of the food chain - Method validation — <i>Part 1: Vocabulary</i> ▪ ISO 16140-2 (2016) & ISO 16140-2/A1 (2024): Microbiology of the food chain - Method validation — <i>Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method</i> ▪ AFNOR technical rules (Revision 12)
Reference method[♦]	ISO 11290-1 (May 2017): Microbiology of the food chain - Horizontal method for the detection and enumeration of <i>Listeria monocytogenes</i> and of <i>Listeria</i> spp.- Part 1: detection method
Alternative method	iQ-Check <i>Listeria monocytogenes</i> II
Scope	☒ Food products ☒ Environmental samples
Certification organism	AFNOR Certification (http://nf-validation.afnor.org/)

[♦] Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

1 INTRODUCTION

The iQ-Check *Listeria monocytogenes* method was validated in April 2005 according to the ISO 16140:2003 (certificate number BRD 07/10 - 04/05). The study was performed by IPL. The following renewals and extensions were performed:

Date	Validation	Reference method	Validation standard	Expert laboratory
April 2005	Initial validation	ISO 11290-1 (1997)	ISO 16140 (2003)	IPL
December 2006	Extension for a new protocol (enrichment in LSB broth) and a new DNA extraction protocol (Easy II protocol)	ISO 11290-1 (1997) ISO 11290-1/A1 (2005)	ISO 16140 (2003)	IPL
September 2007	Extension for the use of new thermal cyclers: MiniOpticon and iQ5	/	/	Bio-Rad internal data*
January 2009	Extension for the use of a new mix PCR and a new version of the Opticon Monitor software including automatic analysis	/	/	Bio-Rad internal data*
March 2009	Renewal study	ISO 11290-1 (1997) ISO 11290-1/A1 (2005)	ISO 16140 (2003)	IPL
February 2010	Extension with: - Modification of the extraction step with the utilization of a new consumable (Deep Well plate) in addition to the tube format previously validated - Use of the CFX Manager software to handle the CFX96 and MiniOpticon real-time PCR thermocyclers	ISO 11290-1 (1997) ISO 11290-1/A1 (2005)	ISO 16140 (2003)	Bio-Rad internal data*
February 2012	Extension concerning the use of the CFX96 Touch Deep Well thermocycler and the CFX Manager software IDE v 1.2	/	/	Bio-Rad internal data*
March 2013	Renewal study	ISO 11290-1 (1997) ISO 11290-1/A1 (2005)	ISO 16140 (2003)	ISHA
	Extension to the use of the iQ-Check Prep automation system v1 and the CFX Manager software IDE v2.0	ISO 11290-1 (1997) ISO 11290-1/A1 (2005)	ISO 16140 (2003)	Bio-Rad internal data*
October 2013	Extension to the CFX Manager Software IDE v2.1	/	/	Bio-Rad internal data*
November 2014	Extension to the iQ-Check Prep v2 and CFX Manager Software IDE v2.2	/	/	Bio-Rad internal data*
January 2018	Renewal study according to the ISO 16140-2:2016	ISO 11290-1 (2017)	ISO 16140-2 (2016)	ADRIA

Date	Validation	Reference method	Validation standard	Expert laboratory
May 2018	Extension to the iQ-Check Prep v3 and CFX Manager Software IDE v3.0	/	/	Bio-Rad internal data*
January 2020	Extension for the production environmental samples category - For a new enrichment protocol associated with the Easy II lysis protocol - For the use of the iQ-Check Free DNA Removal Solution (FDRS) protocol associated with the Easy II lysis protocol - For the use of a new Application Protocol File (APF Fast).	ISO 11290-1 (2017)	ISO 16140-2 (2016)	ADRIA
February 2021	Renewal study	ISO 11290-1 (2017)	ISO 16140-2 (2016)	ADRIA
April 2021	Extension for the use of the APF fast for all the categories and protocols	/	/	Bio-Rad internal data*
May 2021	Extension for the use of the iQ-Check Prep v4	/	/	Bio-Rad internal data*
December 2022	Extension for the use of the CFX Opus Deep Well and CFX Manager Software IDE v3.1	/	ISO 16140-2 (2016)	Bio-Rad internal data*
June 2023	Extension study for the use of LSB II medium on composite foods and production environmental samples	ISO 11290-1 (2017)	ISO 16140-2 (2016)	ADRIA
October 2023	Extension study for the use of LSB II medium on Dairy products	ISO 11290-1 (2017)	ISO 16140-2 (2016)	ADRIA
October 2024	Extension study for the use of LSB II medium on meat and poultry products	ISO 11290-1 (2017)	ISO 16140-2 (2016)	ADRIA
	Extension for the use of FDRS on meat and poultry products	/	/	Bio-Rad internal data*
December 2024	Extension study for the use of LSB II medium on vegetables and fishery and seafood products	ISO 11290-1 (2017)	ISO 16140-2 (2016) & ISO 16140-2/A1 (2024)	ADRIA
	Extension for the use of FDRS on meat and poultry products on vegetables and fishery and seafood products	/	/	Bio-Rad internal data*
February 2025	Renewal	ISO 11290-1 (2017)	ISO 16140-2 (2016) & ISO 16140-2/A1 (2024)	ADRIA
Avril 2025	Extension for the use of a new version of CFX Maestro IDE software v4.0 for PCR detection (The data related to this study are available upon request from AFNOR Certification).	/	/	ADRIA

* Manufacturer internal data are not included in this report

2 METHOD PROTOCOLS

2.1 Alternative method

The flow diagrams of the alternative method are provided in **Appendix 1**.

2.1.1 Principle

The iQ-Check *Listeria monocytogenes* II kits are tests based on gene amplification and detection by real-time PCR. Ready-to-use PCR reagents contain oligonucleotides (primers and probes) specific for *Listeria monocytogenes*, as well as DNA polymerase and nucleotides. Detection and data analysis are optimized for use with a Bio-Rad real-time PCR instrument, such as the CFX96™ Touch standard or Deep Well (DW) or CFX Opus Deep Well (DW) system.

PCR is a powerful technique used to generate many copies of target DNA. During the PCR reaction, several cycles of heating and cooling allow DNA denaturation, by heat, followed by primers binding to the target region. The DNA polymerase then uses these primers and deoxynucleotide triphosphates (dNTPs) to extend the DNA, creating copies of the target DNA. These copies are called amplicons.

This test allows the detection of *Listeria monocytogenes* in environmental samples and food products previously enriched by culture in Half Fraser broth or *Listeria* Special Broth (LSB or LSB II). It includes the following 4 main steps:

- Enrichment,
- DNA extraction,
- Real-time PCR,
- Data analysis & interpretation.

The FDRS protocol (Free DNA Removal Solution) can be applied to remove free DNA from food and environmental samples prior to PCR analysis. It is performed by a selected enzyme and its specific buffer under optimized conditions. The iQ-Check lysis buffer associated with thermal lysis inactivates the enzyme, allowing extraction from intact and living cells.

The PCR can be performed using either the classical iQ-Check APF (Application Protocol File) which corresponds to a 1h50 min PCR run or the APF Fast (reduction of the number of cycles + time reduction of some steps) to reduce the PCR run time down to 1h10 min.

2.1.2 Protocol

The different protocols and steps are described below:

Enrichment step	Protocols available: - Half Fraser for 24 - 26 h at 30°C for all categories (Protocol 1) - LSB broth for 22 - 24 h at 30°C ± 1°C for all categories (Protocol 2) - LSB broth for 24 - 26 h at 30°C ± 1°C for all categories (Protocol 3). - LSB broth for 18 - 26 h at 30°C ± 1°C for environmental samples (Protocols 4 and 5) - LSB II broth for 18 - 26 h at 37°C ± 1°C for composite foods and environmental samples (Protocol 6) - Prewarmed LSB II broth for 20 - 28 h at 37°C ± 1°C for dairy products (Protocol 7) - Prewarmed LSB II broth for 18 - 26 h at 37°C ± 1°C for meat products, vegetables products, fishery and seafood products (Protocol 8)
Optional iQ-Check Free DNA Removal Solution (FDRS)	- Activate the iQ-Check Free DNA Removal Solution (FDRS) - Pipette 10 µl of activate reagent into the bottom of each well of a 96-Deep Well microplate - Add 100 µl of decanted enriched LSB or LSB II per well. Seal the Deep Well microplate with the X-Pierce sealing film - Incubate in the thermoshaker without shaking for 15 to 30 min at 37°C - Proceed to Easy II DNA extraction protocol using 100 µl of treated enriched sample
Lysis step	- Standard II protocol (protocols 1 and 2): ▪ Centrifugation of 1.5 ml enriched Half-Fraser or LSB broth at 10000 - 12000 g for 5 min ▪ Discard the supernatant ▪ Addition of 250 µl of lysis reagent (A: lysis reagent + F: lysis beads) ▪ Resuspend pellet by pipetting the reagent up and down in the tube ▪ Agitation using the "Disruptor Genie" for 3 min ± 1 min ▪ Incubation at 95 - 100°C for 15 - 20 min ▪ Vortex at high speed ▪ Centrifugation at 10000 - 12000 g for 5 min. - Easy II protocol (protocol 3 to 7) ▪ Aliquote 100 µl of lysis reagent (A + F) to tubes of wells of Deep Well plate ▪ Add 100 µl of enriched LSB or LSB II broth ▪ Place tubes in the cell disruptor for 3 min ± 1 min (for tubes only) ▪ Incubation at 95 - 100°C for 15 - 20 min in a heat block (tubes) or in the plate agitator-incubator (Deep Well plates) under agitation at 1300 rpm ▪ Centrifugation at 10000 - 12000 g for 2 min (tubes only).
PCR	- Add 5 µl of lysates supernatant to 45 µl of PCR mix (reagent B + reagent C) - Run PCR - In case of inhibition, a 1/10 dilution is applied to the DNA extract.

Confirmation	The positive PCR tests are confirmed by: - Reference method: streaking 10 µl of the enriched broth (Half Fraser or LSB or LSBII) onto O&A or Palcam plates incubated for 24 to 48 h at 37°C ± 1°C. The typical colonies are confirmed by the tests described in the ISO method. - Alternative method: streaking 100 µl of enriched broth (Half Fraser or LSB) onto Agar <i>Listeria</i> or RAPID'<i>Listeria</i> Agar or RAPID'<i>L.mono</i> Agar incubated for 24 h at 37°C ± 1°C. For RAPID'<i>L.mono</i> and Agar <i>Listeria</i>, the only presence of typical colonies allows to confirm the positive PCR result. For RAPID'<i>Listeria</i> spp confirmation, the typical colonies are confirmed by the tests described in the ISO method. - By any other method certified by NF Validation based on a principle different from that used in the iQ-Check method starting from the same enrichment step.
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It is possible to store the enrichment broths for 72 h at 5°C ± 3°C before proceeding to PCR and confirmatory tests.

The protocols tested during the different validation studies are summarized in Table 1.

Table 1 – Summary of the protocols

Validation study	Protocol	Scope	Enrichment step	FDRS	Lysis step	APF ¹
Initial 2005	Protocol 1	All categories	Half Fraser for 24 – 26 h at 30°C ± 1°C	Without	Standard II	Classic
						Fast
Extension 2006	Protocol 2		LSB for 22 – 24 h at 30°C ± 1°C	Without	Standard II	Classic
	Protocol 3		LSB for 24 – 26 h at 30°C ± 1°C	Without	Easy II	Classic
						Fast
Extension 2020	Protocol 4	Environmental samples	LSB for 18 - 26 h at 30°C ± 1°C	Without	Easy II	Classic
	Protocol 5		LSB for 18 – 26 h at 30°C ± 1°C	With	Easy II	Classic
						Fast
Extensions 2023	Protocol 6	Composite foods Environmental samples	LSB II for 18 - 26 h at 37°C ± 1°C	With / without	Easy II	Fast
	Protocol 7	Dairy products	Pre-warmed LSB II broth for 20 - 28 h at 37°C ± 1°C	With / without	Easy II	Fast
Extensions 2024	Protocol 8	Meat and poultry products; Vegetables; fishery and seafood products	Pre-warmed (37°C) LSB II broth for 18 - 26 h at 37 ± 1°C	With / without	Easy II	Fast

¹ Application Protocol File

2.1.3 Restrictions

There is no restriction for use.

2.2 Reference method♦

The reference method is the ISO 11290-1 (May 2017): Microbiology of the food chain - Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp. - Part 1: detection method.

The flow diagram is given in **Appendix 2**.

2.3 Study design

It was an **unpaired study**, except for Protocol 1 (Half-Fraser) which has the same enrichment protocol as the reference method.

3 METHOD COMPARISON STUDY

The method comparison study is a study performed by the expert laboratory to compare the alternative method with the reference method.

The study was carried out on a variety of samples and strains representative of the most frequently encountered products. This does not constitute an exhaustive list of the different matrices in the scope.

For any comment on the alternative method, please contact AFNOR Certification by logging on to the web page <http://nf-validation.afnor.org/contact-2/>.

3.1 Initial validation, extension/renewal studies: results – Half-Fraser and LSB protocol

As different protocols are available for samples testing, the following combinations of protocols were used for interpretation of the data generated during the different studies (See **Table 2**).

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Table 2 – Combinations of protocols used for interpretation

Interpretation	Food categories (categories 1 to 5)	Environmental samples category (category 6)
A1	Protocol 1	Protocol 1
B1	Protocol 1	Protocol 4 – APF Classic
C1	Protocol 1	Protocol 5 – APF Classic
D1	Protocol 1	Protocol 4 – APF Fast
E1	Protocol 1	Protocol 5 – APF Fast
A2	Protocol 2	Protocol 2
B2	Protocol 2	Protocol 4 – APF Classic
C2	Protocol 2	Protocol 5 – APF Classic
D2	Protocol 2	Protocol 4 – APF Fast
E2	Protocol 2	Protocol 5 – APF Fast
A3	Protocol 3	Protocol 3
B3	Protocol 3	Protocol 4 – APF Classic
C3	Protocol 3	Protocol 5 – APF Classic
D3	Protocol 3	Protocol 4 – APF Fast
E3	Protocol 3	Protocol 5 – APF Fast

3.1.1 Sensitivity study

The sensitivity (SE) is the ability of the method to detect the analyte by either the reference or alternative method.

3.1.1.1 Number and nature of samples

The distribution per type is given in **Tables 3 to 5**.

Table 3 – Distribution per type - Results associated to Protocol 1

Categor		Type		Protocol	APF	Positive	Negative	Total
1	Meat products	a	Raw products (including deep-frozen, fresh, seasoned)	Protocol 1	Classic	10	20	30
		b	RTE and processed meat products	Protocol 1	Classic	7	15	22
		c	Fermented or dried meats products (raw and cooked)	Protocol 1	Classic	14	10	24
		Total				31	45	76
2	Dairy products	a	Raw milk cheese	Protocol 1	Classic	9	12	21
		b	Other raw milk products	Protocol 1	Classic	13	9	22
		c	Heat processed milk and dairy products	Protocol 1	Classic	12	17	29
		Total				34	38	72
3	Seafood products	a	Raw products	Protocol 1	Classic	10	14	24
		b	Smoked, marinated products	Protocol 1	Classic	15	13	28
		c	Processed products	Protocol 1	Classic	11	10	21
		Total				36	37	73
4	Vegetal products	a	Raw vegetal products	Protocol 1	Classic	12	10	22
		b	RTE and RTC raw vegetal products, precooked vegetal products	Protocol 1	Classic	13	10	23
		c	Processed vegetal products	Protocol 1	Classic	11	10	21
		Total				36	30	66
5	RTE-RTRH	a	RTE foods	Protocol 1	Classic	11	9	20
		b	RTRH foods	Protocol 1	Classic	11	11	22
		c	Pastries, egg products	Protocol 1	Classic	12	10	22
		Total				34	30	64
6	Environmental samples	a	Process waters	Protocol 1	Classic	10	10	20
		b	Surface sample	Protocol 1	Classic	15	17	32
		c	Dusts and residues	Protocol 1	Classic	7	15	22
		Total				32	42	74
		a	Process waters	Protocol 4	Classic	11	9	20
		b	Surface sample	Protocol 4	Classic	10	10	20
		c	Dusts and residues	Protocol 4	Classic	9	11	20
		Total				30	30	60
		a	Process waters	Protocol 5	Classic	11	9	20
		b	Surface sample	Protocol 5	Classic	10	10	20
		c	Dusts and residues	Protocol 5	Classic	9	11	20
		Total				30	30	60
		a	Process waters	Protocol 4	Fast	11	9	20
		b	Surface sample	Protocol 4	Fast	10	10	20
		c	Dusts and residues	Protocol 4	Fast	9	11	20
		Total				30	30	60
		a	Process waters	Protocol 5	Fast	11	9	20
		b	Surface sample	Protocol 5	Fast	10	10	20
		c	Dusts and residues	Protocol 5	Fast	9	11	20
		Total				30	30	60
All categories		A1: Protocol 1 - APF Classic				203	222	425
		B1: Protocol 1 + Protocol 4 - APF Classic				201	210	411
		C1: Protocol 1 + Protocol 5 - APF Classic				201	210	411
		D1: Protocol 1 + Protocol 4 - APF Fast				201	210	411
		E1: Protocol 1 + Protocol 5 - APF Fast				201	210	411

Table 4 – Distribution per type - Results associated to Protocol 2

Category		Type		Protocol	APF	Positive	Negative	Total
1	Meat products	a	Raw products (including deep-frozen, fresh, seasoned)	Protocol 2	Classic	13	9	22
		b	RTE and processed meat products	Protocol 2	Classic	18	11	29
		c	Fermented or dried meats products (raw and cooked)	Protocol 2	Classic	10	11	21
		Total				41	31	72
2	Dairy products	a	Raw milk cheese	Protocol 2	Classic	12	11	23
		b	Other raw milk products	Protocol 2	Classic	13	10	23
		c	Heat processed milk and dairy products	Protocol 2	Classic	15	19	34
		Total				40	40	80
3	Seafood products	a	Raw products	Protocol 2	Classic	10	10	20
		b	Smoked, marinated products	Protocol 2	Classic	12	10	22
		c	Processed products	Protocol 2	Classic	11	10	21
		Total				33	30	63
4	Vegetal products	a	Raw vegetal products	Protocol 2	Classic	12	10	22
		b	RTE and RTC raw vegetal products, precooked vegetal products	Protocol 2	Classic	11	10	21
		c	Processed vegetal products	Protocol 2	Classic	10	11	21
		Total				33	31	64
5	RTE-RTRH	a	RTE foods	Protocol 2	Classic	12	11	23
		b	RTRH foods	Protocol 2	Classic	11	11	22
		c	Pastries, egg products	Protocol 2	Classic	11	10	21
		Total				34	32	66
6	Environmental samples	a	Process waters	Protocol 2	Classic	10	10	20
		b	Surface sample	Protocol 2	Classic	19	18	37
		c	Dusts and residues	Protocol 2	Classic	10	10	20
		Total				39	38	77
		a	Process waters	Protocol 4	Classic	11	9	20
		b	Surface sample	Protocol 4	Classic	10	10	20
		c	Dusts and residues	Protocol 4	Classic	9	11	20
		Total				30	30	60
		a	Process waters	Protocol 5	Classic	11	9	20
		b	Surface sample	Protocol 5	Classic	10	10	20
		c	Dusts and residues	Protocol 5	Classic	9	11	20
		Total				30	30	60
		a	Process waters	Protocol 4	Fast	11	9	20
		b	Surface sample	Protocol 4	Fast	10	10	20
		c	Dusts and residues	Protocol 4	Fast	9	11	20
		Total				30	30	60
		a	Process waters	Protocol 5	Fast	11	9	20
		b	Surface sample	Protocol 5	Fast	10	10	20
		c	Dusts and residues	Protocol 5	Fast	9	11	20
		Total				30	30	60
All categories		A2: Protocol 2 - APF Classic				220	202	422
		B2: Protocol 2 + Protocol 4 - APF Classic				211	194	405
		C2: Protocol 2 + Protocol 5- APF Classic				211	194	405
		D2: Protocol 2 + Protocol 4 - APF Fast				211	194	405
		E2: Protocol 2 + Protocol 5 - APF Fast				211	194	405

Table 5 – Distribution per type - Results associated to Protocol 3

Category		Type		Protocol	APF	Positive	Negative	Total
1	Meat products	a	Raw products (including deep-frozen, fresh, seasoned)	Protocol 3	Classic	13	9	22
		b	RTE and processed meat products	Protocol 3	Classic	18	11	29
		c	Fermented or dried meats products (raw and cooked)	Protocol 3	Classic	9	12	21
		Total				40	32	72
2	Dairy products	a	Raw milk cheese	Protocol 3	Classic	12	11	23
		b	Other raw milk products	Protocol 3	Classic	13	10	23
		c	Heat processed milk and dairy products	Protocol 3	Classic	15	19	34
		Total				40	40	80
3	Seafood products	a	Raw products	Protocol 3	Classic	10	10	20
		b	Smoked, marinated products	Protocol 3	Classic	12	10	22
		c	Processed products	Protocol 3	Classic	11	10	21
		Total				33	30	63
4	Vegetal products	a	Raw vegetal products	Protocol 3	Classic	12	10	22
		b	RTE and RTC raw vegetal products, precooked vegetal products	Protocol 3	Classic	11	10	21
		c	Processed vegetal products	Protocol 3	Classic	10	11	21
		Total				33	31	64
5	RTE-RTRH	a	RTE foods	Protocol 3	Classic	12	11	23
		b	RTRH foods	Protocol 3	Classic	11	11	22
		c	Pastries, egg products	Protocol 3	Classic	11	10	21
		Total				34	32	66
6	Environmental samples	a	Process waters	Protocol 3	Classic	10	10	20
		b	Surface sample	Protocol 3	Classic	19	18	37
		c	Dusts and residues	Protocol 3	Classic	10	10	20
		Total				39	38	77
		a	Process waters	Protocol 4	Classic	11	9	20
		b	Surface sample	Protocol 4	Classic	10	10	20
		c	Dusts and residues	Protocol 4	Classic	9	11	20
		Total				30	30	60
		a	Process waters	Protocol 5	Classic	11	9	20
		b	Surface sample	Protocol 5	Classic	10	10	20
		c	Dusts and residues	Protocol 5	Classic	9	11	20
		Total				30	30	60
		a	Process waters	Protocol 4	Fast	11	9	20
		b	Surface sample	Protocol 4	Fast	10	10	20
		c	Dusts and residues	Protocol 4	Fast	9	11	20
		Total				30	30	60
		a	Process waters	Protocol 5	Fast	11	9	20
		b	Surface sample	Protocol 5	Fast	10	10	20
		c	Dusts and residues	Protocol 5	Fast	9	11	20
		Total				30	30	60
All categories		A3: Protocol 3 - APF Classic				219	203	422
		B3: Protocol 3 + Protocol 4 - APF Classic				210	195	405
		C3: Protocol 3 + Protocol 5 - APF Classic				210	195	405
		D3: Protocol 3 + Protocol 4 - APF Fast				210	195	405
		E3: Protocol 3 + Protocol 5 - APF Fast				210	195	405

3.1.1.2 Artificial contamination of samples

Artificial contaminations were done by seeding or spiking protocol. The artificial contaminations are presented in **Appendix 3**.

115 samples were artificially contaminated for studies performed in 2005, 2006 and 2017.

For the extension performed in 2019, 31 samples were artificially contaminated. 29 gave a positive result by both protocols (with or without FDRS).

The repartition of the positive samples per inoculation protocol and inoculation level is given in:

- Table 6 for Protocol 1 combined with the extension,
- Table 7 for Protocol 2 combined with the extension,
- Table 8 for Protocol 3 combined with the extension.

**Table 6 - Repartition of the positive samples
per inoculation protocol and inoculation level –
Results associated to Protocol 1**

Validation study	Category	Number and percentage of samples analyzed per contamination level (CFU/sample)				
		Naturally contaminated	≤5 (spiking) ≤3 (seeding)	5-10 (spiking) 3-10 (seeding)	10<x<30	Total
Initial, extension and renewal studies	Meat products	30	0	1	0	31
	Dairy products	21	10	3	0	34
	Sea food products	31	5	0	0	36
	Vegetal products	8	25	3	0	36
	RTE-RTRH	11	20	3	0	34
	Environmental samples	23	9	0	0	32
Extension 2019	Environmental samples	1	29	0	0	30
Total		125	98	10	0	233
%		53.6 %	42.1 %	4.3 %	0.0%	100.0%

**Table 7 - Repartition of the positive samples
per inoculation protocol and inoculation level –
Results associated to Protocol 2**

Validation study	Category	Number and percentage of samples analyzed per contamination level (CFU/sample)				
		Naturally contaminated	≤5 (spiking) ≤3 (seeding)	5-10 (spiking) 3-10 (seeding)	10<x<30	Total
Initial, extension and renewal studies	Meat products	36	5	0	0	41
	Dairy products	13	14	10	3	40
	Sea food products	30	3	0	0	33
	Vegetal products	11	12	7	3	33
	RTE-RTRH	8	22	3	1	34
	Environmental samples	30	9	0	0	39
Extension 2019	Environmental samples	1	29	0	0	30
Total		129	94	20	7	250
%		51.6 %	37.6 %	8.0 %	3.8 %	100.0 %

**Table 8 - Repartition of the positive samples
per inoculation protocol and inoculation level –
Results associated to Protocol 3**

Validation study	Category	Number and percentage of samples analyzed per contamination level (CFU/sample)				
		Naturally contaminated	≤5 (spiking) ≤3 (seeding)	5-10 (spiking) 3-10 (seeding)	10<x<30	Total
Initial, extension and renewal studies	Meat products	35	5	0	0	40
	Dairy products	13	14	10	3	40
	Sea food products	30	3	0	0	33
	Vegetal products	11	12	7	3	33
	RTE-RTRH	8	22	3	1	34
	Environmental samples	30	9	0	0	39
Extension 2019	Environmental samples	1	29	0	0	30
Total		128	94	20	7	249
%		51.4 %	37.8 %	8.0 %	2.8 %	100.0 %

The percentage of samples inoculated between 3 (spiking) or 5 (seeding) and 10 CFU is comprised between 4.3 and 8.0 % depending on the protocols used for analysis.

The percentage of naturally contaminated samples varies from 51.4 % to 53.6 % depending on the combination of protocols used.

3.1.1.3 Protocols applied during the validation study

> **Enrichment, lysis and PCR protocols**

The minimum incubation time was evaluated for all studies.

A summary of the protocols evaluated during the initial validation study and the extensions in 2006 and 2020 is shown in Table 9.

Table 9 – Summary of protocols tested

Validation study	Protocol	Scope	Enrichment step	FDRS	Lysis step	APF ²
Initial 2005	Protocol 1	All categories	Half Fraser for 24 h at 30°C ±1°C	Without	Standard II	Classic
Extension 2006	Protocol 2		LSB for 22 h at 30°C ±1°C	Without	Standard II	Classic
	Protocol 3		LSB for 24 h at 30°C ±1°C	Without	Easy II	Classic
Extension 2020	Protocol 4	Environmental samples	LSB for 18 h at 30°C ±1°C	Without	Easy II	Classic Fast
	Protocol 5		LSB for 18 h at 30°C ±1°C	With	Easy II	Classic Fast

An incubation time of 15 min in the thermoshaker was applied for the validation study.

> **Confirmation protocol**

During the validation studies, the following protocols were tested:

- Tests described in the ISO method (streaking 10 µl onto AL and Palcam);
- Streaking 100 µl of enriched sample (Half-Fraser broth or LSB broth) onto RAPID'L. *mono* Agar. The presence of typical colonies allows to confirm the positive PCR test but during the validation study, the typical colonies were confirmed by the tests described in the ISO method.

For the extension study performed in 2020, for negative PCR samples, the enriched LSB broth was sub-cultured in Fraser broth for 24 h ± 2 h at 37°C ± 1°C in order to have the total duration of time equivalent to the ISO method before streaking onto O&A and Palcam plates (ISO 16140-2 requirements).

² Application Protocol File

➤ **Enrichment broth storage**

The enriched LSB broths from positive and discordant samples were tested again after storage for 72 h at $5^{\circ}\text{C} \pm 3^{\circ}\text{C}$. DNA extractions, PCR tests and confirmatory tests were run again. This concerns Protocols 2, 3, 4 and 5.

3.1.1.4 Test results

Raw data are given in **Appendix 4**. The results are given in Tables 10 to 12.

Table 10 – Interpretation of sample results between the reference and alternative method (based on the confirmed alternative method results)

Results associated to Protocol 1

Category		Protocol	APF	PA	PD	TND	TNA
1	Meat products	Protocol 1	Classic	29	1	1	45
2	Dairy products	Protocol 1	Classic	34	0	0	38
3	Seafood products	Protocol 1	Classic	33	0	3	37
4	Vegetable products	Protocol 1	Classic	35	0	1	30
5	RTE-RTRH	Protocol 1	Classic	34	0	0	30
6	Environmental samples	Protocol 1	Classic	31	0	1	42
		Protocol 4	Classic	15	8	7	30
		Protocol 5	Classic	16	8	6	30
		Protocol 4	Fast	15	8	7	30
		Protocol 5	Fast	16	8	6	30
All categories		A1: Protocol 1 – APF Classic		196	1	6	214
		B1: Protocol 1 + Protocol 4 - APF Classic		180	9	12	209
		C1: Protocol 1 + Protocol 5 - APF Classic		181	9	11	209
		D1: Protocol 1 + Protocol 4 - APF Fast		180	9	12	210
		E1: Protocol 1 + Protocol 5 - APF Fast		181	9	11	210

With: for paired evaluation: $TND = ND_{FN(alt)}$ $TNA = NA + PD_{FP(alt)}$
 for unpaired evaluation: $TND = ND + ND_{FN(alt)} + PA_{FP(alt)}$ $TNA = NA + NA_{FN(alt)} + PD_{FP(alt)}$

Table 11 – Interpretation of sample results between the reference and alternative method (based on the confirmed alternative method results)
Results associated to Protocol 2

Category		Protocol	APF	PA	PD	TND	TNA
1	Meat products	Protocol 2	Classic	27	10	4	31
2	Dairy products	Protocol 2	Classic	36	4	0	40
3	Seafood products	Protocol 2	Classic	29	4	0	30
4	Vegetable products	Protocol 2	Classic	30	0	3	31
5	RTE-RTRH	Protocol 2	Classic	29	3	2	32
6	Environmental samples	Protocol 2	Classic	37	0	2	38
		Protocol 4	Classic	15	8	7	30
		Protocol 5	Classic	16	8	6	30
		Protocol 4	Fast	15	8	7	30
		Protocol 5	Fast	16	8	6	30
All categories		A2: Protocol 2 – APF Classic		188	21	11	202
		B2: Protocol 2 + Protocol 4 – APF Classic		166	29	16	194
		C2: Protocol 2 + Protocol 5 – APF Classic		167	29	15	194
		D2: Protocol 2 + Protocol 4 – APF Fast		166	29	16	194
		E2: Protocol 2 + Protocol 5 – APF Fast		167	29	15	194

Table 12 – Interpretation of sample results between the reference and alternative method (based on the confirmed alternative method results)
Results associated to Protocol 3

Category		Protocol	APF	PA	PD	TND	TNA
1	Meat products	Protocol 3	Classic	27	9	4	32
2	Dairy products	Protocol 3	Classic	34	4	2	40
3	Seafood products	Protocol 3	Classic	28	4	1	30
4	Vegetable products	Protocol 3	Classic	28	0	3	33
5	RTE-RTRH	Protocol 3	Classic	30	3	1	32
6	Environmental samples	Protocol 3	Classic	36	0	3	38
		Protocol 4	Classic	15	8	7	30
		Protocol 5	Classic	16	8	6	30
		Protocol 4	Fast	15	8	7	30
		Protocol 5	Fast	16	8	6	30
All categories		A3: Protocol 3 – APF Classic		183	20	14	205
		B3: Protocol 3 + Protocol 4 – APF Classic		162	28	18	197
		C3: Protocol 3 + Protocol 5 – APF Classic		163	28	17	197
		D3: Protocol 3 + Protocol 4 – APF Fast		162	28	18	197
		E3: Protocol 3 + Protocol 5 – APF Fast		163	28	17	197

3.1.1.5 Calculation of relative trueness (RT), sensitivity (SE) and false positive ratio (FPR) and false negative ratio (FNR) for the alternative method

The calculations are presented in Tables 13 to 15. A summary of the results is given in Tables 16 to 18.

Table 13 – Calculation of the relative trueness (RT), the sensitivity (SE) and the false positive ratio (FPR) and false negative ratio (FNR) for the alternative method – Results associated to Protocol 1

Category		Type		Protocol	APF	PA	PA _{FP(alt)}	NA	NA _{FN(alt)}	ND	ND _{FN(alt)}	PD	PD _{FP(alt)}	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR
1	Meat products	a	Raw products (including deep-frozen, fresh, seasoned)	Protocol 1	Classic	9		20		0	1	0	0	1	20	90.0	100.0	96.7	0.0	0.100
		b	RTE and processed meat products	Protocol 1	Classic	7		14		0	0	0	1	0	15	100.0	100.0	100,0	6.7	0.000
		c	Fermented or dried meats products (raw and cooked)	Protocol 1	Classic	13		10		0	0	1	0	0	10	100.0	92.9	95.8	0.0	0.000
		Total					29		44		0	1	1	1	45	96.8	96.8	97.4	2.2	0.032
2	Dairy products	a	Raw milk cheese	Protocol 1	Classic	9		11		0	0	0	1	0	12	100.0	100.0	100.0	8.3	0.000
		b	Other raw milk products	Protocol 1	Classic	13		10		0	0	0	0	0	10	100.0	100.0	100.0	0.0	0.000
		c	Heat processed milk and dairy products	Protocol 1	Classic	12		16		0	0	0	0	0	16	100.0	100.0	100.0	0.0	0.000
		Total					34		37		0	0	0	1	0	38	100.0	100.0	100.0	2.6
3	Seafood products	a	Raw products	Protocol 1	Classic	9		13		0	1	0	1	1	14	90.0	100.0	95.8	7.1	0.100
		b	Smoked. marinated products	Protocol 1	Classic	14		13		0	1	0	0	1	13	93.3	100.0	96.4	0.0	0.067
		c	Processed products	Protocol 1	Classic	10		8		0	1	0	2	1	10	90.9	100.0	95.2	20.0	0.091
		Total					33		34		0	3	0	3	3	37	91.7	100.0	95.9	8.1
4	Vegetal products	a	Raw vegetal products	Protocol 1	Classic	12		9		0	0	0	1	0	10	100.0	100.0	100.0	10.0	0.000
		b	RTE and RTC raw vegetal products. precooked vegetal products	Protocol 1	Classic	12		10		0	1	0	0	1	10	92.3	100.0	95.7	0.0	0.077
		c	Processed vegetal products	Protocol 1	Classic	11		9		0	0	0	1	0	10	100.0	100.0	100.0	10.0	0.000
		Total					35		28		0	1	0	2	1	30	97.2	100.0	98.5	6.7
5	RTE-RTRH	a	RTE foods	Protocol 1	Classic	11		8		0	0	0	1	0	9	100.0	100.0	100.0	11.1	0.000
		b	RTRH foods	Protocol 1	Classic	11		11		0	0	0	0	0	11	100.0	100.0	100.0	0.0	0.000
		c	Pastries. egg products	Protocol 1	Classic	12		9		0	0	0	1	0	10	100.0	100.0	100.0	10.0	0.000
		Total					34		28		0	0	0	2	0	30	100.0	100.0	100.0	6.7

Category		Type		Protocol	APF	PA	PA _{FP(alt)}	NA	NA _{FN(alt)}	ND	ND _{FN(alt)}	PD	PD _{FP(alt)}	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR	
6	Environmental samples	a	Process waters	Protocol 1	Classic	9		10		0	1	0	0	1	10	90.0	100.0	95.0	0.0	0.100	
		b	Surface sample	Protocol 1	Classic	15		17		0	0	0	0	0	17	100.0	100.0	100.0	0.0	0.000	
		c	Dusts and residues	Protocol 1	Classic	7		15		0	0	0	0	0	15	100.0	100.0	100.0	0.0	0.000	
		Total					31		42		0	1	0	0	1	42	96.9	100.0	98.6	0.0	0.031
		a	Process waters	Protocol 4	Classic	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 4	Classic	5	0	9	0	1	1	3	1	2	10	80.0	70.0	75.0	10.0	0.100	
		c	Dusts and residues	Protocol 4	Classic	2	1	11	0	3	0	3	0	4	11	55.6	66.7	65.0	9.1	0.000	
		Total					15	1	29	0	5	1	8	1	7	30	76.7	73.3	75.0	6.7	0.033
		a	Process waters	Protocol 5	Classic	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 5	Classic	6	0	9	0	1	0	3	1	1	10	90.0	70.0	80.0	10.0	0.000	
		c	Dusts and residues	Protocol 5	Classic	2	0	11	0	4	0	3	0	4	11	55.6	66.7	65.0	0.0	0.000	
		Total					16	0	29	0	6	0	8	1	6	30	80.0	73.3	76.7	3.3	0.000
		a	Process waters	Protocol 4	Fast	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 4	Fast	5	0	10	0	1	1	3	0	2	10	80.0	70.0	75.0	0.0	0.100	
		c	Dusts and residues	Protocol 4	Fast	2	0	11	0	4	0	3	0	4	11	55.6	66.7	65.0	0.0	0.000	
		Total					15	0	30	0	6	1	8	0	7	30	76.7	73.3	75.0	0.0	0.033
		a	Process waters	Protocol 5	Fast	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 5	Fast	6	0	10	0	1	0	3	0	1	10	90.0	70.0	80.0	0.0	0.000	
		c	Dusts and residues	Protocol 5	Fast	2	0	11	0	4	0	3	0	4	11	55.6	66.7	65.0	0.0	0.000	
		Total					16	0	30	0	6	0	8	0	6	30	80.0	73.3	76.7	0.0	0.000
A1: Total Protocol 1 APF Classic					196	0	213	0	0	6	1	9	6	214	97.0	99.5	96.5	4.2	0.030		
B1: Total Protocol 4- APF Classic					180	1	200	0	5	6	9	10	12	209	94.0	95.5	94.6	5.3	0.030		
C1: Total Protocol 5-APF Classic					181	0	200	0	6	5	9	10	11	209	94.5	95.5	94.9	4.8	0.025		
D1: Total Protocol 4- APF Fast					180	0	201	0	6	6	9	9	12	210	94.0	95.5	94.9	4.3	0.030		
E1: Total Protocol 5-APF Fast					181	0	201	0	6	5	9	9	11	210	94.5	95.5	95.1	4.3	0.025		

Table 14 – Calculation of the relative trueness (RT), the sensitivity (SE) and the false positive ratio (FPR) and false negative ratio (FNR) for the alternative method – Results associated to Protocol 2

Category		Type		Protocol	APF	PA	PA _{FP(alt)}	NA	NA _{FN(alt)}	ND	ND _{FN(alt)}	PD	PD _{FP(alt)}	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR
1	Meat products	a	Raw products (including deep-frozen, fresh, seasoned)	Protocol 2	Classic	10	0	8	0	1	1	1	1	2	9	84.6	92.3	86.4	11.1	0.077
		b	RTE and processed meat products	Protocol 2	Classic	11	0	11	0	2	0	5	0	2	11	88.9	72.2	75.9	0.0	0.000
		c	Fermented or dried meats products (raw and cooked)	Protocol 2	Classic	6	0	10	0	0	0	4	1	0	11	100.0	60.0	81.0	9.1	0.000
		Total					27	0	29	0	3	1	10	2	4	31	90.2	75.6	80.6	6.5
2	Dairy products	a	Raw milk cheese	Protocol 2	Classic	11	0	11	0	0	0	1	0	0	11	100.0	91.7	95.7	0.0	0.000
		b	Other raw milk products	Protocol 2	Classic	12	0	9	0	0	0	1	1	0	10	100.0	92.3	95.7	10.0	0.000
		c	Heat processed milk and dairy products	Protocol 2	Classic	13	0	19	0	0	0	2	0	0	19	100.0	86.7	94.1	0.0	0.000
		Total					36	0	39	0	0	0	4	1	0	40	100.0	90.0	95.0	2.5
3	Seafood products	a	Raw products	Protocol 2	Classic	9	0	10	0	0	0	1	0	0	10	100.0	90.0	95.0	0.0	0.000
		b	Smoked, marinated products	Protocol 2	Classic	9	0	10	0	0	0	3	0	0	10	100.0	75.0	86.4	0.0	0.000
		c	Processed products	Protocol 2	Classic	11	0	9	0	0	0	0	1	0	10	100.0	100.0	100.0	10.0	0.000
		Total					29	0	29	0	0	0	4	1	0	30	100.0	87.9	93.7	3.3
4	Vegetables products	a	Raw vegetal products	Protocol 2	Classic	11	0	10	0	1	0	0	0	1	10	91.7	100.0	95.5	0.0	0.000
		b	RTE and RTC raw vegetal products, precooked vegetal products	Protocol 2	Classic	10	0	10	0	1	0	0	0	1	10	90.9	100.0	95.2	0.0	0.000
		c	Processed vegetal products	Protocol 2	Classic	9	0	11	0	1	0	0	0	1	11	90.0	100.0	95.2	0.0	0.000
		Total					30	0	31	0	3	0	0	0	3	31	90.9	100.0	95.3	0.0
5	RTE-RTRH	a	RTE foods	Protocol 2	Classic	12	0	11	0	0	0	0	0	0	11	100.0	100.0	100.0	0.0	0.000
		b	RTRH foods	Protocol 2	Classic	8	0	11	0	0	0	3	0	0	11	100.0	72.7	86.4	0.0	0.000
		c	Pastries, egg products	Protocol 2	Classic	9	0	9	0	0	2	0	1	2	10	81.8	100.0	90.5	10.0	0.182
		Total					29	0	31	0	0	2	3	1	2	32	94.1	91.2	92.4	3.1

Category		Type		Protocol	APF	PA	PA _{FP(alt)}	NA	NA _{FN(alt)}	ND	ND _{FN(alt)}	PD	PD _{FP(alt)}	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR	
6	Environmental samples	a	Process waters	Protocol 2	Classic	10	0	10	0	0	0	0	0	0	10	100.0	100.0	100.0	0.0	0.000	
		b	Surface sample	Protocol 2	Classic	17	1	15	0	1	0	0	3	2	18	89.5	100.0	94.6	22.2	0.000	
		c	Dusts and residues	Protocol 2	Classic	10	0	9	0	0	0	0	1	0	10	100.0	100.0	100.0	10.0	0.000	
		Total					37	1	34	0	1	0	0	4	2	38	94.9	100.0	97.4	13.2	0.000
		a	Process waters	Protocol 4	Classic	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 4	Classic	5	0	9	0	1	1	3	1	2	10	80.0	70.0	75.0	10.0	0.100	
		c	Dusts and residues	Protocol 4	Classic	2	1	11	0	3	0	3	0	4	11	55.6	66.7	65.0	9.1	0.000	
		Total					15	1	29	0	5	1	8	1	7	30	76.7	73.3	75.0	6.7	0.033
		a	Process waters	Protocol 5	Classic	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 5	Classic	6	0	9	0	1	0	3	1	1	10	90.0	70.0	80.0	10.0	0.000	
		c	Dusts and residues	Protocol 5	Classic	2	0	11	0	4	0	3	0	4	11	55.6	66.7	65.0	0.0	0.000	
		Total					16	0	29	0	6	0	8	1	6	30	80.0	73.3	76.7	3.3	0.000
		a	Process waters	Protocol 4	Fast	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 4	Fast	5	0	10	0	1	1	3	0	2	10	80.0	70.0	75.0	0.0	0.100	
		c	Dusts and residues	Protocol 4	Fast	2	0	11	0	4	0	3	0	4	11	55.6	66.7	65.0	0.0	0.000	
		Total					15	0	30	0	6	1	8	0	7	30	76.7	73.3	75.0	0.0	0.033
		a	Process waters	Protocol 5	Fast	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 5	Fast	6	0	10	0	1	0	3	0	1	10	90.0	70.0	80.0	0.0	0.000	
		c	Dusts and residues	Protocol 5	Fast	2	0	11	0	4	0	3	0	4	11	55.6	66.7	65.0	0.0	0.000	
		Total					16	0	30	0	6	0	8	0	6	30	80.0	73.3	76.7	0.0	0.000
A2: Total Protocol 2 APF Classic					188	1	193	0	7	3	21	9	11	202	95.0	90.5	92.4	5.0	0.014		
B2: Total Protocol 4- APF Classic					166	1	188	0	11	4	29	6	16	194	92.4	86.3	88.9	3.6	0.019		
C2: Total Protocol 5-APF Classic					167	0	188	0	12	3	29	6	15	194	92.9	86.3	89.1	3.1	0.014		
D2: Total Protocol 4- APF Fast					166	0	189	0	12	4	29	5	16	194	92.4	86.3	88.9	2.6	0.019		
E2: Total Protocol 5-APF Fast					167	0	189	0	12	3	29	5	15	194	92.9	86.3	89.1	2.6	0.014		

Table 15 – Calculation of the relative trueness (RT), the sensitivity (SE) and the false positive ratio (FPR) and false negative ratio (FNR) for the alternative method – Results associated to Protocol 3

Category		Type		Protocol	APF	PA	PA _{FP(alt)}	NA	NA _{FN(alt)}	ND	ND _{FN(alt)}	PD	PD _{FP(alt)}	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR
1	Meat products	a	Raw products (including deep-frozen, fresh, seasoned)	Protocol 3	Classic	10	0	8	0	1	1	1	1	2	9	84.6	92.3	86.4	11.1	0.077
		b	RTE and processed meat products	Protocol 3	Classic	11	0	11	0	2	0	5	0	2	11	88.9	72.2	75.9	0.0	0.000
		c	Fermented or dried meats products (raw and cooked)	Protocol 3	Classic	6	0	11	1	0	0	3	0	0	12	100.0	66.7	85.7	0.0	0.111
		Total					27	0	30	1	3	1	9	1	4	32	90.0	77.5	81.9	3.1
2	Dairy products	a	Raw milk cheese	Protocol 3	Classic	10	0	11	0	0	1	1	0	1	11	91.7	91.7	91.3	0.0	0.083
		b	Other raw milk products	Protocol 3	Classic	12	0	9	0	0	0	1	1	0	10	100.0	92.3	95.7	10.0	0.000
		c	Heat processed milk and dairy products	Protocol 3	Classic	12	0	19	0	0	1	2	0	1	19	93.3	86.7	91.2	0.0	0.067
		Total					34	0	39	0	0	2	4	1	2	40	95.0	90.0	92.5	2.5
3	Seafood products	a	Raw products	Protocol 3	Classic	9	0	10	0	0	0	1	0	0	10	100.0	90.0	95.0	0.0	0.000
		b	Smoked, marinated products	Protocol 3	Classic	8	0	9	0	0	1	3	1	1	10	91.7	75.0	81.8	10.0	0.083
		c	Processed products	Protocol 3	Classic	11	0	10	0	0	0	0	0	0	10	100.0	100.0	100.0	0.0	0.000
		Total					28	0	29	0	0	1	4	1	1	30	97.0	87.9	92.1	3.3
4	Vegetables products	a	Raw vegetal products	Protocol 3	Classic	11	0	9	0	1	0	0	1	1	10	91.7	100.0	95.5	10.0	0.000
		b	RTE and RTC raw vegetal products, precooked vegetal products	Protocol 3	Classic	10	0	10	0	1	0	0	0	1	10	90.9	100.0	95.2	0.0	0.000
		c	Processed vegetal products	Protocol 3	Classic	7	0	13	0	1	0	0	0	1	13	87.5	100.0	95.2	0.0	0.000
		Total					28	0	32	0	3	0	0	1	3	33	90.3	100.0	95.3	3.0
5	RTE-RTRH	a	RTE foods	Protocol 3	Classic	12	0	11	0	0	0	0	0	0	11	100.0	100.0	100.0	0.0	0.000
		b	RTRH foods	Protocol 3	Classic	8	0	11	0	0	0	3	0	0	11	100.0	72.7	86.4	0.0	0.000
		c	Pastries, egg products	Protocol 3	Classic	10	0	9	0	1	0	0	1	1	10	90.9	100.0	95.2	10.0	0.000
		Total					30	0	31	0	1	0	3	1	1	32	97.1	91.2	93.9	3.1

Category		Type		Protocol	APF	PA	PA _{FP(alt)}	NA	NA _{FN(alt)}	ND	ND _{FN(alt)}	PD	PD _{FP(alt)}	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR	
6	Environmental samples	a	Process waters	Protocol 3	Classic	9	0	10	0	0	1	0	0	1	10	90.0	100.0	95.0	0.0	0.100	
		b	Surface sample	Protocol 3	Classic	17	0	17	0	2	0	0	1	2	18	89.5	100.0	94.6	5.6	0.000	
		c	Dusts and residues	Protocol 3	Classic	10	0	9	0	0	0	0	1	0	10	100.0	100.0	100.0	10.0	0.000	
		Total					36	0	36	0	2	1	0	2	3	38	92.3	100.0	96.1	5.3	0.026
		a	Process waters	Protocol 4	Classic	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 4	Classic	5	0	9	0	1	1	3	1	2	10	80.0	70.0	75.0	10.0	0.100	
		c	Dusts and residues	Protocol 4	Classic	2	1	11	0	3	0	3	0	4	11	55.6	66.7	65.0	9.1	0.000	
		Total					15	1	29	0	5	1	8	1	7	30	76.7	73.3	75.0	6.7	0.033
		a	Process waters	Protocol 5	Classic	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 5	Classic	6	0	9	0	1	0	3	1	1	10	90.0	70.0	80.0	10.0	0.000	
		c	Dusts and residues	Protocol 5	Classic	2	0	11	0	4	0	3	0	4	11	55.6	66.7	65.0	0.0	0.000	
		Total					16	0	29	0	6	0	8	1	6	30	80.0	73.3	76.7	3.3	0.000
		a	Process waters	Protocol 4	Fast	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 4	Fast	5	0	10	0	1	1	3	0	2	10	80.0	70.0	75.0	0.0	0.100	
		c	Dusts and residues	Protocol 4	Fast	2	0	11	0	4	0	3	0	4	11	55.6	66.7	65.0	0.0	0.000	
		Total					15	0	30	0	6	1	8	0	7	30	76.7	73.3	75.0	0.0	0.033
		a	Process waters	Protocol 5	Fast	8	0	9	0	1	0	2	0	1	9	90.9	81.8	85.0	0.0	0.000	
		b	Surface sample	Protocol 5	Fast	6	0	10	0	1	0	3	0	1	10	90.0	70.0	80.0	0.0	0.000	
		c	Dusts and residues	Protocol 5	Fast	2	0	11	0	4	0	3	0	4	11	55.6	66.7	65.0	0.0	0.000	
		Total					16	0	30	0	6	0	8	0	6	30	80.0	73.3	76.7	0.0	0.000
A3: Total Protocol 3 APF Classic					183	0	197	1	9	5	20	7	14	205	93.5	90.8	91.9	3.4	0.028		
B3: Total Protocol 4- APF Classic					162	1	190	1	12	5	28	6	18	197	91.3	86.5	88.6	3.6	0.029		
C3: Total Protocol 5-APF Classic					163	0	190	1	13	4	28	6	17	197	91.8	86.5	88.9	3.0	0.024		
D3: Total Protocol 4- APF Fast					162	0	191	1	13	5	28	5	18	197	91.3	86.5	88.6	2.5	0.029		
E3: Total Protocol 5-APF Fast					163	0	191	1	13	4	28	5	17	197	91.8	86.5	88.9	2.5	0.024		

The two APF (Fast and Classic) have been tested for both extraction protocols (with or without FRDS). One positive presumptive not confirmed samples (PPN) were observed when applying the APF Classic with adding the FDRS step, and 2 without FDRS. When the APF Fast was applied, no PPN sample was observed whatever the extraction protocol used (with or without FDRS step).

Table 16 - Summary of results – Results associated to Protocol 1

		A1	B1	C1	D1	E1
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} \times 100 \%$	97.0%	94.0%	94.5%	94.0%	94.5%
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} \times 100 \%$	99.5%	95.5%	95.5%	95.5%	95.5%
Relative trueness	$RT = \frac{(PA + TNA)}{N} \times 100 \%$	96.5%	94.6%	94.9%	94.9%	95.1%
False positive ratio for the alternative method (paired and unpaired evaluation)	$FPR = \frac{PA_{FP(alt)} + PD_{FP(alt)}}{TNA} \times 100 \%$	4.2%	5.3%	4.8%	4.3%	4.3%
False negative ratio for the alternative method (paired and unpaired evaluation)	$FNR = \frac{NA_{FN(alt)} + ND_{FN(alt)}}{PA + TND + PD}$	0.030	0.030	0.025	0.030	0.025

Table 17 - Summary of results – Results associated to Protocol 2

		A2	B2	C2	D2	E2
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} \times 100 \%$	95.0%	92.4%	92.9%	92.4%	92.9%
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} \times 100 \%$	90.5%	86.3%	86.3%	86.3%	86.3%
Relative trueness	$RT = \frac{(PA + TNA)}{N} \times 100 \%$	92.4%	88.9%	89.1%	88.9%	89.1%
False positive ratio for the alternative method (paired and unpaired evaluation)	$FPR = \frac{PA_{FP(alt)} + PD_{FP(alt)}}{TNA} \times 100 \%$	5.0%	3.6%	3.1%	2.6%	2.6%
False negative ratio for the alternative method (paired and unpaired evaluation)	$FNR = \frac{NA_{FN(alt)} + ND_{FN(alt)}}{PA + TND + PD}$	0.014	0.019	0.014	0.019	0.014

Table 18 - Summary of results – Results associated to Protocol 3

		A3	B3	C3	D3	E3
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} \times 100 \%$	93.5%	91.3%	91.8%	91.3%	91.8%
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} \times 100 \%$	90.8%	86.5%	86.5%	86.5%	86.5%
Relative trueness	$RT = \frac{(PA + TNA)}{N} \times 100 \%$	91.9%	88.6%	88.9%	88.6%	88.9%
False positive ratio for the alternative method (paired and unpaired evaluation)	$FPR = \frac{PA_{FP(alt)} + PD_{FP(alt)}}{TNA} \times 100 \%$	3.4%	3.6%	3.0%	2.5%	2.5%
False negative ratio for the alternative method (paired and unpaired evaluation)	$FNR = \frac{NA_{FN(alt)} + ND_{FN(alt)}}{PA + TND + PD}$	0.028	0.029	0.024	0.029	0.024

3.1.1.6 Analysis of discordant results

The negative deviations observed for this extension study are given in Table 19 and the positive deviations in Table 20.

> Negative deviations

- Protocol 1:

Six negative deviations were observed for the categories tested with protocol 1. For these samples the confirmatory tests of the alternative method concluded to the presence of *Listeria monocytogenes* in the enrichment broth. The detection level of the alternative method was probably not reached in the enrichment broths.

- Protocol 2:

For the categories tested using protocol 2, 11 negative deviations were observed, the presence of *Listeria monocytogenes* was not confirmed in the enrichment broth for 9 samples. The discordant results for these samples could be due to the unpaired study design and the heterogeneity of sampling.

For five samples the confirmatory tests concluded to the presence of *Listeria monocytogenes* in the enrichment broths. The PCR tests were applied twice, and the second PCR test gave a positive result, the contamination level was probably just at the detection limit of the iQ-Check method.

- Protocol 3:

15 negative deviations were observed for the categories tested with protocol 3. For 9 samples, the presence of *Listeria monocytogenes* was not confirmed in the enrichment broth. This could be due to the unpaired study design.

For 6 samples, the presence of *Listeria monocytogenes* was confirmed in the enrichment broth, the detection limit of the alternative method was probably not reached in these cases.

- Protocols 4 and 5:

For environmental samples tested for the extension study performed in 2019, seven negative deviations were observed without using the FDRS protocol (Protocol 4) and six using the FDRS (Protocol 5). Sample 5084 was tested twice, and 2 PCR results were observed for Protocol 4 (APF Classic). The contamination level was probably just at the limit of detection of the method. Note that the

presence of *Listeria monocytogenes* was confirmed in the enrichment broth for this sample.

For sample 5085, a positive PCR result with a late Ct value (40.02) was obtained with Protocol 4 (APF Classic) but it was impossible to confirm the presence of *Listeria monocytogenes* in the enrichment broth for this sample.

> **Positive deviations**

- Protocol 1:

One positive deviation was observed for a naturally contaminated sample.

- Protocol 2:

Twenty-one positive deviations were observed; they concern 2 artificially contaminated samples and 19 naturally contaminated samples.

- Protocol 3:

Twenty positive deviations were observed; they concern 2 artificially contaminated samples and 18 naturally contaminated samples.

- Protocols 4 and 5:

Eight positive deviations were observed whatever the extraction protocol (with or without FDRS) or APF file applied.; all concern naturally contaminated samples.

As requested in the ISO 16140-2, the samples in negative agreement were tested using the same incubation time as the reference method (subculture of LSB in Fraser broth for 24 h at 37°C before streaking onto selective agar plates); all the results were negative.

The analyses of discordant results according to the ISO 16140-2 is described in table Tables 21 to 23.

Table 19 - Negative deviations

Category	Type	N° Sample	Sample	Inoculated strain	Level of contamination (CFU/sample)	PCR	Confirmation	Agreement	Protocol
Meat products	a	I5	Chicken breast	/	/	-	+	ND _{FN(alt)}	1
Sea food products	a	O44	Salmon tartare	/	/	-	+	ND _{FN(alt)}	1
	b	O57	Smoked salmon	/	/	-	+	ND _{FN(alt)}	1
	c	H2	Salmon paupiette	/	/	-	+	ND _{FN(alt)}	1
Vegetal products	b	135	Grated carrot	/	/	-	+	ND _{FN(alt)}	1
Environmental sample	a	193	Process water 8	/	/	-	+	ND _{FN(alt)}	1
Meat products	a	C5	Ground beef	/	/	-	+	ND _{FN(alt)}	2
	a	N3	Frozen chopped steak	/	/	-	-	ND	2
	b	A9	sausage meat	/	/	-	-	ND	2
	b	T6	Ground beef to cook	/	/	-	-	ND	2
Vegetal products	a	N14	Frozen mushroom	/	/	-	-	ND	2
	b	O2	Pre-cooked potatoes	/	/	-	-	ND	2
	b	137	Wax bean	<i>L.m</i> LIS.4.81	2.6	-	-	ND	2
RTE-RTRH	c	N10	Raspberry pie	/	/	-	-	ND	2
	c	37	Apple pie	<i>L.m</i> 1/2a LIS.4.7	2.8	-/(28.49)	+	ND _{FN(alt)}	2
Environmental samples	c	D7	Surface sample	/	/	+ (36.72)	-	PA _{FP(alt)}	2
	c	G13	Surface sample of salmon production line	/	/	-	-	ND	2
Meat products	a	C5	Ground beef	/	/	-	+	ND _{FN(alt)}	3
	a	N3	Frozen chopped steak	/	/	-	-	ND	3
	b	A9	sausage meat	/	/	-	-	ND	3
	b	T6	Ground beef and pork patty to cook	/	/	-	-	ND	3
Dairy products	a	67	Reblochon raw milk	<i>L.m</i> LIS.4.56	1.8	-	+	ND _{FN(alt)}	3
	c	Q15	Brie of Meaux	/	/	-	+	ND _{FN(alt)}	3
Seafoods products	b	A14	Smoked salmon	/	/	-	+	ND _{FN(alt)}	3
Vegetal products	a	N14	Frozen mushroom	/	/	-	-	ND	3
	b	O2	Pre-cooked potatoes	/	/	-	-	ND	3
	c	159	Wax bean	<i>L.m</i> LIS.4.81	2.6	-	-	ND	3
RTE-RTRH	c	N10	Raspberry pie	/	/	-	-	ND	3
	c	37	Apple pie	<i>L.m</i> 1/2a LIS.4.7	2.8	-	+	ND _{FN(alt)}	3
Environmental samples	a	185	Processed water 4	<i>L.m</i> 3a LIS.4.44	3.0	-	+	ND _{FN(alt)}	3
	b	D7	Surface sample	/	/	-	-	ND	3
	b	G13	Surface sample of salmon production line	/	/	-	-	ND	3

Date of analysis	Réf	Product	Artificial contaminations		ISO 11290-1 [♦]	Alternative method: iQ Check™ <i>Listeria monocytogenes</i> (Extension study 2020)																		Type
						LSB for 18 h at 30°C																		
			Strain	Inoculation level (CFU/sample)		Simplified lysis		FDRS Simplified lysis				Confirmation	Final result Simplified lysis		Final result FDRS Simplified lysis		Agreement Simplified lysis		Agreement FDRS Simplified lysis					
						APF Classic		APF Fast		APF Classic			APF Fast		APF Classic	APF Fast	APF Classic	APF Fast	APF Classic P4	APF Fast P4	APF Classic P5	APF Fast P5		
						Ct FAM	Result	Ct FAM	Result	Ct FAM	Result	Ct FAM	Result		APF Classic	APF Fast	APF Classic	APF Fast						
2019	4686	Rinsing water (seafood environment)	<i>L. monocytogenes</i> AOOE035	2.0	+	-	-	-	-	-	-	-	-	/	-	-	-	-	ND	ND	ND	ND	a	
2019	5078	Sponge (dairy environment)	<i>L. monocytogenes</i> Ad550	2.2	+	-	-	-	-	-	-	-	-	<i>L. innocua</i>	-	-	-	-	ND	ND	ND	ND	b	
2019	5084	Wipe (vegetable environment)	<i>L. monocytogenes</i> Ad2503	2.6	+	-39.29/37.16	-/+	-/-	-/-	40.10	+	39.14	+	<i>L. monocytogenes</i>	-	-	+	+	ND _{FN(alt)}	ND _{FN(alt)}	PA	PA	b	
2019	4047	Residues (seafood environment)	<i>L. monocytogenes</i> A00E008	0.8	+	-	-	-	-	-	-	-	-	/	-	-	-	-	ND	ND	ND	ND	c	
2019	4689	Residues (seafood environment)	<i>L. monocytogenes</i> AOOE035	2.0	+	-	-	-	-	-	-	-	-	/	-	-	-	-	ND	ND	ND	ND	c	
2019	4690	Residues (seafood environment)	<i>L. monocytogenes</i> Ad548	1.0	+	-	-	-	-	-	-	-	-	/	-	-	-	-	ND	ND	ND	ND	c	
2019	5085	Residues (vegetable environment)	<i>L. monocytogenes</i> Ad2503	2.6	+	40.02/-/-	+/-/-	-	-	-	-	-	-	5x(AL/Pa/F)-	-	-	-	-	PA _{FP(alt)}	ND	ND	ND	c	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Table 20 - Positive deviations

Category	Type	N° Sample	Sample	Inoculated strain	Level of contamination (CFU/sample)	PCR	Confirmation	Agreement	Protocol
Meat products	c	A8	Ham	/	/	+ (41.8)	+	PD	1
Meat products	a	O12	Poultry cutlet	/	/	+(24.41)	+	PD	2
	a	173	Cooked and derinded ham high quality	<i>L.m 1/2a</i> LIS.4.26	2.4	+ (21.74)	+	PD	2
	b	B6	Fired pork	/	/	+ (26.36)	+	PD	2
	b	N1	Chipolata	/	/	+ (34.80)	+	PD	2
	b	O4	Merguez	/	/	+ (27.84)	+	PD	2
	b	O15	Veal sausages	/	/	+ (27.76)	+	PD	2
	b	O17	Chicken wings marinated with curry	/	/	+ (21.24)	+	PD	2
	c	M7	Smoked ham	/	/	+ (27.55)	+	PD	2
	c	M13	Chorizo	/	/	+ (34.40)	+	PD	2
	c	N24	Roast veal	/	/	+ (36.01)	+	PD	2
Dairy products	a	63	Comté raw milk	<i>L.m</i> LIS.4.56	1.8	+ (28.19)	+	PD	2
	b	E7	Raw milk	/	/	+ (16.11)	+	PD	2
	c	B3	Reblochon	/	/	+ (25.03)	+	PD	2
	c	N18	NeufChâtel	/	/	+ (22.64)	+	PD	2
Seafoods products	a	E3	Herrings	/	/	+ (32.72)	+	PD	2
	b	L8	Smoked salmon	/	/	+ (25.20)	+	PD	2
	b	R20	Smoked salmon of Norway	/	/	+ (38.50)	+	PD	2
	b	S5	Smoked haddock	/	/	+ (27.26)	+	PD	2
RTE-RTRH	b	S10	Tomato-cups ready to be cooked	/	/	+ (24.92)	+	PD	2
	b	R16	"Crépinette" with white wine	/	/	+(26.62)	+	PD	2
	b	B13	Fried potatoes	/	/	+(26.09)	+	PD	2
Meat products	a	O12	Poultry cutlet	/	/	+ (30.12)	+	PD	3
	a	173	Cooked and derinded ham high quality	<i>L.m 1/2a</i> LIS.4.26	2.4	+ (26.18)	+	PD	3
	b	B6	Fired pork	/	/	+ (32.85)	+	PD	3
	b	N1	Chipolata	/	/	+ (38.55)	+	PD	3
	b	O4	Merguez	/	/	+ (35.32)	+	PD	3
	b	O15	Veal sausages	/	/	+ (32.89)	+	PD	3
	b	O17	Chicken wings marinated with curry	/	/	+ (25.29)	+	PD	3
	c	M7	Smoked ham	/	/	+ (31.34)	+	PD	3
	c	M13	Chorizo	/	/	+ (36.58)	+	PD	3
Dairy products	a	63	Comté raw milk	<i>L.m</i> LIS.4.56	1.8	+ (26.30)	+	PD	3
	b	E7	Raw milk	/	/	+ (20.33)	+	PD	3
	c	B3	Reblochon	/	/	+ (37.14)	+	PD	3
	c	N18	NeufChâtel	/	/	+ (24.92)	+	PD	3
Sea foods products	a	E3	Herrings	/	/	+ (37.20)	+	PD	3
	b	L8	Smoked salmon	/	/	+ (24.68)	+	PD	3
	b	R20	Smoked salmon of Norway	/	/	+ (45.12)	+	PD	3
	b	S5	Smoked haddock	/	/	+ (27.61)	+	PD	3
RTE-RTRH	b	S10	Tomato-cups ready to be cooked	/	/	+ (28.68)	+	PD	3
	b	R16	"Crépinette" with white wine	/	/	+ (30.47)	+	PD	3
	b	B13	Fried potatoes	/	/	+ (30.36)	+	PD	3

Date of analysis	Réf	Product	Artificial contaminations		ISO 11290-1 ⁴	Alternative method: iQ Check™ <i>Listeria monocytogenes</i> (Extension study 2020)																		Type
						LSB for 18 h at 30°C																		
			Strain	Inoculation level (CFU/sample)		Simplified lysis				FDRS Simplified lysi				Confirmation	Final result Simplified lysis		Final result FDRS Simplified lysis		Agreement Simplified lysis		Agreement FDRS Simplified lysis			
						APF Classic		APF Fast		APF Classic		APF Fast			APF Classic	APF Fast	APF Classic	APF Fast	APF Classic P4	APF Fast P4	APF Classic P5	APF Fast P5		
Ct FAM	Result	Ct FAM	Result	Ct FAM	Result	Ct FAM	Result																	
2019	4684	Rinsing water (seafood environment)	<i>L. monocytogenes</i> Ad548	1.0	-	35.12	+	35.60	+	35.60	+	35.99	+	<i>L. monocytogenes/ L. innocua L. innocua</i>	+	+	+	+	PD	PD	PD	PD	a	
2019	5081	Rinsing water (dairy environment)	<i>L. monocytogenes</i> Ad550	0.2	-	33.08	+	33.30	+	33.35	+	32.96	+	<i>L. monocytogenes/ L. innocua L. innocua</i>	+	+	+	+	PD	PD	PD	PD	a	
2019	5077	Sponge (dairy environment)	<i>L. monocytogenes</i> Ad550	0.2	-	32.19	+	32.08	+	32.29	+	32.23	+	<i>L. monocytogenes/ L. innocua L. innocua</i>	+	+	+	+	PD	PD	PD	PD	b	
2019	5087	Sponge (poultry environment)	<i>L. monocytogenes</i> Ad1272	0.2	-	31.06	+	30.93	+	30.78	+	30.68	+	<i>L. monocytogenes</i>	+	+	+	+	PD	PD	PD	PD	b	
2019	5089	Wipe (meat environment)	<i>L. monocytogenes</i> Ad1272	1.4	-	30.56	+	30.33	+	30.02	+	29.91	+	<i>L. monocytogenes</i>	+	+	+	+	PD	PD	PD	PD	b	
2019	4046	Residues (seafood environment)	<i>L. monocytogenes</i> A00E008	0.8	-	41.57	+	42.61	+	37.68	+	36.71	+	<i>L. monocytogenes</i>	+	-	+	+	PD	PD	PD	PD	c	
2019	4050	Residues (dairy environment)	<i>L. monocytogenes</i> Ad627	1.6	-	32.32	+	33.38	+	32.26	+	33.37	+	<i>L. monocytogenes</i>	+	+	+	+	PD	PD	PD	PD	c	
2019	4051	Residues (dairy environment)	<i>L. monocytogenes</i> Ad627	1.6	-	37.51	+	38.14	+	36.44	+	39.36	+	<i>L. monocytogenes/ L. innocua</i>	+	+	+	+	PD	PD	PD	PD	c	

Table 21 - Analyses of discordant results – Results associated to Protocol 1

Category		Type		Protocol	APF	N+	TND	PD	Paired study				Unpaired study		Mixed study	
									TND - PD	AL	TND + PD	AL	TND - PD	AL	TND -PD	AL
1	Meat products	a	Raw products (including deep-frozen, fresh, seasoned)	Protocol 1	Classic	10	1	0	1		1				1	
		b	RTE and processed meat products	Protocol 1	Classic	7	0	0	0		0					
		c	Fermented or dried meats products (raw and cooked)	Protocol 1	Classic	14	0	1	-1		1					
		Total					31	1	1	0	3	2			6	
2	Dairy products	a	Raw milk cheese	Protocol 1	Classic	9	0	0	0		0				0	
		b	Other raw milk products	Protocol 1	Classic	13	0	0	0		0					
		c	Heat processed milk and dairy products	Protocol 1	Classic	12	0	0	0		0					
		Total					34	0	0	0	3	0			6	
3	Seafood products	a	Raw products	Protocol 1	Classic	10	1	0	1		1				1	
		b	Smoked, marinated products	Protocol 1	Classic	15	1	0	1		1					
		c	Processed products	Protocol 1	Classic	11	1	0	1		1					
		Total					36	3	0	3	3	3			6	
4	Vegetal products	a	Raw vegetal products	Protocol 1	Classic	12	0	0	0		0				0	
		b	RTE and RTC raw vegetal products, precooked vegetal products	Protocol 1	Classic	13	1	0	1		1					
		c	Processed vegetal products	Protocol 1	Classic	11	0	0	0		0					
		Total					36	1	0	1	3	1			6	
5	RTE-RTRH	a	RTE foods	Protocol 1	Classic	11	0	0	0		0				0	
		b	RTRH foods	Protocol 1	Classic	11	0	0	0		0					
		c	Pastries, egg products	Protocol 1	Classic	12	0	0	0		0					
		Total					34	0	0	0	3	0			6	
6	Environmental samples	a	Process waters	Protocol 1	Classic	10	1	0	1		1				1	
		b	Surface sample	Protocol 1	Classic	15	0	0	0		0					
		c	Dusts and residues	Protocol 1	Classic	7	0	0	0		0					
		Total					32	1	0	1	3	1			6	
		a	Process waters	Protocol 4	Classic	11	1	2					-1		-1	
		b	Surface sample	Protocol 4	Classic	10	2	3					-1		-1	
		c	Dusts and residues	Protocol 4	Classic	9	4	3					1		1	
		Total					30	7	8	-1	3	-1	3			
		a	Process waters	Protocol 5	Classic	11	1	2					-1		-1	
		b	Surface sample	Protocol 5	Classic	10	1	3					-2		-2	
		c	Dusts and residues	Protocol 5	Classic	9	4	3					1		1	
		Total					30	6	8	-2	3	-2	3			
		a	Process waters	Protocol 4	Fast	11	1	2					-1		-1	
		b	Surface sample	Protocol 4	Fast	10	2	3					-1		-1	
		c	Dusts and residues	Protocol 4	Fast	9	4	3					1		1	
		Total					30	7	8	-1	3	-1	3			
		a	Process waters	Protocol 5	Fast	11	1	2					-1		-1	
		b	Surface sample	Protocol 5	Fast	10	1	3					-2		-2	
		c	Dusts and residues	Protocol 5	Fast	9	4	3					1		1	
		Total					30	6	8	-2	3	-2	3			
A1: Total Protocol 1 - APF Classic						203	6	1	5	5	7	14	/	/	5	6
B1: Total Protocol 4 - APF Classic						201	12	9	4	5	6	14	-1	3	3	6
C1: Total Protocol 5 - APF Classic						201	11	9	4	5	6	14	-2	3	2	6
D1: Total Protocol 4 - APF Fast						201	12	9	4	5	6	14	-1	3	3	6
E1: Total Protocol 5 - APF Fast						201	11	9	4	5	6	14	-2	3	2	6

Table 22 - Analyses of discordant results – Results associated to Protocol 2

								Unpaired study		
Category		Type		Protocol	APF	N+	TND	PD	TND - PD	AL
1	Meat products	a	Raw products (including deep-frozen, fresh, seasoned)	Protocol 2	Classic	13	2	1	1	3
		b	RTE and processed meat products	Protocol 2	Classic	18	2	5	-3	
		c	Fermented or dried meats products (raw and cooked)	Protocol 2	Classic	10	0	4	-4	
		Total				41	4	10	-6	
2	Dairy products	a	Raw milk cheese	Protocol 2	Classic	12	0	1	-1	3
		b	Other raw milk products	Protocol 2	Classic	13	0	1	-1	
		c	Heat processed milk and dairy products	Protocol 2	Classic	15	0	2	-2	
		Total				40	0	4	-4	
3	Seafood products	a	Raw products	Protocol 2	Classic	10	0	1	-1	3
		b	Smoked, marinated products	Protocol 2	Classic	12	0	3	-3	
		c	Processed products	Protocol 2	Classic	11	0	0	0	
		Total				33	0	4	-4	
4	Vegetal products	a	Raw vegetal products	Protocol 2	Classic	12	1	0	1	3
		b	RTE and RTC raw vegetal products, precooked vegetal products	Protocol 2	Classic	11	1	0	1	
		c	Processed vegetal products	Protocol 2	Classic	10	1	0	1	
		Total				33	3	0	3	
5	RTE-RTRH	a	RTE foods	Protocol 2	Classic	12	0	0	0	3
		b	RTRH foods	Protocol 2	Classic	11	0	3	-3	
		c	Pastries, egg products	Protocol 2	Classic	11	2	0	2	
		Total				34	2	3	-1	
6	Environmental samples	a	Process waters	Protocol 2	Classic	10	0	0	0	3
		b	Surface sample	Protocol 2	Classic	19	2	0	2	
		c	Dusts and residues	Protocol 2	Classic	10	0	0	0	
		Total				39	2	0	2	
		a	Process waters	Protocol 4	Classic	11	1	2	-1	3
		b	Surface sample	Protocol 4	Classic	10	2	3	-1	
		c	Dusts and residues	Protocol 4	Classic	9	4	3	1	
		Total				30	7	8	-1	
		a	Process waters	Protocol 5	Classic	11	1	2	-1	3
		b	Surface sample	Protocol 5	Classic	10	1	3	-2	
		c	Dusts and residues	Protocol 5	Classic	9	4	3	1	
		Total				30	6	8	-2	
		a	Process waters	Protocol 4	Fast	11	1	2	-1	3
		b	Surface sample	Protocol 4	Fast	10	2	3	-1	
		c	Dusts and residues	Protocol 4	Fast	9	4	3	1	
		Total				30	7	8	-1	
		a	Process waters	Protocol 5	Fast	11	1	2	-1	3
		b	Surface sample	Protocol 5	Fast	10	1	3	-2	
		c	Dusts and residues	Protocol 5	Fast	9	4	3	1	
		Total				30	6	8	-2	
A2: Total Protocol 2 - APF Classic						220	11	21	-10	6
B2: Total Protocol 4 - APF Classic						211	16	29	-13	6
C2: Total Protocol 5 - APF Classic						211	15	29	-14	6
D2: Total Protocol 4 - APF Fast						211	16	29	-13	6
E2: Total Protocol 5 - APF Fast						211	15	29	-14	6

Table 23 - Analyses of discordant results – Results associated to Protocol 3

								Unpaired study		
Category		Type		Protocol	APF	N+	TND	PD	TND - PD	AL
1	Meat products	a	Raw products (including deep-frozen, fresh, seasoned)	Protocol 3	Classic	13	1	1	0	
		b	RTE and processed meat products	Protocol 3	Classic	18	0	5	-5	
		c	Fermented or dried meats products (raw and cooked)	Protocol 3	Classic	9	0	3	-3	
		Total				40	1	9	-8	
2	Dairy products	a	Raw milk cheese	Protocol 3	Classic	12	0	1	-1	
		b	Other raw milk products	Protocol 3	Classic	13	1	1	0	
		c	Heat processed milk and dairy products	Protocol 3	Classic	15	0	2	-2	
		Total				40	1	4	-3	
3	Seafood products	a	Raw products	Protocol 3	Classic	10	0	1	-1	
		b	Smoked, marinated products	Protocol 3	Classic	12	1	3	-2	
		c	Processed products	Protocol 3	Classic	11	0	0	0	
		Total				33	1	4	-3	
4	Vegetal products	a	Raw vegetal products	Protocol 3	Classic	12	1	0	1	
		b	RTE and RTC raw vegetal products, precooked vegetal products	Protocol 3	Classic	11	0	0	0	
		c	Processed vegetal products	Protocol 3	Classic	8	0	0	0	
		Total				31	1	0	1	
5	RTE-RTRH	a	RTE foods	Protocol 3	Classic	12	0	0	0	
		b	RTRH foods	Protocol 3	Classic	11	0	3	-3	
		c	Pastries, egg products	Protocol 3	Classic	11	1	0	1	
		Total				34	1	3	-2	
6	Environmental samples	a	Process waters	Protocol 3	Classic	10	0	0	0	
		b	Surface sample	Protocol 3	Classic	19	1	0	1	
		c	Dusts and residues	Protocol 3	Classic	10	1	0	1	
		Total				39	2	0	2	
		a	Process waters	Protocol 4	Classic	11	0	2	-2	
		b	Surface sample	Protocol 4	Classic	10	1	3	-2	
		c	Dusts and residues	Protocol 4	Classic	9	0	3	-3	
		Total				30	1	8	-7	
		a	Process waters	Protocol 5	Classic	11	0	2	-2	
		b	Surface sample	Protocol 5	Classic	10	1	3	-2	
		c	Dusts and residues	Protocol 5	Classic	9	0	3	-3	
		Total				30	1	8	-7	
		a	Process waters	Protocol 4	Fast	11	0	2	-2	
		b	Surface sample	Protocol 4	Fast	10	0	3	-3	
		c	Dusts and residues	Protocol 4	Fast	9	0	3	-3	
		Total				30	0	8	-8	
		a	Process waters	Protocol 5	Fast	11	0	2	-2	
		b	Surface sample	Protocol 5	Fast	10	0	3	-3	
		c	Dusts and residues	Protocol 5	Fast	9	0	3	-3	
		Total				30	0	8	-8	
A3: Total Protocol 3 - APF Classic						217	7	20	-13	6
B3: Total Protocol 4 - APF Classic						208	6	28	-22	6
C3: Total Protocol 5 - APF Classic						208	6	28	-22	6
D3: Total Protocol 4 - APF Fast						208	5	28	-23	6
E3: Total Protocol 5 - APF Fast						208	5	28	-23	6

The observed values for (TND – PD) and TND + PD meet the acceptability limit for each individual category and for all the combined categories (calculated values $\leq$ AL) for all the protocols tested.

3.1.1.7 *Enrichment broth storage at 5 ± 3 °C for 72 h*

The enrichment broth storage has been tested only for Protocols 2, 3, 4 and 5. Four changes were observed (See **Table 24**).

The analyses of discordant become (See **Tables 25** and **26**).

Table 24 - Enrichment broth storage

Date of analysis	Sample N°	Product	Agreement before storage					Agreement after storage					Category	Type
			Protocol 2 Standard II lysis	Protocol 4 Easy II lysis		Protocol 5 FDRS + Easy II lysis		Protocol 2 Standard II lysis	Protocol 4 Easy II lysis		Protocol 5 FDRS + Easy II lysis			
			APF Classic	APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Classic	APF Fast	APF Classic	APF Fast		
2006	N24	Roast veal	/	NA	/	/	/		PD	/	/	/	1	c
2006	O24	Raw milk cheese	PA	/	/	/	/	ND	/	/	/	/	2	c
2006	A14	Smoked salmon	PA	/	/	/	/	ND	/	/	/	/	3	b
2019	5084	Wipe	/	ND	ND	PA	PA	/	PA	PA	PA	PA	6	b

Table 25 - Analysis of discordant after storage 72 h at 5 ± 3°C –
Results associated to Protocol 2

								UNPAIRED		
Category		Type		Protocol	APF	TND	PD	TND - PD	AL	
1	Meat products	a	Raw products (including deep-frozen, fresh, seasoned)	Protocol 2	Classic	2	2	0		
		b	RTE and processed meat products	Protocol 2	Classic	2	5	-3		
		c	Fermented or dried meats products (raw and cooked)	Protocol 2	Classic	0	3	-3		
		Total					4	10	-6	3
2	Dairy products	a	Raw milk cheese	Protocol 2	Classic	0	1	-1		
		b	Other raw milk products	Protocol 2	Classic	0	1	-1		
		c	Heat processed milk and dairy products	Protocol 2	Classic	1	2	-1		
		Total					1	4	-3	3
3	Seafood products	a	Raw products	Protocol 2	Classic	0	1	-1		
		b	Smoked, marinated products	Protocol 2	Classic	1	3	-2		
		c	Processed products	Protocol 2	Classic	0	0	0		
		Total					1	4	-3	3
4	Vegetal products	a	Raw vegetal products	Protocol 2	Classic	1	0	1		
		b	RTE and RTC raw vegetal products, precooked vegetal products	Protocol 2	Classic	1	0	1		
		c	Processed vegetal products	Protocol 2	Classic	1	0	1		
		Total					3	0	3	3
5	RTE-RTRH	a	RTE foods	Protocol 2	Classic	0	0	0		
		b	RTRH foods	Protocol 2	Classic	0	3	-3		
		c	Pastries, egg products	Protocol 2	Classic	2	0	2		
		Total					2	3	-1	3
6	Environmental samples	a	Process waters	Protocol 2	Classic	0	0	0		
		b	Surface sample	Protocol 2	Classic	2	0	2		
		c	Dusts and residues	Protocol 2	Classic	0	0	0		
		Total					2	0	2	3
		a	Process waters	Protocol 4	Classic	0	2	-2		
		b	Surface sample	Protocol 4	Classic	0	3	-3		
		c	Dusts and residues	Protocol 4	Classic	0	3	-3		
		Total					0	8	-8	3
		a	Process waters	Protocol 5	Classic	0	2	-2		
		b	Surface sample	Protocol 5	Classic	0	3	-3		
		c	Dusts and residues	Protocol 5	Classic	0	3	-3		
		Total					0	8	-8	3
		a	Process waters	Protocol 4	Fast	0	2	-2		
		b	Surface sample	Protocol 4	Fast	0	3	-3		
		c	Dusts and residues	Protocol 4	Fast	0	3	-3		
		Total					0	8	-8	3
		a	Process waters	Protocol 5	Fast	0	2	-2		
		b	Surface sample	Protocol 5	Fast	0	3	-3		
		c	Dusts and residues	Protocol 5	Fast	0	3	-3		
		Total					0	8	-8	3
A2: Total Protocol 2 - APF Classic						13	21	-8	6	
B2: Total Protocol 4 - APF Classic						11	29	-18	6	
C2: Total Protocol 5 - APF Classic						11	29	-18	6	
D2: Total Protocol 4 - APF Fast						11	29	-18	6	
E2: Total Protocol 5 - APF Fast						11	29	-18	6	

**Table 26 - Analysis of discordant after storage 72 h at 5 ± 3°C –
Results associated to Protocol 3**

								Unpaired study	
Category		Type		Protocol	APF	TND	PD	TND - PD	AL
1	Meat products	a	Raw products (including deep-frozen, fresh, seasoned)	Protocol 3	Classic	2	2	0	3
		b	RTE and processed meat products	Protocol 3	Classic	2	5	-3	
		c	Fermented or dried meats products (raw and cooked)	Protocol 3	Classic	0	3	-3	
		Total				4	10	-6	
2	Dairy products	a	Raw milk cheese	Protocol 3	Classic	0	1	-1	3
		b	Other raw milk products	Protocol 3	Classic	0	1	-1	
		c	Heat processed milk and dairy products	Protocol 3	Classic	1	2	-1	
		Total				1	4	-3	
3	Seafood products	a	Raw products	Protocol 3	Classic	0	1	-1	3
		b	Smoked, marinated products	Protocol 3	Classic	1	3	-2	
		c	Processed products	Protocol 3	Classic	0	0	0	
		Total				1	4	-3	
4	Vegetal products	a	Raw vegetal products	Protocol 3	Classic	1	0	1	3
		b	RTE and RTC raw vegetal products, precooked vegetal products	Protocol 3	Classic	1	0	1	
		c	Processed vegetal products	Protocol 3	Classic	1	0	1	
		Total				3	0	3	
5	RTE-RTRH	a	RTE foods	Protocol 3	Classic	0	0	0	3
		b	RTRH foods	Protocol 3	Classic	0	3	-3	
		c	Pastries, egg products	Protocol 3	Classic	2	0	2	
		Total				2	3	-1	
6	Environmental samples	a	Process waters	Protocol 3	Classic	1	0	1	3
		b	Surface sample	Protocol 3	Classic	2	0	2	
		c	Dusts and residues	Protocol 3	Classic	0	0	0	
		Total				3	0	3	
		a	Process waters	Protocol 4	Classic	0	2	-2	3
		b	Surface sample	Protocol 4	Classic	0	3	-3	
		c	Dusts and residues	Protocol 4	Classic	0	3	-3	
		Total				0	8	-8	
		a	Process waters	Protocol 5	Classic	0	2	-2	3
		b	Surface sample	Protocol 5	Classic	0	3	-3	
		c	Dusts and residues	Protocol 5	Classic	0	3	-3	
		Total				0	8	-8	
		a	Process waters	Protocol 4	Fast	0	2	-2	3
		b	Surface sample	Protocol 4	Fast	0	3	-3	
		c	Dusts and residues	Protocol 4	Fast	0	3	-3	
		Total				0	8	-8	
		a	Process waters	Protocol 5	Fast	0	2	-2	3
		b	Surface sample	Protocol 5	Fast	0	3	-3	
		c	Dusts and residues	Protocol 5	Fast	0	3	-3	
		Total				0	8	-8	
A3: Total Protocol 3 - APF Classic						14	21	-7	6
B3: Total Protocol 4 - APF Classic						11	29	-18	6
C3: Total Protocol 5 - APF Classic						11	29	-18	6
D3: Total Protocol 4 - APF Fast						11	29	-18	6
E3: Total Protocol 5 - APF Fast						11	29	-18	6

The observed values for ND - PD and ND + PD meet the acceptability limit for each individual category and for all the combined categories (calculated values $\leq$ AL) for all the protocols tested.

3.1.1.8 Confirmation

Four selective agar plates were tested for the extension study: AL, Palcam, RAPID'*L.mono* and RAPID'*Listeria* spp. When the presence of *Listeria monocytogenes* was confirmed in the enrichment broth, typical colonies were present on the four plates except in one case: for sample 5579, no typical colony was observed on RAPID.

It was impossible to confirm the presence of *Listeria monocytogenes* in the enrichment broth after incubation time for two samples (5079, 5085) and for 3 samples after enrichment broth storage (4052, 4060, 5078) even if 5 Fraser broths, 5 AL and 5 Palcam were tested.

3.1.1.9 PCR inhibition

For protocol 1, 425 DNA extracts were tested, two inhibitions were observed, they are listed in Table 27.

Table 27 - PCR inhibitions and invalid results (Protocol 1)

RM: reference method
RLM: RAPID'*L.mono*

AM: alternative method
AL: Agar *Listeria*

SN	Time	Sample	RM	AM: iQ-Check Half Fraser - Standard II lysis								Agreement RM/AM
			Final result	iQ-Check			Conf a	Conf b			Final result	
				Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identif.		
117	T0	Plums red	+	36.44 34.39	N/A- 23.74	IV +**	2h+Ø	4h-Ø	2h+Ø	<i>L.m</i>	+	PA
135	T0	Grated carrot	+	33.67 33.82 34.15	N/A N/A N/A	IV IV -**	2h+L	4h-L	2h+L	<i>L.m</i>	-	ND

Manipulation applied	Number of PCR results obtained after analysis
* Dilution 1/10	0
** Retest without dilution	2

For protocol 2, 422 DNA extracts were tested, four inhibitions were observed, they are listed in Table 28.

Table 28 - PCR inhibitions and invalid results (Protocol 2)

RM : reference method
RLM: RAPID^L.mono

AM: alternative method
AL: Agar Listeria

SN	Time	Sample	RM	AM: iQ-Check Half Fraser - Standard II lysis								Agreement RM/AM
			Final result	iQ-Check			Conf a	Conf b			Final result	
				Ct C. int	Ct FAM	Result s	RLM	AL	RLM	Identif.		
57	T0	Neufchâtel raw milk	+	N/A 37.8	N/A- 18.97	IH +*	4h+Ø	4h+ Ø	4h+ Ø	L.m	+	PA
59	T0	Camembert of Normandie raw milk	+	N/A- 37.77	N/A- 23.48	IH +*	4h+Ø	3h+ M	4h+ Ø	L.m	+	PA
67	T0	Morbier raw milk	+	34.53- 37.25	N/A- 20.27	IV +**	3h+L	3h+ L	3h+ L	L.m	+	PA
85	T72h	Raw milk	+	N/A- 32.41	N/A- 21.58	IH +*	3h+L	3h+ L	3h+ L	L.m	+	PA

Manipulation applied	Number of PCR results obtained after analysis
* Dilution 1/10	3
** Retest without dilution	1

For protocol 3, 422 DNA extracts were tested, two inhibitions were observed, they are listed in Table 29.

Table 29 - PCR inhibitions and invalid results (Protocol 3)

RM : reference method
RLM: RAPID'L.mono

AM: alternative method
AL: Agar Listeria

SN	Time	Sample	RM	AM: iQ-Check Half Fraser - Standard II lysis								Agreement RM/AM
			Final result	iQ-Check			Conf a	Conf b			Final result	
				Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identif.		
59	T0	Camembert of Normandie raw milk	+	N/A-32.99	N/A-21.52	IH ⁺ *	4h+Ø	3h+M	4h+Ø	L.m	+	PA
49	T0	Savarin with rum and pastry cream	+	36.79/33.56	N/A/24.99	IV ⁺ **	3h+Ø	3h+Ø	3h+Ø	L.m	+	PA
59	T72h	Camembert of Normandie raw milk	+	N/A-31.09	N/A-18.12	IH ⁺ *	4h+Ø	3h+L	4h+Ø	L.m	+	PA

Manipulation applied	Number of PCR results obtained after analysis
* Dilution 1/10	2
** Retest without dilution	1

For protocols 4 and 5, no inhibition was observed among the 424 lysates tested.

3.1.2 Relative level of detection

The relative level of detection is the level of detection at $P = 0.50$ (LOD_{50}) of the alternative (proprietary) method divided by the level of detection at $P = 0.50$ (LOD_{50}) of the reference method.

The RLOD is defined as the ratio of the alternative and reference methods:

$$RLOD = \frac{LOD_{Alt.}}{LOD_{Ref.}}$$

The relative detection level is the smallest number of culturable micro-organisms that can be detected in the sample in 50% of occasions by the alternative and reference methods.

3.1.2.1 Experimental design

Seven (matrix/strain) pair were analyzed by the reference method and by the alternative method (See Table 30).

Table 30 - Defined matrix/strain pair for the RLOD determination

Category	Type	Strain	Origin	Inoculation protocol prior analysis	Analysis protocol
Meat products	Ground beef (15 % of fat)	<i>Listeria monocytogenes</i> 1/2a LIS.4.26	Ham	/	P1 P2 P3
Dairy products	Raw milk	<i>Listeria monocytogenes</i> 1/2b LIS.4.32	Raw milk	/	
Sea food products	Cod filet	<i>Listeria monocytogenes</i> 1/2a LIS.4.32	Fish with lemon sauce and rice	/	
Vegetable products	Salad	<i>Listeria monocytogenes</i> 1/2c LIS.4.35	Chef sandwich salad	/	
RTE-RTRH	Pasta salad	<i>Listeria monocytogenes</i> 3a LIS.4.29	Goat cheese sandwich	/	
Environmental samples	Process water	<i>Listeria monocytogenes</i> 4b LIS.4.30	Surface control on salmon	/	P4 P5
Environmental samples	Process water	<i>Listeria monocytogenes</i> Ad2503	Vegetable industry	Seeding for 48 h at 3°C ± 2°C	

The following protocol was applied:

- A negative control: 5 samples,
- A low contamination level providing fractional recovery data, with 20 replicates,
- A high contamination level, with 5 replicates.

A total plate count determination on the matrix was performed to estimate the total microbial load on the day of analysis.

The analyses were performed with and without applying the FDRS protocol and with the two APF (Classic and Fast) for the process water tested in 2019.

3.1.2.2 Calculation and interpretation of the RLOD

The raw data are given in **Appendix 5**.

The RLOD calculations were performed using the Excel spreadsheet available at <http://standards.iso.org/iso/16140> - RLOD version 4 (2024-01-10). The RLOD are given Tables 31 and 32.

Table 31 – Presentation of RLOD before and after confirmation of the alternative method results (Protocol 1)

Category		Matrix / strain pair	AL	RLOD [95% confidence limit]
				P1
1	Meat products	Ground beef / <i>Listeria monocytogenes</i> 1/2a LIS.4.26	1.5	1.000 [0.493; 2.030]
2	Dairy products	Raw milk / <i>Listeria monocytogenes</i> 1/2b LIS.4.32		0.904 [0.461; 1.770]
3	Seafood products	Cod filet / <i>Listeria monocytogenes</i> 1/2a LIS.4.32		1.000 [0.474; 2.110]
4	Vegetable products	Salad / <i>Listeria monocytogenes</i> 1/2c LIS.4.35		1.000 [0.482; 2.076]
5	RTE-RTRH	Pasta salad / <i>Listeria monocytogenes</i> 3a LIS.4.29		1.000 [0.493; 2.030]
6	Environmental samples	Process water / <i>Listeria monocytogenes</i> 4b LIS.4.30		1.000 [0.474; 2.110]
		Combined		0.984 [0.745;1.299]

Table 32 – Presentation of RLOD before and after confirmation of the alternative method results (Protocols 2, 3, 4 and 5)

Category		Matrix / strain pair	AL	RLOD [95% confidence limit]			
				P2	P3	P4	P5
1	Meat products	Ground beef / <i>Listeria monocytogenes</i> 1/2a LIS.4.26	2.5	1.000 [0.493; 2.030]	1.000 [0.493; 2.030]	/	/
2	Dairy products	Raw milk / <i>Listeria monocytogenes</i> 1/2b LIS.4.32		1.346 [0.670; 2.706]	1.346 [0.670; 2.706]	/	/
3	Seafood products	Cod filet / <i>Listeria monocytogenes</i> 1/2a LIS.4.32		1.104 [0.542; 2.248]	1.104 [0.542; 2.248]	/	/
4	Vegetable products	Salad / <i>Listeria monocytogenes</i> 1/2c LIS.4.35		1.219 [0.603; 2.464]	1.348 [0.660; 2.751]	/	/
5	RTE-RTRH	Pasta salad / <i>Listeria monocytogenes</i> 3a LIS.4.29		1.107 [0.565; 2.167]	1.107 [0.565; 2.167]	/	/
6	Environmental samples	Process water / <i>Listeria monocytogenes</i> 4b LIS.4.30		1.221 [0.594; 2.509]	1.221 [0.594; 2.509]	/	/
		Process water / <i>L. monocytogenes</i> Ad2503 with or without FDRS (APF Classic)		/	/	1.516 [0.684; 3.363]	1.516 [0.684; 3.363]
		Process water / <i>L. monocytogenes</i> Ad2503 with or without FDRS (APF Fast)		/	/	1.351 [0.620; 2.944]	1.351 [0.620; 2.944]
Combined				1.160 [0.874;1.539]	1.179 [0.888;1.565]	1.430 [0.820;2.496]	1.430 [0.820;2.496]

The LOD₅₀ calculations were done using the Excel spreadsheet available at <http://standards.iso.org/iso/16140> POD-LOD calculation program - version 12, 2024-03-05. The LOD₅₀ are given in Tables 33 to 36.

Table 33 – Presentation of LOD₅₀ (Protocol 1)

Category	(Strain / matrix) pair	Level of detection at 50% (CFU / sample size) according to Wilrich & Wilrich ³	
		Reference method	Alternative method
Meat products	Ground beef / <i>Listeria monocytogenes</i> 1/2a LIS.4.26	0.6 [0.3; 1.0]	0.6 [0.3; 1.0]
Dairy products	Raw milk / <i>Listeria monocytogenes</i> 1/2b LIS.4.32	0.5 [0.3; 0.9]	0.5 [0.3; 0.9]
Seafood products	Cod filet / <i>Listeria monocytogenes</i> 1/2a LIS.4.32	0.5 [0.3; 0.9]	0.5 [0.3; 0.9]
Vegetable products	<i>Listeria monocytogenes</i> 1/2c LIS.4.35	0.6 [0.4; 1.1]	0.6 [0.4; 1.1]
RTE - RTRH	Pasta salad / <i>Listeria monocytogenes</i> 3a LIS.4.29	0.4 [0.2; 0.7]	0.4 [0.2; 0.7]
Environmental products	Processed water / <i>Listeria monocytogenes</i> 4b LIS.4.30	0.7 [0.4; 1.2]	0.7 [0.4; 1.2]
Combined		0.6 [0.4; 0.7]	0.6 [0.4; 0.7]

Table 34 – Presentation of LOD₅₀ (Protocol 2)

Category	(Strain / matrix) pair	Level of detection at 50% (CFU / sample size) according to Wilrich & Wilrich	
		Reference method	Alternative method
Meat products	Ground beef / <i>Listeria monocytogenes</i> 1/2a LIS.4.26	0.6 [0.3; 1.0]	0.6 [0.3; 1.0]
Dairy products	Raw milk / <i>Listeria monocytogenes</i> 1/2b LIS.4.32	0.5 [0.3; 0.9]	0.7 [0.4; 1.3]
Seafood products	Cod filet / <i>Listeria monocytogenes</i> 1/2a LIS.4.32	0.5 [0.3; 0.9]	0.6 [0.3; 1.0]
Vegetable products	<i>Listeria monocytogenes</i> 1/2c LIS.4.35	0.6 [0.4; 1.1]	0.8 [0.5; 1.4]
RTE - RTRH	Pasta salad / <i>Listeria monocytogenes</i> 3a LIS.4.29	0.4 [0.2; 0.7]	0.5 [0.3; 0.8]
Environmental products	Processed water / <i>Listeria monocytogenes</i> 4b LIS.4.30	0.7 [0.4; 1.2]	0.9 [0.5; 1.6]
Combined		0.6 [0.4; 0.7]	0.7 [0.5; 0.8]

³ Wilrich, C., and P.-Th. Wilrich: Estimation of the POD function and the LOD of a qualitative microbiological measurement method. AOAC International **92** (2009) 1763 - 1772.

Table 35 – Presentation of LOD₅₀ (Protocol 3)

Category	(Strain / matrix) pair	Level of detection at 50% (CFU / sample size) according to Wilrich & Wilrich	
		Reference method	Alternative method
Meat products	Ground beef / <i>Listeria monocytogenes</i> 1/2a LIS.4.26	0.6 [0.3; 1.0]	0.6 [0.3; 1.0]
Dairy products	Raw milk / <i>Listeria monocytogenes</i> 1/2b LIS.4.32	0.5 [0.3; 0.9]	0.7 [0.4; 1.3]
Seafood products	Cod filet / <i>Listeria monocytogenes</i> 1/2a LIS.4.32	0.5 [0.3; 0.9]	0.6 [0.3; 1.0]
Vegetable products	<i>Listeria monocytogenes</i> 1/2c LIS.4.35	0.6 [0.4; 1.1]	0.8 [0.5; 1.4]
RTE - RTRH	Pasta salad / <i>Listeria monocytogenes</i> 3a LIS.4.29	0.4 [0.2; 0.7]	0.5 [0.3; 0.8]
Environmental products	Processed water / <i>Listeria monocytogenes</i> 4b LIS.4.30	0.7 [0.4; 1.2]	0.9 [0.5; 1.6]
Combined		0.6 [0.4; 0.7]	0.7 [0.5; 0.8]

Table 36 - LOD₅₀ results (Protocols 4 and 5)

Category	(Strain / matrix) pair	Level of detection at 50% (CFU / sample size) according to Wilrich & Wilrich ⁴	
		Reference method	Alternative method
6	Process water / <i>L. monocytogenes</i> Ad2503 Protocols 4 and 5 (APF Classic)	0.7 [0.5; 1.3]	1.0 [0.6; 1.9]
	Process water / <i>L. monocytogenes</i> Ad2503 with or without FDRS (APF Fast)		0.9 [0.5; 1.7]

3.1.2.3 Conclusion

The RLOD values (using the confirmed alternative method results) meet the acceptability limit of 2.5 for unpaired studies, for the matrix/strain pairs tested with all the protocols.

3.1.3 Inclusivity / exclusivity

The inclusivity is the ability of the alternative method to detect the target analyte from a wide range of strains. The exclusivity is the lack of interference from a relevant range of non-target strains of the alternative method.

⁴ Wilrich, C., and P.-Th. Wilrich: Estimation of the POD function and the LOD of a qualitative microbiological measurement method. AOAC International **92** (2009) 1763 - 1772.

3.1.3.1 Test protocols

> Inklusivity

For the initial validation study performed in 2005, 50 *Listeria monocytogenes* strains were tested using the protocol 1: inoculation between 10 to 100 CFU/225 ml Half Fraser broth and incubation for 24 h at 30°C. The standard II extraction protocol was applied before performing the PCR test.

In 2019, for the extension study, 50 additional *Listeria monocytogenes* strains were tested. They were inoculated between 10 to 100 CFU/225 ml LSB broth incubated for 18 h at 30°C before applying the iQ-Check protocol including the FDRS step (Protocol 5).

> Exclusivity

33 non-target strains were tested in 2005 (16 *Listeria* spp strains different from *Listeria monocytogenes*, and 17 strains not belonging to *Listeria* genus); they were grown in nutrient broth and then inoculated at 10⁵ CFU/ml nutrient broth for the non-*Listeria* strains, inoculated at 10 - 100 CFU/225 ml Half Fraser for the *Listeria* spp. strains. The Standard II extraction protocol and the PCR assay were then carried out on the broths incubated for 24 h ± 2 h at 30°C ± 1°C.

In 2006, 39 non-target strains were tested (22 non-*Listeria monocytogenes* and 17 non-*Listeria* strains). They were inoculated at 10⁵ CFU/ml nutrient broth for 24 h at 30°C. The Easy II extraction protocol and the iQ-Check *Listeria monocytogenes* II were performed.

3.1.3.2 Results

> Inklusivity

The 50 *Listeria monocytogenes* strains tested with the protocol 1 gave positive PCR results with the iQ-Check *Listeria monocytogenes* II.

For the extension study, the 50 additional target strains tested with the protocol 5 also gave positive PCR results. All the strains gave typical colonies on AL (Agar Listeria) and Palcam plates. Raw data are given in **Appendix 6**.

One strain (*Listeria monocytogenes* Ad274) gave atypical white colonies on RAPID'L.mono. Two strains gave typical colonies on RAPID'Listeria spp. only after 48 h incubation time of the plates.

> **Exclusivity**

The 69 non-target strains tested gave negative PCR tests.

A non-repeatable cross-reaction was observed in the initial validation study (2005) with *Enterococcus faecium* grown in nutrient broth but when the strain was grown in Half Fraser broth a negative PCR result was obtained. The same strain was retested in the extension study (2006), with the Easy II lysis protocol, from a nutrient broth and the result was also negative.

3.1.4 **Practicability**

The practicability of the alternative method was informed according to the criteria defined by the Technical Committee.

Time to results:

Positive results are obtained in 2 to 7 days (depending on the method of confirmation) with the alternative method against 4 to 7 days with the reference method.

The negative results are obtained in 1 day with the alternative method for 2 to 5 days with the reference method.

In the case of presumed positive results by the alternative method. but negative after confirmation. the negative results are obtained in 2 to 4 days depending on the method of confirmation used.

3.2 **Extension study for the use of LSB II medium**

3.2.1 **Sensitivity**

3.2.1.1 **Number and nature of samples**

Combining the six categories tested with LSBII broth, 450 samples were tested providing 188 positive and 262 negative results.

The distribution per tested category and type is given in Table 37.

Table 37 – Distribution per tested category and type

Category		Type		Positive samples	Negative samples	Total
1	Composite foods	a	Ready-to-eat	8	14	22
		b	Ready-to-reheat	13	18	31
		c	Confectionaries, pastries and egg products	10	13	23
		Total		31	45	76
2	Production environmental samples	a	Surfaces samples	10	10	20
		b	Dusts and wastes	10	10	20
		c	Process water	10	10	20
		Total		30	30	60
3	Dairy products	a	Raw milk cheese (cow, ewe, goat)	10	14	24
		b	Other raw milk-based products (raw milk, cream, butter, fermented milk)	10	11	21
		c	Pasteurized milk-based products (pasteurized cheese, ice cream, milk)	11	18	29
		Total		31	43	74
4	Meat and poultry products	a	Raw products (fresh or frozen)	10	13	23
		b	Meat based products ready to reheat	14	24	38
		c	Raw and cooked delicatessen	8	20	28
		Total		32	57	89
5	Vegetables	a	Raw vegetables products (fresh and frozen)	13	12	25
		b	Precooked (RTC), under atmosphere and frozen	12	18	30
		c	RTE, RTRH	9	17	26
		Total		34	47	81
6	Fishery and seafood products	a	Raw products	11	13	24
		b	Smoked, marinated products	10	16	26
		c	Processed products	9	11	20
		Total		30	40	70
All categories				188	262	450

3.2.1.2 Artificial contamination of samples

Naturally contaminated products were preferentially analysed, but artificial contaminations were also carried out using the seeding protocol by direct inoculations of products using a liquid inoculum, followed by storage for 48-72 h at 3°C ± 2°C or seeding two weeks at -20°C for frozen samples or by spiking after heat treatment.

The artificial contaminations are presented in **Appendix 7**.

The repartition of the positive samples per inoculation protocol and inoculation level is given in Table 38.

Table 38 - Repartition of positive naturally and artificially contaminated samples per inoculation level

Category	Naturally contaminated	Spiking protocol		Seeding protocol		Total positive samples
		≤ 5 CFU	5 < x ≤ 10 CFU	≤ 3 CFU	3 < x ≤ 10 CFU	
1	18	0	0	10	3	31
2	4	0	0	21	5	30
3	7	2	0	22	0	31
4	12	1	0	11	8	32
5	11	0	0	16	7	34
6	8	0	0	17	5	30
Number of samples	60	3	0	96	229	188
%	31.9	1.6	0.0	51.1	15.4	100.0

Combining all the categories, 31.9% of the samples were naturally contaminated.

3.2.1.3 Protocols applied during the validation study

> Enrichment and PCR protocols

The minimum incubation time was evaluated for all studies.

A summary of the protocols evaluated during the extensions in 2023 and 2024 is shown in the table below.

Table 39 – Summary of protocols tested

Validation study	Scope	Enrichment step	FDRS	Lysis step	APF ⁵
Extension June 2023	Composite foods Production environmental samples	LSBII for 18 h at 37°C ± 1°C	With / without	Easy II	Fast
Extension October 2023	Dairy products	Pre-warmed LSBII for 20 h at 37°C ± 1°C	With / without	Easy II	Fast
Extension October 2024	Meat and poultry products	Prewarmed LSBII for 18 h at 37°C ± 1°C	Without*	Easy II	Fast
Extension December 2024	Vegetables, Fishery and seafood products	Prewarmed LSBII for 18 h at 37°C ± 1°C	Without*	Easy II	Fast

* The FDRS protocol was not tested during the extension on these categories by the expert laboratory. According to AFNOR technical rules version 12, additional data were provided by Bio-Rad to support the use of the FDRS protocol on these categories. Data are available upon request to Bio-Rad.

⁵ Application Protocol File

In case of PCR inhibition, 1:10 dilution of the DNA extract in sterile water was applied.

> **Instruments**

During the extensions performed in 2023, both CFX96 DW and CFX Opus DW systems were tested.

For the extensions performed in 2024, as the equivalence of both systems have been already demonstrated on several categories it was accepted to evaluate only the CFX Opus Deep Well system.

> **Confirmation protocols**

The positive PCR tests were confirmed by:

- Streaking **10 µl** of the enriched LSB II broth onto O&A and Palcam plates incubated for 24 to 48 h at $37 \pm 1^\circ\text{C}$. The typical colonies were confirmed by the tests described in the ISO method (gram, beta haemolysis and carbohydrates). For the study, API Listeria galleries were used to identify the isolated colonies as this information is required for an AFNOR Validation study.
- Streaking **100 µl** of enriched LSB II broth onto Agar Listeria (AL), RAPID'*Listeria* Agar and RAPID'*L.mono* Agar incubated for 24 h at $37^\circ\text{C} \pm 1^\circ\text{C}$. The only presence of typical colonies allows to confirm the positive PCR result when using Agar Listeria (AL) and RAPID'*L.mono* Agar. For the study, API Listeria galleries were used to identify the isolated colonies as this information is required for an AFNOR Validation study.
- An additional protocol was applied to be in agreement with the ISO 16140-2 requirements: subculture of the LSB II in Fraser broth (24 h $\pm$ 2 h at 37°C) before streaking onto O&A and PALCAM plates.

> **Enrichment broth storage for 24 h or 72 h at $5 \pm 3^\circ\text{C}$**

The enrichment broth (LSBII) from positive and discordant samples were stored for 72 h at $5^\circ\text{C} \pm 3^\circ\text{C}$ and the alternative method was tested again.

3.2.1.4 Test results

Raw data are given in **Appendix 8**.

The results for all categories are given in Table 40 (CFX 96 DW- without FDRS), Table 41 (CFX 96 DW - with FDRS), Table 42 (CFX Opus DW - without FDRS), Table 43 (CFX Opus DW - with FDRS).

Table 40 – Interpretation of sample results between the reference and alternative method (based on the confirmed alternative method) - CFX 96 DW- Without FDRS

Category		PA	PD	TND	TNA	Total
1	Composite foods	23	5	3	45	76
2	Production environmental samples	21	5	4	30	60
3	Dairy products	13	8	10	43	74
TOTAL		57	18	17	118	210

with: $TND = ND + ND_{FN(alt)} + PA_{FP(alt)}$ $TNA = NA + NA_{FN(alt)} + PD_{FP(alt)}$

Table 41 – Interpretation of sample results between the reference and alternative method (based on the confirmed alternative method) - CFX 96 DW - With FDRS

Category		PA	PD	TND	TNA	Total
1	Composite foods	23	5	3	45	76
2	Production environmental samples	20	5	5	30	60
3	Dairy products	14	9	9	42	74
TOTAL		57	19	17	117	210

with: $TND = ND + ND_{FN(alt)} + PA_{FP(alt)}$ $TNA = NA + NA_{FN(alt)} + PD_{FP(alt)}$

Table 42 – Interpretation of sample results between the reference and alternative method (based on the confirmed alternative method) - CFX Opus DW - Without FDRS

Category		PA	PD	TND	TNA	Total
1	Composite foods	22	5	4	45	76
2	Production environmental samples	21	5	4	30	60
3	Dairy products	13	8	10	43	74
4	Meat and poultry products	21	4	7	57	89
5	Vegetables	22	6	6	47	81
6	Fishery and seafood products	23	2	5	40	70
TOTAL		122	30	36	262	450

with: $TND = ND + ND_{FN(alt)} + PA_{FP(alt)}$ $TNA = NA + NA_{FN(alt)} + PD_{FP(alt)}$

Table 43 – Interpretation of sample results between the reference and alternative method (based on the confirmed alternative method) - CFX Opus DW - With FDRS

Category		PA	PD	TND	TNA	Total
1	Composite foods	22	4	4	46	76
2	Production environmental samples	21	5	4	30	60
3	Dairy products	13	9	10	42	74
TOTAL		56	18	18	118	210

with: $TND = ND + ND_{FN(alt)} + PA_{FP(alt)}$ $TNA = NA + NA_{FN(alt)} + PD_{FP(alt)}$

3.2.1.5 *Calculation of relative trueness (RT), sensitivity (SE) and false positive ratio (FPR)*

The calculations are presented in Table 44 (CFX 96 DW -without FDRS), Table 45 (CFX 96 DW -with FDRS), Table 46 (CFX Opus DW -without FDRS), Table 47 (CFX Opus DW -with FDRS).

A summary of the results is given in Table 48.

Table 44 – Calculation of the relative trueness (RT), the sensitivity (SE) and the false positive ratio (FPR) CFX 96 DW - Without FDRS

Categories		Types		PA	PA _{FP(alt)}	NA	NA _{FN(alt)}	PD	ND	ND _{FN(alt)}	PD _{FP(alt)}	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR
1	Composite foods	a	Ready-to-eat	5	0	13	1	0	3	0	0	3	14	62.5	100.0	86.4	0.0	0.125
		b	Ready-to-reheat	9	0	17	0	4	0	0	1	0	18	100.0	69.2	87.1	5.6	0.000
		c	Confectionaries, pastries and egg products	9	0	13	0	1	0	0	0	0	13	100.0	90.0	95.7	0.0	0.000
		Total		23	0	43	1	5	3	0	1	3	45	90.3	83.9	89.5	2.2	0.032
2	Production environmental samples	a	Surfaces samples	7	0	10	0	2	1	0	0	1	10	90.0	80.0	85.0	0.0	0.000
		b	Dusts and wastes	8	0	10	0	1	1	0	0	1	10	90.0	90.0	90.0	0.0	0.000
		c	Process water	6	0	10	0	2	2	0	0	2	10	80.0	80.0	80.0	0.0	0.000
		Total		21	0	30	0	5	4	0	0	4	30	86.7	83.3	85.0	0.0	0.000
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	6	0	13	1	1	0	3	0	3	14	70.0	90.0	83.3	0.0	0.400
		b	Other raw milk-based products	5	0	11	0	4	1	0	0	1	11	90.0	60.0	76.2	0.0	0.000
		c	Pasteurized milk-based products	2	0	18	0	3	5	1	0	6	18	45.5	72.7	69.0	0.0	0.091
		Total		13	0	42	1	8	6	4	0	10	43	67.7	74.2	75.7	0.0	0.161
All categories				57	0	115	2	18	13	4	1	17	118	81.5	80.4	83.3	0.8	0.065

Table 45 – Calculation of the relative trueness (RT), the sensitivity (SE) and the false positive ratio (FPR) CFX 96 DW - With FDRS

Categories		Types		PA	PA _{FP(alt)}	NA	NA _{FN(alt)}	PD	ND	ND _{FN(alt)}	PD _{FP(alt)}	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR
1	Composite foods	a	Ready-to-eat	5	0	13	1	0	3	0	0	3	14	62.5	100.0	86.4	0.0	0.125
		b	Ready-to-reheat	9	0	18	0	4	0	0	0	0	18	100.0	69.2	87.1	0.0	0.000
		c	Confectionaries, pastries and egg products	9	0	13	0	1	0	0	0	0	13	100.0	90.0	95.7	0.0	0.000
		Total		23	0	44	1	5	3	0	0	3	45	90.3	83.9	89.5	0.0	0.032
2	Production environmental samples	a	Surfaces samples	6	0	10	0	2	1	1	0	2	10	80.0	80.0	80.0	0.0	0.100
		b	Dusts and wastes	8	0	10	0	1	1	0	0	1	10	90.0	90.0	90.0	0.0	0.000
		c	Process water	6	0	10	0	2	2	0	0	2	10	80.0	80.0	80.0	0.0	0.000
		Total		20	0	30	0	5	4	1	0	5	30	83.3	83.3	83.3	0.0	0.033
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	7	0	13	0	2	0	2	0	2	13	81.8	81.8	83.3	0.0	0.182
		b	Other raw milk-based products	5	0	11	0	4	1	0	0	1	11	90.0	60.0	76.2	0.0	0.000
		c	Pasteurized milk-based products	2	0	18	0	3	5	1	0	6	18	45.5	72.7	69.0	0.0	0.091
		Total		14	0	42	0	9	6	3	0	9	42	71.9	71.9	75.7	0.0	0.094
All categories				57	0	116	1	19	13	4	0	17	117	81.7	79.6	82.9	0.0	0.054

Table 46 – Calculation of the relative trueness (RT), the sensitivity (SE) and the false positive ratio (FPR) CFX Opus DW - Without FDRS

Categories		Types		PA	PA _{FP(alt)}	NA	NA _{FN(alt)}	PD	ND	ND _{FN(alt)}	PD _{FP(alt)}	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR
1	Composite foods	a	Ready-to-eat	4	0	13	1	0	3	1	0	4	14	50.0	100.0	81.8	0.0	0.250
		b	Ready-to-reheat	9	0	17	0	4	0	0	1	0	18	100.0	69.2	87.1	5.6	0.000
		c	Confectionaries, pastries and egg products	9	0	13	0	1	0	0	0	0	13	100.0	90.0	95.7	0.0	0.000
		Total		22	0	43	1	5	3	1	1	4	45	87.1	83.9	88.2	2.2	0.065
2	Production environmental samples	a	Surfaces samples	7	0	10	0	2	1	0	0	1	10	90.0	80.0	85.0	0.0	0.000
		b	Dusts and wastes	8	0	10	0	1	1	0	0	1	10	90.0	90.0	90.0	0.0	0.000
		c	Process water	6	1	10	0	2	1	0	0	2	10	80.0	80.0	80.0	10.0	0.000
		Total		21	1	30	0	5	3	0	0	4	30	86.7	83.3	85.0	3.3	0.000
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	6	0	13	1	1	0	3	0	3	14	70.0	90.0	83.3	0.0	0.400
		b	Other raw milk-based products	5	0	11	0	4	1	0	0	1	11	90.0	60.0	76.2	0.0	0.000
		c	Pasteurized milk-based products	2	0	18	0	3	5	1	0	6	18	45.5	72.7	69.0	0.0	0.091
		Total		13	0	42	1	8	6	4	0	10	43	67.7	74.2	75.7	0.0	0.161
4	Meat and poultry products	a	Raw products (fresh or frozen)	6	0	13	0	2	2	0	0	2	13	80.0	80.0	82.6	0.0	0.000
		b	Meat based products ready to reheat	10	1	23	1	1	2	0	0	3	24	78.6	92.9	89.5	4.2	0.071
		c	Raw and cooked delicatessen	5	0	20	0	1	2	0	0	2	20	75.0	87.5	89.3	0.0	0.000
		Total		21	1	56	1	4	6	0	0	7	57	78.1	87.5	87.6	1.8	0.031
5	Vegetables	a	Raw vegetables products (fresh)	8	0	10	0	3	2	0	2	2	12	84.6	76.9	80.0	16.7	0.000
		b	Precooked (RTC), under atmosphere and frozen	9	0	17	1	0	3	0	0	3	18	75.0	100.0	90.0	0.0	0.083
		c	RTE, RTRH	5	0	16	1	3	0	1	0	1	17	88.9	66.7	84.6	0.0	0.222
		Total		22	0	43	2	6	5	1	2	6	47	82.4	82.4	85.2	4.3	0.088
6	Fishery and seafood products	a	Raw products	7	0	12	1	1	1	2	0	3	13	72.7	90.9	83.3	0.0	0.273
		b	Smoked, marinated products	8	0	15	1	1	1	0	0	1	16	90.0	90.0	92.3	0.0	0.100
		c	Processed products	8	0	10	0	0	1	0	1	1	11	88.9	100.0	95.0	9.1	0.000
		Total		23	0	37	2	2	3	2	1	5	40	83.3	93.3	90.0	2.5	0.133
All categories				122	2	251	7	30	26	8	4	36	262	80.9	84.0	85.3	2.3	0.080

Table 47 – Calculation of the relative trueness (RT), the sensitivity (SE) and the false positive ratio (FPR) CFX Opus DW - With FDRS

Categories		Types		PA	PA _{FP(alt)}	NA	NA _{FN(alt)}	PD	ND	ND _{FN(alt)}	PD _{FP(alt)}	TND	TNA	SE _{alt} %	SE _{ref} %	RT %	FPR %	FNR
1	Composite foods	a	Ready-to-eat	4	0	13	1	0	3	1	0	4	14	50.0	100.0	81.8	0.0	0.250
		b	Ready-to-reheat	9	0	18	1	3	0	0	0	0	19	100.0	75.0	90.3	0.0	0.083
		c	Confectionaries, pastries and egg products	9	0	13	0	1	0	0	0	0	13	100.0	90.0	95.7	0.0	0.000
		Total		22	0	44	2	4	3	1	0	4	46	86.7	86.7	89.5	0.0	0.100
2	Production environmental samples	a	Surfaces samples	7	0	10	0	2	1	0	0	1	10	90.0	80.0	85.0	0.0	0.000
		b	Dusts and wastes	8	0	10	0	1	1	0	0	1	10	90.0	90.0	90.0	0.0	0.000
		c	Process water	6	0	10	0	2	2	0	0	2	10	80.0	80.0	80.0	0.0	0.000
		Total		21	0	30	0	5	4	0	0	4	30	86.7	83.3	85.0	0.0	0.000
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	6	0	13	0	2	0	3	0	3	13	72.7	81.8	79.2	0.0	0.273
		b	Other raw milk-based products	5	0	11	0	4	1	0	0	1	11	90.0	60.0	76.2	0.0	0.000
		c	Pasteurized milk-based products	2	0	18	0	3	5	1	0	6	18	45.5	72.7	69.0	0.0	0.091
		Total		13	0	42	0	9	6	4	0	10	42	68.8	71.9	74.3	0.0	0.125
All categories				56	0	116	2	18	13	5	0	18	118	80.4	80.4	82.9	0.0	0.076

Table 48 - Summary of results – LSBII protocols (6, 7 and 8)

		All categories			
		CFX 96 DW		CFX Qplus DW	
		w/o FDRS	w FDRS	w/o FDRS	w FDRS
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} \times 100 \%$	81.5 %	81.7 %	80.9 %	80.4 %
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} \times 100 \%$	80.4 %	79.6 %	84.0 %	80.4 %
Relative trueness	$RT = \frac{(PA + TNA)}{N} \times 100 \%$	83.3 %	82.9 %	85.3 %	82.9 %
False positive ratio for the alternative method (unpaired evaluation)	$FPR = \frac{PA_{FP(alt)} + PD_{FP(alt)}}{TNA} \times 100 \%$	0.8 %	0.0 %	2.3 %	0.0 %
False negative ratio for the alternative method (unpaired evaluation)	$FNR = \frac{NA_{FN(alt)} + ND_{FN(alt)}}{PA + TND + PD}$	0.065	0.054	0.080	0.076

3.2.1.6 *Analysis of discordant results*

The negative deviations for all categories are given in Table 49, the negative agreement with positive confirmation in Table 50 and the positive deviations in Table 51.

Table 49 - Negative deviations – – LSBII protocols (6, 7 and 8)

Year of analysis	Sample N°	Product	Strain inoculated	Inoculation level CFU/test portion	Reference method: ISO 11290-1*	Alternative method: iQ-Check <i>Listeria monocytogenes</i> II- LSB II 20 h at 37°C (pre-warmed)																		Category	Type
						PCR result												Confir- mation	Agreement						
						Without FDRS						With FDRS							Without FDRS		With FDRS				
						CFX96 DW			CFX Opus DW			CFX96 DW			CFX Opus DW				CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW			
						FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result								
2023	3302	RTE (Sandwich tuna and crudity)	/	/	<i>L. mono</i> <i>L. innoc</i>	N/A	34.16	-	N/A	33.60	-	N/A	34.90	-	N/A	35.35	-	-	ND	ND	ND	ND	1	a	
2023	749	Potato fritter with cheese	/	/	<i>L. mono</i>	N/A	36.72	-	N/A	36.81	-	N/A	37.20	-	N/A	36.79	-	-	ND	ND	ND	ND	1	a	
2023	761	RTE (vegetable and cheese)	/	/	<i>L. monos</i>	N/A	36.26	-	N/A	36.95	-	N/A	36.36	-	N/A	36.49	-	-	ND	ND	ND	ND	1	a	
2023	3305	RTE (Sandwich cheese and ham)	/	/	<i>L. mono</i> <i>L. innoc</i>	39.33	34.53	+	N/A 41.58 N/A	34.96 34.02 34.53	- + -	40.59	35.04	+	N/A 41.65 40.21	35.34 34.66 35.51	- + +	<i>L. mono</i> <i>L. inno</i>	PA	ND _{FN(alt)}	PA	ND _{FN(alt)}	1	a	
2023	733	Rinsing water	<i>Listeria monocytogenes</i> Ad1679	2.4	<i>L. mono</i>	N/A	33.35	-	32.01 N/A N/A	32.27 35.20 35.04	+ - -	N/A	33.04	-	N/A	32.12	-	-	ND	PA _{FP(alt)}	ND	ND	2	c	
2023	824	Wipe before cleaning process	<i>Listeria monocytogenes</i> Ad2503 <i>Listeria seeligeri</i> Ad651	1.2 1.4	<i>L. mono</i>	N/A	33.13	-	N/A	32.70	-	N/A	33.12	-	N/A	32.87	-	<i>L. seel</i>	ND	ND	ND	ND	2	a	
2023	822	Wipe before cleaning process	<i>Listeria monocytogenes</i> Ad2503 <i>Listeria seeligeri</i> Ad651	1.2 1,4	<i>L. mono</i>	37.66	32.74	+	36.90	32.59	+	N/A 35.70 35.88	33.01 32.84 33.13	- + +	40.79	32.68	+	<i>L. mono</i> <i>L. seel</i>	PA	PA	ND _{FN(alt)}	PA	2	a	
2023	961	Wastes (Salmon)	<i>Listeria monocytogenes</i> Ad549 <i>Listeria welshimeri</i> Ad1268	1,0 0,4	<i>L. monos</i> <i>L. innoc</i>	N/A	34.67	-	N/A	34.38	-	N/A	38.12	-	N/A	37.05	-	-	ND	ND	ND	ND	2	b	
2023	829	Process water	<i>Listeria monocytogenes</i> Ad2503 <i>Listeria seeligeri</i> Ad651	1,2 1,4	<i>L. mono</i> <i>L. seeli</i>	N/A	33.02	-	N/A	32.69	-	N/A	33.30	-	N/A	32.34	-	<i>L. seel</i>	ND	ND	ND	ND	2	c	
2023	1732	Raw ewe milk cheese	<i>L. monocytogenes</i> Ad1784 <i>L. innocua</i> Ad658	2,2 1,2	<i>L. mono</i>	N/A N/A 40.57	32,81 37.67 36.78	-/-/+	N/A N/A N/A	34,14 32.43 34.86	-/-/-	N/A N/A 43.39	32,88/ 36.62/ 33.32	-/-/+	N/A N/A 40.07	33,67 34.32 35.00	-/-/+	<i>L. mono</i>	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	3	a	
2023	1733	Raw goat milk cheese	<i>L. monocytogenes</i> 910	1,2	<i>L. mono</i>	N/A 39.32 37.32	34.53 32.68 32.18	- / + / +	N/A 38.08 38.23	32.57 32.66 33.17	- / + / +	N/A N/A N/A	33.26 32.92 33.15	- / - / -	N/A N/A N/A	33.12 32.81 32.81	- / - / -	<i>L. mono</i>	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	3	a	
2023	2752	Raw goat milk cheese	/	/	<i>L. mono</i>	41.07	32.82	+	41.98	32.99	+	42.44	33.07	+	N/A N/A N/A	32.94 33.12 32.98	- / - / -	<i>L. mono</i>	PA	PA	PA	ND _{FN(alt)}	3	a	
2023	2753	Raw goat milk cheese	/	/	<i>L. mono</i>	N/A N/A 41.17	33.08 33.08 32.46	- / - / +	N/A N/A N/A	32.97 32.46 32.78	- / - / -	41.29	32.82	+	42.73	32.91	+	<i>L. mono</i>	ND _{FN(alt)}	ND _{FN(alt)}	PA	PA	3	a	
2023	2825	Pasteurized cow milk	<i>L. monocytogenes</i> AOOL099 <i>L. innocua</i> Ad1788	0.8 0.2	<i>L. mono</i>	N/A	33.07	-	N/A	33.26	-	N/A	32.8	-	N/A	32.9	-		ND	ND	ND	ND	3	c	
2023	2826	Pasteurized cow milk	<i>L. monocytogenes</i> 17866 <i>L. innocua</i> Ad1787	0.6 0.6	<i>L. mono</i>	N/A	32.8	-	N/A	32.92	-	N/A	32.84	-	N/A	33.12	-		ND	ND	ND	ND	3	c	
2023	2827	Pasteurized cow milk flavoured	<i>L. monocytogenes</i> AOOL099 <i>L. seeligeri</i> Ad1237	0.8 0.2	<i>L. mono</i>	N/A	34.03	-	N/A	34.13	-	N/A	34.17	-	N/A	34.13	-	<i>L. seel</i>	ND	ND	ND	ND	3	c	
2023	2831	Pasteurized goat milk	<i>L. monocytogenes</i> 17866	1.0	<i>L. mono</i>	N/A	32.69	-	N/A	33.48	-	N/A	33.56	-	N/A	33.05	-		ND	ND	ND	ND	3	c	
2023	2934	Raw cow milk	/	/	<i>L. mono</i>	N/A	33.73	-	N/A	32.76	-	N/A	33.69	-	N/A	33.45	-		ND	ND	ND	ND	3	b	
2023	3071	Powdered half-skimmed milk	<i>L. monocytogenes</i> Ad250	0.6	<i>L. mono</i>	N/A	33.01	-	N/A	32.67	-	N/A	33.15	-	N/A	32.8	-		ND	ND	ND	ND	3	c	
2023	3545	Pasteurized cow cheese	<i>L. monocytogenes</i> Ad630	5	<i>L. mono</i>	N/A N/A 41.29	33.41 34.44 34.41	- / - / +	N/A N/A N/A	32.99 34.71 33.29	- / - / -	N/A N/A N/A	34.21 35.42 34.39	- / - / -	N/A N/A N/A	34.04 35.26 34.28	- / - / -	<i>L. mono</i>	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	3	c	

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Year of analysis	Sample N°	Product	Strain inoculated	Inoculation level (CFU/test portion)	Reference method: ISO 11290-1♦	iQ-Check <i>Listeria monocytogenes</i>					Category	Type
						PCR result (CFX Opus- Without FDRS)			Confirmation result	Agreement		
						FAM Cq	I.C. Cq	Result				
2024	1278	Ground beef	/	/	<i>L. welshi</i> <i>L. monos</i>	N/A/40.75/N/A	32.55/32.51/32.37	-/+/-	<i>L. mono</i>	ND _{FN(alt)}	4	a
2024	1280	Pork meat	/	/	<i>L. mono</i>	N/A	32.37	-	-	ND	4	a
2024	1704	Shepherd's pie meat	<i>Listeria monocytogenes</i> Ad1218 <i>Listeria welshimeri</i> Ad3204	0.9 1.4	<i>L. mono</i>	N/A	32.74	-	-	ND	4	b
2024	1705	Wine beef	<i>Listeria monocytogenes</i> Ad1218 <i>Listeria welshimeri</i> Ad3204	0.9 1.4	<i>L. mono</i> <i>L. welshi</i>	40.42/N/A/N/A	33.11/33.19/33.01	+/-/-	-	PA _{FP(alt)}	4	b
2024	2661	Veal paupiette. mixed vegetables	<i>Listeria monocytogenes</i> A00C052	4.6	<i>L. mono</i>	N/A	32.28	-	-	ND	4	b
2024	1288	Smoked sausage	/	/	<i>L. welshi</i> <i>L. mono</i>	N/A	32.07	-	-	ND	4	c
2024	1291	Cooked ham	/	/	<i>L. mono</i>	N/A	32.35	-	-	ND	4	c
2024	2606	Broccoli	<i>Listeria monocytogenes</i> 1011/1410	0.4	<i>L. mono</i>	N/A	32.46	-	-	ND	5	a
2024	2611	Chives	<i>Listeria monocytogenes</i> 1011/1410	0.4	<i>L. mono</i>	N/A	32.35	-	-	ND	5	a
2024	2616	Frozen stir-fried vegetables	<i>Listeria seeligeri</i> Ad1293	0.8	<i>L. seeli</i> <i>L. mono</i>	N/A	32.2	-	-	ND	5	b
2024	3497	Soy. pepper and parsley pancake	<i>Listeria monocytogenes</i> Ad3263	2.6	<i>L. mono</i>	N/A	33.26	-	-	ND	5	b
2024	3510	Frozen mixed vegetable soup	<i>Listeria monocytogenes</i> Ad1498	4.2	<i>L. mono</i>	N/A	33.41	-	-	ND	5	b
2024	2934	Grilled red peppers	/	/	<i>L. mono</i>	N/A	32.9	-	<i>L. mono</i> (after Fraser)	ND _{FN(alt)}	5	c
2024	1934	Raw salmon	/	/	<i>L. mono</i> <i>L. innoc</i>	N/A/N/A/39.34	32.22/32.51/32.6	-/-/+	<i>L. inno</i> <i>L. mono</i>	ND _{FN(alt)}	6	a
2024	2741	Small hake	<i>Listeria monocytogenes</i> Ad1182/ <i>Listeria welshimeri</i> Ad642	0.8/0.6	<i>L. mono</i>	N/A	32.7	-	-	ND	6	a
2024	3501	Royal sea bream	<i>Listeria monocytogenes</i> Ad994	2.4	<i>L. mono</i>	N/A/N/A/N/A	34.6/33.56/34.02	-/-/-	<i>L. mono</i>	ND _{FN(alt)}	6	a
2024	3194	Sliced smoked trout	<i>Listeria innocua</i> Ad1674 <i>Listeria monocytogenes</i> Ad141	1.8/1.6 (3.4)	<i>L. mono</i> <i>L. innoc</i>	N/A	33.12	-	-	ND	6	b
2024	3120	Squid rings	/	/	<i>L. mono</i>	N/A	32.76	-	-	ND	6	c

Table 50 - Negative agreement with positive confirmation for the vegetables, seafood and fishery products – LSBII protocols (6, 7 and 8)

Year of analysis	Sample N°	Product	Strain inoculated	Inoculation level CFU/test portion	Reference method: ISO 11290-1*	Alternative method: iQ-Check <i>Listeria monocytogenes</i> II- LSB II 18 h at 37°C (pre-warmed)														Confirmation	Agreement				Category	Type
						PCR result												Without FDRS			With FDRS					
						Without FDRS						With FDRS														
						CFX96 DW			CFX Opus DW			CFX96 DW			CFX Opus DW			CFX96 DW	CFX Opus DW		CFX96 DW	CFX Opus DW				
						FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result									
2023	3469	Chicken wings	/	/	-	38.93	32.10	+	38.12	32.15	+	42.14	32.34	+	N/A 39.62	31.85 32.93	- +	<i>L.mono</i>	PD	PD	PD	NA _{FN(alt)}	1	b		
2023	3670	RTE (Sandwich ham and cheese)	/	/	<i>L. seeligeri</i>	N/A	36.79	-	N/A	36.25	-	N/A	37.04	-	N/A	40.24	-	<i>L.mono</i>	NA _{FN(alt)}	NA _{FN(alt)}	NA _{FN(alt)}	NA _{FN(alt)}	1	a		
						N/A	32.56	-	N/A	33.58	-	40.28	33.90	+	N/A	34.71	-									
						39.49	33.72	+	N/A	34.42	-	N/A	34.99	-	N/A	34.01	-									
2023	1735	Raw goat milk cheese	<i>L. monocytogenes</i> 909 <i>L. welshimeri</i> Ad1667	0.8 0.8	- (<i>L. welshimeri</i>)	N/A	37.1	- / + /	N/A	37.9	- / - /	38.15	34.04	+	42.08	34.57	+	<i>L mono</i>	NA _{FN(Alt)}	NA _{FN(Alt)}	PD	PD	3	a		
						40.27	32.88	+	N/A	32.77	+															
						40.23	33.1		39.18	32.41																

Year of analysis	Sample N°	Product	Strain inoculated	Inoculation level (CFU/test portion)	ISO 11290-1*	iQ-Check <i>Listeria monocytogenes</i>					Category	Type
						PCR result (CFX Opus- Without FDRS)			Confirmation result	Agreement		
						FAM Cq	I.C. Cq	Result				
2024	2660	Sliced beef and pepper sauce	<i>L. monocytogenes</i> A00C052	4,6	-	N/A/N/A/N/A	32.28/33.23/33.49	-/-/-	<i>L. mono</i>	NA _{FN(alt)}	4	b
2024	2188	Frozen fried vegetables	/	/	- (<i>L.innocua</i>)	N/A/40.1/39.48	33/33.26/32.64	-/+ / +	<i>L. inno</i> <i>L. mono</i>	NA _{FN(alt)}	5	a
2024	2937	Salmon paupiettes	/	/	-	N/A/38.1/37.42	32.31/32.91/32.74	-/+ / +	<i>L. mono</i>	NA _{FN(alt)}	5	a
2024	3112	Octopus marinade with peppers	/	/	-	N/A/N/A/N/A	33.22/33.77/33.55	-/-/-	<i>L. mono</i>	NA _{FN(alt)}	5	b
2024	3747	Whole cooked beetroot	<i>L. monocytogenes</i> Ad2598	2.6	-	N/A	34.79	-	<i>L. mono</i> (after Fraser)	NA _{FN(alt)}	5	b

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Table 51 – Positive deviations – LSBII protocols (6, 7 and 8)

Year of analysis	Sample N°	Product	Strain inoculated	Inoculation level CFU/test portion	Reference method: ISO 11290-1♦	Alternative method: iQ-Check <i>Listeria monocytogenes</i> II- LSB II 18 h at 37°C																		Category	Type
						PCR result												Confirmation	Agreement						
						Without FDRS						With FDRS							Without FDRS		With FDRS				
						CFX96 DW			CFX Opus DW			CFX96 DW			CFX Opus DW				CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW			
						FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result								
2023	3310	Salmon nuggets	/	/	-	40.95	32.74	+	38.57	33.24	+	39.77	33.13	+	39.02	33.44	+	<i>L. mono</i>	PD	PD	PD	PD	1	b	
2023	3469	Chicken wings	/	/	-	38.93	32.10	+	38.12	32.15	+	42.14	32.34	+	N/A 39.62 N/A	31.85 32.93 33.26	- + -	<i>L. mono</i>	PD	PD	PD	NA _{FN(alt)}	1	b	
2023	3472	RTRH (cheese and vegetable)	/	/	-	31.38	35.12	+	31.26	34.78	+	30.75	33.38	+	30.79	33.33	+	<i>L. mono</i>	PD	PD	PD	PD	1	b	
2023	3671	RTRH (Ham and cheese escalope)	/	/	<i>L. welshi</i>	37.98	32.89	+	38.11	32.21	+	37.99	32.58	+	39.15	32.89	+	<i>L. mono</i> <i>L. welsh</i>	PD	PD	PD	PD	1	b	
2023	3808	Onion tortilla	<i>Listeria monocytogenes</i> Ad1757 <i>Listeria seeligeri</i> Ad1780	0,8 1,6	-	27.10	33.34	+	27.09	33.46	+	26.41	33.55	+	26.13	32.76	+	<i>L. mono</i> <i>L. inno</i>	PD	PD	PD	PD	1	c	
2023	3761	Wipe after cleaning process	<i>Listeria innocua</i> Ad1251	3,0	<i>L. innoc</i>	37.33	32.39	+	37.22	32.50	+	36.76	32.57	+	38.48	32.78	+	<i>L. mono</i> <i>L. inno</i>	PD	PD	PD	PD	2	a	
2023	757	Wipe before cleaning process	/	/	<i>L. welshi</i>	28.86	31.68	+	32.00	33.01	+	28.86	31.68	+	32.12	33.30	+	<i>L. mono</i> <i>L. welsh</i>	PD	PD	PD	PD	2	a	
2023	759	Wastes (Trout)	/	/	-	33.32	33.05	+	33.86	33.21	+	33.32	33.05	+	33.81	33.92	+	<i>L. mono</i>	PD	PD	PD	PD	2	b	
2023	732	Process water	<i>Listeria monocytogenes</i> Ad615	5,6	-	34.25	33.19	+	32.56	32.92	+	32.10	33.13	+	33.30	31.86	+	<i>L. mono</i>	PD	PD	PD	PD	2	c	
2023	966	Process water	<i>Listeria monocytogenes</i> Ad243 <i>Listeria innocua</i> Ad1257	0,6 0,8	-	30.87	32.66	+	30.61	32.21	+	31.01	32.88	+	30.97	32.59	+	<i>L. mono</i>	PD	PD	PD	PD	2	c	
2023	1722	Raw cow milk	<i>L. monocytogenes</i> 17501	1,2	-	32,5	33,1	+	32,21	33,16	+	32,33	34,03	+	32,99	33,66	+	<i>L. mono</i>	PD	PD	PD	PD	3	b	
2023	1726	Raw goat milk	<i>L. monocytogenes</i> 909 <i>L. innocua</i> Ad1771	0,8 2,4	<i>L innoc</i>	29,48	32,36	+	30,13	32,55	+	29,74	32,39	+	30,77	32,59	+	<i>L. mono</i> <i>L inno</i>	PD	PD	PD	PD	3	b	
2023	1735	Raw goat milk cheese	<i>L. monocytogenes</i> 909 <i>L. welshimeri</i> Ad1667	0,8 0,8	<i>L welshi</i>	N/A 40,27 40,23	37,1 32,88 33,1	-/+	N/A N/A 39,18	37,9 32,77 32,41	-/-+	38,15	34,04	+	42,08	34,57	+	<i>L. mono</i>	NA _{FN(alt)}	NA _{FN(alt)}	PD	PD	3	a	
2023	2742	Raw cow milk cheese	/	/	-	32,65	34,49	+	32,94	35,85	+	33,23	36,21	+	32,86	35,06	+	<i>L. mono</i>	PD	PD	PD	PD	3	a	
2023	2828	Pasteurized cow cheese	<i>L. monocytogenes</i> Ad629 <i>L seeligeri</i> Ad674	1,0 0,8	<i>L grayi</i>	32,94	35,32	+	33,28	36,07	+	30,38	33,22	+	30,54	32,94	+	<i>L. mono</i>	PD	PD	PD	PD	3	c	
2023	2829	Pasteurized ewe cheese	<i>L. monocytogenes</i> Ad630 <i>L innocua</i> Ad661	0,6 0,2	-	38,38	32,87	+	38,3	33,09	+	38,52	32,81	+	39,22	32,99	+	<i>L. mono</i>	PD	PD	PD	PD	3	c	
2023	3543	Pasteurized ewe cheese	<i>L. monocytogenes</i> Ad630	5	-	33,13	32,94	+	33,01	32,71	+	33,37	32,74	+	33,09	32,65	+	<i>L. mono</i>	PD	PD	PD	PD	3	c	
2023	3701	Butter raw milk	<i>L. monocytogenes</i> Ad3119 <i>L. innocua</i>	0,4 0,6	-	31,41	33,78	+	31,32	34,33	+	31,14	33,86	+	31,04	33,46	+	<i>L.mono</i> <i>L. inno</i>	PD	PD	PD	PD	3	b	
2023	3702	Butter raw milk	<i>L. monocytogenes</i> Ad3119 <i>L. innocua</i>	0,4 0,6	<i>L innoc</i>	26,75	33,12	+	26,33	32,47	+	26,28	32,38	+	26,06	32,72	+	<i>L.mono</i> <i>L. inno</i>	PD	PD	PD	PD	3	b	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Year of analysis	Sample N°	Product	Strain inoculated	Inoculation level (CFU/test portion)	Reference method: ISO 11290-1♦	iQ-Check <i>Listeria</i> <i>Listeria monocytogenes</i>					Category	Type
						PCR result (CFX Opus-Without FDRS)			Confirmation result	Agreement		
						FAM Cq	I.C. Cq	Result				
2024	1283	Pork flank	/	/	-	35.01	32.73	+	<i>L. mono</i>	PD	4	a
2024	1923	Turkey escalope	/	/	-	37.88	32.54	+	<i>L. mono</i>	PD	4	a
2024	2786	Bourguignon and pasta	<i>Listeria monocytogenes</i> Ad1218	2.4	-	32.65	32.33	+	<i>L. mono</i>	PD	4	b
2024	1708	Pork rillettes	<i>Listeria monocytogenes</i> Ad267 <i>Listeria seeligeri</i> Ad1297	2.0 1.1	<i>L. seeligeri</i>	28.3	31.79	+	<i>L. mono</i> <i>L.seel</i>	PD	4	c
2024	2181	Cauliflower	/	/	-	32.81	33.18	+	<i>L. mono</i>	PD	5	a
2024	2860	Vegetables wok	/	/	-	31.9	32.15	+	<i>L. mono</i>	PD	5	a
2024	3735	Onions	<i>Listeria monocytogenes</i> Ad1238	1.8	-	32.82	33.43	+	<i>L. mono</i>	PD	5	a
2024	2191	Whitened potatoes	/	/	-	28.19	32.13	+	<i>L. mono</i> <i>L. inno</i>	PD	5	c
2024	2612	Mix of raw vegetables	<i>Listeria welshimeri</i> Ad3251 <i>Listeria monocytogenes</i> Ad1672	0.3/1.2	-	33.44	32.53	+	<i>L. mono</i>	PD	5	c
2024	3740	Vegetal balls	<i>Listeria monocytogenes</i> Ad1498	2.0	-	28.28	32.94	+	<i>L. mono</i>	PD	5	c
2024	3479	Trout steak	/	/	-	30.98	32.87	+	<i>L. mono</i>	PD	6	a
2024	2748	Squid with chorizo. marinated	<i>Listeria monocytogenes</i> Ad128	2.6	-	29.7	31.7	+	<i>L. mono</i>	PD	6	b

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

> **Negative deviations**

For all six categories tested, a total of 36 samples were found in negative deviations in at least one of the conditions. It concerns 24 artificially contaminated samples and 12 naturally contaminated samples. The presence of *Listeria monocytogenes* was confirmed in the enrichment broth for 11 samples ($ND_{FN(alt)} = 11$). For some samples with negative PCR results and positive confirmation results, several PCR tests were performed. In some cases, fractional positive results with late Cq values were obtained showing that the contamination level was just at the limit of detection of the method. Some samples were positive found after 72h storage.

> **Negative agreement with positive confirmation**

According to the ISO 16140-2, samples in negative agreement ($NA_{FN(alt)}$) were also confirmed by proceeding to a subculture in Fraser broth before streaking onto selective agar plates and the presence of *Listeria monocytogenes* strain was detected in the enriched LSB II broths for eight samples. Five of them are naturally contaminated samples. A repetition of the PCR allowed in some conditions to obtain fractional positive results indicating a growth close to the limit of detection of the method.

> **Positive deviations**

For all six categories tested, a total of 31 samples were found in positive deviations in at least one of the conditions. They concern 18 artificially contaminated samples and 13 naturally contaminated samples.

The analyses of discordant results according to the ISO 16140-2 for all the categories is the following (See Tables 52 to 55).

Table 52 - Analyses of discordant results CFX96 DW - Without FDRS

						Unpaired		
Category		Type		N+	TND	PD	TND-PD	AL
1	Composite foods	a	Ready-to-eat	8	3	0		
		b	Ready-to-reheat	13	0	4		
		c	Confectionaries, pastries and egg products	10	0	1		
		Total		31	3	5	-2	3
2	Production environmental samples	a	Surfaces samples	10	1	2		
		b	Dusts and wastes	10	1	1		
		c	Process water	10	2	2		
		Total		30	4	5	-1	3
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	10	3	1		
		b	Other raw milk-based products	10	1	4		
		c	Pasteurized milk-based products	11	6	3		
		Total		31	10	8	2	3
All categories				92	17	18	-1	5

Table 53 - Analyses of discordant results- CFX96 DW - With FDRS

						Unpaired		
Category		Type		N+	TND	PD	TND-PD	AL
1	Composite foods	a	Ready-to-eat	8	3	0		
		b	Ready-to-reheat	13	0	4		
		c	Confectionaries, pastries and egg products	10	0	1		
		Total		31	3	5	-2	3
2	Production environmental samples	a	Surfaces samples	10	2	2		
		b	Dusts and wastes	10	1	1		
		c	Process water	10	2	2		
		Total		30	5	5	0	3
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	11	2	2		
		b	Other raw milk-based products	10	1	4		
		c	Pasteurized milk-based products	11	6	3		
		Total		32	9	9	0	3
All categories				93	17	19	-2	5

Table 54 - Analyses of discordant results- CFX Opus DW - Without FDRS

						Unpaired		
Category		Type		N+	TND	PD	TND-PD	AL
1	Composite foods	a	Ready-to-eat	8	4	0		
		b	Ready-to-reheat	13	0	4		
		c	Confectionaries, pastries and egg products	10	0	1		
		Total		31	4	5	-1	3
2	Production environmental samples	a	Surfaces samples	10	1	2		
		b	Dusts and wastes	10	1	1		
		c	Process water	10	2	2		
		Total		30	4	5	-1	3
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	10	3	1		
		b	Other raw milk-based products	10	1	4		
		c	Pasteurized milk-based products	11	6	3		
		Total		31	10	8	2	3
4	Meat and poultry products	a	Raw products (fresh or frozen)	10	2	2		
		b	Meat based products ready to reheat	14	3	1		
		c	Raw and cooked delicatessen	8	2	1		
		Total		32	7	4	3	3
5	Vegetables	a	Raw vegetables products (fresh)	13	2	3		
		b	Precooked (RTC), under atmosphere and frozen	12	3	0		
		c	RTE, RTRH	9	1	3		
		Total		34	6	6	0	3
6	Fishery and seafood products	a	Raw products	11	3	1		
		b	Smoked, marinated products	10	1	1		
		c	Processed products	9	1	0		
		Total		30	5	2	3	3
All categories				188	36	30	6	6

Table 55 - Analyses of discordant results- CFX Opus DW - With FDRS

						Unpaired		
Category		Type		N+	TND	PD	TND-PD	AL
1	Composite foods	a	Ready-to-eat	8	4	0		
		b	Ready-to-reheat	12	0	3		
		c	Confectionaries, pastries and egg products	10	0	1		
		Total		30	4	4	0	3
2	Production environmental samples	a	Surfaces samples	10	1	2		
		b	Dusts and wastes	10	1	1		
		c	Process water	10	2	2		
		Total		30	4	5	-1	3
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	11	3	2		
		b	Other raw milk-based products	10	1	4		
		c	Pasteurized milk-based products	11	6	3		
		Total		32	10	9	1	3
All categories				92	18	18	0	6

The observed values for TND - PD meet the acceptability limit for the six individual categories tested as well as for the combined categories (calculated values equal to AL).

3.2.1.7 Enrichment broth storage at 5 ± 3 °C for 24 h or 72 h

221 enriched samples were tested again after storage of the enriched LSB II broths for 72h at $5^{\circ}\text{C} \pm 3^{\circ}\text{C}$ with both extraction protocol and thermocyclers
The following changes were observed (see Table 56).

Table 56 - Enrichment broth storage

Sample N°	Product	Alternative method : iQ-Check <i>Listeria monocytogenes</i> II								Category	Type
		LSB II 18h at 37°C				LSB II 18h at 37°C + 72 h at 5°C					
		Agreement				Agreement					
		Without FDRS		With FDRS		Without FDRS		With FDRS			
		CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW		
3305	RTE (Sandwich cheese and ham)	PA	ND _{FN(alt)}	PA	ND _{FN(alt)}	PA	PA	PA	PA	1	a
3670	RTE (Sandwich ham and cheese)	NA _{FN(alt)}	NA _{FN(alt)}	NA _{FN(alt)}	NA _{FN(alt)}	PD	PD	PD	PD	1	a
3469	Chicken wings	PD	PD	PD	NA _{FN(alt)}	PD	PD	PD	PD	1	b
3308	Salmon nuggets	PA	PA	PA	PA	PA	PA	ND _{FN(alt)}	ND _{FN(alt)}	1	b
822	Wipe before cleaning process	PA	PA	ND _{FN(alt)}	PA	PA	PA	PA	PA	2	a
1732	Raw ewe milk cheese	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	PA	PA	ND _{FN(alt)}	ND _{FN(alt)}	3	a
1733	Raw goat milk cheese	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	PA	PA	PA	PA	3	a
1735	Raw goat milk cheese	NA _{FN(alt)}	NA _{FN(alt)}	PD	PD	PD	PD	PD	PD	3	a
2752	Raw goat milk cheese	PA	PA	PA	ND _{FN(alt)}	PA	PA	PA	PA	3	a
2753	Raw goat milk cheese	ND _{FN(alt)}	ND _{FN(alt)}	PA	PA	PA	PA	PA	PA	3	a
3545	Pasteurized cow cheese	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	PA	PA	PA	PA	3	c
1278	Ground beef	/	ND _{FN(alt)}	/	/	/	PA	/	/	4	a
1699	Turkey escalope	/	PA	/	/	/	ND _{FN(alt)}	/	/	4	a
2660	Sliced beef, potatoes and pepper sauce	/	NA _{FN(alt)}	/	/	/	PD	/	/	4	b
1927	Sausage	/	NA _{FN(alt)}	/	/	/	PD	/	/	4	c
3127	Parisian stir-fry	/	NA	/	/	/	PD	/	/	5	b
3498	Vegetable falafels with coriander and mint	/	PA	/	/	/	ND	/	/	5	c
3747	Whole cooked beetroot	/	NA _{FN(alt)}	/	/	/	PD	/	/	5	c
1934	Raw salmon	/	ND _{FN(alt)}	/	/	/	PA	/	/	6	a
2937	Salmon paupiettes		NA _{FN(alt)}	/	/	/	PD	/	/	6	a

The analyses of discordant results become (See Tables 57 to 60).

**Table 57 - Analysis of discordant results after storage for 72 h at 5 ± 3°C-
CFX96 DW - Without FDRS**

							Unpaired	
Category		Type		N+	TND	PD	TND-PD	AL
1	Composite foods	a	Ready-to-eat	8	3	1		
		b	Ready-to-reheat	13	0	4		
		c	Confectionaries, pastries and egg products	10	0	1		
		Total		31	3	6	-3	3
2	Production environmental samples	a	Surfaces samples	10	1	2		
		b	Dusts and wastes	10	1	1		
		c	Process water	10	2	2		
		Total		30	4	5	-1	3
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	10	0	2		
		b	Other raw milk-based products	10	1	4		
		c	Pasteurized milk-based products	11	5	3		
		Total		31	6	9	-3	3
All categories				92	13	20	-7	5

**Table 58 - Analysis of discordant results after storage for 72 h at 5 ± 3°C-
CFX96 DW - With FDRS**

							Unpaired	
Category		Type		N+	TND	PD	TND-PD	AL
1	Composite foods	a	Ready-to-eat	8	3	1		
		b	Ready-to-reheat	13	1	4		
		c	Confectionaries, pastries and egg products	10	0	1		
		Total		31	4	6	-2	3
2	Production environmental samples	a	Surfaces samples	10	1	2		
		b	Dusts and wastes	10	1	1		
		c	Process water	10	2	2		
		Total		30	4	5	-1	3
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	10	1	2		
		b	Other raw milk-based products	10	1	4		
		c	Pasteurized milk-based products	11	5	3		
		Total		31	7	9	-2	3
All categories				92	15	20	-5	5

Table 59 - Analysis of discordant results after storage for 72 h at 5 ± 3°C-
CFX Opus DW - Without FDRS

							Unpaired	
Category		Type		N+	TND	PD	TND-PD	AL
1	Composite foods	a	Ready-to-eat	9	3	1		
		b	Ready-to-reheat	13	0	4		
		c	Confectionaries, pastries and egg products	10	0	1		
		Total		32	3	6	-3	3
2	Production environmental samples	a	Surfaces samples	10	1	2		
		b	Dusts and wastes	10	1	1		
		c	Process water	10	2	2		
		Total		30	4	5	-1	3
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	11	0	2		
		b	Other raw milk-based products	10	1	4		
		c	Pasteurized milk-based products	11	5	3		
		Total		32	6	9	-3	3
4	Meat and poultry products	a	Raw products (fresh or frozen)	11	2	2		
		b	Meat based products ready to reheat	15	3	2		
		c	Raw and cooked delicatessen	9	2	2		
		Total		35	7	6	1	3
5	Vegetables	a	Raw vegetables products (fresh)	12	2	3		
		b	Precooked (RTC), under atmosphere and frozen	13	3	1		
		c	RTE, RTRH	10	2	4		
		Total		35	7	8	-1	3
6	Fishery and seafood products	a	Raw products	12	2	2		
		b	Smoked, marinated products	10	1	1		
		c	Processed products	9	1	0		
		Total		31	4	3	1	3
All categories				129	20	26	-6	6

Table 60 - Analysis of discordant results after storage for 72 h at 5 ± 3°C-
CFX Opus DW - With FDRS

						Unpaired		
Category		Type		N+	TND	PD	TND-PD	AL
1	Composite foods	a	Ready-to-eat	9	3	1		
		b	Ready-to-reheat	13	1	4		
		c	Confectionaries, pastries and egg products	10	0	1		
		Total		32	4	6	-2	3
2	Production environmental samples	a	Surfaces samples	10	1	2		
		b	Dusts and wastes	10	1	1		
		c	Process water	10	2	2		
		Total		30	4	5	-1	3
3	Dairy products	a	Raw milk cheeses (cow, goat, ewe)	11	1	2		
		b	Other raw milk-based products	10	1	4		
		c	Pasteurized milk-based products	11	5	3		
		Total		32	7	9	-2	3
All categories				94	15	20	-5	5

The observed values for TND - PD meet the acceptability limit for the four individual categories tested as well as for the combined categories (calculated values below the AL). Thus, the enriched LSB II broths can be kept at $5 \pm 3^{\circ}\text{C}$ for 72 h.

3.2.1.8 Confirmation

it was impossible to confirm the presence of *Listeria monocytogenes* in the enrichment broth after incubation time for 7 samples. The samples concerned, as well as the PCR results observed are given in Table 61. For one of those samples, the PCR test was still positive after 72 h storage of the enrichment broth (3482).

When evaluated, the percentage of false positives decreases with the addition of FDRS treatment. The presence of unconfirmed positives is therefore probably due to the presence of free DNA in the sample.

Among the 147 confirmed positives results by the alternative method, all were confirmed by direct streaking with typical *Listeria monocytogenes* colonies observed for 139 samples on RAPID'L.mono plates and 144 samples on AL plates.

Table 61 - Number of samples unconfirmed by cultural methods

Year of analysis	Sample N°	Product	Reference method : ISO 11290-1 [♦]	Alternative method: iQ-Check <i>Listeria monocytogenes</i> II- LSB II 18 h at 37°C																Category	Type	
				PCR result												Confirmation	Agreement					
				Without FDRS						With FDRS							Without FDRS		With FDRS			
				CXF 96 DW			CFX Opus DW			CFX96 DW			CFX Opus DW				CFX96 DW	CFX Opus DW	CFX96 DW			CFX Opus DW
				FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result		FAM Cq	I.C. Cq	Result			CFX96 DW
2023	3317	RTH (Puff ham, cheese)	<i>L. innoc</i>	35.31 N/A N/A	34.80 34.03 33.86	+ - -	N/A	34.30	-	N/A	34.78	-	N/A	34.32	-	<i>L. innocua</i>	PD _{FP(alt)}	NA	NA	NA	1	b
2023	3300	RTRH (Paella)	-	N/A	33.11	-	31.32 N/A N/A	33.74 33.39 32.90	+ - -	N/A	33.09	-	N/A	33.13	-	<i>L. innocua</i>	NA	PD _{FP(alt)}	NA	NA	1	b
2023	733	Rinsing water	<i>L. mono</i>	N/A	33.35	-	32.01 N/A N/A	32.27 35.20 35.04	+ - -	N/A	33.04	-	N/A	32.12	-	-	ND	PA _{FP(alt)}	ND	ND	2	c

Year of analysis	Sample N°	Product	Reference method: ISO 11290-1♦	iQ-Check <i>Listeria monocytogenes</i>											Category	Type	
				After incubation						After storage							
				PCR result (CFX Opus- Without FDRS)			Confirmation result	Agreement	PCR result (CFX Opus- Without FDRS)			Confirmation result	Agreement				
				Cq target	Cq CI	Result			Cq target	Cq CI	Result						
2024	1705	Beef with wine	<i>L. mono</i> <i>L. welshi</i>	40.42/ N/A/ N/A	33.11/ 33.19/ 33.01	+/-/-	-	PA _{FP(alt)}	N/A	32.98	-	-	ND	4	b		
2024	2605	Cabbage	-	40.67/ 41.01/ 38.6	32.39/ 33.16/ 33.27	+ /+ /+	-	PD _{FP(alt)}	N/A	32.82	-	-	NA	5	a		
2024	2608	Cauliflower	-	37.37/ 39.45/ 37.17	32.19/ 32.93/ 33.2	+ /+ /+	-	PD _{FP(alt)}	N/A	32.54	-	-	NA	5	a		
2024	3482	Mackerel rillettes	-	39.62/ N/A/ N/A	33.35/ 33.97/ 33.47	+/-/-	-	PD _{FP(alt)}	39,62	33,35	+	-	PD _{FP(alt)}	6	c		

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

3.2.1.9 *PCR inhibition*

For the extension on LSBII, a total of 1598 PCR test have been performed considering the assay performed with and without applying the FDRS protocol, the two thermocyclers and the analysis before and after storage. A total of 13 PCR inhibitions (0.8%) were observed and concerns only 4 samples (see Table 62). A 1/10 dilution in sterile water allowed to obtain a result.

Table 62 - Samples with PCR inhibitions

Year of analysis	Sample N°	Product	Incubation time	Without FDRS						With DFRS						Category	Type
				CFX96 DW			CFX Opus DW			CFX96 DW			CFX Opus DW				
				FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result		
2023	118	Chocolate mousse	18 h	N/A N/A*	N/A 33.00	i -*	N/A N/A*	N/A 32.35	i -*	N/A N/A*	N/A 32.81	i -*	N/A N/A*	N/A 33.29	i -*	1	c
2023	725	Wastes (Meat)	18 h + 72 h	N/A 34.46	N/A 33.33	i +*	N/A 33.63	N/A 33.04	i +*	N/A 39.20	N/A 38.04	i +*	N/A 36.41	N/A 34.39	i +*	2	b
2023	1729	Raw cow milk cheese	20 h	N/A	33.37	-	N/A N/A*	N/A 32.99*	i -*	N/A	34.27	-	N/A	33.12	-	3	a
2023	2747	Raw goat milk cheese	20 h	N/A N/A*	N/A 33.21*	i -*	N/A N/A*	N/A 32.89*	i -*	N/A N/A*	N/A 33.48*	i -*	N/A N/A*	N/A 32.95*	i -*	3	a

* Testing after 1/10 dilution of the extract

3.2.2 Relative level of detection

The relative level of detection is the level of detection at $P = 0.50$ (LOD_{50}) of the alternative (proprietary) method divided by the level of detection at $P = 0.50$ (LOD_{50}) of the reference method.

The RLOD is defined as the ratio of the alternative and reference methods:

$$RLOD = \frac{LOD_{Alt.}}{LOD_{Ref.}}$$

The relative detection level is the smallest number of culturable micro-organisms that can be detected in the sample in 50% of occasions by the alternative and reference methods.

3.2.2.1 Experimental design

Six matrix/strain pairs were tested for the extension study using the following protocol:

- A negative control: 5 samples,
- A low contamination level providing fractional recovery data, with 20 replicates,
- A high contamination level, with 5 replicates.

A total plate count was performed to estimate the total microbial load on the day of analysis.

The extraction was performed using the Easy II protocol with and without the FDRS step. Two PCR instruments were tested: CFX 96 Deep Well and CFX Opus Deep Well.

The matrix/strain pairs tested are listed in Table 63.

Table 63 - Defined (matrix/strain) pairs for the RLOD determination

Category		Matrix	Strain	Origin	Inoculation and storage condition
1	Composite food	Deli salad: piémontaise	<i>Listeria monocytogenes</i> Ad1719	Vegetables mix	48-72 h at 3°C ± 2°C
2	Production environmental samples	Process water	<i>Listeria monocytogenes</i> Ad2503	Environment from vegetables production site	48-72 h at 3°C ± 2°C
3	Dairy products	Raw cow milk	<i>Listeria monocytogenes</i> Ad2858	Raw milk	48-72 h at 3°C ± 2°C
4	Meat and poultry products	Pâté (Rillettes)	<i>Listeria monocytogenes</i> Ad669	Rillettes	Seeding protocol Storage 48h at 2-8°C
5	Vegetables	Fresh mixed vegetable salad	<i>Listeria monocytogenes</i> Ad532	Fruits	Seeding protocol Storage 48h at 2-8°C
6	Fishery and seafood products	Smoked salmon	<i>Listeria monocytogenes</i> Ad670	Smoked salmon	Seeding protocol Storage 48h at 2-8°C

3.2.2.2 Calculation and interpretation of the RLOD

The raw data are given in **Appendix 9**.

The RLOD calculations were performed using the Excel spreadsheet available at <http://standards.iso.org/iso/16140> - RLOD version 4 (2024-01-10). The RLOD are given in Table 15.

The RLOD are given in Tables 64 to 67.

**Table 64 – Presentation of RLOD before and after confirmation
of the alternative method results - CFX96 DW- Without FDRS**

Category	Matrix / strain pair	AL	RLOD [95% confidence limit]
1	Deli salad / <i>Listeria monocytogenes</i> Ad1719	2.5	0.531 [0.244; 1.157]
2	Process water / <i>Listeria monocytogenes</i> Ad2503		1.861 [0.892; 3.882]
3	Raw milk / <i>Listeria monocytogenes</i> Ad2858		1.371 [0.670; 2.804]
Combined			1.118 [1.118; 0.734]

**Table 65 – Presentation of RLOD before and after confirmation
of the alternative method results - CFX96 DW- With FDRS**

Category	Matrix / strain pair	AL	RLOD [95% confidence limit]
1	Deli salad / <i>Listeria monocytogenes</i> Ad1719	2.5	0.531 [0.244; 1.157]
2	Process water / <i>Listeria monocytogenes</i> Ad2503		2.076 [0.980; 4.398]
3	Raw milk / <i>Listeria monocytogenes</i> Ad2858		1.104 [0.551; 2.213]
Combined			1.075 [0.707; 1.635]

**Table 66 – Presentation of RLOD before and after confirmation
of the alternative method results - CFX Opus DW- Without FDRS**

Category	Matrix / strain pair	AL	RLOD [95% confidence limit]
1	Deli salad / <i>Listeria monocytogenes</i> Ad1719	2.5	0.531 [0.244; 1.157]
2	Process water / <i>Listeria monocytogenes</i> Ad2503		1.861 [0.892; 3.882]
3	Raw milk / <i>Listeria monocytogenes</i> Ad2858		1.126 [0.561; 2.261]
4	Rillettes / <i>Listeria monocytogenes</i> Ad669		1.104 [0.551; 2.213]
5	Fresh mixed vegetable salad / <i>Listeria monocytogenes</i> Ad532		1.121 [0.486; 2.586]
6	Smoked Salmon / <i>Listeria monocytogenes</i> Ad670		1.743 [0.771; 3.941]
Combined			1.151 [0.850; 1.580]

**Table 67 – Presentation of RLOD before and after confirmation
of the alternative method results - CFX Opus DW- With FDRS**

Category	Matrix / strain pair	AL	RLOD [95% confidence limit]
1	Deli salad / <i>Listeria monocytogenes</i> Ad1719	2.5	0.531 [0.244; 1.157]
2	Process water / <i>Listeria monocytogenes</i> Ad2503		2.076 [0.980; 4.398]
3	Raw milk / <i>Listeria monocytogenes</i> Ad2858		1.126 [0.561; 2.261]
Combined			1.082 [0.711; 1.645]

The LOD₅₀ calculations were done using the Excel spreadsheet available at <http://standards.iso.org/iso/16140> POD-LOD calculation program - version 12, 2024-03-05. The tests are given in Table 68.

Table 68 – LOD₅₀ results

Category		Food item	Strain	Level of detection at 50% (CFU / sample size) according to Wilrich & Wilrich ⁶				
				Reference method	Alternative method			
					CFX96 DW		CFX Opus DW	
				Without FDRS	With FDRS	Without FDRS	With FDRS	
1	Composite foods	Piemontaise	<i>Listeria monocytogenes</i> Ad1719	0.9 [0.5 ; 1.7]	0.4 [0.3; 0.8]	0.4 [0.3; 0.8]	0.4 [0.3; 0.8]	0.4 [0.3; 0.8]
2	Production environmental samples	Process water	<i>Listeria monocytogenes</i> Ad2503	0.5 [0.3; 0.8]	1.1 [0.6; 2.0]	1.2 [0.7; 2.3]	1.1 [0.6; 2.0]	1.2 [0.7; 2.3]
3	Dairy products	Raw milk	<i>Listeria monocytogenes</i> Ad2858	0.6 [0.4; 1.1]	0.8 [0.5; 1.5]	0.7 [0.4; 1.3]	0.9 [0.5; 1.6]	0.9 [0.5; 1.6]
4	Meat and poultry products	Rillettes	<i>Listeria monocytogenes</i> Ad669	0.5 [0.3; 0.9]	/	/	0.6 [0.3; 1.0]	/
5	Vegetables	Fresh mixed vegetable salad	<i>Listeria monocytogenes</i> Ad532	0.8 [0.4; 1.6]	/	/	0.9 [0.5; 1.8]	/
6	Fishery and seafood products	Smoked salmon	<i>Listeria monocytogenes</i> Ad670	0.7 [0.4; 1.3]	/	/	1.4 [0.7; 2.6]	/
Combined				0.7 [0.5; 0.8]	0.8 [0.5; 1.1]	0.8 [0.5; 1.1]	0.8 [0.7; 1.1]	0.8 [0.6; 1.1]

Note: the LOD₅₀ have been recalculated according to the most recent spreadsheet available on the ISO website. No change was observed with the previous values.

3.2.3 Conclusion

The RLOD values (using the confirmed alternative method results) meet the acceptability limit fixed at 2.5 for unpaired studies, for all matrix/strain pairs tested.

The combined LOD₅₀ is 0.7 CFU/test portion for the reference method and 0.8 CFU/test portion for the alternative method (without FDRS, using the CFX Opus Deep Well).

⁶ Wilrich, C., and P.-Th. Wilrich: Estimation of the POD function and the LOD of a qualitative microbiological measurement method. AOAC International **92** (2009) 1763 - 1772.

4 INTER-LABORATORY STUDY

4.1 Study organization

The inter-laboratory study was performed in April 2004 according to the ISO 16140:2003 standard.

The participating laboratories carried out the analysis according to the method iQ-Check *Listeria monocytogenes* (protocol 1: half-Fraser broth and Standard II lysis) and the reference method (ISO 6579).

The interlaboratory study was carried out by the expert laboratory and 15 collaborators.

Pasteurised milk inoculated with of a *Listeria monocytogenes* strain isolated from "raw milk cheese" was used for the interlaboratory study. The natural flora present in the matrix was around 41 CFU/mL.

24 samples per laboratory were prepared. divided into 3 levels. with 8 samples per level.

Due to the conditions of transport and organization, 14 laboratories were able to carry out the analyses.

4.2 Experimental parameter controls

The levels of contamination obtained are shown in the Table 69:

Table 69 - Target level. real level and total viable count of the matrix

Matrix	Total viable count (UFC/g)	Target level (cells / 25 g)	Real level (cells / 25 g)
Pasteurized milk	41	0	0
		3	4.4
		30	42.4

4.3 Result analysis

4.3.1 Expert laboratory results

The results obtained by the expert laboratory are given in Table 70.

Table 70 – Results obtained by the expert Lab.

Level	Reference method	Alternative method
L0	0/8	0/8
L1	8/8	8/8
L2	8/8	8/8

Sample 19 (Level 0) gave a positive PCR test with a higher Ct value than the inoculated samples (37.2), a second test was performed, and a negative result was obtained. The presence of *Listeria monocytogenes* was not confirmed in the enrichment broth for this sample.

All the spiked samples gave a positive result by both methods.

4.3.2 Results observed by the collaborative laboratories

Positive results obtained after confirmation by the reference method and the alternative method are presented in Tables 71 and 72 respectively.

Table 71 - Reference method positive results for all laboratories

Collaborators	Contamination level		
	L0	L1	L2
A	0	8	8
B	0	8	8
C	0	8	8
D	0	8	8
E	0	8	8
F	0	8	8
G	0	8	8
H	0	8	8
I	0	8	8
J	0	8	8
K	0	8	8
L	0	8	8
M	1	7	8
N	0	8	8
Total	P₀ = 1	P₁ =111	P₂ =112

Table 72 - Alternative method positive results for all laboratories

Collaborators	Contamination level								
	L0			L1			L2		
	PCR result	Confirmation result	Final result	PCR result	Confirmation result	Final result	PCR result	Confirmation result	Final result
A	1	0	0	8	8	8	8	8	8
B	0	0	0	8	8	8	8	8	8
C	0	0	0	8	8	8	8	8	8
D	0	0	0	8	8	8	8	8	8
E	0	0	0	7	8	7	8	8	8
F	1	0	0	8	8	8	8	8	8
G	0	0	0	8	8	8	8	8	8
H	0	0	0	8	8	8	8	8	8
I	0	0	0	8	8	8	8	8	8
J	0	/	0	8	8	8	8	8	8
K	0	0	0	8	8	8	8	8	8
L	1	0	0	8	8	8	8	8	8
M	1	1	1	7	7	7	8	8	8
N	2	0	0	8	8	8	8	8	8
Total	P₀=6	C₀=1	CP₀=1	P₁=110	C₁=111	CP₁=110	P₂=112	C₂=112	CP₂=112

One positive PCR result was observed on unspiked samples for collaborators A, F, and L, and two positive PCR results for collaborator N. For Lab M, one confirmed positive unspiked sample (N°10) was found positive by both methods.

According to the AFNOR technical rules, it is possible to include the results from a collaborator with maximum one presumptive positive or confirmed positive sample at level 0.

This means that the results from collaborator N need to be removed for interpretation.

Lab E found one negative PCR result for Level 1 (sample N°2), the presence of *Listeria monocytogenes* was confirmed in the enrichment broth by the tests of the reference method. The DNA extract was tested again, and a positive result was observed (Ct 21.2).

Lab M found a negative result for sample N°8 (Level 1) by both methods.

An inversion with sample N°10 is possible for this lab.

4.3.3 Results of the collaborators retained for interpretation

The results obtained with the 13 labs kept for interpretation are presented in Table 73 (reference method) and Table 74 (alternative method).

Table 73 - Positive results by the reference method (Without Lab N)

Collaborators	Contamination level		
	L0	L1	L2
A	0	8	8
B	0	8	8
C	0	8	8
D	0	8	8
E	0	8	8
F	0	8	8
G	0	8	8
H	0	8	8
I	0	8	8
J	0	8	8
K	0	8	8
L	0	8	8
M	1	7	8
Total	P₀ = 1	P₁ = 103	P₂ = 104

**Table 74 - Positive results (before and after confirmation)
by the alternative method (Without Lab N)**

Collaborators	Contamination level								
	L0			L1			L2		
	PCR result	Confirmation result	Final result	PCR result	Confirmation result	Final result	PCR result	Confirmation result	Final result
A	1	0	0	8	8	8	8	8	8
B	0	0	0	8	8	8	8	8	8
C	0	0	0	8	8	8	8	8	8
D	0	0	0	8	8	8	8	8	8
E	0	0	0	7	8	7	8	8	8
F	1	0	0	8	8	8	8	8	8
G	0	0	0	8	8	8	8	8	8
H	0	0	0	8	8	8	8	8	8
I	0	0	0	8	8	8	8	8	8
J	0	/	0	8	8	8	8	8	8
K	0	0	0	8	8	8	8	8	8
L	1	0	0	8	8	8	8	8	8
M	1	1	1	7	7	7	8	8	8
Total	P₀=4	C₀=1	CP₀=1	P₁=102	C₁=103	CP₁=102	P₂=104	C₂=104	CP₂= 104

4.4 Calculation and interpretation

4.4.1 Calculation of the specificity percentage (SP)

The percentage specificities (SP) of the reference method and of the alternative method, using the data after confirmation, based on the results of level L0 are the following (See Table 75).

Table 75 - Percentage specificity

Specificity for the reference method	$SP_{ref} = \left(1 - \left(\frac{P_0}{N_-}\right)\right) \times 100 \% =$	99.1 %
Specificity for the alternative method	$SP_{alt} = \left(1 - \left(\frac{CP_0}{N_-}\right)\right) \times 100 \% =$	99.1 %

N: number of all L0 tests

P_0 = total number of false-positive results obtained with the blank samples before confirmation

CP_0 = total number of false-positive results obtained with the blank samples

4.4.2 Calculation of the sensitivity (SE_{alt}), the sensitivity for the reference method (SE_{ref}), the relative trueness (RT), the false positive ratio for the alternative method (FPR) and the false negative ratio for the alternative method (FNR)

In this study, the fractional recovery criteria were not met (between 25 to 75% of positive results to be considered fractional). However, in the absence of other alternative, the level 1 was retained for calculation.

A summary of the results of the collaborators retained for interpretation and obtained with the reference and the alternative methods for Level 1 is provided in Table 76.

Table 76 - Summary of the obtained results with the reference method and the alternative method for Level 1

Level	Response	Reference method positive (R+)	Reference method negative (R-)
1	Alternative method positive (A+)	Positive agreement (A+/R+) PA = 110	Positive deviation (R-/A+) PD = 0
	Alternative method negative (A-)	Negative deviation (A-/R+) TND = 1 (0 ND_{FN(alt)}; 0 PA_{FP(alt)})	Negative agreement (A-/R-) TNA = 1 (0 NA_{FN(alt)}; 0 PD_{FP(alt)})

Based on the data summarized in Table 76, the values of sensitivity of the alternative and reference methods, as well as the relative trueness, false positive ratio, false negative ratio for the alternative method taking account the confirmations, are the following (See Table 77).

Table 77 - Sensitivity, relative trueness and false positive ratio percentages and false negative ratio

		Level 1
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} \times 100 \%$	99.1%
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} \times 100 \%$	100%
Relative trueness	$RT = \frac{(PA + TNA)}{N} \times 100 \%$	99.1%
False positive ratio for the alternative method	$FPR = \frac{PD_{FP(alt)}}{TNA} \times 100 \%$	0.0%
False negative ratio for the alternative method	$FNR = \frac{ND_{FN(alt)}}{PA + TND + PD}$	0.000

4.4.3 Interpretation of trueness data

For a **paired study design**, the difference between (ND – PD) and the addition (ND + PD) are calculated for the level(s) where fractional recovery is obtained (L_1). The observed value found for (ND – PD) and (ND + PD) shall not be higher than the AL.

For 13 Labs, the calculated values and the acceptability limits are the following:

Table 78 – Calculations

	Calculated values	AL	Conclusion
TND - PD	1	4	TND-PD<AL
TND + PD	1	5	TND+PD<AL

Despite the absence of fractional recovery level, the data are considered valid as the ISO 16140-2 and ISO 16140-2/A1 requirements are fulfilled (TND - PD and TND + PD meet the acceptability limits).

4.4.4 Evaluation of the $LOD_{50\%}$ and RLOD between laboratories

The LOD_{50} , was calculated using the Excel spreadsheet available at https://standards.iso.org/iso/16140/-2/ed-1/en/amd/1/PODLOD-interlab_ver2.xlsm. The RLOD is defined as the ratio of the LODs of the alternative method and the reference method: **RLOD = LOD_{alt}/LOD_{ref}** .

The results are given in Table 79.

Table 79 - LOD_{50%} and RLOD

Method	LOD 50%	RLOD
Reference	Every inoculated sample is positive except for Lab M, calculation is impossible	Value not available as there is no result for the reference method
Alternative	0.67 [0.43;1.03]	

5 CONCLUSION

The **method comparison study conclusions** are:

For the initial validation study and extension/renewal studies – Half-Fraser and LSB protocol

- ☒ The study scheme corresponds to PAIRED STUDY design for protocol 1 and to an UNPAIRED STUDY design for protocols 2, 3, 4 and 5.
- ☒ In the sensitivity study, 6 categories were tested: 5 food categories and environmental samples. The TND – PD (paired and unpaired study) and TND+ PD (paired study) meet the acceptability limits (AL) whatever the category and protocol tested.
- ☒ The Relative Levels of Detection (RLOD) are all below the AL fixed at 1, 5 for the paired data study and at 2.5 for the unpaired data study for all the protocols tested.
- ☒ The inclusivity and exclusivity testing gave the expected results whatever the protocol tested.
- ☒ It is possible to store the primary enrichment broth for 72 h at $5 \pm 3^{\circ}\text{C}$.
- ☒ The alternative method fulfils all the ISO 16140-2, the ISO 16140-2/A1 and AFNOR technical rules.

For the extension studies for the use of LSB II medium (2023 and 2024)

- ☒ The extension study scheme corresponds to an UNPAIRED study design as the alternative and reference methods have different enrichment procedure.
- ☒ In the sensitivity study, 6 categories were tested using the LSBII broth: five food category and the production environmental samples.
- ☒ The calculated values for TND - PD meet the acceptability limits (AL) for each of the individual category, and as well for the 6 combined categories for the protocol tested without FDRS, CFX Opus Deep Well.
- ☒ It is possible to store the LSB II enriched samples for 72 h at 5°C± 3°C before proceeding to PCR test and confirmation.
- ☒ The Relative Levels of Detection (RLOD) are all below the AL fixed at 2.5 for the unpaired data study whatever the matrix/strain pairs.
- ☒ The alternative method fulfils all the ISO 16140-2, the ISO 16140-2/A1 and AFNOR technical rules.

The **inter-laboratory study conclusions** are:

- ☒ Despite the absence of fractional recovery level, the data and interpretations comply with the ISO 16140-2 and ISO 16140-2/A1 requirements. **The iQ-Check *Listeria monocytogenes* II is considered equivalent to the ISO standard.**

Quimper, 08 September 2025

Lizaïg GOUGUET

Study Engineer

Method performance in food microbiology

Astrid CARIOU

Manager

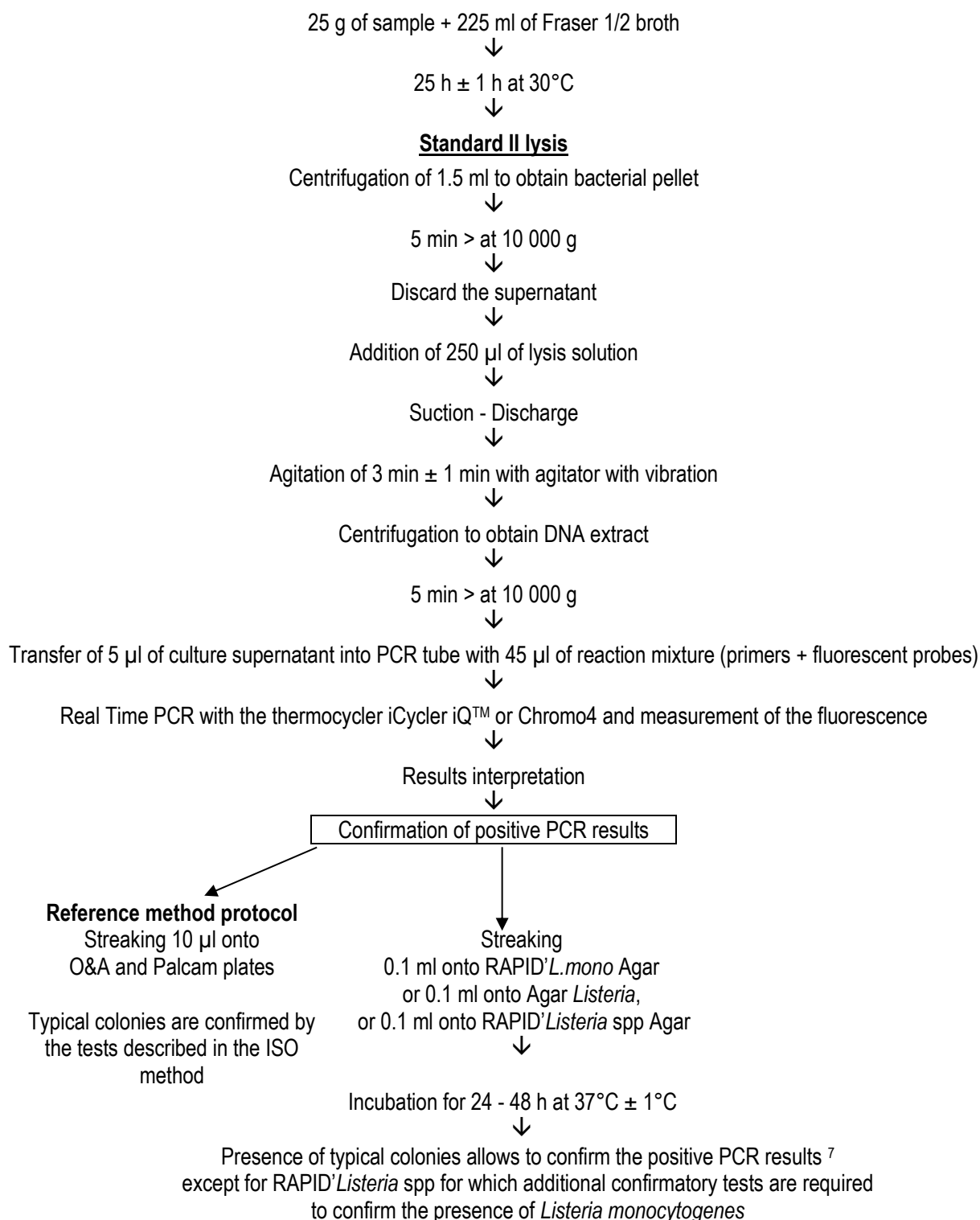
Method performance in food microbiology

I hereby attest to the validation of the results of the analyses carried out under the COFRAC accreditation.

I hereby attest to the validation of the verification of the conformity of the report (opinion and interpretation).

**Appendix 1 – Flow diagram of the alternative method:
iQ-Check *Listeria monocytogenes***

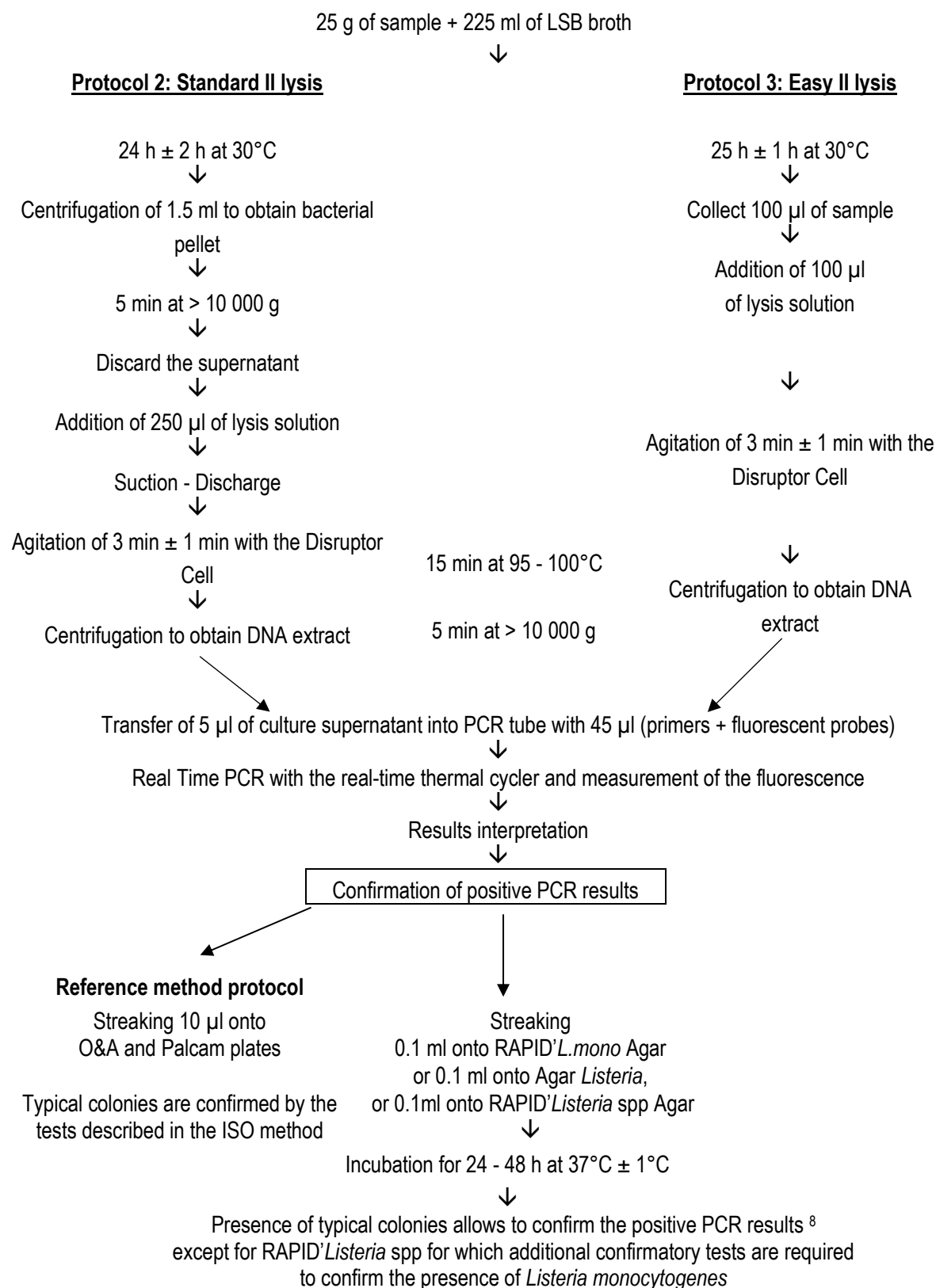
Initial validation - Protocol 1



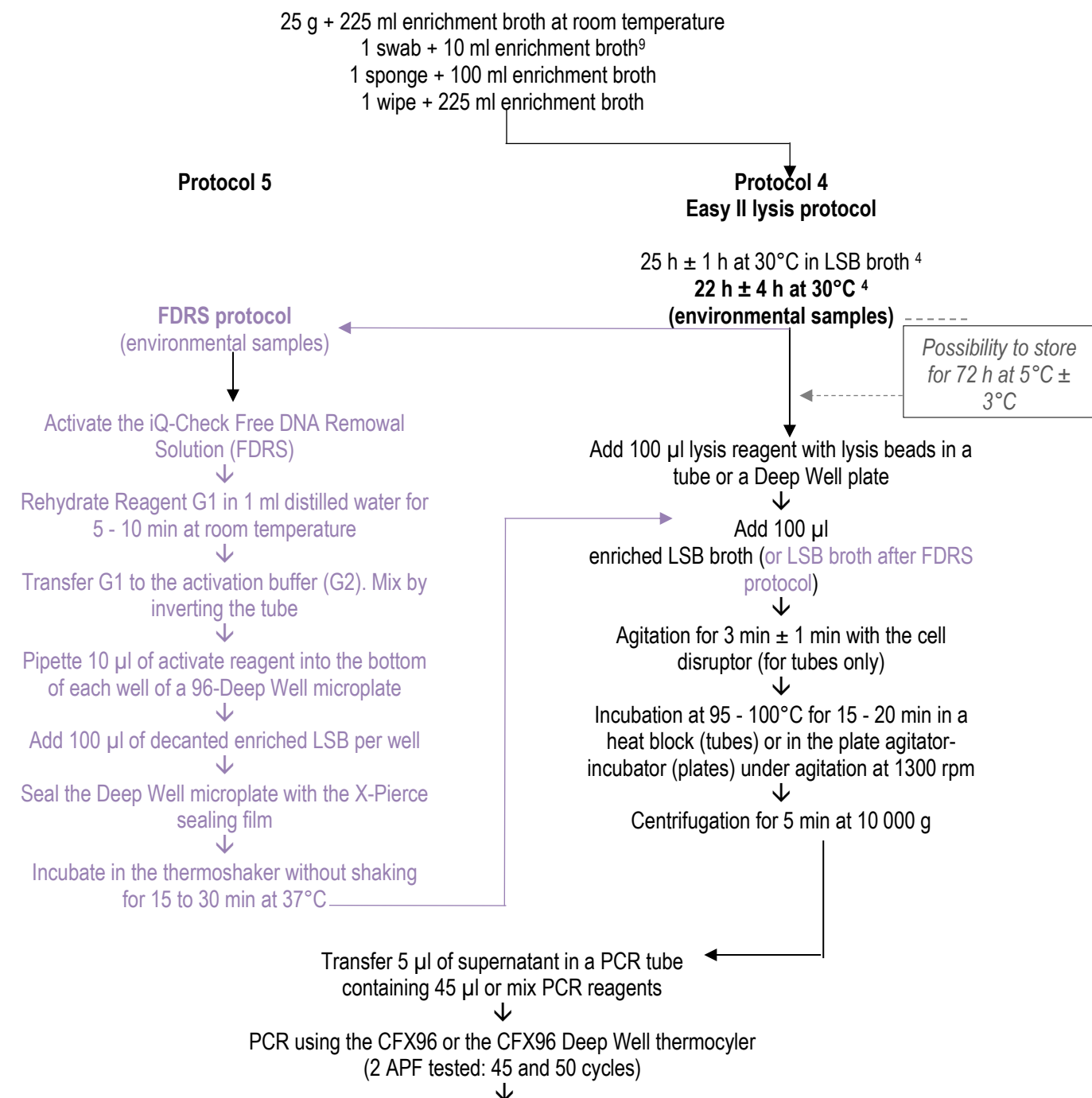
⁷ During the validation study, the typical colonies were confirmed using the tests described in the reference method (Catalase, β haemolysis, Rhamnose, Xylose). One colony was identified per sample using mini-biochemical galleries.

Enrichment in LSB broth

Extension study (2006) - Protocols 2 and 3

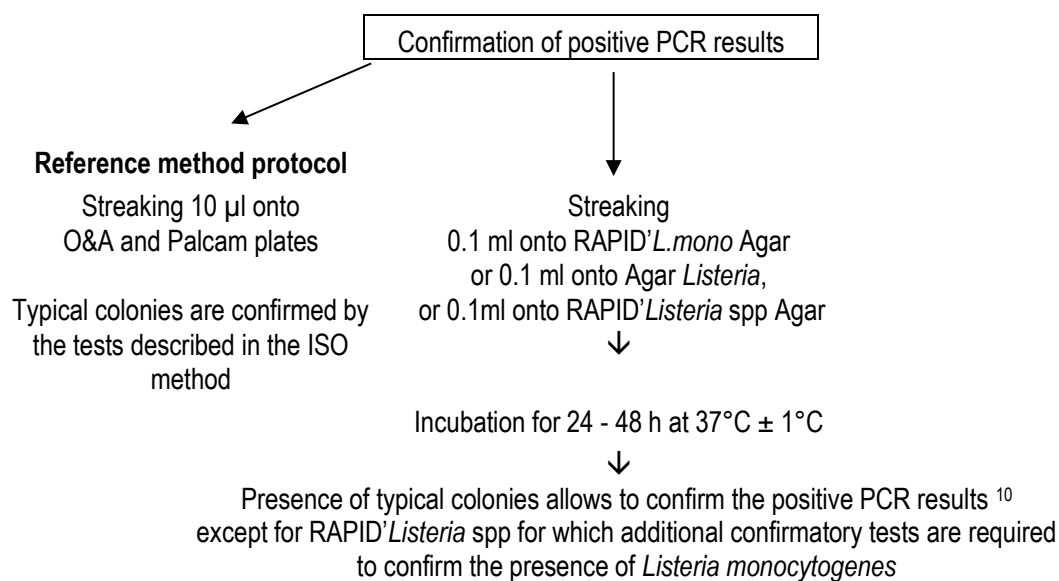


⁸ During the validation study, the typical colonies were confirmed using the tests described in the reference method (Catalase, β haemolysis, Rhamnose, Xylose). One colony was identified per sample using mini-biochemical galleries.

Protocols 4 and 5 (Environmental samples)

⁹ For sampling after cleaning process pre-moisten

- 1 swab + 1 ml broth universal neutralizing (+ 9 ml Half Fraser or LSB)
- 1 sponge + 10 ml broth universal neutralizing (+ 90 ml Half Fraser or LSB)
- 1 wipe + BPW + 10 % neutralizing agent (+ 225 ml Half Fraser or LSB)



¹⁰ During the validation study, the typical colonies were confirmed using the tests described in the reference method (Catalase, β haemolysis, Rhamnose, Xylose). One colony was identified per sample using mini-biochemical galleries.

Enrichment in LSB II broth

For food products:

25 g + 225 ml LSB II broth at room temperature (composite food) incubation
or prewarmed (Dairy products, meat and poultry products, vegetables, fishery and seafood products)

For environmental samples:

25 g + 225 ml LSB II broth at room temperature
1 swab + 10 ml LSB II broth¹¹ at room temperature
1 sponge + 100 ml LSB II broth at room temperature
1 wipe + 225 ml LSB II broth at room temperature



Incubation 18 h - 26 h at 37°C (composite, environment samples, meat and poultry products,
vegetables, fishery and seafood products)
Incubation 20 h - 28 h at 37°C (Dairy products)

*Possibility to store the enriched samples
for 72 h at 5°C±*

FDRS protocol (optional)

Rehydrate Reagent G1 in 1 ml distilled water
for 5 - 10 min at room temperature
↓
Transfer G1 to the activation buffer (G2).
Mix by inverting the tube
↓
Pipette 10 µl of activate reagent into the bottom of each
well of a 96-Deep Well microplate
↓
Add 100 µl of decanted enriched LSB II per well
↓
Seal the Deep Well microplate with the X-Pierce sealing
film
↓
Incubate in the thermoshaker without shaking for
15 to 30 min at 37°C

Easy II protocol:

Add 100 µl lysis reagent with lysis beads in a tube
or a Deep Well plate
↓
Add 100 µL of decanted enriched LSB II or 100 µL
FDRS treated sample
↓
Agitation for 3 min ± 1 min with the cell disruptor
(for tubes only)
↓
Incubation at 95 - 100°C
for 15 - 20 min in a heat block (tubes) or in the plate
agitator-incubator (plates and tubes) under agitation
at 1300 rpm
↓
Centrifugation for 5 min
at 10 000 g

Transfer 5 µl of supernatant in a PCR tube
containing 45 µl of mix PCR reagents

↓
PCR using the CFX96 Deep Well or the CFX OPUS Deep Well thermocycler
(APF Fast tested)

↓
Confirmation of
positive PCR results

Alternative method protocol:

0.1 ml onto Agar *Listeria*, RAPID[®] *Listeria* Agar, and RAPID[®] *L.mono* Agar
Incubation 24 h at 37°C ± 1°C

11 For sampling after cleaning process pre-moisten
- 1 swab + 1 ml broth universal neutralizing (+ 9 ml LSB)
- 1 sponge + 10 ml broth universal neutralizing (+ 90 ml LSB)
- 1 wipe + BPW + 10 % neutralizing agent (+ 225 ml LSB)

Reference method protocol:

10 µl onto O&A (AL) and Palcam
Incubation for 24 - 48 h at 37°C ± 1°C

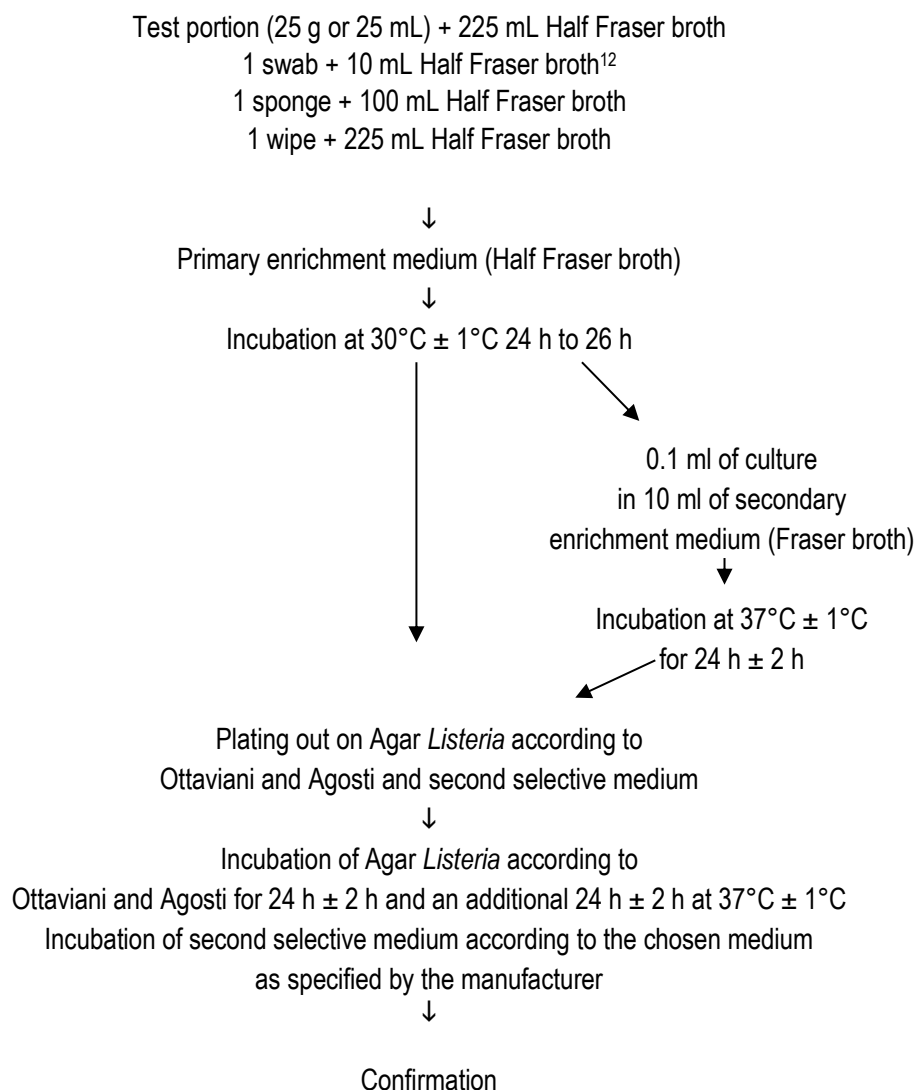


Presence of typical colonies allows to confirm the positive PCR results for Agar *Listeria* and RAPID'*L.mono* for the alternative confirmation protocol.

For the reference method protocol, the typical colonies are confirmed using the tests described in the ISO method*

*** During the validation the colonies were also tested by biochemical gallery for identification**

**Appendix 2 – Flow diagram of the reference method: ISO 11290-1 (May 2017):
Microbiology of the food chain - Horizontal method for the detection and enumeration
of *Listeria monocytogenes* and of *Listeria* spp.- Part 1: detection method**



Target	Gram	Catalase	Beta haemolysis	CAMP test	Carbohydrates
<i>Listeria monocytogenes</i>	x	Optional	x	Optional	x

¹² For sampling after cleaning process pre-moisten

- 1 swab + 1 ml broth universal neutralizing (+ 9 ml Half-Fraser)
- 1 sponge + 10 ml broth universal neutralizing (+ 90 ml Half-Fraser)
- 1 wipe + BPW + 10 % neutralizing agent (+ 225 ml Half-Fraser)

**Appendix 3 – Artificial contamination of samples (Initial validation study, IPL (2005 - 2006) -
Extension study, ISHA (2017) - Extension study, ADRIA (2019))**

Artificial contamination (IPL 2005-2006)									
Code	Sample	Category	Code strain	Strain	Origin	Spiking used	Stress evaluation	Level of contamination (CFU/25g)	Result
O23	Goat cheese	d3	L7	<i>Listeria monocytogenes 1/2a</i>	Munster	45 minutes at 50 °C and 30 minutes at - 80°C	0.4	5.4	+
O24	Crottin de Chavignol	d3	L7	<i>Listeria monocytogenes 1/2a</i>	Munster	46 minutes at 50 °C and 30 minutes at - 80°C	0.4	10.8	+
O27	Raw milk	d2	L7	<i>Listeria monocytogenes 1/2a</i>	Munster	47 minutes at 50 °C and 30 minutes at - 80°C	0.4	10.8	+
O28	Raw milk	d2	L7	<i>Listeria monocytogenes 1/2a</i>	Munster	48 minutes at 50 °C and 30 minutes at - 80°C	0.4	13.5	+
P9	"Poêlée" Roman	v2	L47	<i>Listeria monocytogenes 1/2a</i>	Roasted potatoes	49 minutes at 50 °C and 30 minutes at - 80°C	2.1	16.0	+
P10	Cauli flower puree	v3	L48	<i>Listeria monocytogenes 1/2a</i>	Roasted potatoes	50 minutes at 50 °C and 30 minutes at - 80°C	2.1	16.0	+
P20	Saint Paulin	d3	L37	<i>Listeria monocytogenes 1/2b</i>	Maroilles with raw milk	51 minutes at 50 °C and 30 minutes at - 80°C	0.5	6.0	+
P21	Goat cheese	d3	L37	<i>Listeria monocytogenes 1/2b</i>	Maroilles with raw milk	52 minutes at 50 °C and 30 minutes at - 80°C	0.5	9.0	+
Q1	Prepared salad	v2	L58	<i>Listeria monocytogenes 4b</i>	Salad	53 minutes at 50 °C and 30 minutes at - 80°C	1.2	10.0	+
Q2	Rice and mixed vegetables	v3	L58	<i>Listeria monocytogenes 4b</i>	Salad	54 minutes at 50 °C and 30 minutes at - 80°C	1.2	15.0	+
Q4	Celery cake	c2	L58	<i>Listeria monocytogenes 4b</i>	Salad	55 minutes at 50 °C and 30 minutes at - 80°C	1.2	25.0	+
Q6	Gratin of cauli flower	v3	L125	<i>Listeria monocytogenes</i>	Mix cooked vegetables	56 minutes at 50 °C and 30 minutes at - 80°C	ND	3.9	+
Q7	Grated carrot	v1	L125	<i>Listeria monocytogenes</i>	Mix cooked vegetables	57 minutes at 50 °C and 30 minutes at - 80°C	ND	5.2	+
Q8	Mixed vegetables	v2	L125	<i>Listeria monocytogenes</i>	Mix cooked vegetables	58 minutes at 50 °C and 30 minutes at - 80°C	ND	6.5	+

Artificial contamination (IPL 2005-2006)									
Code	Sample	Category	Code strain	Strain	Origin	Spiking used	Stress evaluation	Level of contamination (CFU/25g)	Result
Q9	Goat cheese	d3	L51	<i>Listeria monocytogenes 1/2b</i>	Ripened Germain	59 minutes at 50 °C and 30 minutes at - 80°C	0.4	8.8	+
Q13	Chocolate ice cream	d3	L63	<i>Listeria monocytogenes 4e</i>	Munster	60 minutes at 50 °C and 30 minutes at - 80°C	1.1	3.6	+
Q15	Brie of Meaux	d1	L63	<i>Listeria monocytogenes 4e</i>	Munster	61 minutes at 50 °C and 30 minutes at - 80°C	1.1	5.4	+
Q24	Rocamadour with raw milk	d1	L63	<i>Listeria monocytogenes 4e</i>	Munster	62 minutes at 50 °C and 30 minutes at - 80°C	1.1	7.2	+

Artificial contamination (ISHA, 2017)

Category	Sample number	Sample	Code strain	Strain	Origin	Protocol of seeding	Inoculation level (CFU/25g)	Global result
RTE-RTRH	1	Tabbouleh with chicken	LIS.4.6	<i>Listeria monocytogenes</i> 1/2a	Sandwich with ham and Emmental	48 h at 5±3 °C	2.2	+
	3	Strasbourg salad	LIS.4.6	<i>Listeria monocytogenes</i> 1/2a	Sandwich with ham and Emmental	48 h at 5±3 °C	2.2	+
	5	Piémontaise with ham	LIS.4.6	<i>Listeria monocytogenes</i> 1/2a	Sandwich with ham and Emmental	48 h at 5±3 °C	2.2	+
	7	Sandwich with salmon and chives	LIS.4.24	<i>Listeria monocytogenes</i> 1/2a	Dairy meal	48 h at 5±3 °C	2.8	+
	9	Sandwich with ham and Emmental	LIS.4.24	<i>Listeria monocytogenes</i> 1/2a	Dairy meal	48 h at 5±3 °C	2.8	+
	11	Sandwich with tuna and crudities	LIS.4.24	<i>Listeria monocytogenes</i> 1/2a	Dairy meal	48 h at 5±3 °C	2.8	+
	13	Sandwich with ham and butter	LIS.4.86	<i>Listeria monocytogenes</i>	Lorraine quiche	48 h at 5±3 °C	1.8	+
	15	Sandwich with rosette and butter	LIS.4.86	<i>Listeria monocytogenes</i>	Lorraine quiche	48 h at 5±3 °C	1.8	+
	17	Sandwich with chicken and crudities	LIS.4.86	<i>Listeria monocytogenes</i>	Lorraine quiche	48 h at 5±3 °C	1.8	+
	19	Sandwich with ham and cheddar	LIS.4.88	<i>Listeria monocytogenes</i>	Chocolate cake	48 h at 5±3 °C	2.2	+
	21	Sandwich with ham and cheddar	LIS.4.88	<i>Listeria monocytogenes</i>	Chocolate cake	48 h at 5±3 °C	2.2	+
	23	Pizza with three cheeses	LIS.4.88	<i>Listeria monocytogenes</i>	Chocolate cake	48 h at 5±3 °C	2.2	+
	25	Pizza with ham and cheese	LIS.4.89	<i>Listeria monocytogenes</i>	Lemon pie	48 h at 5±3 °C	2.6	+
	27	Pizza with three melting cheeses	LIS.4.89	<i>Listeria monocytogenes</i>	Lemon pie	48 h at 5±3 °C	2.6	+
	29	Pizza with Comté, Emmental and lardons	LIS.4.89	<i>Listeria monocytogenes</i>	Lemon pie	48 h at 5±3 °C	2.6	+
	31	Pizza with ham and mushroom	LIS.4.46	<i>Listeria monocytogenes</i> 3a	Goat cheese sandwich	48 h at 5±3 °C	2	+
	33	Flammekueche with smoked lardons	LIS.4.46	<i>Listeria monocytogenes</i> 3a	Goat cheese sandwich	48 h at 5±3 °C	2	+
	35	Raspberries tart	LIS.4.46	<i>Listeria monocytogenes</i> 3a	Goat cheese sandwich	48 h at 5±3 °C	2	+
	37	Apples tart	LIS.4.7	<i>Listeria monocytogenes</i> 1/2a	Ham and Emmental sandwich	48 h at 5±3 °C	2.8	+
	39	Mille-feuilles	LIS.4.7	<i>Listeria monocytogenes</i> 1/2a	Ham and Emmental sandwich	48 h at 5±3 °C	2.8	+
	41	Savarin with rum and pastry cream	LIS.4.7	<i>Listeria monocytogenes</i> 1/2a	Ham and Emmental sandwich	48 h at 5±3 °C	2.8	+
	43	Pudding	LIS.4.93	<i>Listeria monocytogenes</i>	Coconut pearls	48 h at 5±3 °C	3.2	+
	45	Choux with pastry cream	LIS.4.93	<i>Listeria monocytogenes</i>	Coconut pearls	48 h at 5±3 °C	3.2	+
	47	Strawberries tart	LIS.4.93	<i>Listeria monocytogenes</i>	Coconut pearls	48 h at 5±3 °C	3.2	+
	49	Savarin with rum and pastry cream	LIS.4.91	<i>Listeria monocytogenes</i>	Ground beef sandwich	48 h at 5±3 °C	1.6	+
	51	Choux with pastry cream	LIS.4.91	<i>Listeria monocytogenes</i>	Ground beef sandwich	48 h at 5±3 °C	1.6	+
	53	Pudding	LIS.4.91	<i>Listeria monocytogenes</i>	Ground beef sandwich	48 h at 5±3 °C	1.6	+
Dairy products	57	Neufchâtel raw milk	LIS.4.60	<i>Listeria monocytogenes</i>	Raw milk cheese	48 h at 5±3 °C	2.2	+
	59	Camembert of Normandie raw milk	LIS.4.60	<i>Listeria monocytogenes</i>	Raw milk cheese	48 h at 5±3 °C	2.2	+
	61	Coulommiers raw milk	LIS.4.60	<i>Listeria monocytogenes</i>	Raw milk cheese	48 h at 5±3 °C	2.2	+
	63	Comté raw milk	LIS.4.56	<i>Listeria monocytogenes</i>	Raw milk cheese	48 h at 5±3 °C	1.8	+
	65	Comté raw milk	LIS.4.56	<i>Listeria monocytogenes</i>	Raw milk cheese	48 h at 5±3 °C	1.8	+
	67	Morbier raw milk	LIS.4.56	<i>Listeria monocytogenes</i>	Raw milk cheese	48 h at 5±3 °C	1.8	+
	69	Reblochon raw milk	LIS.4.32	<i>Listeria monocytogenes</i> 1/2b	Raw milk	48 h at 5±3 °C	3.0	+
	71	Mountain tome cheese raw milk	LIS.4.32	<i>Listeria monocytogenes</i> 1/2b	Raw milk	48 h at 5±3 °C	3.0	+
	73	Raclette raw milk	LIS.4.32	<i>Listeria monocytogenes</i> 1/2b	Raw milk	48 h at 5±3 °C	3.0	+
	75	Raw milk	LIS.4.59	<i>Listeria monocytogenes</i>	Goat raw milk	48 h at 5±3 °C	2.4	+
	77	Raw milk	LIS.4.59	<i>Listeria monocytogenes</i>	Goat raw milk	48 h at 5±3 °C	2.4	+
	79	Raw milk	LIS.4.59	<i>Listeria monocytogenes</i>	Goat raw milk	48 h at 5±3 °C	2.4	+
	81	Raw milk	LIS.4.23	<i>Listeria monocytogenes</i>	Fresh cheese	48 h at 5±3 °C	3.2	+
	83	Raw milk	LIS.4.23	<i>Listeria monocytogenes</i>	Fresh cheese	48 h at 5±3 °C	3.2	+

Artificial contamination (ISHA, 2017)

Category	Sample number	Sample	Code strain	Strain	Origin	Protocol of seeding	Inoculation level (CFU/25g)	Global result
	85	Raw milk	LIS.4.23	<i>Listeria monocytogenes</i>	Fresh cheese	48 h at 5±3 °C	3.2	+
	87	Raw milk butter	LIS.4.62	<i>Listeria monocytogenes</i>	Ewe raw milk	48 h at 5±3 °C	2.6	+
	89	Raw milk butter	LIS.4.62	<i>Listeria monocytogenes</i>	Ewe raw milk	48 h at 5±3 °C	2.6	+
	91	Raw milk	LIS.4.62	<i>Listeria monocytogenes</i>	Ewe raw milk	48 h at 5±3 °C	2.6	+
	93	Raw milk	LIS.4.65	<i>Listeria monocytogenes</i> 1/2a	Raw milk from AFSSA	48 h at 5±3 °C	2.2	+
	95	Raw milk	LIS.4.65	<i>Listeria monocytogenes</i> 1/2a	Raw milk from AFSSA	48 h at 5±3 °C	2.2	+
	97	Raw milk	LIS.4.65	<i>Listeria monocytogenes</i> 1/2a	Raw milk from AFSSA	48 h at 5±3 °C	2.2	+
	99	Raw milk	LIS.4.61	<i>Listeria monocytogenes</i>	Buffalo raw milk cheese	48 h at 5±3 °C	2.4	+
Sea food	101	Stick with crab flavour	LIS.4.83	<i>Listeria monocytogenes</i>	Fish with lemon sauce and rice	48 h at 5±3 °C	2.8	+
	103	Rillettes of sardines	LIS.4.83	<i>Listeria monocytogenes</i>	Fish with lemon sauce and rice	48 h at 5±3 °C	2.8	+
	105	Tarama with cod eggs	LIS.4.83	<i>Listeria monocytogenes</i>	Fish with lemon sauce and rice	48 h at 5±3 °C	2.8	+
	107	Rillettes of salmon with garlic and sweet herbs	LIS.4.15	<i>Listeria monocytogenes</i> 1/2a	Salmon tartare	48 h at 5±3 °C	2.2	+
	109	Rillettes of St Jacques	LIS.4.15	<i>Listeria monocytogenes</i> 1/2a	Salmon tartare	48 h at 5±3 °C	2.2	+
Vegetal products	111	Banana	LIS.4.10	<i>Listeria monocytogenes</i> 1/2a	Salad	48 h at 5±3 °C	1.6	+
	113	Grape	LIS.4.10	<i>Listeria monocytogenes</i> 1/2a	Salad	48 h at 5±3 °C	1.6	+
	115	Tomato	LIS.4.10	<i>Listeria monocytogenes</i> 1/2a	Salad	48 h at 5±3 °C	1.6	+
	117	Plums red	LIS.4.35	<i>Listeria monocytogenes</i> 1/2c	Sandwich chef salad	48 h at 5±3 °C	2.0	+
	119	Pear	LIS.4.35	<i>Listeria monocytogenes</i> 1/2c	Sandwich chef salad	48 h at 5±3 °C	2.0	+
	121	Yellow plum	LIS.4.35	<i>Listeria monocytogenes</i> 1/2c	Sandwich chef salad	48 h at 5±3 °C	2.0	+
	123	Estar apple	LIS.4.17	<i>Listeria monocytogenes</i> 1/2a	Crudeness	48 h at 5±3 °C	1.8	+
	125	Canada grey apple	LIS.4.17	<i>Listeria monocytogenes</i> 1/2a	Crudeness	48 h at 5±3 °C	1.8	+
	127	Granny apple	LIS.4.17	<i>Listeria monocytogenes</i> 1/2a	Crudeness	48 h at 5±3 °C	1.8	+
	129	Reine Claude plum	LIS.4.80	<i>Listeria monocytogenes</i>	Potatoes and grated carrot salad	48 h at 5±3 °C	3.0	+
	131	Golden apple	LIS.4.80	<i>Listeria monocytogenes</i>	Potatoes and grated carrot salad	48 h at 5±3 °C	3.0	+
	133	Julienne of vegetables	LIS.4.80	<i>Listeria monocytogenes</i>	Potatoes and grated carrot salad	48 h at 5±3 °C	3.0	+
	135	Grated carrot	LIS.4.81	<i>Listeria monocytogenes</i>	Mixed vegetables	48 h at 5±3 °C	2.6	+
	137	Sliced cucumber	LIS.4.81	<i>Listeria monocytogenes</i>	Mixed vegetables	48 h at 5±3 °C	2.6	+
	139	Prepared lettuce heart	LIS.4.81	<i>Listeria monocytogenes</i>	Mixed vegetables	48 h at 5±3 °C	2.6	+
	141	Mix of young sprouts	LIS.4.20	<i>Listeria monocytogenes</i> 1/2a	Sandwich with bacon and crudeness	48 h at 5±3 °C	1.8	+
	143	Sliced leek	LIS.4.20	<i>Listeria monocytogenes</i> 1/2a	Sandwich with bacon and crudeness	48 h at 5±3 °C	1.8	+
	145	Grated carrot	LIS.4.20	<i>Listeria monocytogenes</i> 1/2a	Sandwich with bacon and crudeness	48 h at 5±3 °C	1.8	+
	147	White cabbage	LIS.4.5	<i>Listeria monocytogenes</i> 1/2a	Ham with crudeness	48 h at 5±3 °C	2.2	+
	149	Red cabbage	LIS.4.5	<i>Listeria monocytogenes</i> 1/2a	Ham with crudeness	48 h at 5±3 °C	2.2	+
	151	White cabbage	LIS.4.5	<i>Listeria monocytogenes</i> 1/2a	Ham with crudeness	48 h at 5±3 °C	2.2	+
	153	Red cabbage	LIS.4.18	<i>Listeria monocytogenes</i> 1/2a	Salad of vegetable	48 h at 5±3 °C	2.0	+
	155	Batavia salad	LIS.4.18	<i>Listeria monocytogenes</i> 1/2a	Salad of vegetable	48 h at 5±3 °C	2.0	+
	157	Frisée salad	LIS.4.18	<i>Listeria monocytogenes</i> 1/2a	Salad of vegetable	48 h at 5±3 °C	2.0	+
	159	Wax bean	LIS.4.78	<i>Listeria monocytogenes</i>	Frozen bean	48 h at 5±3 °C	3.2	+
	161	peas steamed	LIS.4.78	<i>Listeria monocytogenes</i>	Frozen bean	48 h at 5±3 °C	3.2	+
	163	Green lentils cooked	LIS.4.78	<i>Listeria monocytogenes</i>	Frozen bean	48 h at 5±3 °C	3.2	+
	165	Green beans	LIS.4.79	<i>Listeria monocytogenes</i>	Frozen bean	48 h at 5±3 °C	2.6	+

Artificial contamination (ISHA, 2017)								
Category	Sample number	Sample	Code strain	Strain	Origin	Protocol of seeding	Inoculation level (CFU/25g)	Global result
Meat products	167	Pork muzzle with mayonnaise	LIS.4.30	<i>Listeria monocytogenes</i> 1/2b	Rolled turkey raw	48 h at 5±3 °C	3.2	+
	169	Cooked ham high quality	LIS.4.26	<i>Listeria monocytogenes</i> 1/2a	Ham	48 h at 5±3 °C	2.4	+
	171	Auvergne Ham	LIS.4.26	<i>Listeria monocytogenes</i> 1/2a	Ham	48 h at 5±3 °C	2.4	+
	173	Cooked and derinded ham high quality	LIS.4.26	<i>Listeria monocytogenes</i> 1/2a	Ham	48 h at 5±3 °C	2.4	+
	175	Cooked ham	LIS.4.27	<i>Listeria monocytogenes</i> 1/2a	Ground beef	48 h at 5±3 °C	2.8	+
	177	Serrano ham	LIS.4.27	<i>Listeria monocytogenes</i> 1/2a	Ground beef	48 h at 5±3 °C	2.8	+
Environmental sample	179	Processed water 1	LIS.4.2	<i>Listeria monocytogenes</i>	Environment	48 h at 5±3 °C	2.4	+
	181	Processed water 2	LIS.4.2	<i>Listeria monocytogenes</i>	Environment	48 h at 5±3 °C	2.4	+
	183	Processed water 3	LIS.4.2	<i>Listeria monocytogenes</i>	Environment	48 h at 5±3 °C	2.4	+
	185	Processed water 4	LIS.4.44	<i>Listeria monocytogenes</i> 3a	Surface control	48 h at 5±3 °C	3.0	+
	187	Processed water 5	LIS.4.44	<i>Listeria monocytogenes</i> 3a	Surface control	48 h at 5±3 °C	3.0	+
	189	Processed water 6	LIS.4.44	<i>Listeria monocytogenes</i> 3a	Surface control	48 h at 5±3 °C	3.0	+
	191	Processed water 7	LIS.4.50	<i>Listeria monocytogenes</i> 4b	Surface control on salmon	48 h at 5±3 °C	1.8	+
	193	Processed water 8	LIS.4.50	<i>Listeria monocytogenes</i> 4b	Surface control on salmon	48 h at 5±3 °C	1.8	+
	195	Residue	LIS.4.50	<i>Listeria monocytogenes</i> 4b	Surface control on salmon	48 h at 5±3 °C	1.8	+

Date of analysis	Réf	Product (French name)	Product	Artificial contaminations (ADRIA Développement, Extension study 2019)						Global result				Type
				Strain	Origin	Injury protocol	Injury measurement	Inoculation level (CFU/sample)		Simplified lysis APF Classic	Simplified lysis APF Fast	Simplified lysis FDRS APF Classic	Simplified lysis FDRS APF Fast	
								Enumeration	Mean					
2019	4045	Eau de rinçage (environnement mer)	Rinsing water (seafood environment)	<i>L. monocytogenes</i> A00E008	Environment	Seeding 48 h 3°C±2°C	/	1-0-1-2-0	0.8	-	-	-	-	a
2019	4681	Eau process (bœuf)	Process water (beef environment)	<i>L. monocytogenes</i> Ad1255	Environment+ Environment	Seeding 48 h 3°C±2°C	/	4-3-5-1-1	2.8	+	+	+	+	a
2019	4682	Eau de rinçage (jambon végétal)	Rinsing water (vegetable environment)	<i>L. monocytogenes</i> Ad1255	Environment	Seeding 48 h 3°C±2°C	/	2-2-2-0-2	1.6	+	+	+	+	a
2019	4683	Eau rinçage (thon)	Rinsing water (seafood environment)	<i>L. monocytogenes</i> AOOE035	Environment	Seeding 48 h 3°C±2°C	/	2-2-4-1-1	2.0	+	+	+	+	a
2019	4684	Eau rinçage (saumon)	Rinsing water (seafood environment)	<i>L. monocytogenes</i> Ad548	Environment	Seeding 48 h 3°C±2°C	/	1-0-1-1-2	1.0	+	+	+	+	a
2019	4685	Eau rinçage (saumon)	Rinsing water (seafood environment)	<i>L. monocytogenes</i> AOOE035	Environment	Seeding 48 h 3°C±2°C	/	2-2-4-1-1	2.0	+	+	+	+	a
2019	4686	Eau rinçage (thon)	Rinsing water (seafood environment)	<i>L. monocytogenes</i> AOOE035	Environment	Seeding 48 h 3°C±2°C	/	2-2-4-1-1	2.0	+	+	+	+	a
2019	4687	Eau rinçage (thon)	Rinsing water (seafood environment)	<i>L. monocytogenes</i> Ad548	Environment	Seeding 48 h 3°C±2°C	/	1-0-1-1-2	1.0	+	+	+	+	a
2019	4688	Eau rinçage (environnement mer)	Rinsing water (seafood environment)	<i>L. monocytogenes</i> AOOE035	Environment	Seeding 48 h 3°C±2°C	/	2-2-4-1-1	2.0	+	+	+	+	a
2019	5081	Eau rinçage bol (environnement laitier)	Rinsing water (dairy environment)	<i>L. monocytogenes</i> Ad550	Environment	Seeding 48 h 3°C±2°C	/	0-0-0-1-0	0.2	+	+	+	+	a
2019	5086	Eau rinçage (environnement végétaux)	Rinsing water (vegetable environment)	<i>L. monocytogenes</i> Ad2503	Environment	Seeding 48 h 3°C±2°C	/	3-2-2-2-4	2.6	+	+	+	+	a
2019	5091	Eau rinçage (environnement volaille)	Rinsing water (poultry environment)	<i>L. monocytogenes</i> Ad1272	Environment+ Environment	Seeding 48 h 3°C±2°C	/	0-1-0-0-0	0.2	+	+	+	+	a
2019	5077	Eponge lame cutter (environnement laitier)	Sponge (dairy environment)	<i>L. monocytogenes</i> Ad550	Environment	Seeding 48 h 3°C±2°C	/	0-0-0-1-0	0.2	+	+	+	+	b
2019	5078	Eponge paillese découpe fromage	Sponge (dairy environment)	<i>L. monocytogenes</i> Ad550	Environment	Seeding 48 h 3°C±2°C	/	2-3-2-3-1	2.2	+	+	+	+	b
2019	5082	Eponge cutter (environnement végétaux)	Sponge (vegetable environment)	<i>L. monocytogenes</i> Ad2503	Environment	Seeding 48 h 3°C±2°C	/	3-2-2-2-4	2.6	+	+	+	+	b
2019	5083	Eponge balance (environnement végétaux)	Sponge (vegetable environment)	<i>L. monocytogenes</i> Ad2503	Environment	Seeding 48 h 3°C±2°C	/	3-2-2-2-4	2.6	+	+	+	+	b
2019	5084	Chiffonnette outils découpe végétaux	Wipe (vegetable environment)	<i>L. monocytogenes</i> Ad2503	Environment	Seeding 48 h 3°C±2°C	/	3-2-2-2-4	2.6	+	+	+	+	b
2019	5087	Eponge cutter (environnement volaille)	Sponge (poultry environment)	<i>L. monocytogenes</i> Ad1272	Environment+ Environment	Seeding 48 h 3°C±2°C	/	0-1-0-0-0	0.2	+	+	+	+	b
2019	5089	Chiffonnette balance (environnement carné)	Wipe (meat environment)	<i>L. monocytogenes</i> Ad1272	Environment	Seeding 48 h 3°C±2°C	/	1-1-3-2-0	1.4	+	+	+	+	b
2019	5578	Chiffonnette paillese découpe végétaux	Wipe after cleaning process (vegetable environment)	<i>L. monocytogenes</i> Ad2600	Environment	Seeding 48 h 3°C±2°C	/	1-3-3-2-4	2.6	+	+	+	+	b
2019	5579	Chiffonnette après nettoyage plan de travail (environnement laitier)	Wipe (dairy environment)	<i>L. monocytogenes</i> Ad2600	Environment	Seeding 48 h 3°C±2°C	/	1-3-3-2-4	2.6	+	+	+	+	b
2019	5580	Chiffonnette cutter (environnement végétaux)	Wipe (vegetable environment)	<i>L. monocytogenes</i> Ad2600	Environment	Seeding 48 h 3°C±2°C	/	1-3-3-2-4	2.6	-	-	-	-	b

Date of analysis	Réf	Product (French name)	Product	Artificial contaminations (ADRIA Développement, Extension study 2019)						Global result				Type
				Strain	Origin	Injury protocol	Injury measu- rement	Inoculation level (CFU/sample)		Simplified lysis APF Classic	Simplified lysis APF Fast	Simplified lysis FDRS APF Classic	Simplified lysis FDRS APF Fast	
								Enumeration	Mean					
2019	4046	Déchets saumon	Residues (seafood environment)	<i>L. monocytogenes</i> A00E008	Environment	Seeding 48 h 3°C±2°C	/	1-0-1-2-0	0.8	+	-	+	+	c
2019	4047	Déchets poissons	Residues (seafood environment)	<i>L. monocytogenes</i> A00E008	Environment	Seeding 48 h 3°C±2°C	/	1-0-1-2-0	0.8	+	+	+	+	c
2019	4048	Déchets pareuse	Residues (seafood environment)	<i>L. monocytogenes</i> A00E008	Environment	Seeding 48 h 3°C±2°C	/	1-0-1-2-0	0.8	+	+	+	+	c
2019	4050	Déchets chantilly	Residues (dairy environment)	<i>L. monocytogenes</i> Ad627	Environment	Seeding 48 h 3°C±2°C	/	2-0-3-2-1	1.6	+	+	+	+	c
2019	4051	Déchets chantilly	Residues (dairy environment)	<i>L. monocytogenes</i> Ad627	Environment	Seeding 48 h 3°C±2°C	/	2-0-3-2-1	1.6	+	+	+	+	c
2019	4689	Déchets saumon	Residues (seafood environment)	<i>L. monocytogenes</i> AOOE035	Environment	Seeding 48 h 3°C±2°C	/	2-2-4-1-1	2.0	+	+	+	+	c
2019	4690	Déchets saumon herbes	Residues (seafood environment)	<i>L. monocytogenes</i> Ad548	Environment	Seeding 48 h 3°C±2°C	/	1-0-1-1-2	1.0	+	+	+	+	c
2019	5085	Déchets végétaux 4è gamme	Residues (vegetable environment)	<i>L. monocytogenes</i> Ad2503	Environment	Seeding 48 h 3°C±2°C	/	3-2-2-2-4	2.6	+	+	+	+	c
2019	5090	Déchets viande veau	Residues (veal environment)	<i>L. monocytogenes</i> Ad1272	Environment+ Environment	Seeding 48 h 3°C±2°C	/	0-1-0-0-0	0.2	+	+	+	+	c

Appendix 4 – Sensitivity study: raw data (Initial validation study, IPL (2005 - 2006) - Extension study, ISHA (2017) - Extension study, ADRIA (2019))

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IPL (2005-2006)

AC: artificial contamination

Amount of flora: Ø: no colonies
 L: low
 M: medium
 H: high

Flora repartition: A: pure culture of expected colonies
 B: mix with majority of expected colonies and a minority of expected colonies
 C: mix with a minority of expected colonies
 D: mix with rare expected colonies
 E: no expected colonies
 (x): x characteristic colonies of *Listeria* if $x \leq 5$
 *: presence of 2 kinds of characteristic colonies (*Listeria monocytogenes* + others)

ISHA (2017)

RM: reference method
 AM: alternative method
 ST: sample type
 SN: sample number
 se: seeding
 +: positive result
 -: negative result
 /: test not realised
 O&A: Ottaviani and Agosti
 Ø: absence of colonies
 PA: positive agreement
 NA: negative agreement
 PD: positive deviation
 ND: negative deviation
 FN: false negative result
 FP: false positive result
 A: absence
 P: presence
 0/1/2/3/4: level of typical flora, from absence to high
 Ø/L/M/H: level of annex flora, from absence to high
 L.m.: *Listeria monocytogenes*
 L.w.: *Listeria welshimeri*
 L.in: *Listeria innocua*
 L.iv: *Listeria ivanovii*

iQ-Check:

Protocol 1	Ct TX Ct	Ct value for the target DNA amplification Ct value for internal control DNA amplification
Protocols 2 and 3	Ct FAM Ct C int	Ct value for the target DNA amplification Ct value for the control DNA amplification
Protocols 4 and 5	Ct FAM	Ct value for the target DNA amplification

Protocol 1 (Half Fraser - Standard II lysis) - Meat products

Protocol 1 (Half Fraser - Standard II lysis) Initial validation (IPL 2005)																		
MEAT PRODUCTS																		
Type	Ref.	Cat	CA	Product (in French)	Reference method								Alternative method					Agreement
					Fraser 1/2 (10µl)			Fraser			Identifications	Result	Pure DNA		Result	RLM	Identifications	
					P1	A1	AL1	P2	A2	AL2			Ct TEX	Ct FAM				
a	O17	PC	No	Bœuf haché	Ø	Ø	Ø	Ø	Ø	Ø		-	N/A	34.0	-	Ø	/	=
a	O21	PC	No	Steak de cheval	Ø	Ø	Ø	Ø	Ø	Ø		-	N/A	35.4	-	Ø	/	=
a	O35	PC	No	Bœuf haché	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	34.9	-	Ø	/	=
a	O35	PC	No	Bœuf haché	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	35.1	-	Ø	/	=
a	O54	PC	No	Escalope de poulet	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.7	-	Ø	/	=
a	O58	PC	No	Bœuf haché	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.0	-	Ø	/	=
a	A12	PC	No	Steak haché surgelé	Ø	Ø	Ø	-HE	Ø	-LE	/	-	N/A	32.1	-	/	/	=
a	A13	PC	No	Viande hachée	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.1	-	/	/	=
a	B9	PC	No	Viande de bœuf	-LE	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.1	-	/	/	=
a	C12	PC	No	Cuisses de poulet	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	31.5	-	/	/	=
a	C14	PC	No	Pavé haché	+LA	+LA	+LB	+HA	+HA	+HA	L.ivanovii	-	N/A	32.7	-	-LB	L.ivanovii	=
a	E18	PC	No	Steaks hachés surgelés	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	34.9	-	/	/	=
a	I3	PC	No	Steak haché surgelé	-LE	Ø	Ø	-HE	-ME	-ME	/	-	N/A	36.2	-	-LE	/	=
a	I8	PC	No	Viande de cheval	Ø	Ø	Ø	Ø	-LE	-LE	/	-	N/A	33.8	-	/	/	=
a	I11	PC	No	Viande hachée	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	36.8	-	/	/	=
a	I13	PC	No	Viande hachée de cheval	Ø	-LE	-LE	Ø	Ø	Ø	/	-	N/A	34.2	-	/	/	=
a	J3	PC	No	Viande de bœuf	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	36.4	-	/	/	=
a	J23	PC	No	Cuisses de poulet	+MA	-ME	-ME	+HA	-HE	-HE	/	-	N/A	34.8	-	/	/	=
a	L2	PC	No	Magrets de canard	-LE	-LE	-LE	-HE	-HE	-HE	/	-	N/A	34.3	-	-LE		=
a	B3	PC	No	Haché tartare	-LE	Ø	-LE	Ø	Ø	Ø	/	-	N/A	32.7	-	/	/	=
a	O7	PC	No	Viande de bœuf	+LA	+LB	-LE	+MA	+MC	+MC	L.monocytogenes	+	34.3	32.5	+	+MC	L.monocytogenes	=
a	O20	PC	No	Cuisse de poulet	+LA	Ø	+LA	+HA	+MA	+MA	L.monocytogenes	+	32.5	34.7	+	+LA	L.monocytogenes	=
a	O28	PC	No	Cuisse de poulet	+LA	+LA	+LA	+MA	+MA	+MA	L.monocytogenes	+	24.5	31.9	+	+MA	L.monocytogenes	=
a	B8	PC	No	Filet de poulet	+MB	+MB	+MB	+HB	+MC	+HC*	L.monocytogenes	+	28.9	32.1	+	+MB	L.monocytogenes	=
a	I5	PC	No	Filet de poulet	-La*	+LC	+LC	+HA	-HE	+HC	L.monocytogenes *L.innocua(5)	+	N/A	33.9	-	+MC	L.monocytogenes	ND _{FN(alt)}
a	I14	PC	No	Viande hachée de cheval	+LA	+LA	+LA	+HA	+HA	+HA	L.monocytogenes	+	31.8	33.7	+	+LA	L.monocytogenes	=
a	J4	PC	No	Viande de porc	+LB	+LA	+LA	+HB	+HA	+HA	L.monocytogenes	+	25.6	35.7	+	+MA	L.monocytogenes	=
a	J5	PC	No	Viande de porc	+MB	+MB	+MB	+HB	+HB	+HB	L.monocytogenes	+	24.1	38.0	+	+HA	L.monocytogenes	=
a	L3	PC	No	Magrets de canard	+MB	+MB	+MB	+HB	+MB	+MB	L.monocytogenes	+	25.2	34.6	+	+MB	L.monocytogenes	=
a	L18	PC	No	Magrets de canard	+HB	+HB	+HB	+HB	+HB	+HB	L.monocytogenes	+	21.8	35.4	+	+LB	L.monocytogenes	=
b	A11	PC	No	Rissolette de veau	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.6	-	/	/	=
b	E17	PC	No	Rissolette de veau surgelée	Ø	Ø	Ø	Ø	Ø	Ø	/	-	42.4 40.8 N/A	34.7 34.1 34.4	+ + -	Ø	/	PD _{FP(alt)}
b	E20	PC	No	Rissolette de veau surgelée	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	34.9	-	/	/	=
b	O18	PC	No	Veau pâné	+MA	-ME	-ME	+HA	-ME	-ME	L.innocua	-	N/A	37.3	-	-ME	L.innocua	=
b	O37	PC	No	Saucisse au thym	Ø	Ø	-LE	Ø	Ø	Ø	/	-	N/A	35.1	-	Ø	/	=
b	O51	PC	No	Veau pâné	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.2	-	-LE	/	=
b	A14	PC	No	Nuggets de poulet surgelés	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.8	-	/	/	=
b	B5	PC	No	Merguez	Ø	-LE	-LE	Ø	Ø	Ø	/	-	N/A	32.0	-	/	/	=
b	B7	PC	No	Chair à saucisse	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	31.4	-	/	/	=
b	B10	PC	No	Haché bolognaise	-LE	-LE	-LE	-ME	-LE	-LE	/	-	N/A	32.5	-	/	/	=
b	B11	PC	No	Burger oignons	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.8	-	/	/	=
b	D18	PC	No	Burger tomates	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.7	-	/	/	=

Protocol 1 (Half Fraser - Standard II lysis) Initial validation (IPL 2005)																		
MEAT PRODUCTS																		
Type	Ref.	Cat	CA	Product (in French)	Reference method								Alternative method					Agreement
					Fraser 1/2 (10µl)			Fraser			Identifications	Result	Pure DNA		Result	RLM	Identifications	
					P1	A1	AL1	P2	A2	AL2			Ct TEX	Ct FAM				
b	E19	PC	No	Boulettes crues de bœuf, façon tunisienne	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	36.7	-	/	/	=
b	I9	PC	No	Haché bolognaise	+LA	-LE	-LE	+HA	-ME	-ME	<i>L.welshimeri</i>	-	N/A	34.0	-	/	/	=
b	J24	PC	No	Haché bolognaise	+LA	-LE	-LE	+HB	-HE	-HE	<i>L.welshimeri</i>	-	N/A	35.3	-	/	/	=
b	I2	PC	No	Saucisses de Toulouse	+HA	+MA	+MA	+HA	+MA	+HA	<i>L.monocytogenes</i>	+	17.3	N/A	+	+HA	<i>L.monocytogenes</i>	=
b	O29	PC	No	Paupiettes de dindonneau	-La*	-LE	-LE	+MA	-Mc*	+MD	<i>L.monocytogenes</i> * <i>L.welshimeri</i> (5)	+	37.1	32.8	+	+MD	<i>L.monocytogenes</i>	=
b	O55	PC	No	Paupiettes de dindonneau	+LC	Ø	+LA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	32.7	33.6	+	+LB	<i>L.monocytogenes</i>	=
b	I6	PC	No	Merguez et chipolatas	-La*	+LC	+LB(3)	+HB	+MC	+MC	<i>L.monocytogenes</i> * <i>L.innocua</i> (5)	+	34.7	33.9	+	+LC	<i>L.monocytogenes</i>	=
b	I10	PC	No	Saucisses de Morteau	+MA	+MA	+MA	+HA	+HB	+HB	<i>L.monocytogenes</i>	+	20.8	34.7	+	+MA	<i>L.monocytogenes</i>	=
b	B6	PC	No	Langue cuite	+MA	+MA	+MA	+MB	+HA	+HA	<i>L.monocytogenes</i>	+	27.9	32.7	+	+MA	<i>L.monocytogenes</i>	=
c	O2	PC	No	Pâté	-LE	/	Ø	Ø	/	Ø	/	-	N/A	31.7	-	Ø	/	=
c	O41	PC	No	Lardons fumés	-LE	-LE	-LE	+LA	-ME	-ME	<i>L.welshimeri</i>	-	N/A	35.3	-	Ø	<i>L.welshimeri</i>	=
c	O59	PC	No	Pâté de tête	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.3	-	Ø	/	=
c	A9	PC	No	Lardons nature	Ø	Ø	Ø	Ø	-LE	-LE	/	-	N/A	32.9	-	/	/	=
c	A10	PC	No	Lardons fumés	-LE	-LE	-LE	+HB	-HE	-HE	<i>L.innocua</i>	-	N/A	32.2	-	/	<i>L.innocua</i>	=
c	B4	PC	No	Salami	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	31.8	-	/	/	=
c	E21	PC	No	Jambon de Parme	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	34.1	-	/	/	=
c	I1	PC	No	Lardons	+LB	-LE	-LE	+HB	-ME	-ME	<i>L.welshimeri</i>	-	N/A	33.7	-	/	/	=
c	I4	PC	No	Salami	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.4	-	/	/	=
c	I15	PC	No	Pâté de foie	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	34.0	-	/	/	=
c	J2	PC	No	Lard cru salé	+MA	+LA	+LA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	24.2	38.0	+	+MA	<i>L.monocytogenes</i>	=
c	J6	PC	No	Lard cru salé	+MB	+LB	+LB	+HB	+HB	+HB	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	27.7	35.7	+	+MB	<i>L.monocytogenes</i>	=
c	O60	PC	No	Lardons fumés	+LD	-LE	-LE	+HA	-ME	-ME	<i>L.monocytogenes</i>	+	32.6	34.3	+	-ME	/	= (sf RLM)
c	A7	PC	No	Rillettes de canard	+MA	+MA	+MA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	25.6	32.6	+	+MA	<i>L.monocytogenes</i>	=
c	A8	PC	No	Jambon blanc	-LE(2)	Ø	Ø	Ø	Ø	Ø	/	-	41.8	34.7	+	+LA(1)	<i>L.monocytogenes</i>	PD
c	B1	PC	No	Cervelas	+LB	+LB	+MB	+HB	+HB	+HB	<i>L.monocytogenes</i>	+	34.1	32.3	+	+MB	<i>L.monocytogenes</i>	=
c	B2	PC	No	Jambon blanc	+LA	+MA	+MA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	29.3	32.9	+	+MA	<i>L.monocytogenes</i>	=
c	C11	PC	No	Pâté de tête	+LA	+LA	+LA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	30.8	32.4	+	+LA	<i>L.monocytogenes</i>	=
c	I12	PC	No	Saucisses de Strasbourg	+HA	+MA	+MA	+HA	+HB	+HB	<i>L.monocytogenes</i>	+	18.9	35.9	+	+HA	<i>L.monocytogenes</i>	=
c	J1	PC	No	Lardons	+MB	+LB	+MB	+HB	+HB	+HB	<i>L.monocytogenes</i>	+	27.0	36.5	+	+MB	<i>L.monocytogenes</i>	=
c	K22	PC	No	Pâté de tête	+LD(1)	+LD	+LD	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	36.0	34.3	+	+LB	<i>L.monocytogenes</i>	=
c	K23	PC	No	Pâté de tête	+LA	+MA	+MA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	24.5	34.8	+	+MA	<i>L.monocytogenes</i>	=
c	K24	PC	No	Pâté de tête persillé	+MA	+MB	+MB	+HA	+HB	+HB	<i>L.monocytogenes</i>	+	20.0	36.6	+	+HB	<i>L.monocytogenes</i>	=
c	L19	PC	No	Langue en gelée	+MB	+LB	+LB	+HB	+HB	+HB	<i>L.monocytogenes</i>	+	34.1	34.7	+	+LB	<i>L.monocytogenes</i>	=

Protocol 1 (Half Fraser - Standard II lysis) Renewal study (ISHA 2017)																							
MEAT PRODUCTS																							
ST	SN	Time	Sample	Contamination				RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis								Additional pathway of confirmation ISO 16140-2:2016	Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result			
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification				
b	167	T0	Pork muzzle with mayonnaise	LIS	4.30	se	3.2	4h+L	4h-M	4h+L	4h+L	/	+	32.61	26.21	+	4h+L	4h-M	4h+L	L.m	+	Cf. RM	PA

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis - Storage 72h at 5°C									Additional pathway of confirmation ISO 16140-2:2016	Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a		Confirmation b			Final result			
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM		AL	RLM	Identification				
b	167	T72h	Pork muzzle with mayonnaise	LIS	4.30	se	3.2	4h+L	4h-M	4h+L	4h+L	/	+	33.05	24.53	+	4h+L		4h-M	4h+L	L.m	+	Cf. RM	PA

Protocol 1 (Half Fraser - Standard II lysis) - Dairy products

Protocol 1 (Half Fraser - Standard II lysis) Initial validation (IPL 2005)																		
DAIRY PRODUCTS																		
Types	Ref.	Cat	CA	Product (in French)	Reference method								Alternative method					Agreement
					Fraser 1/2 (10µl)			Fraser			Identifications	Result	Pure DNA		Result	RLM	Identifications	
					P1	A1	AL1	P2	A2	AL2			Ct TEX	Ct FAM				
a	A16	PL	No	Munster au lait cru	-LE	-LE	-LE	-LE	Ø	Ø	/	-	N/A	32.0	-	/	/	=
a	O8	PL	No	Chèvre au lait cru	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.1	-	-LE	/	=
a	O11	PL	No	Chèvre au lait cru	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.6	-	Ø	/	=
a	O24	PL	No	Fromage fermier au lait cru de brebis	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.3	-	-LE	/	=
a	O25	PL	No	Fromage fermier au lait cru de brebis	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.5	-	Ø	/	=
a	O36	PL	No	Chèvre au lait cru	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	31.6	-	Ø	/	=
a	O40	PL	No	Chèvre au lait cru	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.4	-	-LE	/	=
a	J14	PL	No	Fromage au lait cru de chèvre	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	35.9	-	/	/	=
a	O56	PL	No	Chèvre au lait cru	Ø	Ø	-LE	-LE	Ø	Ø	/	-	N/A	31.5	-	-LE	/	=
a	O4	PL	No	Chèvre au lait cru	+LA (1)	/	-LE(1)	+HA	/	+HA	<i>L.monocytogenes</i>	+	35.0	31.7	+	+LB(4)	<i>L.monocytogenes</i>	=
a	O12	PL	No	Fromage au lait cru de chèvre	+LA	+LA	+LA	+HA	+MA	+MA	<i>L.monocytogenes</i>	+	24.2	32.5	+	+MB	<i>L.monocytogenes</i>	=
a	O13	PL	No	Fromage au lait cru de chèvre	+LA	+LA	+LA	+HA	+MA	+MA	<i>L.monocytogenes</i>	+	25.4	32.3	+	+MB	<i>L.monocytogenes</i>	=
a	O14	PL	No	Fromage au lait cru de chèvre	+LA	+LA	+LA	+HA	+HA	+MA	<i>L.monocytogenes</i>	+	21.3	33.4	+	+MA	<i>L.monocytogenes</i>	=
a	O38	PL	No	Chèvre au lait cru	Ø	Ø	Ø	+LA	-LE	-LE	<i>L.monocytogenes</i>	+	31.2	34.8	+	+LA	<i>L.monocytogenes</i>	=
a	O39	PL	No	Chèvre au lait cru	+LA	+LA	+LA	+MA	-LE	-LE	<i>L.monocytogenes</i>	+	26.1	34.0	+	+MB	<i>L.monocytogenes</i>	=
a	A15	PL	No	Ossau Iraty au lait cru	-ME	Ø	Ø	+HA	+MA	+HA	<i>L.monocytogenes</i>	+	40.6	31.9	+	+LA	<i>L.monocytogenes</i>	=
a	I36	PL	No	Chèvre au lait cru	+MA	+MA	+MA	+HB	+HB	+HB	<i>L.monocytogenes</i>	+	24.7	33.8	+	+MA	<i>L.monocytogenes</i>	=
a	I37	PL	No	Crottin de chèvre	-ME	+LC	+LC	+HA	+HC	+HC	<i>L.monocytogenes</i>	+	32.1	32.6	+	+LB	<i>L.monocytogenes</i>	=
a	I38	PL	No	Roquefort	-ME	Ø	Ø	-ME	Ø	Ø	/	-	39.2 37.0 N/A	32.5 35.9 35.6	 + -	Ø	/	PD _{FP(alt)}
b	O69	PL	No	Lait cru	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.8	-	/	/	=
b	O70	PL	No	Lait cru	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.9	-	/	/	=
b	O71	PL	No	Lait cru	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	34.3	-	/	/	=
b	O72	PL	No	Lait cru	-LE	-LE	-LE	-ME	-ME	-ME	/	-	N/A	34.3	-	/	/	=
b	O73	PL	No	Lait cru	Ø	Ø	Ø	-LE	-LE	-LE	/	-	N/A	34.0	-	/	/	=
b	O74	PL	No	Lait cru	-LE	-LE	-LE	-ME	-ME	-ME	/	-	N/A	33.6	-	/	/	=
b	J16	PL	No	Lait cru	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	34.7	-	/	/	=
b	J17	PL	No	Lait cru	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.8	-	/	/	=
b	L15	PL	No	Lait cru	Ø	Ø	Ø	-LE	-LE	-LE	/	-	N/A	33.2	-	/	/	=
c	O9	PL	No	Reblochon	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.8	-	-LE	/	=
c	O10	PL	No	Reblochon	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	31.5	-	-LE	/	=
c	A18	PL	No	Carré	+LB	-LE	-LE	+HB	-HE	-ME	<i>L.innocua</i>	-	N/A	32.7	-	/	<i>L.innocua</i>	=
c	A19	PL	No	Carré	Ø	Ø	-LE	Ø	Ø	Ø	/	-	N/A	32.7	-	/	/	=
c	B12	PL	No	Fromage croûte lavée	Ø	Ø	Ø	-LE	Ø	Ø	/	-	N/A	32.4	-	/	/	=
c	B13	PL	No	Carré	-ME	Ø	Ø	-ME	Ø	-LE	/	-	N/A	32.1	-	/	/	=
c	C2	PL	No	Carré	-LE	Ø	Ø	-LE	Ø	Ø	/	-	N/A	31.4	-	/	/	=
c	C3	PL	No	Reblochon	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.6	-	/	/	=
c	C5	PL	No	Camembert	-LE	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.5	-	/	/	=
c	D10	PL	No	Carré	-LE	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.0	-	/	/	=
c	D12	PL	No	Epoisses	Ø	-LE	-LE	Ø	Ø	Ø	/	-	N/A	32.1	-	/	/	=
c	D13	PL	No	Fromage croûte lavée	-LE	Ø	-LE	-ME	Ø	Ø	/	-	N/A	31.6	-	/	/	=
c	D15	PL	No	Camembert	-LE	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.2	-	/	/	=

Protocol 1 (Half Fraser - Standard II lysis) Initial validation (IPL 2005)																		
DAIRY PRODUCTS																		
Types	Ref.	Cat	CA	Product (in French)	Reference method								Alternative method					Agreement
					Fraser 1/2 (10µl)			Fraser			Identifications	Result	Pure DNA		Result	RLM	Identifications	
					P1	A1	AL1	P2	A2	AL2			Ct TEX	Ct FAM				
c	J13	PL	No	Maroilles	∅	-LE	∅	∅	∅	∅	/	-	N/A	35.8	-	/	/	=
c	J15	PL	No	Maroilles fermier	∅	∅	∅	∅	∅	∅	/	-	N/A	35.8	-	/	/	=
c	O43	PL	No	Chèvre fermier	∅	∅	∅	∅	∅	∅	/	-	N/A	34.2	-	∅	/	=
c	J12	PL	No	Chevrotin fermier	+LC	∅	∅	∅	∅	∅	/	-	N/A	36.8	-	/	/	=
c	O52	PL	No	Carré	+MB	+MA	+MA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	20.9	32.4	+	+HB	<i>L.monocytogenes</i>	=
c	O53	PL	No	Carré	+LA	+LA	+LB	+MA	+MA	+MA	<i>L.monocytogenes</i> * <i>L.innocua</i> (2)	+	28.3	31.6	+	+MB	<i>L.monocytogenes</i>	=
c	A17	PL	No	Petit carré	-LE	∅	∅	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	34.6	32.7	+	+LA(5)	<i>L.monocytogenes</i>	=
c	A20	PL	No	Camembert	∅	∅	+LA(1)	+HA	+HA	+MA	<i>L.monocytogenes</i>	+	37.7	32.0	+	+MA	<i>L.monocytogenes</i>	=
c	C4	PL	No	Fromage de Bergues fermier	+LB	+HA	+MA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	26.9	34.1	+	+LC	<i>L.monocytogenes</i>	=
c	C6	PL	No	Fromage croûte lavée	+MA	+MA	+MA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	21.3	33.0	+	+MB	<i>L.monocytogenes</i>	=
c	C13	PL	No	Munster au lait cru	+LB	+LC	+LC	+HB	+HB	+HB	<i>L.monocytogenes</i>	+	29.4	33.0	+	+LD	<i>L.monocytogenes</i>	=
c	D7	PL	No	Camembert	+LB	+MA	+MB	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	25.0	32.7	+	+MA	<i>L.monocytogenes</i>	=
c	D9	PL	No	Camembert	+LA	+LA	+LA	+HB	+MA	+MA	<i>L.monocytogenes</i>	+	28.7	32.2	+	+LB	<i>L.monocytogenes</i>	=
c	D11	PL	No	Epoisses	+HA	+HA	+HA	+HA	+HB	+HA	<i>L.monocytogenes</i>	+	17.6	35.4	+	+HA	<i>L.monocytogenes</i>	=
c	D14	PL	No	Carré	+LB	+LD	+MD(1)	+HB	+HA	+MB	<i>L.monocytogenes</i>	+	30.2	31.8	+	+MD (5)	<i>L.monocytogenes</i>	=
c	O49	PL	No	Chèvre fermier	+LA	+LA	+LA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	30.9	32.9	+	+MB	<i>L.monocytogenes</i>	=

Protocol 1 (Half Fraser - Standard II lysis) - Dairy products

Protocol 1 (Half Fraser - Standard II lysis) RENEWAL STUDY (ISHA 2017)																							
DAIRY PRODUCTS																							
ST	SN	Time	Sample	Contamination				RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis								Additional pathway of confirmation ISO 16140- 2:2016	Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result			
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification				
a	62	T0	Neuf Châtel raw milk		/	/	/	0L	0L	0Ø	0Ø	/	-	37.29	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
a	64	T0	Camembert of Normandie raw milk		/	/	/	0L	0L	0Ø	0Ø	/	-	36.72	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
b	90	T0	Raw milk		/	/	/	0L	0M	0Ø	0Ø	/	-	38.19	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
b	75	T0	Raw milk	LIS	4.59	se	2.4	2h+M	3h-L	3h+Ø	4h-Ø	L.m	+	35.09	18.49	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	77	T0	Raw milk	LIS	4.59	se	2.4	2h+M	3h-M	3h+L	4h-L	L.m	+	37.71	21.23	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	79	T0	Raw milk	LIS	4.59	se	2.4	3h+L	3h-L	3h+L	4h-L	L.m	+	32.52	24.89	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	Cf. RM	PA
b	81	T0	Raw milk	LIS	4.23	se	3.2	3h+L	3h-L	4h+L	4h-Ø	L.m	+	37.71	24.34	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	83	T0	Raw milk	LIS	4.23	se	3.2	3h+M	3h-M	3h+L	4h-L	L.m	+	34.61	23.37	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	85	T0	Raw milk	LIS	4.23	se	3.2	4h+Ø	3h-M	3h+L	4h-L	L.m	+	35.8	21.53	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	87	T0	Raw milk butter	LIS	4.62	se	2.6	4h+L	3h-L	4h+L	4h-Ø	L.m	+	36.89	25.64	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	89	T0	Raw milk butter	LIS	4.62	se	2.6	3h+M	3h-M	4h+Ø	4h-Ø	L.m	+	37.84	20.07	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	91	T0	Raw milk	LIS	4.62	se	2.6	4h+Ø	3h-M	3h+L	4h-L	L.m	+	35.32	20.33	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	93	T0	Raw milk	LIS	4.65	se	2.2	2h+M	3h-Ø	3h+L	4h-Ø	L.m	+	47.54	15.1	+	3h+M	4h+Ø	3h+M	L.m	+	Cf. RM	PA
b	95	T0	Raw milk	LIS	4.65	se	2.2	3h+M	3h-Ø	3h+L	4h-L	L.m	+	34.36	16.92	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	97	T0	Raw milk	LIS	4.65	se	2.2	3h+M	3h-Ø	3h+L	4h-L	L.m	+	35.25	19.18	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	99	T0	Raw milk	LIS	4.61	se	2.4	3h+L	3h-L	4h+L	4h-Ø	L.m	+	35.41	23.46	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis - Storage 72h at 5°C									Additional pathway of confirmation ISO 16140- 2:2016	Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result			
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification				
b	75	T72h	Raw milk	LIS	4.59	se	2.4	2h+M	3h-L	3h+Ø	4h-Ø	L.m	+	33.78	18.58	+	3h+M	3h+L	3h+M	L.m	+	Cf. RM	PA
b	77	T72h	Raw milk	LIS	4.59	se	2.4	2h+M	3h-M	3h+L	4h-L	L.m	+	32.78	22.36	+	3h+M	3h+L	3h+M	L.m	+	Cf. RM	PA
b	79	T72h	Raw milk	LIS	4.59	se	2.4	3h+L	3h-L	3h+L	4h-L	L.m	+	32.46	25.74	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	Cf. RM	PA
b	81	T72h	Raw milk	LIS	4.23	se	3.2	3h+L	3h-L	4h+L	4h-Ø	L.m	+	33.56	19.56	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	Cf. RM	PA
b	83	T72h	Raw milk	LIS	4.23	se	3.2	3h+M	3h-M	3h+L	4h-L	L.m	+	33.58	23.25	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	85	T72h	Raw milk	LIS	4.23	se	3.2	4h+Ø	3h-M	3h+L	4h-L	L.m	+	33.69	24.18	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	87	T72h	Raw milk butter	LIS	4.62	se	2.6	4h+L	3h-L	4h+L	4h-Ø	L.m	+	34.05	25.02	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	89	T72h	Raw milk butter	LIS	4.62	se	2.6	3h+M	3h-M	4h+Ø	4h-Ø	L.m	+	34.07	25.17	+	3h+L	4h+Ø	3h+L	L.m	+	Cf. RM	PA
b	91	T72h	Raw milk	LIS	4.62	se	2.6	4h+Ø	3h-M	3h+L	4h-L	L.m	+	33.74	18.45	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	93	T72h	Raw milk	LIS	4.65	se	2.6	2h+M	3h-Ø	3h+L	4h-Ø	L.m	+	32.01	19.54	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	95	T72h	Raw milk	LIS	4.65	se	2.2	3h+M	3h-Ø	3h+L	4h-L	L.m	+	36.15	17.54	+	3h+L	3h+L	3h+L	L.m	+	Cf. RM	PA
b	97	T72h	Raw milk	LIS	4.65	se	2.2	3h+M	3h-Ø	3h+L	4h-L	L.m	+	33.14	30.2	+	3h+L	3h+Ø	3h+L	L.m	+	Cf. RM	PA
b	99	T72h	Raw milk	LIS	4.61	se	2.4	3h+L	3h-L	4h+L	4h-Ø	L.m	+	34.57	25.18	+	3h+L	3h+Ø	3h+L	L.m	+	Cf. RM	PA

Protocol 1 (Half Fraser - Standard II lysis) - Seafood products

Protocol 1 (Half Fraser - Standard II lysis) Initial validation (IPL 2005)																		
SEAFOOD PRODUCTS																		
Type	Ref.	Cat	CA	Product (in French)	Reference method								Alternative method					Agreement
					Fraser 1/2 (10µl)			Fraser			Identifications	Result	Pure DNA		Result	RLM	Identifications	
					P1	A1	AL1	P2	A2	AL2			Ct TEX	Ct FAM				
a	A2	PP	No	Tartare de saumon	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.0	-	/	/	=
a	A5	PP	No	Tartare de saumon	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.7	-	/	/	=
a	G18	PP	No	Saumon	-LE	Ø	-LE	Ø	Ø	-LE	/	-	N/A	34.9	-	/	/	=
a	G19	PP	No	Filets de saumon	-ME	Ø	-LE	-LE	Ø	-LE	/	-	N/A	32.2	-	Ø	/	=
a	G20	PP	No	Saumon	+MB	-ME	-LE	+HA	-HE	-HE	L.innocua	-	N/A	35.2	-	/	L.innocua	=
a	G24	PP	No	Filets de saumon frais	+MB	-LE	-ME	+LB	-LE	-ME	L.welshimeri	-	N/A	34.8	-	/	L.welshimeri	=
a	G25	PP	No	Filets de saumon frais	+LB	-LE	-LE	+LB	-LE	-ME	L.welshimeri	-	N/A	34.8	-	/	L.welshimeri	=
a	G26	PP	No	Filets de saumon frais	+MB	-LE	-ME	+LB	-LE	-ME	L.welshimeri	-	N/A	35.0	-	/	L.welshimeri	=
a	G27	PP	No	Lieu noir	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	35.2	-	/	/	=
a	G28	PP	No	Pavé de saumon	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	34.4	-	/	/	=
a	H1	PP	No	Escalope de saumon	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.3	-	/	/	=
a	L16	PP	No	Filet de haddock	-LE	-LE	-LE	-HE	-ME	-ME	/	-	N/A	34.8	-	/	/	=
a	L17	PP	No	Filet de sabre	Ø	-LE	-LE	-LE	Ø	Ø	/	-	37.8 43.6 N/A	34.5 34.9 34.0	+ + -	- LE	/	PDFP(alt)
a	O27	PP	No	Filet de saumon frais	Ø	Ø	Ø	+HA	+MA	+MA	L.monocytogenes	+	35.0	33.6	+	+LA	L.monocytogenes	=
a	O44	PP	No	Tartare de saumon	Ø	+LA	Ø	+HA	+MA	+HA	L.monocytogenes	+	N/A	34.7	-	+LA	L.monocytogenes	NDFN(alt)
a	O48	PP	No	Tartare de saumon	Ø	Ø	+LA	+MA	+MA	+MA	L.monocytogenes	+	34.6	31.7	+	+LA	L.monocytogenes	=
a	C9	PP	No	Tartare de saumon	+LA	+LA	+LA	+HA	+HA	+HA	L.monocytogenes	+	31.4	32.9	+	+LA	L.monocytogenes	=
a	C10	PP	No	Tartare de saumon	+LA(2)	+LA(2)	+LA(2)	+HA	+HA	+HA	L.monocytogenes	+	36.6	32.0	+	+LA	L.monocytogenes	=
a	J11	PP	No	Filet de poisson	+MA	+MA	+MA	+HB	+HB	+HB	L.monocytogenes	+	16.9	N/A	+	+MB	L.monocytogenes	=
a	J18	PP	No	Poisson	+MA	+MA	+MA	+HB	+HB	+HB	L.monocytogenes	+	21.8	40.9	+	+HB	L.monocytogenes	=
a	J19	PP	No	Poisson	+MB	+LB	+LB	+HB	+HC	+HC	L.monocytogenes	+	29.1	35.9	+	+HD	L.monocytogenes	=
a	D19	PP	No	Filets de harengs doux	-LE	Ø	Ø	+HA	+MA	+HA	L.monocytogenes	+	35.1	31.8	+	+LA	L.monocytogenes	=
b	O5	PP	No	Saumon fumé	-LE	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.0	-	Ø	/	=
b	O23	PP	No	Saumon fumé	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.8	-	Ø	/	=
b	O26	PP	No	Filet de marlin fumé	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.2	-	Ø	/	=
b	O30	PP	No	Marlin fumé	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.9	-	Ø	/	=
b	O31	PP	No	Saumon fumé	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.0	-	Ø	/	=
b	O46	PP	No	Saumon fumé	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	34.4	-	Ø	/	=
b	O47	PP	No	Marlin fumé	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.5	-	Ø	/	=
b	O50	PP	No	Saumon fumé	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.2	-	Ø	/	=
b	O45	PP	No	Filet de hareng doux	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A N/A	34.6 32.8	- -	Ø	/	 =
b	A3	PP	No	Filets de harengs marinés	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.4	-	/	/	=
b	C7	PP	No	Filets de harengs saurs	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.2	-	/	/	=
b	C8	PP	No	Filets de harengs marinés	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.1	-	/	/	=
b	A1	PP	No	Saumon fumé	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.8	-	/	/	=
b	O1	PP	No	Saumon fumé	+HA	/	+HC	+HA	/	+MC	L.monocytogenes	+	20.9	32.6	+	+HB	L.monocytogenes	=
b	O16	PP	No	Saumon fumé	+MA	+MA	+MA	+HA	+MA	+MA	L.monocytogenes	+	20.6	36.1	+	+MA	L.monocytogenes	=
b	O19	PP	No	Saumon fumé	+MA	+MA	+MA	+LA	+MA	+HA	L.monocytogenes	+	19.8	37.7	+	+MA	L.monocytogenes	=
b	O22	PP	No	Saumon fumé	Ø	+LA	+LA	+HA	+HA	+HA	L.monocytogenes	+	31.3	34.4	+	+LA	L.monocytogenes	=
b	O32	PP	No	Saumon fumé	+MA	+MA	+LA	+LA	+LA	+LA	L.monocytogenes	+	24.7	34.5	+	+MA	L.monocytogenes	=
b	O57	PP	No	Saumon fumé	Ø	Ø	Ø	+MA	+MA	+MA	L.monocytogenes	+	N/A	32.8	-	+LA	L.monocytogenes	NDFN(alt)

Protocol 1 (Half Fraser - Standard II lysis) Initial validation (IPL 2005)																		
SEAFOOD PRODUCTS																		
Type	Ref.	Cat	CA	Product (in French)	Reference method								Alternative method					Agreement
					Fraser 1/2 (10µl)			Fraser			Identifications	Result	Pure DNA		Result	RLM	Identifications	
					P1	A1	AL1	P2	A2	AL2			Ct TEX	Ct FAM				
b	O61	PP	No	Saumon fumé	+LA	+LA	+LA	+HB	+HA	+HA	<i>L.monocytogenes</i>	+	31.2	32.0	+	+LA	<i>L.monocytogenes</i>	=
b	O62	PP	No	Saumon fumé	+LA	+MA	+MA	+HA	+MA	+MA	<i>L.monocytogenes</i>	+	25.8	32.3	+	+MA	<i>L.monocytogenes</i>	=
b	O65	PP	No	Saumon fumé	+LA	+LA	+LA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	30.8	32.4	+	+LA	<i>L.monocytogenes</i>	=
b	O67	PP	No	Saumon fumé	+MA	+MA	+MA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	30.2	32.6	+	+MA	<i>L.monocytogenes</i>	=
b	O68	PP	No	Truite fumée	+HA	+MA	+MA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	17.5	36.1	+	+HA	<i>L.monocytogenes</i>	=
b	A4	PP	No	Thon fumé	+LB	+LA	+MA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	30.3	32.3	+	+MB	<i>L.monocytogenes</i>	=
b	E16	PP	No	Brisures de saumon fumé	+LA (5)	Ø	+LA (2)	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	37.7	33.5	+	+LA	<i>L.monocytogenes</i>	=
b	J10	PP	No	Brisures de saumon fumé	+LA	+MA	+MA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	28.3	35.4	+	+MA	<i>L.monocytogenes</i>	=
b	J8	PP	No	Filets de harengs saurs	+MA	+LA	+LA	+HA	+MA	+MB	<i>L.monocytogenes</i>	+	27.6	38.8	+	+MA	<i>L.monocytogenes</i>	=
c	O3	PP	No	Tarama de saumon	-LE	/	-LE	-ME	/	-LE	/	-	N/A	31.4	-	-LE	/	=
c	H3	PP	No	Paupiettes de saumon	Ø	Ø	-LE	Ø	Ø	-LE	/	-	N/A	32.6	-	Ø	/	=
c	J20	PP	No	Poisson, sauce citron	Ø	Ø	Ø	Ø	Ø	Ø	/	-	40.1 35.5 31.6 N/A	35.0 33.4 34.3 35.6	 + + +	-LE	/	PD _{FP(alt)} Fraser
c	H5	PP	No	Brochette de saumon	Ø	Ø	Ø	Ø	Ø	-LE	/	-	N/A	32.1	-	Ø	/	=
c	A6	PP	No	Crevettes cuites	+LB	+LB	+MA	+MB	+MB	+HB	<i>L.monocytogenes</i>	+	33.0	32.0	+	+LB	<i>L.monocytogenes</i>	=
c	D20	PP	No	Crevettes cuites	+LA	+LB	+MB	+HB	+MB	+MB	<i>L.monocytogenes</i>	+	27.8	32.5	+	+LA	<i>L.monocytogenes</i>	=
c	H2	PP	No	Paupiettes de saumon	+LA(1)	+LA(1)	Ø	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	N/A 14.7	32.3 N/A	- +	Ø	<i>L.monocytogenes</i>	ND _{FN(alt)} Fraser
c	H7	PP	No	Brochette de poisson blanc	+LB	+LB	+LB	+HB	+HB	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	34.0	32.1	+	+LB	<i>L.monocytogenes</i>	=
c	J7	PP	No	Poisson bordelaise	+HA	+HA	+HA	+HB	+HB	+HB	<i>L.monocytogenes</i>	+	16.6	N/A	+	+HA	<i>L.monocytogenes</i>	=
c	J9	PP	No	Poisson bordelaise	+MA	+MA	+MA	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	16.3	N/A	+	+HA	<i>L.monocytogenes</i>	=

Protocol 1 (Half Fraser - Standard II lysis) - Seafood products

Protocol 1 (Half Fraser - Standard II lysis) Renewal study (ISHA 2017)																						
SEAFOOD PRODUCTS																						
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis								Additional pathway of confirmation ISO 16140- 2:2016	Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result		
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification			
c	74	T0	Stick with crab flavour	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.20	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
c	76	T0	Rillette of sardines	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.61/33.7	39.81/N/A	+/-	0Ø	0Ø	0Ø	/	-	Cf. RM	PD _{FP(alt)}
c	78	T0	Tarama with cod eggs	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.45	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
c	80	T0	Rillette of salmon with garlic and sweet herbs	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.25	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
c	82	T0	Rillette of St Jacques	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	39.46	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
c	84	T0	Tuna with fresh cheese and sweet herbs	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	37.8	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
c	101	T0	Stick with crab flavour	LIS 4.83	se	2.8	3h+Ø	3h-Ø	3h+Ø	4h-Ø	/	+	35.69	23.58	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
c	103	T0	Rillette of sardines	LIS 4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	33.95	21.47	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	Cf. RM	PA
c	105	T0	Tarama with cod eggs	LIS 4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	34.76	26.17	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA
c	107	T0	Rillette of salmon with garlic and sweet herbs	LIS 4.15	se	2.2	3h+Ø	3h-Ø	3h+Ø	4h-Ø	/	+	33.8	20.17	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA
c	109	T0	Rillette of St Jacques	LIS 4.15	se	2.2	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	36.34	18.93	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis - Storage 72h at 5°C								Additional pathway of confirmation ISO 16140- 2:2016	Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result		
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification			
c	101	T72h	Stick with crab flavour	LIS 4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	35.78	24.19	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
c	103	T72h	Rillette of sardines	LIS 4.83	se	2.8	3h+Ø	4h-Ø	3h+Ø	3h-Ø	/	+	36.04	17.96	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	Cf. RM	PA
c	105	T72h	Tarama with cod eggs	LIS 4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	3h-Ø	/	+	33.12	18.56	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA
c	107	T72h	Rillette of salmon with garlic and sweet herbs	LIS 4.15	se	2.2	3h+Ø	3h-Ø	4h+Ø	3h-Ø	/	+	35.69	20.36	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA
c	109	T72h	Rillette of St Jacques	LIS 4.15	se	2.2	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	35.08	20.48	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA

Protocol 1 (Half Fraser - Standard II lysis) - Vegetable products

Protocol 1 (Half Fraser - Standard II lysis) Initial validation (IPL 2005) VEGETABLE PRODUCTS																		
Types	Ref.	Cat	CA	Product (in French)	Reference method							Alternative method					Agreement	
					Fraser 1/2 (10µl)			Fraser			Identifications	Result	Pure DNA		Result	RLM		Identifications
					P1	A1	AL1	P2	A2	AL2			Ct TEX	Ct FAM				
a	D3	PV	No	Courgettes surgelées	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	31.8	Neg	/	/	=
a	D1	PV	No	Brocolis	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.6	Neg	/	/	=
a	E24	PV	No	Champignons	Ø	Ø	Ø	Ø	Ø	Ø	/	-	34.4 31.9 34.6	33.4 33.8 33.7	+ + +	Ø	/	PD _{FP(alt)}
a	H8	PV	No	Champignons	-LE	-LE	-LE	-ME	-ME	Ø	/	-	N/A	32.2	Neg	Ø	/	=
a	L7	PV	No	Haricots verts	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A N/A	34.1 36.3	Neg Neg	/	/	= =
a	J26	PV	No	Brocolis	+MA	+MA	+MA	+HA	+MA	+HA	<i>L.monocytogenes</i>	+	27.6	36.2	+	+MA	<i>L.monocytogenes</i>	=
b	J22	PV	No	Macédoine de légumes non assaisonnée	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	35.8	Neg	/	/	=
b	L5	PV	No	Carottes râpées non assaisonnées	-LE	Ø	Ø	-ME	Ø	Ø	/	-	N/A	33.7	Neg	/	/	=
b	L11	PV	No	Mélange de salades	-ME	-ME	-ME	+MB	-ME	-ME	/	-	N/A	34.8	Neg	/	/	=
b	D8	PV	No	Poêlée de légumes	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.4	Neg	/	/	=
b	L12	PV	No	Poêlée forestière	Ø	-LE	-LE	-ME	-ME	-ME	/	-	N/A	34.0	Neg	/	/	=
b	I16	PV	Yes	Mâche	-ME	-LE	-LE	-ME	-LE	-ME	/	-	N/A	33.8	Neg	-LE	/	=
b	I17	PV	Yes	Mélange de crudités	Ø	Ø	Ø	Ø	Ø	-LE	/	-	N/A	35.6	Neg	/	/	=
c	E23	PV	No	Pommes de terre rissolées surgelées	-LE	-LE	-LE	+MA	-ME	-HE	<i>L.innocua</i>	-	N/A	35.1	Neg	/	<i>L.innocua</i>	=
c	B18	PV	No	Pommes de terre rissolées surgelées	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.7	Neg	/	/	=
c	B19	PV	No	Epinards à la crème surgelés	Ø	Ø	Ø	-LE	Ø	-LE	/	-	40.0 38.3 38.7 40.8	32.2 34.4 34.3 34.6	+ + + +	Ø	/	PD _{FP(alt)} Fraser
c	J28	PV	No	Chou-fleur en gratin	-LE	Ø	Ø	-ME	Ø	Ø	/	-	N/A	36.2	Neg	/	/	=
c	L8	PV	No	Chou cuit	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	34.0	Neg	/	/	=
c	L9	PV	No	Chou-fleur cuit	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.9	Neg	/	/	=
c	L13	PV	No	Salade de lentilles	+LA	-ME	-ME	Ø	Ø	Ø	/	-	N/A	33.9	Neg	/	/	=
c	B15	PV	No	Pommes de terre rissolées surgelées	+LB	+LA	+LA	+MA	+HA	+HA	<i>L.monocytogenes</i>	+	33.2	32.4	+	+MA	<i>L.monocytogenes</i>	=
c	C1	PV	No	Pommes de terre rissolées surgelées	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.3	Neg	/	/	=
c	D4	PV	No	Pommes de terre rissolées surgelées	+MB	+LA	+MA	+HB	+MB	+MB	<i>L.monocytogenes</i>	+	25.6	32.5	+	+MB	<i>L.monocytogenes</i>	=
c	D6	PV	No	Epinards à la crème surgelés	+LB	+LA	+LA	+HB	+MB	+MB	<i>L.monocytogenes</i>	+	30.1	31.9	+	+LA(4)	<i>L.monocytogenes</i>	=
c	L1	PV	No	Pommes rissolées surgelées	+MA	+MA	+MA	+HB	+MA	+MA	<i>L.monocytogenes</i>	+	24.7	34.2	+	+MA	<i>L.monocytogenes</i>	=
c	H9	PV	No	Mélange de légumes	Ø	Ø	-LE	Ø	-ME	-ME	/	-	N/A	33.0	Neg	Ø	/	=
c	H6	PV	No	Purée d'épinards	+LA	+LA	+LA	+HB	+HB	+HB	<i>L.monocytogenes</i>	+	31.2	32.5	+	+LB	<i>L.monocytogenes</i>	=

Protocol 1 (Half Fraser - Standard II lysis) - Vegetable products

Protocol 1 (Half Fraser - Standard II lysis) - Vegetable products Renewal study (ISHA 2017)																							
VEGETABLE PRODUCTS																							
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis								Additional pathway of confirmation ISO 16140- 2:2016	Concordance RM/AM	
							Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a		Confirmation b					Final result
				Strain	Type	Level	O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification				
a	106	T0	Banana	/	/	/	0L	0L	0Ø	0Ø	/	-	37.91	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
a	108	T0	Grape	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.91	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
a	110	T0	Tomato	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	37.81	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
a	112	T0	Plums red	/	/	/	0L	0L	0Ø	0Ø	/	-	38.18	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
a	114	T0	Pear	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.39	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
b	116	T0	Julienne of vegetables	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	34.02	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
b	118	T0	Grated carrot	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.67	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
b	120	T0	Sliced cucumber	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.7	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
c	128	T0	Wax bean	/	/	/	0L	0L	0Ø	0Ø	/	-	33.81	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
c	130	T0	peas steamed	/	/	/	0L	0L	0Ø	0Ø	/	-	33.6	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
c	132	T0	Green lentils cooked	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.56	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
a	111	T0	Banana	LIS	4.10	se	1.6	3h+M	3h-L	3h+L	4h-L	/	+	34.78	20.31	+	2h+M	3h-L	2h+M	L.m	+	Cf. RM	PA
a	113	T0	Grape	LIS	4.10	se	1.6	3h+L	4h-L	4h+L	4h-L	/	+	37.93	15.33	+	3h+L	4h-L	3h+L	L.m	+	Cf. RM	PA
a	115	T0	Tomato	LIS	4.10	se	1.6	3h+Ø	4h-Ø	4h+L	4h-Ø	/	+	35.02	19.27	+	2h+Ø	4h-Ø	2h+Ø	L.m	+	Cf. RM	PA
a	117	T0	Plums red	LIS	4.35	se	2.0	3h+Ø	4h-Ø	4h+L	4h-Ø	/	+	36.44-34.39	N/A-23.74	IV/+**	2h+Ø	4h-Ø	2h+Ø	L.m	+	Cf. RM	PA
a	119	T0	Pear	LIS	4.35	se	2.0	3h+M	4h-L	3h+L	4h-L	/	+	33.8	21.45	+	3h+M	4h-L	3h+M	L.m	+	Cf. RM	PA
a	121	T0	Yellow plum	LIS	4.35	se	2.0	3h+Ø	4h-Ø	3h+L	4h-L	/	+	N/A	19.02	+	3h+Ø	4h-Ø	3h+Ø	L.m	+	Cf. RM	PA
a	123	T0	Estar apple	LIS	4.17	se	1.8	3h+M	4h-L	4h+L	4h-L	/	+	33.06	27.26	+	3h+M	4h-L	3h+M	L.m	+	Cf. RM	PA
a	125	T0	Canada grey apple	LIS	4.17	se	1.8	3h+M	4h-L	4h+L	4h-L	/	+	33.41	22.28	+	3h+M	4h-L	3h+M	L.m	+	Cf. RM	PA
a	127	T0	Granny apple	LIS	4.17	se	1.8	3h+M	4h-L	4h+L	4h-L	/	+	N/A	28.23	+	3h+M	4h-L	3h+M	L.m	+	Cf. RM	PA
a	129	T0	Reine-Claude plum	LIS	4.80	se	3.0	3h+M	4h-M	4h+L	4h-L	/	+	34.71	24.83	+	3h+M	4h-M	3h+M	L.m	+	Cf. RM	PA
a	131	T0	Golden apple	LIS	4.80	se	3.0	3h+Ø	4h-Ø	3h+L	4h-Ø	/	+	34.21	20.09	+	3h+Ø	4h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	133	T0	Julienne of vegetables	LIS	4.80	se	3.0	3h+M	4h-L	3h+L	4h-L	/	+	33.51	20.15	+	3h+L	4h-L	3h+L	L.m	+	Cf. RM	PA
b	135	T0	Grated carot	LIS	4.81	se	2.6	3h+M	4h-L	3h+L	4h-L	/	+	33.67-33.82-34.15	N/A-N/A-N/A	IV/IV/ -**	2h+L	4h-L	2h+L	L.m	-	Cf. RM	ND _{FN(alt)}
b	137	T0	Sliced cucumber	LIS	4.81	se	2.6	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	32.14	19.07	+	3h+Ø	4h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	139	T0	Prepared lettuce heart	LIS	4.81	se	2.6	3h+Ø	3h-L	4h+Ø	4h-L	/	+	37.45	15.25	+	3h+Ø	3h-L	3h+Ø	L.m	+	Cf. RM	PA
b	141	T0	Mix of young sprouts	LIS	4.20	se	1.8	3h+M	4h-L	3h+L	4h-L	/	+	35.54	19.18	+	3h+L	4h-L	3h+L	L.m	+	Cf. RM	PA
b	143	T0	Sliced leek	LIS	4.20	se	1.8	3h+Ø	4h-Ø	3h+L	4h-Ø	/	+	35.92	23.54	+	3h+Ø	4h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	145	T0	Grated carrot	LIS	4.20	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	33.38	31.25	+	3h+Ø	3h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	147	T0	White cabbage	LIS	4.5	se	2.2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	33.15	26.88	+	3h+Ø	3h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	149	T0	Red cabbage	LIS	4.5	se	2.2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	34.14	20.05	+	3h+Ø	4h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	151	T0	White cabbage	LIS	4.5	se	2.2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	34.28	20.33	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
b	153	T0	Red cabbage	LIS	4.18	se	2.0	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	33.1	15.15	+	3h+Ø	3h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	155	T0	Batavia salad	LIS	4.18	se	2.0	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	35.65	18.84	+	3h+Ø	3h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	157	T0	Frisée salad	LIS	4.18	se	2.0	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	34.92	23.6	+	3h+Ø	4h-Ø	3h+Ø	L.m	+	Cf. RM	PA
c	159	T0	Wax bean	LIS	4.78	se	3.2	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	34.24	21.45	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
c	161	T0	peas steamed	LIS	4.78	se	3.2	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	35.22	26.23	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
c	163	T0	Green lentils cooked	LIS	4.78	se	3.2	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	33.61	23.03	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
c	165	T0	Green beans	LIS	4.79	se	2.6	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	33.67	28.04	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA

Protocol 1 (Half Fraser - Standard II lysis) - Vegetable products Renewal study (ISHA 2017)																							
VEGETABLE PRODUCTS																							
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Fraser 1/2-Standard II lysis-Storage 72h at 5°C								Additional pathway of confirmation ISO 16140-2:2016	Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirma- tion a	Confirmation b			Final result			
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification				
a	111	T72h	Banana	LIS	4.10	se	1.6	3h+M	3h-L	3h+I	4h-L	/	+	34.55	20.45	+	2h+M	3h-L	2h+M	L.m	+	Cf. RM	PA
a	113	T72h	Grape	LIS	4.10	se	1.6	3h+L	4h-L	4h+L	4h-L	/	+	33.69	16.54	+	4h+L	4h-L	4h+L	L.m	+	Cf. RM	PA
a	115	T72h	Tomato	LIS	4.10	se	1.6	4h+Ø	4h-L	4h+L	4h-Ø	/	+	33.54	21.08	+	2h+Ø	4h-Ø	2h+Ø	L.m	+	Cf. RM	PA
a	117	T72h	Plums red	LIS	4.35	se	2	3h+Ø	4h-Ø	3h+I	4h-Ø	/	+	33.87	24.78	+	2h+Ø	4h-Ø	2h+Ø	L.m	+	Cf. RM	PA
a	119	T72h	Pear	LIS	4.35	se	2	3h+M	4h-Ø	4h+L	4h-L	/	+	33.12	19.45	+	4h+M	4h-L	4h+M	L.m	+	Cf. RM	PA
a	121	T72h	Yellow plum	LIS	4.35	se	2	3h+Ø	4h-Ø	4h+L	4h-L	/	+	34.05	22.36	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
a	123	T72h	Estar apple	LIS	4.17	se	1.8	3h+M	4h-L	4h+L	4h-L	/	+	33.54	28.18	+	4h+M	4h-L	4h+M	L.m	+	Cf. RM	PA
a	125	T72h	Canada grey apple	LIS	4.17	se	1.8	3h+Ø	4h-Ø	4h+L	4h-L	/	+	33.87	28.22	+	4h+M	4h-L	4h+M	L.m	+	Cf. RM	PA
a	127	T72h	Granny apple	LIS	4.17	se	1.8	3h+M	4h-Ø	4h+L	4h-Ø	/	+	33.06	27.45	+	4h+M	4h-L	4h+M	L.m	+	Cf. RM	PA
a	129	T72h	Reine-Claude plum	LIS	4.80	se	3	3h+L	4h-M	4h+L	4h-L	/	+	33.25	25.04	+	4h+M	4h-M	4h+M	L.m	+	Cf. RM	PA
a	131	T72h	Golden apple	LIS	4.80	se	3	3h+Ø	4h-Ø	3h+L	4h-L	/	+	34.08	17.84	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
b	133	T72h	Julienne of vegetables	LIS	4.80	se	3	3h+M	4h-L	3h+L	4h-L	/	+	34.25	23.56	+	4h+L	4h-L	4h+L	L.m	+	Cf. RM	PA
b	135	T72h	Grated carrot	LIS	4.81	se	2.6	3h+M	4h-L	3h+L	4h-L	/	+	34.55-32.75-31.54-35.18	N/A-N/A-N/A-N/A	IV /-/- **	2h+L	3h-L	2h+L	L.m	-	Cf. RM	ND _{FN(alt)}
b	137	T72h	Sliced cucumber	LIS	4.81	se	2.6	3h+L	4h-L	4h+Ø	4h-Ø	/	+	31.89	21.87	+	3h+Ø	3h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	139	T72h	Prepared lettuce heart	LIS	4.81	se	2.6	3h+L	4h-L	4h+Ø	4h-L	/	+	32.98	18.79	+	4h+Ø	4h-L	4h+Ø	L.m	+	Cf. RM	PA
b	141	T72h	Mix of young sprouts	LIS	4.2	se	1.8	3h+M	4h-L	3h+L	4h-L	/	+	33.05	25.34	+	4h+L	4h-L	4h+L	L.m	+	Cf. RM	PA
b	143	T72h	Sliced leek	LIS	4.2	se	1.8	4h+Ø	4h-Ø	3h+L	4h-Ø	/	+	33.01	20.45	+	3h+Ø	4h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	145	T72h	Grated carrot	LIS	4.2	se	1.8	4h+Ø	4h-Ø	3h+I	4h-Ø	/	+	32.87	28.36	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
b	147	T72h	White cabbage	LIS	4.5	se	2.2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	34.54	25.47	+	3h+Ø	3h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	149	T72h	Red cabbage	LIS	4.5	se	2.2	4h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	33.28	21.08	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
b	151	T72h	White cabbage	LIS	4.5	se	2.2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	33.49	21.45	+	3h+Ø	4h-Ø	3h+Ø	L.m	+	Cf. RM	PA
b	153	T72h	Red cabbage	LIS	4.18	se	2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	33.2	14.78	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
b	155	T72h	Batavia salad	LIS	4.18	se	2	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	32.87	19.54	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
b	157	T72h	Frisée salad	LIS	4.18	se	2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	34.21	24.57	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
c	159	T72h	Wax bean	LIS	4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	34.98	22.45	+	3h+Ø	4h-Ø	3h+Ø	L.m	+	Cf. RM	PA
c	161	T72h	peas steamed	LIS	4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	34.07	25.36	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA
c	163	T72h	Green lentils cooked	LIS	4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	34.52	23.09	+	3h+Ø	3h-Ø	3h+Ø	L.m	+	Cf. RM	PA
c	165	T72h	Green beans	LIS	4.79	se	2.6	4h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	33.12	28.97	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	Cf. RM	PA

Protocol 1 (Half Fraser - Standard II lysis)RTE/RTRH

Protocol 1 (Half Fraser - Standard II lysis) Initial validation (IPL 2005)																		
RTE - RTRH																		
Type	Ref.	Cat	CA	Product (in French)	Reference method								Alternative method					Agreement
					Fraser 1/2 (10µl)			Fraser			Identifications	Result	Pure DNA		Result	RLM	Identifications	
					P1	A1	AL1	P2	A2	AL2			Ct TEX	Ct FAM				
a	O33	PP	No	Tartare de saumon	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.3	-	Ø	/	=
a	J21	PV	No	Taboulé	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	35.9	-	/	/	=
a	O6	PP	No	Tartare de saumon	Ø	+LA	Ø	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	29.3	31.9	+	+LA(4)	<i>L.monocytogenes</i>	=
b	L6	PV	No	Pomme de terre et tomates	-LE	Ø	-LE	-LE	Ø	-LE	/	-	N/A	33.9	-	/	/	=
b	H4	PP	No	Millefeuille de saumon	+LA	+LA	+LA	+HB	+HB	+HB	<i>L.monocytogenes</i>	+	30.7	32.0	+	+LB	<i>L.monocytogenes</i>	=
b	I7	PC	No	Jambon croustillant	+MA	+LA	+LA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	24.9	33.9	+	+MA	<i>L.monocytogenes</i>	=
b	D5	PV	No	Farfalles fraîches crues	+LA	+LA	+LA	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	29.2	31.6	+	+LA	<i>L.monocytogenes</i>	=
b	J25	PV	No	Tagliatelles fraîches crues	+LB	+LA	+LA	+HA	+MA	+HA	<i>L.monocytogenes</i>	+	36.8	35.7	+	+LB	<i>L.monocytogenes</i>	=
b	B16	PV	No	Riz aux légumes	+MA	+HA	+MA	+MA	+HA	+HA	<i>L.monocytogenes</i>	+	23.7	33.3	+	+HA	<i>L.monocytogenes</i>	=
b	E22	PV	No	Riz cantonais	+MA	+MA	+MA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	28.0	35.1	+	+MA	<i>L.monocytogenes</i>	=
b	L10	PV	No	Semoule couscous et tomates	+MB	-LE	-LE	+MB	-ME	-ME	/	-	N/A	34.2	-	/	/	=
c	B14	PL	No	Profiteroles chocolat	+MA	+MA	+HA	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	22.2	35.2	+	+HB	<i>L.monocytogenes</i>	=
c	D16	PL	No	Chou chantilly	+HB	+HA	+HA	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	18.9	35.0	+	+HA	<i>L.monocytogenes</i>	=
c	D17	PL	No	Tarte tropézienne	+MA	+MA	+MA	+HB	+HB	+MB	<i>L.monocytogenes</i>	+	21.7	32.7	+	+MA	<i>L.monocytogenes</i>	=
c	E25	PL	No	Profiteroles chantilly	+MB	+MB	+MB	+HB	+MB	+MB	<i>L.monocytogenes</i>	+	18.5	N/A	+	+HB	<i>L.monocytogenes</i>	=

Protocol 1 (Half Fraser - Standard II lysis) - RTE/RTRH

Protocol 1 (Half Fraser - Standard II lysis) Renewal study (ISHA 2017)																							
RTE - RTRH																							
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis									Additional pathway of confirmation ISO 16140- 2:2016	Concordance RM/AM
																							Final result
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Final result		
O&A	Palcam	O&A	Palcam	Identification	Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification												
a	2	T0	Tabouleh with chicken	/	/	/	0L	0L	0L	0L	/	-	34.18	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
a	4	T0	Strabourgeoise salad	/	/	/	0L	0L	0Ø	0Ø	/	-	35.18	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
a	6	T0	Piémontaise with ham	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	34.01	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
a	8	T0	Sandwich with salmon and chives	/	/	/	0M	0M	0Ø	0M	/	-	33.85	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
a	10	T0	Sandwich with ham and Emmental	/	/	/	0M	0M	0M	0M	/	-	34.14/34.52	38.69/N/A	+/-	0M	0M	0M	/	-	Cf. RM	PDFP(alt)	
a	12	T0	Sandwich with tuna and crudities	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	34.34	N/A	-	0M	0M	0M	/	-	Cf. RM	NA	
a	14	T0	Sandwich with ham and butter	/	/	/	0L	0Ø	0Ø	0Ø	/	-	34.48	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
a	16	T0	Sandwich with rosette and butter	/	/	/	0L	0L	0Ø	0Ø	/	-	33.5	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
a	1	T0	Tabouleh with chicken	LIS 4.6	se	2.2	4h+M	4h-M	4h+M	4h-M	L.m	+	35.55	23.48	+	3h+L	4h+L	3h+L	L.m	+	Cf. RM	PA	
a	3	T0	Strabourgeoise salad	LIS 4.6	se	2.2	3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	35.05	21.37	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	Cf. RM	PA	
a	5	T0	Piémontaise with ham	LIS 4.6	se	2.2	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	35.09	25.83	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	Cf. RM	PA	
a	7	T0	Sandwich with salmon and chives	LIS 4.24	se	2.8	3h+Ø	4h-M	3h+Ø	3h-Ø	L.m	+	35.85	19.65	+	3h+L	4h+M	3h+L	L.m	+	Cf. RM	PA	
a	9	T0	Sandwich with ham and Emmental	LIS 4.24	se	2.8	4h+Ø	4h-M	3h+Ø	4h-Ø	L.m	+	35.09	20.3	+	3h+L	4h+M	3h+L	L.m	+	Cf. RM	PA	
a	11	T0	Sandwich with tuna and crudities	LIS 4.24	se	2.8	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	36.66	23.62	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	Cf. RM	PA	
a	13	T0	Sandwich with ham and butter	LIS 4.86	se	1.8	2h+L	3h-Ø	3h+Ø	3h-Ø	L.m	+	33.86	20.9	+	3h+M	4h+L	3h+M	L.m	+	Cf. RM	PA	
a	15	T0	Sandwich with rosette and butter	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.11	22.33	+	2h+Ø	2h+Ø	2h+Ø	L.m	+	Cf. RM	PA	
a	17	T0	Sandwich with chicken and crudities	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	35.3	19.38	+	2h+Ø	2h+Ø	2h+Ø	L.m	+	Cf. RM	PA	
a	19	T0	Sandwich with ham and cheddar	LIS 4.88	se	2.2	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	N/A	15.62	+	2h+Ø	2h+Ø	2h+Ø	L.m	+	Cf. RM	PA	
a	21	T0	Sandwich with ham and cheddar	LIS 4.88	se	2.2	3h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	38.2	17.22	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA	
b	22	T0	Pizza with three cheeses	/	/	/	0L	0L	0Ø	0Ø	/	-	33.59	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
b	24	T0	Pizza with ham and cheese	/	/	/	0L	0Ø	0Ø	0Ø	/	-	33.48	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
b	26	T0	Pizza with three melting cheeses	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.4	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
b	28	T0	Pizza with comté, emmental and lardons	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.61	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
b	30	T0	Pizza with ham and mushroom	/	/	/	0L	0L	0Ø	0Ø	/	-	41.27	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
b	32	T0	Flammekueche with smoked lardons	/	/	/	0L	0L	0Ø	0Ø	/	-	42.59	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
b	34	T0	Croissant with ham	/	/	/	0L	0M	0L	0L	/	-	40.33	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
b	36	T0	Lorrain quiche	/	/	/	0L	0L	0Ø	0Ø	/	-	33.57	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
b	38	T0	Flaky goat cheese	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	41.94	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
b	40	T0	Provençal pastry	/	/	/	0M	0M	0M	0M	/	-	40.14	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
b	23	T0	Pizza with three cheeses	LIS 4.88	se	2.2	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	36.58	19.16	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	Cf. RM	PA	
b	25	T0	Pizza with ham and cheese	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	34.72	23.35	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA	
b	27	T0	Pizza with three melting cheeses	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	36.11	21.23	+	2h+Ø	2h+Ø	2h+Ø	L.m	+	Cf. RM	PA	
b	29	T0	Pizza with comté, emmental and lardons	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	38.31	20.04	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	Cf. RM	PA	
c	42	T0	Raspberries tart	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.39	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
c	44	T0	Apples tart	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.97/33.6	41.89/N/A	+/-	0L	0L	0L	/	-	Cf. RM	PDFP(alt)	
c	46	T0	Mille-feuilles	/	/	/	0L	0L	0Ø	0Ø	/	-	33.39	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
c	48	T0	Donuts with pastry cream	/	/	/	0L	0Ø	0Ø	0Ø	/	-	38.08	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	

Protocol 1 (Half Fraser - Standard II lysis)
Renewal study (ISHA 2017)

RTE - RTRH

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis									Additional pathway of confirmation ISO 16140- 2:2016	Concordance RM/AM
																							Final result
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	iQ-Check	Confirmation a	Confirmation b			Final result						
							O&A	Palcam	O&A	Palcam	Identification			Ct C. int	Ct FAM	Results		RLM	AL	RLM	Identification		
c	50	T0	Pudding	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.44	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
c	52	T0	Stick with pastry cream	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.51	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA	
c	54	T0	Strawberries tart	/	/	/	0L	0L	0Ø	0Ø	/	-	38.65	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
c	56	T0	Savarin with rhum and pastry cream	/	/	/	0L	0L	0Ø	0Ø	/	-	38.52	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
c	58	T0	Choux with pastry cream	/	/	/	0L	0L	0Ø	0Ø	/	-	38.31	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
c	60	T0	Pudding	/	/	/	0L	0L	0Ø	0Ø	/	-	38.27	N/A	-	0L	0L	0L	/	-	Cf. RM	NA	
c	35	T0	Raspberries tart	LIS 4.46	se	2.0	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	36.2	19.97	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	Cf. RM	PA	
c	37	T0	Apples tart	LIS 4.7	se	2.8	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	35	20.35	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	Cf. RM	PA	
c	39	T0	Mille-feuille	LIS 4.7	se	2.8	4h+M	4h-M	4h+M	4h-M	L.m	+	38.14	15.71	+	3h+M	4h+M	3h+M	L.m	+	Cf. RM	PA	
c	41	T0	Savarin with rhum and pastry cream	LIS 4.7	se	2.8	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	36.96	17.05	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA	
c	43	T0	Pudding	LIS 4.93	se	3.2	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	38.1	19.36	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA	
c	45	T0	Choux with pastry cream	LIS 4.93	se	3.2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.93	23.27	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	Cf. RM	PA	
c	47	T0	Strawberries tart	LIS 4.93	se	3.2	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	36.63	15.54	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA	
c	49	T0	Savarin with rhum and pastry cream	LIS 4.91	se	1.6	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	36.07	16.55	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	Cf. RM	PA	

Protocol 1 (Half Fraser - Standard II lysis)
Renewal study (ISHA 2017)

RTE - RTRH

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis								Additional pathway of confirmation ISO 16140- 2:2016	Concordance RM/AM
																						Final result
				Strain	Type	Level	O&A	Palcam	O&A	Palcam	Identification	Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification				
a	1	T72h	Taboulet with chicken	LIS 4.6	se	2.2	4h+M	4h-M	4h+M	4h-M	L.m	+	36.25	22.64	+	3h+M	3h+M	3h+M	L.m	+	Cf. RM	PA
a	3	T72h	strabourgeoise salad	LIS 4.6	se	2.2	3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	34.58	23.01	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	Cf. RM	PA
a	5	T72h	Piémontaise with ham	LIS 4.6	se	2.2	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.67	22.89	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	7	T72h	Sandwich with salmon and chives	LIS 4.24	se	2.7	3h+Ø	4h-M	3h+Ø	3h-Ø	L.m	+	34.02	21.06	+	3h+M	4h+L	3h+M	L.m	+	Cf. RM	PA
a	9	T72h	Sandwich with ham and Emmental	LIS 4.24	se	2.7	4h+Ø	4h-M	3h+Ø	4h-Ø	L.m	+	33.65	21.54	+	3h+L	4h+L	3h+L	L.m	+	Cf. RM	PA
a	11	T72h	Sandwich with tuna and crudities	LIS 4.24	se	2.7	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	N/A	22.58	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	13	T72h	Sandwich with ham and butter	LIS 4.86	se	1.8	2h+L	3h-Ø	3h+Ø	3h-Ø	L.m	+	36.12	18.54	+	3h+M	4h+L	3h+M	L.m	+	Cf. RM	PA
a	15	T72h	Sandwich with rosette and butter	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.58	24.59	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	Cf. RM	PA
a	17	T72h	Sandwich with chicken and crudities	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.78	24.17	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA
a	19	T72h	Sandwich with ham and cheddar	LIS 4.88	se	2.2	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.69	25.06	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	Cf. RM	PA
a	21	T72h	Sandwich with ham and cheddar	LIS 4.88	se	2.2	3h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	33.25	21.36	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA
b	23	T72h	Pizza with three cheeses	LIS 4.88	se	2.2	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.14	25.28	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA
b	25	T72h	Pizza with ham and cheese	LIS 4.89	se	2.5	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.25	19.04	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	Cf. RM	PA
b	27	T72h	Pizza with three melting cheeses	LIS 4.89	se	2.5	3h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	34.06	20.15	+	2h+Ø	2h+Ø	2h+Ø	L.m	+	Cf. RM	PA
b	29	T72h	Pizza with comté, emmental and lardons	LIS 4.89	se	2.5	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	34.89	24.36	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	Cf. RM	PA

Protocol 1 (Half Fraser - Standard II lysis)
Renewal study (ISHA 2017)

RTE - RTRH

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					AM: iQ-Check Half Fraser - Standard II lysis								Additional pathway of confirmation ISO 16140- 2:2016	Concordance RM/AM	
																					Final result	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b				Final result	Final result
O&A	Palcam	O&A	Palcam	Identification	Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification											
c	35	T72h	Raspberries tart	LIS 4.46	se	1.9	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	35.06	22.89	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA
c	37	T72h	Apples tart	LIS 4.7	se	2.8	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	34.87	25.61	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
c	39	T72h	Mille-feuille	LIS 4.7	se	2.8	4h+M	4h-M	4h+M	4h-M	L.m	+	32.05	21.56	+	3h+L	3h+M	3h+L	L.m	+	Cf. RM	PA
c	41	T72h	Savarin with rum and pastry cream	LIS 4.7	se	2.8	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	32.58	23.16	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
c	43	T72h	Pudding	LIS 4.93	se	3.1	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.69	24.02	+	2h+Ø	2h+Ø	2h+Ø	L.m	+	Cf. RM	PA
c	45	T72h	Choux with pastry cream	LIS 4.93	se	3.1	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.14	24.13	+	2h+Ø	2h+Ø	2h+Ø	L.m	+	Cf. RM	PA
c	47	T72h	Strawberries tart	LIS 4.93	se	3.1	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	35.12	25.04	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
c	49	T72h	Savarin with rum and pastry cream	LIS 4.91	se	1.6	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	33.48	26.31	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA

Protocol 1 (Half Fraser - Standard II lysis) - Environmental products

Protocol 1 (Half Fraser - Standard II lysis) Initial validation (IPL 2005)																		
ENVIRONMENTAL PRODUCTS																		
Types	Ref.	Cat	CA	Product (in French)	Reference method								Alternative method					Agreement
					Fraser 1/2 (10µl)			Fraser			Identifications	Result	Pure DNA		Result	RLM	Identifications	
					P1	A1	AL1	P2	A2	AL2			Ct TEX	Ct FAM				
a	F21	EN	No	Bac eau adoucie de rinçage	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	32.8	-	/	/	=
a	F22	EN	No	Bains rinçage	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.4	-	/	/	=
a	F23	EN	No	Bains de lavage	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.2	-	/	/	=
a	E4	EN	No	Eau bacs poissons blanc	+HB	+MA	+MA	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	15.4	N/A	+	+HB	<i>L.monocytogenes</i>	=
a	E14	EN	No	Eau égout siphon zone rinçage	+MA	+MB	+MC	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	20.9	36.9	+	+HD	<i>L.monocytogenes</i>	=
b	F1	EN	No	Surface coffre avant lavage	-LE	-LE	-ME	+HA	-HE	-HE	<i>L.innocua</i>	-	N/A	33.7	-	/	<i>L.innocua</i>	=
b	F2	EN	No	Surface caisse	-LE	-LE	-ME	+MB	-ME	-HE	<i>L.welshimeri</i>	-	N/A	32.2	-	/	<i>L.welshimeri</i>	=
b	F3	EN	No	Surface intérieure caisse poisson	-ME	-ME	-HE	+LB	-LE	-LE	<i>L.welshimeri</i>	-	N/A	33.6	-	/	<i>L.welshimeri</i>	=
b	F4	EN	No	Ecouvillon languette sortie sécheur	-LE	Ø	-ME	-ME	-LE	-ME	/	-	N/A	32.7	-	/	/	=
b	F5	EN	No	Eponge bavette sortie caisson	-LE	-LE	-ME	-LE	-ME	-ME	/	-	N/A	33.2	-	/	/	=
b	F6	EN	No	Eponge bavette sortie rinçage	-HE	-ME	-HE	-ME	-ME	-ME	/	-	N/A	33.0	-	/	/	=
b	F8	EN	No	Surface intérieure caisse poisson	-LE	-LE	-ME	-LE	-LE	-LE	/	-	N/A	31.9	-	/	/	=
b	F10	EN	No	Caisse polystyrène	-LE	-LE	-LE	-ME	-HE	-HE	/	-	N/A	32.6	-	/	/	=
b	F11	EN	No	Surface caisse neuve	-LE	-ME	-ME	-HE	-HE	-HE	/	-	N/A	32.8	-	/	/	=
b	F13	EN	No	Surface conditionnement viande	-ME	-LE	-ME	-LE	-LE	-ME	/	-	N/A	32.6	-	/	/	=
b	F14	EN	No	Surface couvercle conditionnement viande	-LE	-LE	-LE	Ø	-LE	-LE	/	-	N/A	32.6	-	/	/	=
b	F15	EN	No	Surface bac avant lavage	+LA	-ME	-ME	+HA	-HE	-HE	<i>L.welshimeri</i>	-	N/A	33.0	-	/	<i>L.welshimeri</i>	=
b	F18	EN	No	Surface intérieure caisse après lavage	-ME	-ME	-ME	Ø	-ME	-HE	/	-	N/A	32.7	-	/	/	=
b	G3	EN	No	Surface tapis entrée passerelle	-LE	Ø	Ø	-LE	Ø	Ø	/	-	N/A	34.8	-	/	<i>L.welshimeri</i>	=
b	G8	EN	No	Surface tapis sortie	-ME	Ø	Ø	-LE	Ø	Ø	/	-	N/A	34.8	-	/	/	=
b	G21	EN	No	Surface intérieure caisse propre intergroupe	-LE	Ø	-LE	Ø	-LE	-LE	/	-	N/A	34.5	-	/	/	=
b	G22	EN	No	Surface extérieure caisse propre intergroupe	Ø	Ø	Ø	Ø	Ø	Ø	/	-	N/A	33.7	-	/	/	=
b	E1	EN	No	Surface filetage saumon	+HB	+MB	+HB	+MB	+MC	+MC	<i>L.monocytogenes</i>	+	18.9	38.9	+	+HB	<i>L.monocytogenes</i>	=
b	E2	EN	No	Surface filetage poisson blanc	+MA	+MA	+MA	+MA	+MC	+MB	<i>L.monocytogenes</i>	+	15.0	N/A	+	+HB	<i>L.monocytogenes</i>	=
b	E3	EN	No	Surface tapis filets blancs	+MA	+MA	+MA	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	15.2	N/A	+	+HB	<i>L.monocytogenes</i>	=
b	E6	EN	No	Surface pesage	+MB	+MB	+MB	+HB	+MB	+MB	<i>L.monocytogenes</i>	+	20.0	34.9	+	+HB	<i>L.monocytogenes</i>	=
b	E7	EN	No	Surface balance ligne poissons	+HB	+HB	+MB	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	15.9	N/A	+	+HB	<i>L.monocytogenes</i>	=
b	E8	EN	No	Surface tapis de passage saumon	+HA	+MA	+MA	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	15.2	N/A	+	+HB	<i>L.monocytogenes</i>	=
b	E9	EN	No	Surface convoyeur saumons	+HA	+HA	+HA	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	15.6	N/A	+	+HB	<i>L.monocytogenes</i>	=
b	E10	EN	No	Surface range couteau fileteur	+HA	+MA	+MA	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	15.0	N/A	+	+HB	<i>L.monocytogenes</i>	=
b	E11	EN	No	Surface intérieur caisse poissons	+MA	+LA	+LA	+MB	+HB	+MB	<i>L.monocytogenes</i>	+	26.9	34.3	+	+HB	<i>L.monocytogenes</i>	=
b	E12	EN	No	Surface balance filets poissons blancs	+HA	+MA	+MA	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	17.3	N/A	+	+HA	<i>L.monocytogenes</i>	=
b	E13	EN	No	Surface tapis caissette avant peleuse	+HA	+MA	+MA	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	17.6	N/A	+	+HA	<i>L.monocytogenes</i>	=
b	E15	EN	No	Ecouvillon gouttière tapis à flipper	+MB	+LA	+LA	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	24.9	34.8	+	+HB	<i>L.monocytogenes</i>	=
b	F7	EN	No	Surface extérieure caisse blanche	+LB	+MB	+MD	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	28.5	32.1	+	+MB	<i>L.monocytogenes</i>	=
b	F19	EN	No	Ecouvillon convoyeur	+MB	+MB	+MB	+HB	+HB	+HB	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	22.8	33.9	+	+MB	<i>L.monocytogenes</i>	=
b	G2	EN	No	Ecouvillon gouttière tapis calibrage	+LB	+LA	+LB	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	29.3	34.2	+	+MB	<i>L.monocytogenes</i>	=
c	F12	EN	No	Résidus bac gris poisson	-ME	-ME	-ME	-LE	-ME	-ME	/	-	N/A	32.8	-	/	/	=
c	F16	EN	No	Déchets intérieur bac poisson	-ME	-LE	-LE	+HA	-HE	-HE	<i>L.welshimeri</i>	-	N/A	32.4	-	/	/	=
c	F20	EN	No	Déchets grenadiers	-LE	-LE	-LE	Ø	-ME	-ME	/	-	N/A	32.4	-	/	/	=
c	G1	EN	No	Résidus tapis calibrage	+MC	-LE	-LE	+LB	-LE	-LE	<i>L.welshimeri</i>	-	N/A	34.1	-	/	/	=
c	G4	EN	No	Résidus filets poissons	+MB	-ME	-ME	+MC	-LE	-ME	<i>L.welshimeri</i>	-	N/A	35.3	-	/	/	=
c	G9	EN	No	Résidus flétan	Ø	Ø	-LE	Ø	Ø	Ø	/	-	N/A	34.2	-	/	/	=
c	G10	EN	No	Résidus lieu noir	-LE	-LE	-LE	-LE	-LE	-ME	/	-	N/A	34.6	-	/	/	=

Protocol 1 (Half Fraser - Standard II lysis) Initial validation (IPL 2005)																		
ENVIRONMENTAL PRODUCTS																		
Types	Ref.	Cat	CA	Product (in French)	Reference method							Alternative method					Agreement	
					Fraser 1/2 (10µl)			Fraser			Identifications	Result	Pure DNA		Result	RLM		Identifications
					P1	A1	AL1	P2	A2	AL2			Ct TEX	Ct FAM				
c	G11	EN	No	Résidus cutter inox sortie	+MA	-ME	-ME	+LC	-ME	-ME	<i>L.welshimeri</i>	-	N/A	32.5	-	-ME	<i>L.welshimeri</i>	=
c	G12	EN	No	Déchets intérieur capot	-LE	Ø	-LE	-LE	Ø	-ME	/	-	N/A	32.6	-	Ø	/	=
c	G13	EN	No	Résidus lieu noir	-LE	Ø	-LE	Ø	-LE	-LE	/	-	N/A	35.0	-	/	/	=
c	G15	EN	No	Résidus flétan	-LE	-LE	-LE	Ø	Ø	-LE	/	-	N/A	34.0	-	/	/	=
c	G16	EN	No	Résidus lieu noir	Ø	Ø	-LE	Ø	Ø	-LE	/	-	N/A	35.0	-	/	/	=
c	G17	EN	No	Résidus saumon	-ME	-LE	-ME	+LB	-ME	-ME	<i>L.welshimeri</i>	-	N/A	33.8	-	/	/	=
c	G23	EN	No	Résidus saumon	Ø	Ø	Ø	Ø	Ø	-LE	/	-	N/A	35.1	-	/	/	=
c	G6	EN	No	Résidus matières premières lieu noir	Ø	Ø	-LE	Ø	Ø	Ø	/	-	N/A	34.1	-	/	/	=
c	F17	EN	No	Résidus intérieur bac grenadier avant lavage	+LB	+MB	+MB	+HA	+HA	+HA	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	27.1	33.6	+	+MB	<i>L.monocytogenes</i>	=
c	E5	EN	No	Résidus canon à déchets	+MA	+MA	+MA	+HB	+HB	+MB	<i>L.monocytogenes</i>	+	19.3	36.9	+	+HB	<i>L.monocytogenes</i>	=
c	F9	EN	No	Déchets intérieur bac poisson	-LE	-ME	-HE	+HA	+HA	+HA	<i>L.monocytogenes</i>	+	33.5	32.6	+	+MB	<i>L.monocytogenes</i>	=
c	G5	EN	No	Résidus palette	+MB	+MB	+MB	+HB	+MB	+MB	<i>L.monocytogenes</i>	+	24.2	35.1	+	+MB	<i>L.monocytogenes</i>	=
c	G7	EN	No	Résidus dessous tapis pesée	+LB	-LE	-ME	+MB	+MC	+MC	<i>L.welshimeri</i> <i>L.monocytogenes</i>	+	34.8	34.5	+	+LB(3)	<i>L.monocytogenes</i>	=
c	G14	EN	No	Résidus filets poissons	+MB	-ME	Ø	+MB	+MB	+HB	<i>L.monocytogenes</i>	+	23.9	35.5	+	+MA	<i>L.monocytogenes</i>	=

Protocol 1 (Half Fraser - Standard II lysis) - Environmental samples

Protocol 1 (Half Fraser - Standard II lysis) Renewal study (ISHA 2017)																						
ENVIRONMENTAL SAMPLES																						
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis								Additional pathway of confirmation ISO 16140- 2:2016	Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result		
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification			
a	134	T0	Processed water 1	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	31.87	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
a	135	T0	Processed water 2	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	32.56	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
a	136	T0	Processed water 3	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	34.36	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
a	137	T0	Processed water 4	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	31.89	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
a	138	T0	Processed water 5	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	31.56	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
a	139	T0	Processed water 6	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	32.06	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
a	140	T0	Processed water 7	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	35.06	N/A	-	0Ø	0Ø	0Ø	/	-	Cf. RM	NA
a	179	T0	Processed water 1	LIS 4.2	se	2.4	3h+Ø	4h-Ø	3h+Ø	4h-Ø	/	+	32.56	17	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	181	T0	Processed water 2	LIS 4.2	se	2.4	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	33.89	18.23	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	183	T0	Processed water 3	LIS 4.2	se	2.4	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	33.59	18.27	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	185	T0	Processed water 4	LIS 4.44	se	3.0	4h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	32.42	18.98	-	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	187	T0	Processed water 5	LIS 4.44	se	3.0	4h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	32.06	17.99	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	Cf. RM	PA
a	189	T0	Processed water 6	LIS 4.44	se	3.0	3h+Ø	4h-Ø	3h+Ø	4h-Ø	/	+	33.78	16.48	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA
a	191	T0	Processed water 7	LIS 4.50	se	1.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	33.95	19.06	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	193	T0	Processed water 8	LIS 4.50	se	1.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	33.64/32.48	N/A-N/A	-	4h+Ø	3h+Ø	4h+Ø	L.m	-	Cf. RM	ND _{FN(alt)}
c	195	T0	Residue	LIS 4.50	se	1.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	33.18	20.15	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Half Fraser - Standard II lysis								Additional pathway of confirmation ISO 16140- 2:2016	Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result		
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification			
a	179	T72h	Processed water 1	LIS 4.2	se	2.4	3h+Ø	4h-Ø	3h+Ø	4h-Ø	/	+	33.47	18.45	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	Cf. RM	PA
a	181	T72h	Processed water 2	LIS 4.2	se	2.4	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	33.58	17.89	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	183	T72h	Processed water 3	LIS 4.2	se	2.4	3h+Ø	3h-Ø	4h+Ø	4h-Ø	/	+	32.96	17.62	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	185	T72h	Processed water 4	LIS 4.44	se	3.0	4h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	34.06	17.84	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	Cf. RM	PA
a	187	T72h	Processed water 5	LIS 4.44	se	3.0	4h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	33.25	18.56	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	189	T72h	Processed water 6	LIS 4.44	se	3.0	3h+Ø	4h-Ø	3h+Ø	4h-Ø	/	+	33.78	16.89	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	191	T72h	Processed water 7	LIS 4.50	se	1.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	33.49	20.13	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA
a	193	T72h	Processed water 8	LIS 4.50	se	1.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	34.12/33.16	N/A-N/A	-	4h+Ø	4h+Ø	4h+Ø	L.m	-	Cf. RM	ND _{FN(alt)}
c	195	T72h	Residue	LIS 4.50	se	1.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	/	+	32.99	19.01	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	Cf. RM	PA

Protocol 2 (LSB - Standard II Lysis) - Meat products

Protocol 2 (LSB - Standard II lysis) Extension study (IPL 2006)																						
MEAT PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method - LSB, Standard II lysis(T0)							Agreement	Alternative method - LSB, Standard II lysis after 72 h			Agreement
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations	Identifications	Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C.int	Ct FAM		Streaking on RLM							
a	A8	PC1	No	Emincé de porc	Ø	Ø	Ø	Ø	/	-	pur	28.04	N/A	-	/	/	-	=	-	/	-	=
a	B7	PC1	No	Escalope de veau	Ø	Ø	Ø	Ø	/	-	pur	3001	N/A	-	Ø (Fraser : Ø)	/	-	=	-	/	-	=
a	E4	PC1	No	Viande de bœuf hachée	-LE	-ME	-LE	-LE	/	-	pur	3074	N/A	-	Ø	/	-	=	-	/	-	=
a	K5	PC1	No	Haché de bœuf	Ø	-LE	Ø	Ø	/	-	pur	2217	N/A	-	-LA	L.welshimeri	-	=	-	L.welshimeri	-	=
a	K8	PC1	No	Magret de canard	Ø	Ø	+MB	+MB	L.innocua	-	pur	2279	4179	+	-MA	L.innocua	-	PDFP(alt)	+	/	-	PDFP(alt)
a	M9	PC1	No	Viande de cheval	Ø	-LE	+LB	-LB	L.innocua	-	pur	2515	N/A	-	/	/	-	=	-	/	-	=
a	M10	PC1	No	Haché tartare de bœuf	Ø	Ø	Ø	Ø	/	-	pur	2558	N/A	-	/	/	-	=	-	/	-	=
a	M12	PC1	No	Foie de porc	Ø	-LE	+LA	-LA	L.welshimeri	-	pur	2467	N/A	-	/	/	-	=	-	/	-	=
a	N28	PC1	No	Viande hachée de cheval	Ø	Ø	Ø	Ø	/	-	pur	2222	N/A	-	/	/	-	=	-	/	-	=
a	C5	PC1	No	Viande hachée	Ø	Ø	+HB	+HB	L.monocytogenes L.innocua	+	pur	3111	N/A	-	+LA(48 h)	L.monocytogenes L.innocua	-	NDFN(alt)	-	/	-	ND
a	L1	PC1	No	Entrecôte de bœuf	+LA	+LA(5)	+HA	+MA	L.monocytogenes L.innocua	+	pur	2414	3198	+	+LB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
a	L3	PC1	No	Escalope de volaille	+LB	+LB	+MB	+MB	L.monocytogenes L.welshimeri	+	pur	2419	2353	+	+MB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
a	M6	PC1	No	Viande de boeuf	+LB*	+LB*	+MB*	+LB*	L.monocytogenes L.innocua	+	pur	2664	2469	+	+MB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
a	M11	PC1	No	Joue de bœuf	+LB*	+LB*	+LB*	+MB*	L.monocytogenes L.innocua	+	pur	2501	2628	+	+LB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
a	N3	PC1	No	Steak surgelé	+MA	+LB*	+MB*	+MC*	L.monocytogenes L.innocua	+	pur	2378	N/A	-	-MA	L.innocua	-	ND	-	L.innocua	-	ND
a	N22	PC1	No	Viande hachée	+LB	+LB	+LB	+MA	L.monocytogenes	+	pur	2305	2229	+	+HB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
a	O7	PC1	No	Viande hachée de bœuf	+LB*	+LB*	+HB*	+MB*	L.monocytogenes L.welshimeri	+	pur	3705	3952	+	+LB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
a	O11	PC1	No	Manchons de canard	+LB*	+LB*	+MB*	+MB*	L.monocytogenes L.welshimeri	+	pur	2418	2209	+	+MB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
a	O12	PC1	No	Escalope de volaille	+LA	-LA	+HA	-MA	L.welshimeri	-	pur	2417	2441	+	+MB*	L.monocytogenes L.welshimeri	+	PD	+	L.monocytogenes L.welshimeri	+	PD
a	O13	PC1	No	Cuisse de poulet	+MB*	+MB*	+MB*	+MC*	L.monocytogenes L.innocua	+	pur	2408	2296	+	+MB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
a	O14	PC1	No	Cuisse de dinde	-LE	+LB	-ME	-ME	L.monocytogenes L.welshimeri	+	pur	2387	2238	+	+HB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
a	Q14	PC1	No	Viande hachée	+LA	+LA	+MA	+MA	L.monocytogenes	+	pur	3225	3031	+	+LA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	M23	PC1	No	Sauté de porc	Ø	Ø	Ø	Ø	/	-	pur	2434	N/A	-	/	/	-	=	-	/	-	=
b	K7	PC2	No	Chipolatas	Ø	Ø	Ø	-LE	/	-	pur	2250	N/A	-	Ø	/	-	=	-	/	-	=
b	O16	PC2	No	Cuisse de poulet crue marinée à la provençale	Ø	-LE	Ø	Ø	/	-	pur	2523	N/A	-	/	/	-	=	-	/	-	=
b	S8	PC2	No	Tripes à la provençale	Ø	Ø	Ø	-LE	/	-	pur 1/10	N/A 31.22	N/A N/A	inh -	Ø (Fraser : Ø)	/	inh -	=				
b	U2	PC2	No	Merguez	Ø	Ø	Ø	Ø	/	-	pur	3379	N/A	-	/	/	-	=				
b	U4	PC2	No	Boudin blanc	-LE	-LE	ME	ME	/	-	pur	3294	N/A	-	/	/	-	=				
b	R13	PC3	No	Emincé de poulet curry	Ø	Ø	Ø	Ø	/	-	pur	2499	N/A	-	/	/	-	=				
b	R14	PC3	No	Emincé de poulet curry	-LE	-LE	-ME	-ME	/	-	pur	2527	N/A	-	/	/	-	=				

Protocol 2 (LSB - Standard II lysis)
Extension study (IPL 2006)

MEAT PRODUCTS

Type	Ref	Cat	CA	Product (in French)	Reference method					Alternative method - LSB, Standard II lysis(T0)								Agreement	Alternative method - LSB, Standard II lysis after 72 h			Agreement
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations	Identifications	Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C.int	Ct FAM									
b	R17	PC3	No	Tripes au calvados	Ø	Ø	Ø	Ø	/	-	pur	2523	N/A	-	/	/	-	=				
b	T4	PC3	No	Côte de porc cuisinée	Ø	Ø	Ø	Ø	/	-	pur	3317	N/A	-	/	/	-	=				
b	T7	PC3	No	Mouton aux haricots	Ø	Ø	Ø	Ø	/	-	pur	3117	N/A	-	/	/	-	=				
b	B6	PC1	No	Sauté de porc	-LE	-LE	+MB	-MA	L.innocua	-	pur	2836	2636	+	+MB	L.monocytogenes L.innocua	+	PD	+	L.monocytogenes L.innocua	+	PD
b	A9	PC2	No	Chair à saucisse	+LA(3)	+LA(5)	+HA	+MA	L.monocytogenes	+	pur	2772	N/A	-	Ø	/	-	ND	-	/	-	ND
b	K4	PC2	No	Merguez crue	+MB	+MB*	+HB	+HB*	L.monocytogenes L.welshimeri	+	pur	2114	1569	+	+HB	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	M8	PC2	No	Merguez	+LB*	+LB*	+LB*	+MB*	L.monocytogenes L.welshimeri	+	pur	2658	2279	+	+MB	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	N1	PC2	No	Chipolatas	Ø	Ø	Ø	Ø	/	-	pur	2474	3480	+	+LA	L.monocytogenes	+	PD	+	L.monocytogenes	+	PD
b	N2	PC2	No	Rôti de veau Orloff	+LA	+LA	+HA	+MA	L.monocytogenes	+	pur	2389	3073	+	+LA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	N23	PC2	No	Chipolatas	+LA(2)	+LA(1)	+HA	+MA	L.monocytogenes	+	pur	2207	2963	+	+MB	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	O4	PC2	No	Merguez	Ø	-LE	Ø	-LE	/	-	pur	2526	2784	+	+LB	L.monocytogenes	+	PD	+	L.monocytogenes	+	PD
b	O15	PC2	No	Saucisses de veau	+LB	-LB	+HB	-MA	L.welshimeri	-	pur	2486	2776	+	+LB*	L.monocytogenes L.welshimeri	+	PD	+	L.monocytogenes L.welshimeri	+	PD
b	O17	PC2	No	Ailes de poulet marinées au curry	+MA	-LA	+HA	-MA	L.innocua	-	pur	N/A	2124	+	+MB*	L.monocytogenes L.innocua	+	PD	+	L.monocytogenes L.innocua	+	PD
b	P6	PC2	No	Chipolatas aux herbes	Ø	Ø	+LA	+MA	L.monocytogenes	+	pur	2761	2613	+	+MB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	P7	PC2	No	Merguez	+LB	+LB	+HB*	+MB	L.monocytogenes L.welshimeri	+	pur	2974	2662	+	+HB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	P8	PC2	No	Hamburger à cuire	+MB	+MB	+HC*	+LB	L.monocytogenes L.welshimeri	+	pur	2688	2175	+	+HB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	R15	PC2	No	Merguez	+MA	+MA	+MB*	+MB*	L.monocytogenes L.welshimeri	+	pur	2484	2384	+	+MB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	S9	PC2	No	Chipolatas	+LB*	+LB*	+MB*	+MB*	L.monocytogenes L.welshimeri	+	pur	3391	3165	+	+LA	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	T5	PC2	No	Saucisse fumée à cuire	+MB*	+MB*	+HB*	+HB*	L.monocytogenes L.innocua	+	pur	2880	2146	+	+HB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
b	T6	PC2	No	Boulettes bœuf et porc à cuire	+LB	+MC	+HA	+MA	L.monocytogenes	+	pur	3038	N/A	-	Ø	/	-	ND	-	/	-	ND
b	K9	PC3	No	Sauté de cheval à l'indienne	Ø	Ø	+MB	+MB*	L.monocytogenes L.welshimeri	+	pur	2209	2006	+	+MB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
c	A11	PC3	No	Saucisson au poivre	Ø	Ø	-LE	-LE	/	-	pur	2814	N/A	-	Ø	/	-	=	-	/	-	=
c	K6	PC3	No	Foie gras	Ø	-LE	Ø	-LE	/	-	pur	2230	N/A	-	Ø	/	-	=	-	/	-	=
c	L4	PC3	No	Noix de jambon aux herbes	Ø	+LB	-LE	-ME	Bacillus	-	pur	2422	N/A	-	-LB	Bacillus	-	=	-	/	-	=
c	L5	PC3	No	Lardons	+LB	+LA	+HB	+HA	L.welshimeri	-	pur	2434	N/A	-	-LA	L.welshimeri	-	=	-	/	-	=
c	L6	PC3	No	Pâté à l'échalote	Ø	Ø	Ø	-LE	/	-	pur	2297	N/A	-	Ø	/	-	=	-	/	-	=
c	L7	PC3	No	Potjevlesh	-LE	-LE	-LE	-ME	/	-	pur	2401	N/A	-	Ø	/	-	=	-	/	-	=
c	L9	PC3	No	Pâté de campagne	-ME	-ME	-ME	-ME	/	-	pur	2343	N/A	-	-ME	/	-	=	-	/	-	=
c	O5	PC3	No	Pâté de campagne	+LA	+LB*	+MB	+MA	L.ivanovii L.innocua	-	pur	2411	N/A	-	Ø	/	-	=	-	/	-	=
c	O6	PC3	No	Jambon fumé	Ø	Ø	Ø	Ø	/	-	pur	2463	N/A	-	/	/	-	=	-	/	-	=
c	O8	PC3	No	Bacon	Ø	Ø	-ME	-LE	/	-	pur	2587	3685	+	-LA	L.welshimeri	-	PDFP(alt)	+	L.welshimeri	-	PDFP(alt)

Protocol 2 (LSB - Standard II lysis)
Extension study (IPL 2006)

MEAT PRODUCTS

Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method - LSB, Standard II lysis(T0)							Agreement	Alternative method - LSB, Standard II lysis after 72 h			Agreement
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations	Identifications	Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C.int	Ct FAM		Streaking on RLM							
c	O9	PC3	No	Lardons	+LA(2)	∅	+HB	-MA	L.welshimeri	-	pur	2550	N/A	-	-LB	L.welshimeri	-	=	-	/	-	=
c	L2	PC3	No	Rosette de porc	∅	+LA(1)	+HB	+HB*	L.monocytogenes L.welshimeri	+	pur	2426	3826	+	+LA(1) (Fraser : +MB*)	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
c	M7	PC3	No	Jambon fumé	∅	∅	∅	∅	/	-	pur	2748	2755	+	+LB	L.monocytogenes	+	PD	+	L.monocytogenes	+	PD
c	M13	PC3	No	Chorizo	-LE	-LE	+HA	-LA	L.innocua	-	pur	2432	3440	+	+LB	L.monocytogenes	+	PD	+	L.monocytogenes	+	PD
c	N24	PC3	No	Rôti de veau	∅	∅	+LA	-MA	L.welshimeri	-	pur	2339	3601	+	+LA	L.monocytogenes	+	PD	+	L.monocytogenes	+	PD
c	O10	PC3	No	Poitrine fumée	+LA	-LA	+MB*	+MB*	L.monocytogenes L.welshimeri	+	pur	2430	2892	+	+MB*	L.monocytogenes	+	=	+	L.monocytogenes	+	=

Protocol 2 (LSB - Standard II lysis) - Meat products

Protocol 2 (LSB - Standard II lysis) Renewal study (ISHA 2017)																										
MEAT PRODUCTS																										
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Standard II lysis								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation	Final result		
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Placam	Identification			
c	169	T0	Cooked ham high quality	LIS	4.26	se	2.4	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	38.29	14.04	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	171	T0	Auvergne Ham	LIS	4.26	se	2.4	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.53	18.7	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	173	T0	Cooked and derinded ham high quality	LIS	4.26	se	2.4	0Ø	0Ø	0Ø	0Ø	/	-	33.49	21.74	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PD
c	175	T0	Cooked ham	LIS	4.27	se	2.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.35	25.89	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	177	T0	Serrano ham	LIS	4.27	se	2.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.78	21.74	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Standard II lysis after storage 72h at 5°C								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation	Final result		
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Placam	Identification			
c	169	T72h	Cooked ham high quality	LIS	4.26	se	2.4	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	Ct C. int	Ct FAM	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	171	T72h	Auvergne Ham	LIS	4.26	se	2.4	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	32.58	15.06	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	173	T72h	Cooked and derinded ham high quality	LIS	4.26	se	2.4	0Ø	0Ø	0Ø	0Ø	/	-	37.85	18.25	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PD
c	175	T72h	Cooked ham	LIS	4.27	se	2.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.56	23.05	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	177	T72h	Serrano ham	LIS	4.27	se	2.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.69	19.36	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA

Protocol 2 (LSB - Standard II lysis) - Dairy products

Protocol 2 (LSB - Standard II lysis) Extension study (IPL 2006)																							
DAIRY PRODUCTS																							
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Standard II lysis (T0)								Agreement	Alternative method LSB, Standard II lysis after 72 h			Agreement
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations Streaking on RLM	Identifications	Result	Result		Identifications	Result		
					P1	AL1	P2	AL2				Ct C.int	Ct FAM										
a	N26	PL1	No	Palet de Bourgo (au lait cru)	Ø	-LE	Ø	Ø	/	-	pur	23.03	N/A	-	-LE	/	-	=	-	/	-	=	
a	P5	PL1	No	Maroilles au lait cru	-LE	-LE	-ME	-LE	/	-	pur	2878	N/A	-	/	/	-	=					
a	R3	PL2	No	Valençay (fromage de chèvre)	Ø	Ø	Ø	Ø	/	-	pur	2425	N/A	-	/	/	-	=					
a	R4	PL2	No	Selles sur Cher	Ø	Ø	Ø	Ø	/	-	pur	2450	N/A	-	/	/	-	=					
a	R6	PL2	No	Selles sur Cher	Ø	Ø	-LE	Ø	/	-	pur	2374	N/A	-	/	/	-	=					
a	P3	PL1	No	Maroilles au lait cru	+LB	+LB	+MB	+MA	<i>L.monocytogenes</i>	+	pur	3044	3919	+	+LB*	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
a	P4	PL1	No	Maroilles au lait cru	Ø	-LE	+MA	+LA	<i>L.monocytogenes</i>	+	pur	2969	3276	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
a	Q24	PL2	7.1	Rocamadour au lait cru	Ø	Ø	+LA	+LA	<i>L.monocytogenes</i>	+	pur	3297	2687	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	C8	PL3	No	Lait cru	+LA(1)	Ø	+HA	-LA	<i>L.welshimeri</i>	-	pur 1/10	N/A 26.45	N/A N/A	inh -	-LB	<i>L.welshimeri</i>	inh -	=	inh -	/	inh -	=	
b	O19	PL3	No	Lait cru	Ø	Ø	-LE	Ø	/	-	pur	2481	N/A	-	/	/	-	=	-	/	-	=	
b	B15	PL3	No	Lait cru	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	3092	2773	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	B16	PL3	No	Lait cru	+MA	+MA	+MB	+MA	<i>L.monocytogenes</i>	+	pur	3150	1827	+	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
b	E7	PL3	No	Lait cru	Ø	Ø	-LE	-LE	/	-	pur	2445	1611	+	+HA	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD	
b	O27	PL3	10.1	Lait cru	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2432	2185	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	O28	PL3	13.1	Lait cru	+LA	+LB	+MA	+MB	<i>L.monocytogenes</i>	+	pur	2443	2027	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
c	A2	PL1	No	Camembert	Ø	Ø	Ø	Ø	/	-	pur	2575	N/A	-	Ø	/	-	=	-	/	-	=	
c	A3	PL1	No	Munster	Ø	Ø	Ø	-LE	/	-	pur	2702	N/A	-	+HB	/	-	=	-	/	-	=	
c	B2	PL1	No	Epoisses	-LE	-LE	-LE	-LE	/	-	pur	2972	N/A	-	Ø	/	-	=	-	/	-	=	
c	B5	PL1	No	Munster	Ø	-LE	Ø	Ø	/	-	pur	2893	N/A	-	/	/	-	=	-	/	-	=	
c	M24	PL1	No	Pont l'Evêque	Ø	Ø	Ø	Ø	/	-	pur	2412	N/A	-	/	/	-	=	-	/	-	=	
c	M25	PL1	No	Livarot	Ø	Ø	Ø	Ø	/	-	pur	2385	N/A	-	/	/	-	=	-	/	-	=	
c	O3	PL1	No	Rond du vinage	Ø	Ø	Ø	-LE	/	-	pur	2706	N/A	-	/	/	-	=	-	/	-	=	
c	Q27	PL1	No	St Paulin	Ø	Ø	Ø	Ø	/	-	pur	3236	N/A	-	/	/	-	=					
c	Q28	PL1	No	Munster pasteurisé	Ø	-LE	Ø	Ø	/	-	pur	3370	N/A	-	/	/	-	=					
c	Q29	PL1	No	Brie pasteurisé	Ø	-LE	Ø	Ø	/	-	pur	3343	N/A	-	/	/	-	=					
c	Q30	PL1	No	Fromage à raclette pasteurisé	Ø	-LE	Ø	Ø	/	-	pur	3244	N/A	-	/	/	-	=					
c	A1	PL2	No	Fromage de chèvre Ste Maure	Ø	Ø	Ø	Ø	/	-	pur	2369	N/A	-	/	/	-	=	-	/	-	=	
c	A4	PL2	No	Féta nature	Ø	Ø	Ø	Ø	/	-	pur	2528	N/A	-	/	/	-	=	-	/	-	=	
c	A6	PL2	No	Fromage de chèvre Chabichou	Ø	Ø	Ø	-LE	/	-	pur	2399	N/A	-	/	/	-	=	-	/	-	=	
c	Q18	PL2	No	Bûche de chèvre	-LE	-LE	-LE	-LE	/	-	pur	3217	N/A	-	/	/	-	=					
c	R5	PL2	No	Pigouille (fromage de chèvre)	-LE	-LE	Ø	-LE	/	-	pur	2466	N/A	-	/	/	-	=					
c	R7	PL2	No	Pigouille (fromage de chèvre)	Ø	Ø	-LE	Ø	/	-	pur	2521	N/A	-	/	/	-	=					
c	S1	PL3	No	Lait infantile en poudre	Ø	Ø	Ø	Ø	/	-	pur	3416	N/A	-	/	/	-	=					
c	S2	PL3	No	Lait infantile en poudre	Ø	Ø	Ø	-LE	/	-	pur	3453	N/A	-	/	/	-	=					
c	A10	PL1	No	Maroilles	+LB	+LA	+MB	+MA	<i>L.monocytogenes</i>	+	pur	2491	2308	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	

Protocol 2 (LSB - Standard II lysis)
Extension study (IPL 2006)

DAIRY PRODUCTS

Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Standard II lysis (T0)							Agreement	Alternative method LSB, Standard II lysis after 72 h			Agreement
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations Streaking on RLM	Identifications	Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C.int	Ct FAM									
c	B1	PL1	No	Epoisses	+LA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	3011	2503	+	+MB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	B3	PL1	No	Reblochon	Ø	-LE	Ø	Ø	/	-	std	2863	2666	+	+MA	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD
c	C2	PL1	No	Munster	+MA	+MA	+MB	+MA	<i>L.monocytogenes</i>	+	pur 1/10	N/A 31.82	N/A 24.46	inh +	+MA	<i>L.monocytogenes</i>	inh +	=	inh +	<i>L.monocytogenes</i>	inh +	=
c	C4	PL1	No	Maroilles	+LB(2)	Ø	+LB	+MA	<i>L.monocytogenes</i>	+	pur	3040	27.18	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	N18	PL1	No	Cœur de Neufchâtel	-LE	-LE	-LE	-LE	/	-	pur	2217	2264	+	+MA	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD
c	P20	PL1	6	Saint Paulin	+LA	+LA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2269	2031	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	Q15	PL1	5.1	Brie de Meaux	Ø	-LE	+MA	+MA	<i>L.monocytogenes</i>	+	pur	3607	3336	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	E6	PL2	No	Ossau Iraty	+LA	+LA	+HB	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2625	1886	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	E8	PL2	No	Fromage de chèvre	+MB	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	pur	2410	1518	+	+HB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	O23	PL2	5.1	Bûche de chèvre	+LA	+MC*	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2604	2467	+	+MB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	O24	PL2	10.1	Crottin de Chavignol	-LE	+LA(1)	-ME	+LB	<i>L.monocytogenes</i>	+	pur	N/A	3493	+	+LA	<i>L.monocytogenes</i>	+	=	-	<i>L.monocytogenes</i>	-	ND _{FN(alt)}
c	P21	PL2	9	Fromage de chèvre	+LB	+MD	+HB	+MA	<i>L.monocytogenes</i>	+	pur	2181	2093	+	+MB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	Q9	PL2	8.1	Bûche de chèvre	+LB	+LB	+MC	+MB	<i>L.monocytogenes</i>	+	pur	N/A	3516	+	+LB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	Q13	PL3	3.1	Glace chocolat	+LC	+LC	+HB	+MB	<i>L.monocytogenes</i>	+	pur 1/10	N/A 38.14	N/A 24.54	inh +	+MA	<i>L.monocytogenes</i>	inh +	=	inh +	<i>L.monocytogenes</i>	inh +	=

Protocol 2 (LSB - Standard II lysis) - Dairy products

Protocol 2 (LSB - Standard II lysis) Renewal study (ISHA 2017)																									
DAIRY PRODUCTS																									
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					AM: iQ-Check LSB - Standard II lysis								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation		Final result
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Placam	Identification		
a	62	T0	Neuf Châtel raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	38.05	N/A	-	0L	0L	0L	/	-	0L	0L	/	/	NA
a	64	T0	Camembert of Normandie raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	37.71	N/A	-	0L	0L	0L	/	-	0L	0L	/	/	NA
a	66	T0	Coulommiers raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	37.46	N/A	-	0L	0L	0L	/	-	0L	0Ø	/	/	NA
a	68	T0	Comté raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	38.4	N/A	-	0L	0L	0L	/	-	0L	0Ø	/	/	NA
a	70	T0	Comté raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	38.37	N/A	-	0L	0L	0L	/	-	0L	0L	/	/	NA
a	72	T0	Morbier raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	33.34	N/A	-	0L	0L	0L	/	-	0Ø	0Ø	/	/	NA
a	57	T0	Neuf Châtel raw milk	LIS 4.60	se	2.2	3h+L	3h-L	3h+L	4h-Ø	L.m	+	N/A-37.8	N/A-18.97	IH/+*	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+L	4h-Ø	L.m	+	PA
a	59	T0	Camembert of Normandie raw milk	LIS 4.60	se	2.2	2h+M	3h-L	3h+L	4h-L	L.m	+	N/A-37.77	N/A-23.48	IH/+*	4h+Ø	3h+M	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	61	T0	Coulommiers raw milk	LIS 4.60	se	2.2	3h+L	3h-L	3h+L	4h-Ø	L.m	+	37.29	18.65	+	4h+L	3h+L	4h+L	L.m	+	3h+L	3h-L	L.m	+	PA
a	63	T0	Comté raw milk	LIS 4.56	se	1.8	0M	0M	0L	0M	L.m	-	37.82	28.19	+	3h+Ø	3h+L	3h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PD
a	65	T0	Comté raw milk	LIS 4.56	se	1.8	2h+M	3h-L	3h+L	4h-Ø	L.m	+	36.29	24.52	+	3h+M	3h+L	3h+M	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
a	67	T0	Morbier raw milk	LIS 4.56	se	1.8	3h+L	3h-L	3h+L	4h-Ø	L.m	+	34.53-37.25	N/A-20.27	IV/+**	3h+L	3h+L	3h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
a	69	T0	Reblochon raw milk	LIS 4.32	se	3.0	3h+L	4h-L	3h+Ø	4h-Ø	L.m	+	37.28	35.5	+	3h+L	3h+L	3h+L	L.m	+	3h+L	3h-Ø	L.m	+	PA
a	71	T0	Mountain tome cheese raw milk	LIS 4.32	se	3.0	3h+L	3h-M	3h+Ø	4h-L	L.m	+	35.11	25.07	+	3h+L	3h+L	3h+L	L.m	+	3h+L	3h-Ø	L.m	+	PA
a	73	T0	Raclette raw milk	LIS 4.32	se	3.0	4h+H	3h-M	3h+M	4h-L	L.m	+	35.67	29.04	+	3h+L	3h+L	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	90	T0	Raw milk	/	/	/	0L	0M	0Ø	0Ø	/	-	37.37	N/A	-	0L	0L	0L	/	-	0L	0L	/	/	NA
b	92	T0	Raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	37.32-33.43	47.19-N/A	+/-	0L	0L	0L	/	-	0L	0L	/	/	PDFP(alt)
b	94	T0	Raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	33.87	N/A	-	0L	0L	0L	/	-	0L	0Ø	/	/	NA
b	96	T0	Raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	37.87	N/A	-	0L	0L	0L	/	-	0L	0L	/	/	NA
b	98	T0	Raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	37.9	N/A	-	0L	0L	0L	/	-	0L	0Ø	/	/	NA
b	100	T0	Raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	38.29	N/A	-	0L	0L	0L	/	-	0L	0L	/	/	NA
b	102	T0	Raw milk butter	/	/	/	0M	0M	0Ø	0Ø	/	-	37.62	N/A	-	0L	0L	0L	/	-	0L	0Ø	/	/	NA
b	104	T0	Raw milk butter	/	/	/	0M	0L	0Ø	0Ø	/	-	40.08	N/A	-	0L	0L	0L	/	-	0L	0L	/	/	NA
b	75	T0	Raw milk	LIS 4.59	se	2.4	2h+M	3h-L	3h+Ø	4h-Ø	L.m	+	40.76	23.47	+	4h+Ø	3h+L	4h+Ø	L.m	+	3h+L	3h-Ø	L.m	+	PA
b	77	T0	Raw milk	LIS 4.59	se	2.4	2h+M	3h-L	3h+Ø	4h-Ø	L.m	+	41.95	21.61	+	3h+L	3h+L	3h+L	L.m	+	3h+L	4h-Ø	L.m	+	PA
b	79	T0	Raw milk	LIS 4.59	se	2.4	4h+H	3h-M	3h+L	4h-L	L.m	+	40.52	25.65	+	3h+L	4h+Ø	3h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
b	81	T0	Raw milk	LIS 4.23	se	3.2	3h+L	3h-L	3h+Ø	4h-Ø	L.m	+	37.88	25.25	+	3h+L	3h+M	3h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
b	83	T0	Raw milk	LIS 4.23	se	3.2	3h+M	3h-M	3h+M	4h-L	L.m	+	33.22	19.69	+	3h+M	3h+L	3h+M	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
b	85	T0	Raw milk	LIS 4.23	se	3.2	3h+M	3h-M	3h+L	4h-L	L.m	+	33.66	15.54	+	3h+L	3h+L	3h+L	L.m	+	3h+L	3h-L	L.m	+	PA
b	87	T0	Raw milk butter	LIS 4.62	se	2.6	3h+M	3h-L	3h+L	4h-Ø	L.m	+	N/A	18.59	+	4h+Ø	4h+L	4h+Ø	L.m	+	3h+L	4h-Ø	L.m	+	PA
b	89	T0	Raw milk butter	LIS 4.62	se	2.6	3h+M	3h-L	3h+L	4h-Ø	L.m	+	38.34	23.95	+	4h+L	4h+L	4h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA

Protocol 2 (LSB - Standard II lysis) - Seafood products

Protocol 2 (LSB - Standard II lysis) Extension study (IPL 2006)																							
SEAFOOD PRODUCTS																							
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Standard II lysis (T0)								Agreement	Alternative method LSB, Standard II lysis after 72 h			Agreement
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations Streaking on RLM	Identifications	Result	Result		Identifications	Result		
					P1	AL1	P2	AL2				Ct C.int	Ct FAM										
a	B18	PP1	No	Filet de tilapia	+LA	-LA	+MA	-MA	<i>L.innocua</i>	-	pur	3112	N/A	-	-MA	<i>L.innocua</i>	-	=	-	<i>L.innocua</i>	-	=	
a	G16	PP1	No	Saumon frais	Ø	Ø	Ø	Ø	/	-	pur	4721	N/A	-	Ø	/	-	=	-	/	-	=	
a	G17	PP1	No	Saumon frais	Ø	Ø	Ø	Ø	/	-	pur 1/10	N/A 25.49	N/A N/A	inh -	/	/	inh -	=	inh -	/	inh -	=	
a	G18	PP1	No	Saumon frais	Ø	Ø	Ø	Ø	/	-	pur 1/10	N/A 35.16	N/A N/A	inh -	/	/	inh -	=	inh -	/	inh -	=	
a	G19	PP1	No	Saumon frais	Ø	Ø	Ø	Ø	/	-	pur	3394	N/A	-	/	/	-	=	-	/	-	=	
a	R18	PP1	No	Filet de flétan	-LE	Ø	-ME	-LE	/	-	pur	2420	N/A	-	/	/	-	=					
a	T11	PP1	No	Filet de sabre	-LE	-LE	Ø	Ø	/	-	pur	3136	N/A	-	/	/	-	=					
a	K2	PP3	No	Tartare de saumon	Ø	-LE	Ø	Ø	/	-	pur	2186	N/A	-	Ø	/	-	=	-	/	-	=	
a	E3	PP1	No	Harengs	-LE	Ø	-ME	Ø	/	-	pur	2808	3272	+	+LB	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD	
a	G20	PP1	No	Saumon frais	+LA	+LA	+HB*	+MB*	<i>L.monocytogenes</i>	+	pur	N/A	3211	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
a	H1	PP1	No	Saumon frais	+LA	+LA	+HA	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2470	1602	+	+HB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
a	H2	PP1	No	Saumon frais	+LA	+LA	+HA	+HA	<i>L.monocytogenes</i>	+	pur	2229	2549	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
a	H3	PP1	No	Saumon frais	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2504	1908	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
a	H4	PP1	No	Saumon frais	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2289	3767	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
a	H5	PP1	No	Saumon frais	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2396	1517	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
a	M20	PP1	No	Darnes de lieu noir	+LA(4)	+LA	+LB	+LA	<i>L.monocytogenes</i>	+	pur	2458	2832	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
a	N8	PP1	No	Cocktail de fruits de mer surgelé	Ø	-ME	+HA	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2697	2908	+	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
a	N19	PP1	No	Cocktail de fruits de mer surgelé	Ø	+LB(2)	+LA	+MB	<i>L.monocytogenes</i>	+	pur	2393	2613	+	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
b	C1	PP2	No	Saumon fumé	Ø	-LE	Ø	Ø	/	-	pur	3108	N/A	-	-LE (Fraser : - LA)	<i>L.innocua</i>	-	=	-	/	-	=	
b	K10	PP2	No	Saumon fumé	Ø	Ø	Ø	-LE	/	-	pur	2264	N/A	-	Ø	/	-	=	-	/	-	=	
b	N9	PP2	No	Saumon fumé d'Irlande	-LE	Ø	-ME	-ME	/	-	pur	2379	N/A	-	Ø	/	-	=	-	/	-	=	
b	Q21	PP2	No	Truite fumée	Ø	Ø	Ø	-LE	/	-	pur	3216	N/A	-	/	/	-	=					
b	Q22	PP2	No	Sardines fumées	Ø	Ø	Ø	Ø	/	-	pur	3245	N/A	-	/	/	-	=					
b	Q23	PP2	No	Saumon fumé	Ø	Ø	Ø	Ø	/	-	pur	3227	N/A	-	/	/	-	=					
b	R19	PP2	No	Thon fumé	Ø	Ø	Ø	Ø	/	-	pur	2454	N/A	-	/	/	-	=					
b	T9	PP2	No	Saumon fumé	Ø	Ø	Ø	Ø	/	-	pur	3084	N/A	-	/	/	-	=					
b	A15	PP3	No	Harengs marinés	Ø	Ø	-ME	Ø	/	-	pur	2965	N/A	-	-LE	/	-	=	-	/	-	=	
b	C6	PP3	No	Harengs marinés	Ø	Ø	-LE	Ø	/	-	pur	2952	N/A	-	Ø	/	-	=	-	/	-	=	
b	M18	PP1	No	Haddock	+LB	+LB	+LB	+LA	<i>L.monocytogenes</i>	+	pur	2581	2897	+	+LB*	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	A13	PP2	No	Flétan fumé	Ø	+LA	+HB	+MA	<i>L.monocytogenes</i>	+	pur	2751	3050	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	A14	PP2	No	Saumon fumé	+LA	+LB	+HA	+MB	<i>L.monocytogenes</i>	+	pur	2744	31.11	+	+HA	<i>L.monocytogenes</i>	+	=	-	/	-	ND	
b	B8	PP2	No	Saumon fumé	+LA	+LA	+HA	+HA	<i>L.monocytogenes</i>	+	pur	2935	2764	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	B9	PP2	No	Saumon fumé	+LA(3)	+LA(2)	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2996	1917	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	

Protocol 2 (LSB - Standard II lysis) Extension study (IPL 2006)																						
SEAFOOD PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Standard II lysis (T0)							Agreement	Alternative method LSB, Standard II lysis after 72 h			Agreement
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations Streaking on RLM	Identifications	Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C.int	Ct FAM									
b	C3	PP2	No	Lardons de saumon fumé	Ø	+LA	+LB	+MB	<i>L.monocytogenes</i>	+	pur	2862	2708	+	+LA(48 h)	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	L8	PP2	No	Saumon fumé	Ø	Ø	+HB	+HA	<i>L.innocua</i>	-	pur	2309	2520	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD
b	M16	PP2	No	Eglefin fumé	+LB*	+LB*	+LB*	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2578	2984	+	-LA (Fraser : +MB*)	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
b	M17	PP2	No	Sprats fumés	+MA	+MA	+HA	+HA	<i>L.monocytogenes</i>	+	pur	2367	1976	+	+LB	<i>L.monocytogenes</i>	+	=	inh +	<i>L.monocytogenes</i>	inh +	=
b	R20	PP2	No	Saumon fumé d'Ecosse	Ø	Ø	Ø	Ø	/	-	pur	2395	3850	+	+LA	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD
b	S5	PP2	No	Eglefin fumé	Ø	-LE	-LE	-LE	/	-	pur	3348	2726	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD
b	M19	PP3	No	Kippers	+LA(2)	+LB(2)	+LA	+LA	<i>L.monocytogenes</i>	+	pur	2403	3186	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	T10	PP1	No	Miettes de crabe	Ø	Ø	-LE	Ø	/	-	pur	3117	4092	+	/	/	-	PDFP(alt)				
c	S3	PP2	No	Canapés de saumon fumé	-LE	-ME	-LE	-ME	/	-	pur	3361	N/A	-	/	/	-	=				
c	S13	PP2	No	Nonnettes de poissons fumés	-LE	-LE	-LE	-ME	/	-	pur	3363	N/A	-	/	/	-	=				
c	B10	PP3	No	Rillettes de thon	Ø	Ø	Ø	Ø	/	-	pur	2950	N/A	-	/	/	-	=	-	/	-	=
c	C7	PP3	No	Tarama	-LE	-LE	-ME	-LE	/	-	pur	3104	N/A	-	Ø	/	-	=	-	/	-	=
c	M14	PP3	No	Filet de poisson à la provençale	-LE	-LE	Ø	-LE	/	-	pur	2354	N/A	-	-LA	<i>L.innocua</i>	-	=	-	<i>L.innocua</i>	-	=
c	M21	PP3	No	Accras de morue	Ø	Ø	-LE	-LE	/	-	pur	2349	N/A	-	/	/	-	=	-	/	-	=
c	S4	PP3	No	Tartare de saumon à la moutarde	-LE	-LE	-ME	-ME	/	-	pur	3310	N/A	-	/	/	-	=				
c	T8	PP3	No	Coquilles de saumon frais	Ø	Ø	Ø	Ø	/	-	pur	2983	N/A	-	/	/	-	=				
c	K3	PP1	No	Crevettes cuites	+MB	+LB*	+MB	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2859	2181	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	M15	PP1	No	Crevettes cuites	+LB*	+MB*	+MB*	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2482	2733	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	S19	PP2	No	Paniers au saumon fumé	+LC	+LB*	+MB*	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	3022	2402	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	E2	PP3	No	Terrine langoustines	+HA	+MB	+HB	+MB	<i>L.monocytogenes</i>	+	pur	2365	1550	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	K1	PP3	No	Accras de morue	+MA	+MA	+HA	+HA	<i>L.monocytogenes</i>	+	pur	2006	1311	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	N7	PP3	No	Brochettes de saumon frais	+LB	+LA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2356	3482	+	Ø (Fraser : Ø) RLspp : +HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	N20	PP3	No	Calamars à la romaine	+LB	+LB	+LB*	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2230	2133	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	N25	PP3	No	Poisson à la bordelaise	+MD	+MB*	+HA	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2261	2039	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=

Protocol 2 (LSB - Standard II lysis) - Seafood products

Protocol 2 (LSB - Standard II lysis) Renewal study (ISHA 2017)																										
SEAFOOD PRODUCTS																										
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Standard II lysis								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation	Final result		
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Placam	Identification			
a	86	T0	Salmon filet		/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	37.56	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
a	88	T0	Cod filed		/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	37.71	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
c	74	T0	Stick with crab flavour		/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.34	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
c	101	T0	Stick with crab flavour	LIS	4.83	se	2.8	3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	37.47	18.48	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	103	T0	Rillette of sardines	LIS	4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	37.46	28.29	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	105	T0	Tarama with cod eggs	LIS	4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	36.01	24.31	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA

ST	SN	Time	Sample	Contamination				RM: ISO 11290-1						AM: iQ-Check LSB - Standard II lysis after storage 72h at 5°C								Additional pathway of confirmation ISO 16140-2:2016					Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation	Final result			
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Placam	Identification				
c	101	T72h	Stick with crab flavour	LIS	4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	36.12	19.46	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA	
c	103	T72h	Rillette of sardines	LIS	4.83	se	2.8	3h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	33.65	25.13	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA	
c	105	T72h	Tarama with cod eggs	LIS	4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	34.58	23.65	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA	

Protocol 2 (LSB - Standard II lysis) - Vegetable products

Protocol 2 (LSB - Standard II lysis) Extension study (IPL 2006)																						
VEGETABLE PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Standard II lysis (T0)							Agreement	Alternative method LSB, Standard II lysis after 72 h			Agreement
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations Streaking on RLM	Identifications	Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C.int	Ct FAM									
a	A7	PV1	No	Haricots verts surgelés	Ø	Ø	Ø	Ø	/	-	pur	2896	N/A	-	/	/	-	=	-	/	-	=
a	O21	PV1	No	Mélange de poivrons surgelés	-LE	-LE	-ME	-LE	/	-	pur	2863	N/A	-	/	/	-	=	-	/	-	=
a	O22	PV1	No	Légumes pour potage surgelés	Ø	Ø	Ø	Ø	/	-	pur	2844	N/A	-	/	/	-	=	-	/	-	=
a	J8	PV2	No	Epinards branches	+LA	-LA	+MA	-MA	L.welshimeri	-	pur	3057	N/A	-	-LB	L.welshimeri	-	=	-	L.welshimeri	-	=
a	Q16	PV2	No	Chou rouge	Ø	Ø	Ø	Ø	/	-	pur	3328	N/A	-	/	/	-	=				
a	S12	PV2	No	Carottes râpées	-LE	-LE	-ME	-ME	/	-	pur	3406	N/A	-	/	/	-	=				
a	R9	PV3	No	Haricots verts surgelés	Ø	Ø	Ø	Ø	/	-	pur	2549	N/A	-	/	/	-	=				
a	S17	PV3	No	Petits paniers de légumes surgelés	Ø	-LE	Ø	Ø	/	-	pur	33.98 34.52	N/A	-	/	/	-	=				
a	N14	PV1	No	Champignons surgelés	+LA	+LA	+MA	+MA	L.monocytogenes	+	pur	2491	N/A	-	Ø	/	-	ND	-	/	-	ND
a	J4	PV2	No	Epinards branches	+LA(3)	+LB(3)	+MA	+MA	L.monocytogenes	+	pur	2966	2665	+	+LA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
a	J5	PV2	No	Epinards hachés	+LB	+LB	+MB	+MA	L.monocytogenes	+	pur	2769	2619	+	+LB	L.monocytogenes	+	=	+	L.monocytogenes	+	=
a	Q7	PV2	5.1	Carottes râpées	+LB(2)	Ø	+HA	+MA	L.monocytogenes	+	pur	2536	3172	+	+LA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	Q26	PV2	No	Salade composée	Ø	Ø	Ø	Ø	/	-	pur	3249	N/A	-	/	/	-	=				
b	S11	PV2	No	Mélange salade, maïs, carottes	Ø	Ø	Ø	Ø	/	-	pur	3374	N/A	-	/	/	-	=				
b	M4	PV3	No	Pommes de terre précuites	Ø	Ø	Ø	Ø	/	-	pur	2758	N/A	-	/	/	-	=	-	/	-	=
b	R10	PV3	No	Courgettes précuites surgelées	Ø	Ø	-LE	-LE	/	-	pur	2496	N/A	-	/	/	-	=				
b	J2	PV2	No	Poêlée de légumes frais	+LB	+MB*	+MB	+MB*	L.monocytogenes L.innocua	+	pur	2430	2025	+	+MB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
b	Q1	PV2	10	Salade 4ème gamme	+LA	+LA	+MA	+MA	L.monocytogenes	+	pur	2506	2614	+	+LA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	M1	PV3	No	Poêlée champêtre	+LA	+MB	+MA	+MA	L.monocytogenes	+	pur	2769	2211	+	+MB	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	M5	PV3	No	Pommes de terre précuites	+LB	+MA	+LB	+MB	L.monocytogenes	+	pur	2418	1712	+	+HA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	O2	PV3	No	Pommes de terre précuites	+MA	+MA	+HA	+MA	L.monocytogenes	+	pur	2471	N/A	-	Ø	/	-	ND	-	/	-	ND
b	O20	PV3	No	Pommes de terre précuites	+MA	+MA	+HA	+MA	L.monocytogenes	+	pur	2485	1909	+	+HA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	P9	PV3	16	Poêlée romaine	Ø	-LE	+HA	+LA	L.monocytogenes	+	pur	2664	2023	+	+HA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	Q8	PV3	6.1	Poêlée de légumes	+LB	+LB	+MB	+MB	L.monocytogenes	+	pur	2564	3163	+	+LA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
c	N15	PV2	No	Jardinière de légumes	Ø	Ø	Ø	-LE	/	-	pur	2148	N/A	-	/	/	-	=	-	/	-	=
c	R11	PV2	No	Fond de Pommes de terre à farcir	+LA	+LA	+LB*	+LB*	L.innocua	+	pur	2486	N/A	-	Ø (Fraser : Ø)	/	-	=	-	/	-	=
c	L10	PV3	No	Mousse aux trois légumes	-LE	-LE	-ME	-ME	/	-	pur	2333	N/A	-	-ME	/	-	=	-	/	-	=
c	N17	PV3	No	Coucous (semoule et légumes)	-LE	-LE	-LE	-ME	/	-	pur	2355	N/A	-	/	/	-	=	-	/	-	=
c	Q17	PV3	No	Salade de penne napolitaine	Ø	Ø	-LE	-ME	/	-	pur	3319	N/A	-	/	/	-	=				
c	Q19	PV3	No	Céleri rémoulade	-LE	-LE	-ME	-ME	/	-	pur	3251	N/A	-	/	/	-	=				
c	Q20	PV3	No	Concombre, carottes et chou en sauce	Ø	Ø	Ø	Ø	/	-	pur	3234	N/A	-	/	/	-	=				
c	R8	PV3	No	Tapenade Olives et Tomates	Ø	Ø	-LE	-LE	/	-	pur	2529	N/A	-	/	/	-	=				
c	S14	PV3	No	Légumes façon paysanne	-LE	-LE	Ø	-ME	/	-	pur	3239	N/A	-	Ø (Fraser : Ø)	/	-	=				
c	S16	PV3	No	Purée de légumes du soleil	-LE	-LE	-LE	-ME	/	-	pur	3408	N/A	-	/	/	-	=				
c	T1	PV3	No	Pommes de terre et poivrons sauce curry	Ø	-LE	-LE	-LE	/	-	pur	3116	N/A	-	/	/	-	=				

Protocol 2 (LSB - Standard II lysis)
Extension study (IPL 2006)

VEGETABLE PRODUCTS

Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Standard II lysis (T0)								Agreement	Alternative method LSB, Standard II lysis after 72 h			Agreement
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations	Identifications	Result	Result		Identifications	Result		
					P1	AL1	P2	AL2				Ct C.int	Ct FAM		Streaking on RLM								
c	J1	PV2	No	Petits pois	+LB	+LB*	+MB	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2498	2129	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
c	T3	PV2	No	Mélange quatre légumes	Ø	-LE	Ø	Ø	/	-	pur	3159	N/A	-	/	/	-	=					
c	P10	PV3	16	Purée chou-fleur, brocolis	+LB	+MA	+MB	+LB	<i>L.monocytogenes</i>	+	pur	2629	2173	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
c	Q2	PV3	15	Riz et légumes en julienne	+LA	+LA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2445	3116	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
c	Q6	PV3	3.1	Gratin de chou-fleur	+LA	+LA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2405	3238	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
c	T2	PV3	No	Carottes râpées sauce vinaigrette	Ø	-LE	Ø	Ø	/	-	pur	3077	N/A	-	/	/	-	=					

Protocol 2 (LSB - Standard II lysis) - Vegetable products

Protocol 2 (LSB - Standard II lysis) Renewal study (ISHA 2017)																									
VEGETABLE PRODUCTS																									
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					AM: iQ-Check LSB - Standard II lysis								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation		Final result
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Palcam	Identification		
a	106	T0	Banana	/	/	/	0L	0L	0Ø	0Ø	/	-	37.99	N/A	-	0L	0L	0L	/	-	0Ø	0Ø	/	-	NA
a	108	T0	Grape	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.27	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
b	116	T0	Julienne of vegetables	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.65	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
b	118	T0	Grated carrot	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.93	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
b	120	T0	Sliced cucumber	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.26	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
b	122	T0	Prepared lettuce heart	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	34.05	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
b	124	T0	Mix of young sprouts	/	/	/	0L	0L	0Ø	0Ø	/	-	33.73	N/A	-	0L	0L	0L	/	-	0Ø	0Ø	/	-	NA
b	126	T0	Sliced leek	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.43	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
a	111	T0	Banana	LIS 4.10	se	1.6	3h+M	3h-L	3h+I	4h-L	L.m	+	36.73	20.38	+	3h+L	3h-L	3h+L	L.m	+	4h+L	4h-L	L.m	+	PA
a	113	T0	Grape	LIS 4.10	se	1.6	3h+L	4h-L	4h+L	4h-L	L.m	+	33.9	19.84	+	2h+M	3h-L	2h+M	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
a	115	T0	Tomato	LIS 4.10	se	1.6	4h+Ø	4h-L	4h+L	4h-Ø	L.m	+	N/A	14.83	+	3h+L	4h-Ø	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	117	T0	Plums red	LIS 4.35	se	2.0	3h+Ø	4h-Ø	3h+I	4h-Ø	L.m	+	34.83	30.84	+	4h+L	4h-L	4h+L	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
a	119	T0	Pear	LIS 4.35	se	2.0	3h+M	4h-Ø	4h+L	4h-L	L.m	+	N/A	13.75	+	3h+L	4h-L	3h+L	L.m	+	4h+L	4h-L	L.m	+	PA
a	121	T0	Yellow plum	LIS 4.35	se	2.0	3h+Ø	4h-Ø	4h+L	4h-L	L.m	+	43.13	21.47	+	3h+L	3h-L	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	123	T0	Estar apple	LIS 4.17	se	1.8	3h+M	4h-L	4h+L	4h-L	L.m	+	35.42	20.64	+	4h+L	4h-L	4h+L	L.m	+	4h+L	4h-L	L.m	+	PA
a	125	T0	Canada grey apple	LIS 4.17	se	1.8	3h+Ø	4h-Ø	4h+L	4h-L	L.m	+	42.08	24.92	+	3h+L	4h-L	3h+L	L.m	+	4h+Ø	3h-Ø	L.m	+	PA
b	133	T0	Julienne of vegetables	LIS 4.80	se	3.0	3h+M	4h-L	3h+L	4h-L	L.m	+	34.34	24.08	+	3h+L	4h-Ø	3h+L	L.m	+	4h+L	4h-L	L.m	+	PA
b	135	T0	Grated carrot	LIS 4.81	se	2.6	3h+M	4h-L	3h+L	4h-L	L.m	+	32.9	26.06	+	3h+L	4h-Ø	3h+L	L.m	+	4h+L	4h-L	L.m	+	PA
b	137	T0	Sliced cucumber	LIS 4.81	se	2.6	3h+L	4h-L	4h+Ø	4h-Ø	L.m	+	38.78	15.63	-	3h+L	4h-L	3h+L	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
c	159	T0	Wax bean	LIS 4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	38.06	N/A	-	0Ø	0Ø	0Ø	/	-	/	/	/	/	ND
c	161	T0	peas steamed	LIS 4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	N/A	13.74	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
c	163	T0	Green lentils cooked	LIS 4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	34.91	18	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	165	T0	Green beans	LIS 4.79	se	2.6	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	34.08	18.3	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					AM: iQ-Check LSB - Standard II lysis after storage 72h at 5°C								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation		Final result
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Palcam	Identification		
a	111	T72h	Banana	LIS 4.10	se	1.6	3h+M	3h-L	3h+I	4h-L	L.m	+	33.18	24.36	+	3h+L	3h-L	3h+L	L.m	+	3h+Ø	4h-L	L.m	+	PA
a	113	T72h	Grape	LIS 4.10	se	1.6	3h+L	4h-L	4h+L	4h-L	L.m	+	35.06	22.15	+	3h+L	3h-L	3h+L	L.m	+	4h+L	4h-L	L.m	+	PA
a	115	T72h	Tomato	LIS 4.10	se	1.6	4h+Ø	4h-L	4h+L	4h-Ø	L.m	+	35.87	36.25	+	3h+L	4h-Ø	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	117	T72h	Plums red	LIS 4.35	se	2.0	3h+Ø	4h-Ø	3h+I	4h-Ø	L.m	+	N/A	183.54	+	4h+L	4h-Ø	4h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
a	119	T72h	Pear	LIS 4.35	se	2.0	3h+M	4h-Ø	4h+L	4h-L	L.m	+	35.18	19.65	+	4h+L	4h-Ø	4h+L	L.m	+	4h+L	4h-L	L.m	+	PA
a	121	T72h	Yellow plum	LIS 4.35	se	2.0	3h+Ø	4h-Ø	4h+L	4h-L	L.m	+	34.92	21.15	+	3h+L	3h-L	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	123	T72h	Estar apple	LIS 4.17	se	1.8	3h+M	4h-L	4h+L	4h-L	L.m	+	33.54	22.48	+	4h+L	4h-L	4h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
a	125	T72h	Canada grey apple	LIS 4.17	se	1.8	3h+Ø	4h-Ø	4h+L	4h-L	L.m	+	33.89	26.13	+	3h+L	4h-L	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	133	T72h	Julienne of vegetables	LIS 4.80	se	3.0	3h+M	4h-L	3h+L	4h-L	L.m	+	N/A	15.23	+	4h+L	4h-Ø	4h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	135	T72h	Grated carrot	LIS 4.81	se	2.6	3h+M	4h-L	3h+L	4h-L	L.m	+	N/A	16.45	+	3h+L	4h-Ø	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	137	T72h	Sliced cucumber	LIS 4.81	se	2.6	3h+L	4h-L	4h+Ø	4h-Ø	L.m	+	33.74	18.43	+	3h+L	4h-L	3h+L	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
c	159	T72h	Wax bean	LIS 4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	32.12	N/A	-	0Ø	0Ø	0Ø	/	-	/	/	/	/	ND
c	161	T72h	peas steamed	LIS 4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.78	18.56	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	163	T72h	Green lentils cooked	LIS 4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.84	18.96	+	4h+Ø	3h-Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	165	T72h	Green beans	LIS 4.79	se	2.6	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.76	25.18	+	3h+Ø	4h-Ø	3h+Ø	L.m	+	4h+Ø	3h-Ø	L.m	+	PA

Protocol 2 (LSB - Standard II lysis) - RTE/RTRH

Protocol 2 (LSB - Standard II lysis)
Extension study (IPL 2006)

RTE - RTRH

Type	Ref	Cat	CA	Product (in French)	Reference method				Alternative method LSB, Standard II lysis(T0)								Agreement	Alternative method LSB, Standard II lysis after 72 h			Agreement	
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations	Identifications		Result	Result	Identifications		Result
					P1	AL1	P2	AL2				Ct C.int	Ct FAM		Streaking on RLM							
a	S7	PP3	No	Crevettes en taboulé	-LE	-LE	Ø	-LE	/	-	pur	3260	N/A	-	/	/	-	=				
a	N4	PP3	No	Faluche au thon	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2391	2451	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	N5	PP3	No	Faluche aux crevettes	+LA	+LB	+HA	+MB	<i>L.monocytogenes</i>	+	pur	2330	3109	+	+LB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	N6	PP3	No	Faluche aux crevettes	+LB	+LB	+HA	+MB	<i>L.monocytogenes</i>	+	pur	2297	2592	+	+LB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	B14	PC3	No	Couscous (merguez cuites, légumes, semoule)	Ø	Ø	Ø	Ø	/	-	pur	3132	N/A	-	-LE	/	-	=	-	/	-	=
b	S10	PC2	No	Tomates farcies prêtes à cuire	Ø	-LE	+HA	-MB	<i>L.innocua</i>	-	pur	3359	2492	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD
b	R16	PC3	No	Crépinettes au vin blanc	+LA	-LA	+LB	-LB	<i>L.welshimeri</i>	-	pur	2520	2662	+	+MB*	<i>L.welshimeri</i> <i>L.monocytogenes</i>	+	PD	inh +	<i>L.welshimeri</i> <i>L.monocytogenes</i>	inh +	PD
b	B13	PV3	No	Pommes de terre rissolées	Ø	Ø	Ø	Ø	/	-	pur	2998	2609	+	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD
b	S15	PV3	No	Flans de chou-fleur	-LE	Ø	-ME	-ME	/	-	pur	3137	N/A	-	Ø (Fraser : Ø)	/	-	=				
b	Q4	PV3	25	Gâteau de céleri	+LB	+LB	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2391	3038	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	E1	PL3	No	Tartelettes fruits	+MA	-MA	+MA	-MA	<i>L.innocua</i>	-	pur	2873	N/A	-	-HB	<i>L.innocua</i>	-	=	-	/	-	=
c	R1	PL3	No	Religieuses au café	-LE	-LE	-LE	-ME	/	-	pur	2373	N/A	-	/	/	-	=				
c	R2	PL3	No	Riz au lait	Ø	Ø	Ø	Ø	/	-	pur	2253	N/A	-	/	/	-	=				
c	S18	PP3	No	Petits paniers au poisson	-LE	-LE	-ME	-ME	/	-	pur	3230	N/A	-	/	/	-	=				
c	N10	PL3	No	Tartelette framboise	+LB	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2413	N/A	-	Ø	/	-	ND	-	/	-	ND

Protocol 2 (LSB - Standard II lysis) - RTE/RTRH

Protocol 2 (LSB - Standard II lysis) Renewal study (ISHA 2017)																									
RTE - RTRH																									
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Standard II lysis								Confirmation ISO 16140-2				Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation	Final result	Final result
O&A	Palcam	O&A	Palcam				Identif- ication	Ct C. int	Ct FAM	Results	RLM		AL	RLM	Identification	O&A	Palcam	Identification							
a	2	T0	Tabouleh with chicken	/	/	/	0L	0L	0L	0L	/	-	33.86	N/A	-	0M	0M	0M	/	-	0L	0L	/	/	NA
a	4	T0	Strabourgeoise salad	/	/	/	0L	0L	0Ø	0Ø	/	-	33.4	N/A	-	0L	0L	0L	/	-	0L	0L	/	/	NA
a	6	T0	Piémontaise with ham	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.11	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
a	8	T0	Sandwich with salmon and chives	/	/	/	0M	0M	0Ø	0M	/	-	33.69	N/A	-	0M	0L	0M	/	-	0L	0L	/	/	NA
a	10	T0	Sandwich with ham and Emmental	/	/	/	0M	0M	0M	0M	/	-	33.6	N/A	-	0Ø	0Ø	0Ø	/	-	0M	0M	/	/	NA
a	12	T0	Sandwich with tuna and crudities	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.18	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
a	14	T0	Sandwich with ham and butter	/	/	/	0L	0Ø	0Ø	0Ø	/	-	33.76	N/A	-	0L	0L	0L	/	-	0L	0L	/	/	NA
a	16	T0	Sandwich with rosette and butter	/	/	/	0L	0L	0Ø	0Ø	/	-	33.57	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
a	18	T0	Sandwich with chicken and crudities	/	/	/	0L	0Ø	0Ø	0Ø	/	-	33.58	N/A	-	0L	0L	0L	/	-	0L	0L	/	/	NA
a	20	T0	Sandwich with ham and cheddar	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.39	N/A	-	0L	0L	0L	/	-	0L	0L	/	/	NA
a	1	T0	Tabouleh with chicken	LIS 4.6	se	2.2	4h+ M	4h-M	4h+ M	4h-M	L.m	+	36.06	23.72	+	3h+L	3h+ M	3h+L	L.m	+	3h+ M	4h-M	L.m	+	PA
a	3	T0	Strabourgeoise salad	LIS 4.6	se	2.2	3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	39.19	18.6	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
a	5	T0	Piémontaise with ham	LIS 4.6	se	2.2	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	37.03	28.25	+	3h+Ø	2h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	7	T0	Sandwich with salmon and chives	LIS 4.24	se	2.8	3h+Ø	4h-M	3h+Ø	3h-Ø	L.m	+	36.54	24.36	+	3h+L	3h+L	3h+L	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
a	9	T0	Sandwich with ham and Emmental	LIS 4.24	se	2.8	4h+Ø	4h-M	3h+Ø	4h-Ø	L.m	+	36.09	20.24	+	3h+L	3h+Ø	3h+L	L.m	+	3h+L	3h-L	L.m	+	PA
a	11	T0	Sandwich with tuna and crudities	LIS 4.24	se	2.8	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	41.83	23.69	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+L	4h-L	L.m	+	PA
a	13	T0	Sandwich with ham and butter	LIS 4.86	se	1.8	2h+L	3h-Ø	3h+Ø	3h-Ø	L.m	+	34.76	17.78	+	2h+L	2h+Ø	2h+L	L.m	+	2h+Ø	3h-Ø	L.m	+	PA
a	15	T0	Sandwich with rosette and butter	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	35.19	25.87	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	17	T0	Sandwich with chicken and crudities	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.86	23.4	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	22	T0	Pizza with three cheeses	/	/	/	0L	0L	0Ø	0Ø	/	-	33.37	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
b	24	T0	Pizza with ham and cheese	/	/	/	0L	0Ø	0Ø	0Ø	/	-	33.52	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
b	26	T0	Pizza with three melting cheeses	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.54	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
b	28	T0	Pizza with comté, emmental and lardons	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.23	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
b	30	T0	Pizza with ham and mushroom	/	/	/	0L	0L	0Ø	0Ø	/	-	38.03	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
b	32	T0	Flammekueche with smoked lardons	/	/	/	0L	0L	0Ø	0Ø	/	-	37.83	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
b	34	T0	Croissant with ham	/	/	/	0L	0M	0L	0L	/	-	37.85	N/A	-	0L	0Ø	0L	/	-	0M	0M	/	/	NA
b	36	T0	Lorrain quiche	/	/	/	0L	0L	0Ø	0Ø	/	-	33.14	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
b	38	T0	Flaky goat cheese	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	37.67	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
b	40	T0	Provençal pastry	/	/	/	0M	0M	0M	0M	/	-	38.09	N/A	-	0L	0L	0L	/	-	0L	0M	/	/	NA

Protocol 2 (LSB - Standard II lysis)
Renewal study (ISHA 2017)
RTE - RTRH

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Standard II lysis								Confirmation ISO 16140-2				Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation	Final result	Final result
O&A	Palcam	O&A	Palcam				Identif- ication	Ct C. int	Ct FAM	Results	RLM		AL	RLM	Identification	O&A	Palcam	Identification							
b	23	T0	Pizza with three cheeses	LIS 4.88	se	2.6	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.94	19.76	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	25	T0	Pizza with ham and cheese	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.69	15.35	+	3h+Ø	2h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
b	27	T0	Pizza with three melting cheeses	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	37.43	18.67	+	3h+Ø	2h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
b	29	T0	Pizza with comté, emmental and lardons	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	36.19	19.67	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
b	31	T0	Pizza with ham and mushroom	LIS 4.46	se	2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.13	19.32	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	33	T0	Flammekueche with smoked lardons	LIS 4.46	se	2	2h+L	4h-M	2h+Ø	2h-M	L.m	+	38.15	23.76	+	2h+L	2h+ M	2h+L	L.m	+	2h+L	3h-L	L.m	+	PA
c	42	T0	Raspberries tart	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.41	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
c	44	T0	Apples tart	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.5	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
c	46	T0	Mille-feuilles	/	/	/	0L	0L	0Ø	0Ø	/	-	37.9/33.7	40.96/ N/A	+	0L	0Ø	0L	/	-	0L	0L	/	/	PDFP(alt)
c	48	T0	Donuts with pastry cream	/	/	/	0L	0Ø	0Ø	0Ø	/	-	37.82	N/A	-	0Ø	0Ø	0Ø	/	-	0L	0L	/	/	NA
c	50	T0	Pudding	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	37.74	N/A	-	0L	0Ø	0L	/	-	0L	0L	/	/	NA
c	52	T0	Stick with pastry cream	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.22	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA
c	35	T0	Raspberries tart	LIS 4.46	se	2	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	38.57	18.63	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	37	T0	Apples pie	LIS 4.7	se	2.8	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	35.64/ 37.11	N/A- 28.49	-/+	3h+Ø	4h+Ø	3h+Ø	L.m	-	3h+Ø	4h-Ø	L.m	+	NDFN(alt)
c	39	T0	Mille-feuille	LIS 4.7	se	2.8	4h+ M	4h-M	4h+ M	4h-M	L.m	+	36.97	25.62	+	3h+M	4h+ M	3h+ M	L.m	+	3h+ M	4h-M	L.m	+	PA
c	41	T0	Savarin with rhum and pastry cream	LIS 4.7	se	2.8	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	37.24	20.42	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	43	T0	Pudding	LIS 4.93	se	3.2	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.16	19.92	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	45	T0	Choux with pastry cream	LIS 4.93	se	3.2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.21	15.62	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	47	T0	Strawberries tart	LIS 4.93	se	3.2	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	35.9	14.75	+	2h+Ø	2h+Ø	2h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
c	49	T0	Savarin with rum and pastry cream	LIS 4.91	se	1.6	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	35.97	17.25	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
c	51	T0	Choux with pastry cream	LIS 4.91	se	1.6	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	38.66	16.05	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	53	T0	Pudding	LIS 4.91	se	1.6	3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	36.87	16.25	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA

**Protocol 2 (LSB - Standard II lysis)
Renewal study (ISHA 2017)**

RTE - RTRH

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Standard II lysis								Confirmation ISO 16140-2				Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	iQ-Check			Confir- mation a	Confirmation b			Final result	Fraser		Confir- mation	Final result	Final result
							O&A	Palcam	O&A	Palcam	Identifi- cation		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identif- ication		O&A	Palcam	Identifi- cation		
a	1	T72h	Tabouleh with chicken	LIS 4.6	se	2.2	4h+ M	4h-M	4h+ M	4h-M	L.m	+	33.25	18.67	+	3h+L	3h+L	3h+L	L.m	+	3h+L	4h-L	L.m	+	PA
a	3	T72h	strabourgeoise salad	LIS 4.6	se	2.2	3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	33.02	19.63	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
a	5	T72h	Piémontaise with ham	LIS 4.6	se	2.2	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	32.69	21.06	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	7	T72h	Sandwich with salmon and chives	LIS 4.24	se	2.8	3h+Ø	4h-M	3h+Ø	3h-Ø	L.m	+	24.01	18.45	+	3h+L	3h+L	3h+L	L.m	+	3h+L	3h-Ø	L.m	+	PA
a	9	T72h	Sandwich with ham and Emmental	LIS 4.24	se	2.8	4h+Ø	4h-M	3h+Ø	4h-Ø	L.m	+	33.54	16.54	+	3h+M	3h+ M	3h+ M	L.m	+	3h+ M	3h-M	L.m	+	PA
a	11	T72h	Sandwich with tuna and crudities	LIS 4.24	se	2.8	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.68	25.31	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
a	13	T72h	Sandwich with ham and butter	LIS 4.86	se	1.8	2h+L	3h-Ø	3h+Ø	3h-Ø	L.m	+	33.47	18.54	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	2h+Ø	3h-Ø	L.m	+	PA
a	15	T72h	Sandwich with rosette and butter	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.22	19.65	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	17	T72h	Sandwich with chicken and crudities	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.94	24.84	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	23	T72h	Pizza with three cheeses	LIS 4.88	se	2.2	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.25	19.04	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	25	T72h	Pizza with ham and cheese	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.64	18.54	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
b	27	T72h	Pizza with three melting cheeses	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	32.98	18.62	+	2h+L	2h+Ø	2h+L	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
b	29	T72h	Pizza with comté, emmental and lardons	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	34.08	21.03	+	3h+Ø	2h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
b	31	T72h	Pizza with ham and mushroom	LIS 4.46	se	2.0	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.81	21.65	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	33	T72h	Flammekueche with smoked lardons	LIS 4.46	se	2.0	2h+L	4h-M	2h+Ø	2h-M	L.m	+	33.47	17.52	+	3h+M	3h+ M	3h+ M	L.m	+	2h+L	3h-L	L.m	+	PA
c	35	T72h	Raspberries tart	LIS 4.46	se	2.0	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.96	24.23	+	2h+L	2h+Ø	2h+L	L.m	+	2h+Ø	3h-Ø	L.m	+	PA
c	37	T72h	Apple pie	LIS 4.7	se	2.8	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	32.13/34.9 5	N/A-N/A	-/-	2h+L	2h+Ø	2h+L	L.m	-	3h+Ø	3h-Ø	L.m	+	ND _{FN(alt)}
c	39	T72h	Mille feuille	LIS 4.7	se	2.8	4h+ M	4h-M	4h+ M	4h-M	L.m	+	33.67	21.98	+	3h+L	4h+ M	3h+L	L.m	+	3h+L	3h-L	L.m	+	PA
c	41	T72h	Savarin with rum and pastry cream	LIS 4.7	se	2.8	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.61	27.58	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	43	T72h	Pudding	LIS 4.93	se	3.2	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.02	21.13	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	2h+Ø	4h-Ø	L.m	+	PA
c	45	T72h	Choux with pastry cream	LIS 4.93	se	3.2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.08	18.45	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	47	T72h	Strawberries tart	LIS 4.93	se	3.2	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	32.84	16.23	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
c	49	T72h	Savarin with rum and pastry cream	LIS 4.91	se	1.6	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	33.56	16.87	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
c	51	T72h	Choux with pastry cream	LIS 4.91	se	1.6	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.84	22.01	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	53	T72h	Pudding	LIS 4.91	se	1.6	3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	33.42	18.46	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA

Protocol 2 (LSB - Standard II lysis) - Environmental products

Protocol 2 (LSB - Standard II lysis) Extension study (IPL 2006)																						
ENVIRONMENTAL PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Standard II lysis (T0)							Agreement	Alternative method LSB, Standard II lysis after 72 h			Agreement
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations	Identifications	Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C.int	Ct FAM		Streaking onto RLM							
a	D6	EN1	No	Eau de process	Ø	Ø	-LE	-LE	/	-	pur	3331	N/A	-	Ø	/	-	=	-	/	-	=
a	I13	EN1	No	Condensation centrale eau glacée	Ø	Ø	Ø	Ø	/	-	pur	2239	N/A	-	/	/	-	=	-	/	-	=
a	J9	EN1	No	Eau retour transfert hydraulique	Ø	Ø	-LE	-LE	/	-	pur	2708	N/A	-	Ø	/	-		-	/	-	
a	J10	EN1	No	Eau débordement refroidisseur	+LA	-LA	+LA	-MA	L.innocua	-	pur	2404	N/A	-	-LA	L.innocua	-	=	-	L.innocua	-	=
a	J11	EN1	No	Eau débordement glazurage Gyro	Ø	Ø	Ø	Ø	/	-	pur	2707	N/A	-	-LE	/	-	=	-	/	-	=
a	J12	EN1	No	Eau débordement jacuzy	Ø	Ø	-LE	-LE	/	-	pur	1695	N/A	-	Ø	/	-	=	-	/	-	=
a	I19	EN1	No	Eau stagnante vibrants dispatching	+LB*	+LB	+MB	+MB	L.monocytogenes L.innocua	+	pur	2223	1904	+	+MB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
a	I20	EN1	No	Eau en pierreur à contre courant L2	+LB*	+LB	+MB	+MB	L.monocytogenes L.innocua	+	pur	2291	2001	+	+MB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
b	C9	EN2	No	Surface hall déballage cartons	-LE	-LE	-ME	Ø	/	-	pur	2628	3639	+	-ME	Ø	-	PD _{FP(alt)}	-	/	-	=
b	C10	EN2	No	Surface bac sale	-ME	-LE	-HE	-LE	/	-	pur 1/10	N/A 28.00	N/A N/A	inh -	-HE (Fraser : - HE)	Ø	inh -	=	inh -	/	inh -	=
b	D1	EN2	No	Joint Chambre froide	-LE	Ø	-ME	-LE	/	-	pur	3406	N/A	-	Ø	/	-	=	-	/	-	=
b	D4	EN2	No	Sol atelier découpe	Ø	Ø	Ø	Ø	/	-	pur	1944	N/A	-	Ø	/	-	=	-	/	-	=
b	E9	EN2	No	Surface atelier découpe poissonnerie	+MB	-MA	+HA	-MA	L.innocua	-	pur	1926	4321	+	-MB	L.innocua	-	PD _{FP(alt)}	+	L.innocua	-	PD _{FP(alt)}
b	G1	EN2	No	Surface ligne blanc machine table tournante	Ø	Ø	Ø	Ø	/	-	pur	3177	N/A	-	/	/	-	=	-	/	-	=
b	G4	EN2	No	Surface ligne filetage main Planche	Ø	Ø	Ø	Ø	/	-	pur	3169	N/A	-	/	/	-	=	-	/	-	=
b	G5	EN2	No	Surface ligne filetage main Bac rinçage	Ø	Ø	Ø	Ø	/	-	pur	2343	3856	+	Ø	/	-	PD _{FP(alt)}	+	Ø	-	PD _{FP(alt)}
b	G6	EN2	No	Surface ligne saumon Darneuse Holac	Ø	Ø	Ø	Ø	/	-	pur	3132	N/A	-	/	/	-	=	-	/	-	=
b	G7	EN2	No	Surface ligne saumon pont pesée saumons	Ø	Ø	Ø	Ø	/	-	pur	4781	N/A	-	Ø	/	-	=	-	/	-	=
b	G9	EN2	No	Ligne saumon siphon étéeuse	Ø	Ø	Ø	Ø	/	-	pur	3573	N/A	-	/	/	-	=	-	/	-	=
b	G10	EN2	No	Surface ligne blanc machine bac rinçage	-LE	-LE	Ø	-LE	/	-	pur	35.1	N/A	-	Ø	/	-	=	-	/	-	=
b	I2	EN2	No	Rouleau sous tapis sortie parage	Ø	-LA(1)	+LB	-MB	L.welshimeri	-	pur	2849	N/A	-	/	/	-	=	-	/	-	=
b	I10	EN2	No	Cloison tunnel 4	Ø	Ø	Ø	-LE	/	-	pur	2309	N/A	-	/	/	-	=	-	/	-	=
b	I11	EN2	No	Pelle jaune entrée T4	Ø	Ø	-LE	-LE	/	-	pur	2271	N/A	-	/	/	-	=	-	/	-	=
b	I14	EN2	No	Aimant rouillé ligne 4	Ø	Ø	Ø	Ø	/	-	pur	2244	N/A	-	/	/	-	=	-	/	-	=
b	I16	EN2	No	Tablier Fab	Ø	-LE	Ø	Ø	/	-	pur	2392	N/A	-	-MA	L.innocua	-	=	-	L.innocua	-	=
b	I18	EN2	No	Ventilo refroidisseur 4	+LB*	-LD(1)	+MB	-LB	L.innocua	-	pur 1/10	N/A 33.0	N/A N/A	inh -	-MB	L.innocua	inh -	=	inh -	/	inh -	=
b	I4	EN1	No	Surface humide tunnel 3	+MA	+MA	+MA	+MA	L.monocytogenes	+	pur	2532	1510	+	+MA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	I5	EN1	No	Caniveau zone filmeuse	+MA	+LA	+MA	+MA	L.monocytogenes	+	pur	2494	1893	+	+MA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	I12	EN1	No	Tuyau arrosage entrée T4	+MA	+LA	+MB	+MB	L.monocytogenes	+	pur	2896	2045	+	+MB	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	D3	EN2	No	Surface table inox	+LB	+LB	+HB	+MA	L.monocytogenes L.innocua	+	pur	3337	2590	+	+MB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
b	D7	EN2	No	Surface sale accrochage	+LB	+LB	+LB	+MB	L.monocytogenes L.innocua	+	pur	3590	3672	+	Ø (Fraser : Ø)	/	-	PA _{FP(alt)}	-	/	-	ND
b	G2	EN2	No	Surface ligne saumon pont pesée filets	+MB*	+MA	+MB*	+MB*	L.monocytogenes	+	pur	3243	2426	+	+MA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	G3	EN2	No	Surface ligne saumon Booder 51	+LA	+LA	+MB*	+MB*	L.monocytogenes	+	pur	3005	1765	+	+HA	L.monocytogenes	+	=	+	L.monocytogenes	+	=

Protocol 2 (LSB - Standard II lysis)
Extension study (IPL 2006)

ENVIRONMENTAL PRODUCTS

Type	Ref	Cat	CA	Product (in French)	Reference method				Alternative method LSB, Standard II lysis (T0)								Agreement	Alternative method LSB, Standard II lysis after 72 h			Agreement	
					Fraser 1/2		Fraser		Identifications	Result	DNA	Direct lysis		Result	Confirmations	Identifications		Result	Result	Identifications		Result
					P1	AL1	P2	AL2				Ct C.int	Ct FAM		Streaking onto RLM							
b	G8	EN2	No	Surface ligne saumon tapis bleu	+MB*	+MA	+HB*	+MA	<i>L.monocytogenes</i>	+	pur	2888	1606	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	G11	EN2	No	Ligne saumon siphon Boader 200	+MB*	+MB*	+LB*	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	N/A	1563	+	+HA	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
b	G12	EN2	No	Ligne saumon tapis déchets	+MB*	+MB*	+MB*	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	N/A	1499	+	+HA	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
b	G13	EN2	No	Surface ligne saumon étêteuse	Ø	+LA(4)	+HA	+MA	<i>L.monocytogenes</i>	+	pur	3515	N/A	-	Ø	/	-	ND	-	/	-	ND
b	G14	EN2	No	Ligne saumon tapis parage	+LB*	+LA	+MB*	+MB*	<i>L.monocytogenes</i>	+	pur	N/A	1479	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	G15	EN2	No	Surface ligne saumon Boader 200	+HB*	+MA	+MB*	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	N/A	1490	+	+HA	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
b	I1	EN2	No	Rouleau sous tapis parage1	+LB*	+LB	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	3398	2927	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
b	I3	EN2	No	Tapis tunnel 3	+MA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2485	1691	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	I7	EN2	No	Tapis parage zone mélange	+MA	+MA	+MB	+MB	<i>L.monocytogenes</i>	+	pur	2525	1747	+	+HB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	I9	EN2	No	Pelle zone mélange	+MA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2725	1899	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	E11	EN2	No	Eponge plumeuse	+LA(4)	+LA	+LB	+LA	<i>L.monocytogenes</i>	+	pur	N/A	1696	+	+HB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	E12	EN2	No	Eponge salle d'accrochage	+LB	+LB	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	N/A	2114	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	B17	EN3	No	Résidus maïs	-HE	-ME	-ME	-ME	/	-	pur	1883	N/A	-	/	/	-	=	-	/	-	=
c	C11	EN3	No	Résidus table inox	-ME	+MB	+HB	+MB	<i>L.ivanovii</i>	-	pur 1/10	N/A 26.96	N/A 38.30	inh +	-HC	<i>L.ivanovii souche pure = nég</i>	inh -	PD _{FP(alt)}	inh +	<i>L.ivanovii souche pure = -</i>	inh -	PD _{FP(alt)}
c	D2	EN3	No	Résidus poivrons	Ø	Ø	-LE	Ø	/	-	pur	1821	N/A	-	Ø	/	-	=	-	/	-	=
c	D5	EN3	No	Résidus sol	+LB	-LB	+MB	-MB	<i>L.welshimeri</i>	-	pur	3372	N/A	-	+HA(48 h)	<i>L.welshimeri</i>	-	=	-	/	-	=
c	E13	EN3	No	Résidus bac échaudoir	-LE	-LE	-LE	-LE	/	-	pur	3631	N/A	-	Ø	/	-	=	-	/	-	=
c	F6	EN3	No	Déchets de parage de gorge de porc	Ø	Ø	Ø	Ø	/	-	pur	2794	N/A	-	Ø	/	-	=	-	/	-	=
c	I15	EN3	No	Résidus tapis Mec Parma	Ø	Ø	Ø	Ø	/	-	pur	2275	N/A	-	-ME	/	-	=	-	/	-	=
c	E10	EN3	No	Résidus poisson bac sale	+LB(1)	+LA	+HA	+MB	<i>L.monocytogenes</i>	+	pur	1947	2570	+	+MB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	F1	EN3	No	Résidus pour fabrication pâté	+MA	+MB	+HB	+HB	<i>L.monocytogenes</i>	+	pur	2636	2546	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	F2	EN3	No	Résidus foie et cœur de porc	+MB	+MB	+HB	+HB	<i>L.monocytogenes</i> <i>L.innocua</i> <i>L.welshimeri</i>	+	pur	2274	1961	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i> <i>L.welshimeri</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i> <i>L.welshimeri</i>	+	=
c	F3	EN3	No	Résidus pour fabrication pâté	+LB	+LB	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2385	2142	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	F4	EN3	No	Résidus gras de porc	+MB	+MA	+HB	+MB	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	pur	2303	1900	+	+HB	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=	+	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=
c	F5	EN3	No	Résidus crépinette	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2798	2906	+	+HB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	I6	EN3	No	Résidus caniveau zone mélange	+MA	+MA	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	4392	2057	+	+MB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	I8	EN3	No	Résidus trémie zone mélange	+LB*	+LB	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2725	2361	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	I17	EN3	No	Résidus bac déchets entrée Gyro	+MB*	+LB	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2587	2517	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=

Protocol 2 (LSB - Standard II lysis) - Environmental samples

Protocol 2 (LSB - Standard II lysis) Renewal study (ISHA 2017)																									
ENVIROMNENTAL SAMPLES																									
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					AM: iQ-Check LSB - Standard II lysis								Confirmation ISO 16140-2				Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Identification		Final result
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Palcam			
a	134	T0	Processed water 1	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	32.15	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
a	135	T0	Processed water 2	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	30.65	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
a	136	T0	Processed water 3	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	34.87	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
a	137	T0	Processed water 4	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	31.56	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
a	179	T0	Processed water 1	LIS 4.2	se	2.4	3h+Ø	2h-Ø	3h+Ø	2h-Ø	L.m	+	30.98	18.45	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA
a	181	T0	Processed water 2	LIS 4.2	se	2.4	3h+Ø	3h-Ø	2h+Ø	2h-Ø	L.m	+	30.65	19.45	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA
a	183	T0	Processed water 3	LIS 4.2	se	2.4	3h+Ø	3h-Ø	2h+Ø	2h-Ø	L.m	+	31.65	17.47	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA
a	185	T0	Processed water 4	LIS 4.44	se	3.0	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.59	16.98	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA
a	187	T0	Processed water 5	LIS 4.44	se	3.0	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	32.87	19.05	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	3h+Ø	4h+Ø	L.m	+	PA
a	189	T0	Processed water 6	LIS 4.44	se	3.0	3h+Ø	2h-Ø	3h+Ø	2h-Ø	L.m	+	33.48	19.23	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	4h+Ø	L.m	+	PA
a	191	T0	Processed water 7	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.67	16.23	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA
a	193	T0	Processed water 8	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.05	18.69	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	3h+Ø	L.m	+	PA
c	145	T0	Residue 1	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	32.45	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
c	147	T0	Residue 2	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	32.69	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
c	149	T0	Residue 3	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	32.51	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
c	195	T0	Residue	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.09	18.16	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	4h+Ø	L.m	+	PA
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					AM: iQ-Check LSB - Standard II lysis								Confirmation ISO 16140-2				Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Identification		Final result
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Palcam			
a	179	T72h	Processed water 1	LIS 4.2	se	2.4	3h+Ø	2h-Ø	3h+Ø	2h-Ø	L.m	+	34.7	18.96	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	4h+Ø	4h+Ø	L.m	+	PA
a	181	T72h	Processed water 2	LIS 4.2	se	2.4	3h+Ø	3h-Ø	2h+Ø	2h-Ø	L.m	+	30.87	18.46	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	4h+Ø	4h+Ø	L.m	+	PA
a	183	T72h	Processed water 3	LIS 4.2	se	2.4	3h+Ø	3h-Ø	2h+Ø	2h-Ø	L.m	+	32.56	17.68	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	3h+Ø	4h+Ø	L.m	+	PA
a	185	T72h	Processed water 4	LIS 4.44	se	3.0	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	32.49	18.23	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	4h+Ø	L.m	+	PA
a	187	T72h	Processed water 5	LIS 4.44	se	3.0	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	30.15	18.43	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA
a	189	T72h	Processed water 6	LIS 4.44	se	3.0	3h+Ø	2h-Ø	3h+Ø	2h-Ø	L.m	+	33.12	17.99	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	4h+Ø	3h+Ø	L.m	+	PA
a	191	T72h	Processed water 7	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.45	18.96	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h+Ø	L.m	+	PA
a	193	T72h	Processed water 8	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	32.65	17.01	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA
c	195	T72h	Residue	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.19	16.49	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA

Protocol 3 (LSB - Easy II lysis) - Meat products

Protocol 3 (LSB - Easy II lysis) Extension study (IPL 2006)																						
MEAT PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)							Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
a	A8	PC1	No	Emincé de porc	Ø	Ø	Ø	Ø	/	-	pur	2776	N/A	-	/	/	-	=	-	/	-	=
a	B7	PC1	No	Escalope de veau	Ø	Ø	Ø	Ø	/	-	pur	2633	4165	+	Ø (Fraser : Ø)	/	-	PDF _{FP(alt)}	+	/	-	PD _{FP(alt)}
a	E4	PC1	No	Viande de bœuf hachée	-LE	-ME	-LE	-LE	/	-	pur	3146	N/A	-	Ø	/	-	=	-	/	-	=
a	K5	PC1	No	Haché de bœuf	Ø	-LE	Ø	Ø	/	-	pur	2253	N/A	-	-LA	<i>L.welshimeri</i>	-	=	-	<i>L.welshimeri</i>	-	=
a	K8	PC1	No	Magret de canard	Ø	Ø	+MB	+MB	<i>L.innocua</i>	-	pur	2305	N/A	-	-MA	<i>L.innocua</i>	-	=	-	<i>L.innocua</i>	-	=
a	M9	PC1	No	Viande de cheval	Ø	-LE	+LB	-LB	<i>L.innocua</i>	-	pur	2704	N/A	-	/	/	-	=	-	/	-	=
a	M10	PC1	No	Haché tartare de bœuf	Ø	Ø	Ø	Ø	/	-	pur	2622	N/A	-	/	/	-	=	-	/	-	=
a	M12	PC1	No	Foie de porc	Ø	-LE	+LA	-LA	<i>L.welshimeri</i>	-	pur	2577	N/A	-	/	/	-	=	-	/	-	=
a	N28	PC1	No	Viande hachée de cheval	Ø	Ø	Ø	Ø	/	-	pur	2385	N/A	-	/	/	-	=	-	/	-	=
a	C5	PC1	No	Viande hachée	Ø	Ø	+HB	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2908	N/A	-	+LA(48 h)	<i>L.monocytogenes</i> <i>L.innocua</i>	-	ND	-	/	-	ND
a	L1	PC1	No	Entrecôte de bœuf	+LA	+LA(5)	+HA	+MA	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2483	3573	+	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
a	L3	PC1	No	Escalope de volaille	+LB	+LB	+MB	+MB	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	pur	2406	2500	+	+MB*	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=	+	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=
a	M6	PC1	No	Viande de boeuf	+LB*	+LB*	+MB *	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2700	2983	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
a	M11	PC1	No	Joue de bœuf	+LB*	+LB*	+LB*	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2608	3134	+	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
a	N3	PC1	No	Steak surgelé	+MA	+LB*	+MB *	+MC*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2219	N/A	-	-MA	<i>L.innocua</i>	-	ND	-	<i>L.innocua</i>	-	ND
a	N22	PC1	No	Viande hachée	+LB	+LB	+LB	+MA	<i>L.monocytogenes</i>	+	pur	2390	2563	+	+HB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
a	O7	PC1	No	Viande hachée de bœuf	+LB*	+LB*	+HB *	+MB*	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	pur	2626	3219	+	+LB*	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=	+	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=
a	O11	PC1	No	Manchons de canard	+LB*	+LB*	+MB *	+MB*	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	pur	2743	2605	+	+MB*	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=	+	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=
a	O12	PC1	No	Escalope de volaille	+LA	-LA	+HA	-MA	<i>L.welshimeri</i>	-	pur	2766	3012	+	+MB*	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	PD	+	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	PD
a	O13	PC1	No	Cuisse de poulet	+MB*	+MB*	+MB *	+MC*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2721	2612	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
a	O14	PC1	No	Cuisse de dinde	-LE	+LB	-ME	-ME	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	pur	2665	2485	+	+HB*	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=	+	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=
a	Q14	PC1	No	Viande hachée	+LA	+LA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2809	2582	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	M23	PC1	No	Sauté de porc	Ø	Ø	Ø	Ø	/	-	pur	2508	N/A	-	/	/	-	=	-	/	-	=
b	K7	PC2	No	Chipolatas	Ø	Ø	Ø	-LE	/	-	pur	2222	N/A	-	Ø	/	-	=	-	/	-	=
b	O16	PC2	No	Cuisse de poulet crue marinée à la provençale	Ø	-LE	Ø	Ø	/	-	pur	2790	N/A	-	/	/	-	=	-	/	-	=
b	S8	PC2	No	Tripes à la provençale	Ø	Ø	Ø	-LE	/	-	pur	2401	N/A	-	Ø (Fraser : Ø)	/	-	=				
b	U2	PC2	No	Merguez	Ø	Ø	Ø	Ø	/	-	pur	3348	N/A	-	/	/	-	=				
b	U4	PC2	No	Boudin blanc	-LE	-LE	-ME	-ME	/	-	pur	3211	N/A	-	/	/	-	=				
b	R13	PC3	No	Emincé de poulet curry	Ø	Ø	Ø	Ø	/	-	pur	2861	N/A	-	/	/	-	=				

Protocol 3 (LSB - Easy II lysis)
Extension study (IPL 2006)

MEAT PRODUCTS

Type	Ref	Cat	CA	Product (in French)	Reference method				Alternative method LSB, Easy II lysis (T0)								Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement	
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations			Result	Result	Identifications		Result
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
b	R14	PC3	No	Emincé de poulet curry	-LE	-LE	-ME	-ME	/	-	pur	2906	N/A	-	/	/	-	=				
b	R17	PC3	No	Tripes au calvados	Ø	Ø	Ø	Ø	/	-	pur	3041	N/A	-	/	/	-	=				
b	T4	PC3	No	Côte de porc cuisinée	Ø	Ø	Ø	Ø	/	-	pur	3116	N/A	-	/	/	-	=				
b	T7	PC3	No	Mouton aux haricots	Ø	Ø	Ø	Ø	/	-	pur	3130	N/A	-	/	/	-	=				
b	B6	PC1	No	Sauté de porc	-LE	-LE	+MB	-MA	L.innocua	-	pur	2518	3295	+	+MB	L.monocytogenes L.innocua	+	PD	+	L.monocytogenes L.innocua	+	PD
b	A9	PC2	No	Chair à saucisse	+LA(3)	+LA(5)	+HA	+MA	L.monocytogenes	+	pur	2845	N/A	-	Ø	/	-	ND	-	/	-	ND
b	K4	PC2	No	Merguez crue	+MB	+MB*	+HB	+HB*	L.monocytogenes L.welshimeri	+	pur	2206	1985	+	+HB	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	M8	PC2	No	Merguez	+LB*	+LB*	+LB*	+MB*	L.monocytogenes L.welshimeri	+	pur	2708	2640	+	+MB	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	N1	PC2	No	Chipolatas	Ø	Ø	Ø	Ø	/	-	pur	2317	3855	+	+LA	L.monocytogenes	+	PD	+	L.monocytogenes	+	PD
b	N2	PC2	No	Rôti de veau Orloff	+LA	+LA	+HA	+MA	L.monocytogenes	+	pur	2280	3617	+	+LA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	N23	PC2	No	Chipolatas	+LA(2)	+LA(1)	+HA	+MA	L.monocytogenes	+	pur	2368	3100	+	+MB	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	O4	PC2	No	Merguez	Ø	-LE	Ø	-LE	/	-	pur	2591	3532	+	+LB	L.monocytogenes	+	PD	+	L.monocytogenes	+	PD
b	O15	PC2	No	Saucisses de veau	+LB	-LB	+HB	-MA	L.welshimeri	-	pur	2720	3289	+	+LB*	L.monocytogenes L.welshimeri	+	PD	+	L.monocytogenes L.welshimeri	+	PD
b	O17	PC2	No	Ailes de poulet marinées au curry	+MA	-LA	+HA	-MA	L.innocua	-	pur	2737	2529	+	+MB*	L.monocytogenes L.innocua	+	PD	+	L.monocytogenes L.innocua	+	PD
b	P6	PC2	No	Chipolatas aux herbes	Ø	Ø	+LA	+MA	L.monocytogenes	+	pur	2656	3208	+	+MB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	P7	PC2	No	Merguez	+LB	+LB	+HB *	+MB	L.monocytogenes L.welshimeri	+	pur	2609	2762	+	+HB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	P8	PC2	No	Hamburger à cuire	+MB	+MB	+HC *	+LB	L.monocytogenes L.welshimeri	+	pur	2625	2306	+	+HB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	R15	PC2	No	Merguez	+MA	+MA	+MB *	+MB*	L.monocytogenes L.welshimeri	+	pur	2721	2425	+	+MB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	S9	PC2	No	Chipolatas	+LB*	+LB*	+MB *	+MB*	L.monocytogenes L.welshimeri	+	pur	2362	3660	+	+LA	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
b	T5	PC2	No	Saucisse fumée à cuire	+MB*	+MB*	+HB *	+HB*	L.monocytogenes L.innocua	+	pur	2953	2505	+	+HB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
b	T6	PC2	No	Boulettes bœuf et porc à cuire	+LB	+MC	+HA	+MA	L.monocytogenes	+	pur	3122	N/A	-	Ø	/	-	ND	-	/	-	ND
b	K9	PC3	No	Sauté de cheval à l'indienne	Ø	Ø	+MB	+MB*	L.monocytogenes L.welshimeri	+	pur	3519	2620	+	+MB*	L.monocytogenes L.welshimeri	+	=	+	L.monocytogenes L.welshimeri	+	=
c	A11	PC3	No	Saucisson au poivre	Ø	Ø	-LE	-LE	/	-	pur	2913	N/A	-	Ø	/	-	=	-	/	-	=
c	K6	PC3	No	Foie gras	Ø	-LE	Ø	-LE	/	-	pur	2245	N/A	-	Ø	/	-	=	-	/	-	=
c	L4	PC3	No	Noix de jambon aux herbes	Ø	+LB	-LE	-ME	Bacillus	-	pur	2365	N/A	-	-LB	Bacillus	-	=	-	/	-	=
c	L5	PC3	No	Lardons	+LB	+LA	+HB	+HA	L.welshimeri	-	pur	2341	N/A	-	-LA	L.welshimeri	-	=	-	/	-	=
c	L6	PC3	No	Pâté à l'échalote	Ø	Ø	Ø	-LE	/	-	pur	2335	N/A	-	Ø	/	-	=	-	/	-	=
c	L7	PC3	No	Potjevlesh	-LE	-LE	-LE	-ME	/	-	pur	2423	N/A	-	Ø	/	-	=	-	/	-	=
c	L9	PC3	No	Pâté de campagne	-ME	-ME	-ME	-ME	/	-	pur	2368	N/A	-	-ME	/	-	=	-	/	-	=
c	O5	PC3	No	Pâté de campagne	+LA	+LB*	+MB	+MA	L.ivanovii L.innocua	-	pur	3274	N/A	-	Ø	/	-	=	-	/	-	=
c	O6	PC3	No	Jambon fumé	Ø	Ø	Ø	Ø	/	-	pur	2602	N/A	-	/	/	-	=	-	/	-	=

Protocol 3 (LSB - Easy II lysis) Extension study (IPL 2006)																						
MEAT PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)							Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
c	O8	PC3	No	Bacon	Ø	Ø	-ME	-LE	/	-	pur	2640	N/A	-	-LA	<i>L.welshimeri</i>	-	=	+	<i>L.welshimeri</i>	-	PDFP(alt)
c	O9	PC3	No	Lardons	+LA(2)	Ø	+HB	-MA	<i>L.welshimeri</i>	-	pur	2815	N/A	-	-LB	<i>L.welshimeri</i>	-	=	-	/	-	=
c	L2	PC3	No	Rosette de porc	Ø	+LA(1)	+HB	+HB*	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	pur	2431	3802	+	+LA(1) (Fraser : +MB*)	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=	+	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=
c	M7	PC3	No	Jambon fumé	Ø	Ø	Ø	Ø	/	-	pur	2672	3134	+	+LB	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD
c	M13	PC3	No	Chorizo	-LE	-LE	+HA	-LA	<i>L.innocua</i>	-	pur	2535	3658	+	+LB	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD
c	N24	PC3	No	Rôti de veau	Ø	Ø	+LA	-MA	<i>L.welshimeri</i>	-	pur	2426	N/A	-	+LA	<i>L.monocytogenes</i>	-	=	+	<i>L.monocytogenes</i>	+	PD
c	O10	PC3	No	Poitrine fumée	+LA	-LA	+MB *	+MB*	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	pur	2736	3441	+	+MB*	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=

Protocol 3 (LSB and Easy II lysis) - Meat products

Protocol 3 (LSB - Easy II lysis) Renewal study (ISHA 2017)																										
MEAT PRODUCTS																										
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Easy II lysis								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confir- mation a	Confirmation b			Final result	Fraser		Confirmation	Final result		
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Palcam	Identification			
c	169	T0	Cooked ham high quality	LIS	4.26	se	2.4	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.07	18.22	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	171	T0	Auvergne Ham	LIS	4.26	se	2.4	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	36.18	27.52	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	173	T0	Cooked and derinded ham high quality	LIS	4.26	se	2.4	0Ø	0Ø	0Ø	0Ø	/	-	33.25	26.18	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PD
c	175	T0	Cooked ham	LIS	4.27	se	2.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.32	31.5	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	177	T0	Serrano ham	LIS	4.27	se	2.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.7	24.08	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					AM: iQ-Check LSB - Easy II lysis after storage 72h at 5°C								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM		
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confir- mation a	Confirmation b			Final result	Fraser		Confirmation		Final result	
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Palcam	Identification			
c	169	T72h	Cooked ham high quality	LIS	4.26	se	2.4	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	31.98	19.56	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	171	T72h	Auvergne Ham	LIS	4.26	se	2.4	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	35.16	22.76	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	173	T72h	Cooked and derinded ham high quality	LIS	4.26	se	2.4	0Ø	0Ø	0Ø	0Ø	/	-	34.56	18.45	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PD
c	175	T72h	Cooked ham	LIS	4.27	se	2.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	35.23	18.96	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	177	T72h	Serrano ham	LIS	4.27	se	2.8	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	35.89	27.15	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA

Protocol 3 (LSB - Easy II lysis) - Dairy products

Protocol 3 (LSB - Easy II lysis) Extension study (IPL 2006)																						
DAIRY PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)							Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
a	N26	PL1	No	Palet de Bourgo (au lait cru)	Ø	-LE	Ø	Ø	/	-	pur	2362	N/A	-	-LE	/	-	=	-	/	-	=
a	P5	PL1	No	Maroilles au lait cru	-LE	-LE	-ME	-LE	/	-	pur	2643	N/A	-	/	/	-	=		/		
a	R3	PL2	No	Valençay (fromage de chèvre)	Ø	Ø	Ø	Ø	/	-	pur	2861	N/A	-	/	/	-	=				
a	R4	PL2	No	Selles sur Cher	Ø	Ø	Ø	Ø	/	-	pur	2827	N/A	-	/	/	-	=				
a	R6	PL2	No	Selles sur Cher	Ø	Ø	-LE	Ø	/	-	pur	2789	N/A	-	/	/	-	=				
a	P3	PL1	No	Maroilles au lait cru	+LB	+LB	+MB	+MA	<i>L.monocytogenes</i>	+	pur	2594	4126	+	+LB*	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	P4	PL1	No	Maroilles au lait cru	Ø	-LE	+MA	+LA	<i>L.monocytogenes</i>	+	pur	2558	3301	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	Q24	PL2	7.1	Rocamadour au lait cru	Ø	Ø	+LA	+LA	<i>L.monocytogenes</i>	+	pur	2916	3509	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	C8	PL3	No	Lait cru	+LA(1)	Ø	+HA	-LA	<i>L.welshimeri</i>	-	pur	2911	N/A	-	-LB	<i>L.welshimeri</i>	-	=	-	<i>L.welshimeri</i>	-	=
b	O19	PL3	No	Lait cru	Ø	Ø	-LE	Ø	/	-	pur	2598	N/A	-	/	/	-	=	-	/	-	=
b	B15	PL3	No	Lait cru	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2341	3079	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	B16	PL3	No	Lait cru	+MA	+MA	+MB	+MA	<i>L.monocytogenes</i>	+	pur	2266	2163	+	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
b	E7	PL3	No	Lait cru	Ø	Ø	-LE	-LE	/	-	pur	2953	2033	+	+HA	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD
b	O27	PL3	10.1	Lait cru	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2809	2443	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	O28	PL3	13.1	Lait cru	+LA	+LB	+MA	+MB	<i>L.monocytogenes</i>	+	pur	2692	2120	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	A2	PL1	No	Camembert	Ø	Ø	Ø	Ø	/	-	pur	2882	N/A	-	Ø	/	-	=	-	/	-	=
c	A3	PL1	No	Munster	Ø	Ø	Ø	-LE	/	-	pur	2807	N/A	-	+HB	/	-	=	-	/	-	=
c	B2	PL1	No	Epoisses	-LE	-LE	-LE	-LE	/	-	pur	2671	N/A	-	Ø	/	-	=	-	/	-	=
c	B5	PL1	No	Munster	Ø	-LE	Ø	Ø	/	-	pur	2331	N/A	-	/	/	-	=	-	/	-	=
c	M24	PL1	No	Pont l'Evêque	Ø	Ø	Ø	Ø	/	-	pur	2614	N/A	-	/	/	-	=	-	/	-	=
c	M25	PL1	No	Livarot	Ø	Ø	Ø	Ø	/	-	pur	2664	N/A	-	/	/	-	=	-	/	-	=
c	O3	PL1	No	Rond du vinage	Ø	Ø	Ø	-LE	/	-	pur	2650	N/A	-	/	/	-	=	-	/	-	=
c	Q27	PL1	No	St Paulin	Ø	Ø	Ø	Ø	/	-	pur	2962	N/A	-	/	/	-	=				
c	Q28	PL1	No	Munster pasteurisé	Ø	-LE	Ø	Ø	/	-	pur	3225	N/A	-	/	/	-	=				
c	Q29	PL1	No	Brie pasteurisé	Ø	-LE	Ø	Ø	/	-	pur	2858	N/A	-	/	/	-	=				
c	Q30	PL1	No	Fromage à raclette pasteurisé	Ø	-LE	Ø	Ø	/	-	pur	3078	N/A	-	/	/	-	=				
c	A1	PL2	No	Fromage de chèvre Ste Maure	Ø	Ø	Ø	Ø	/	-	pur	2546	N/A	-	/	/	-	=	-	/	-	=
c	A4	PL2	No	Féta nature	Ø	Ø	Ø	Ø	/	-	pur	2817	N/A	-	/	/	-	=	-	/	-	=
c	A6	PL2	No	Fromage de chèvre Chabichou	Ø	Ø	Ø	-LE	/	-	pur	2868	N/A	-	/	/	-	=	-	/	-	=
c	Q18	PL2	No	Bûche de chèvre	-LE	-LE	-LE	-LE	/	-	pur	2894	N/A	-	/	/	-	=				
c	R5	PL2	No	Pigouille (fromage de chèvre)	-LE	-LE	Ø	-LE	/	-	pur	2820	N/A	-	/	/	-	=				
c	R7	PL2	No	Pigouille (fromage de chèvre)	Ø	Ø	-LE	Ø	/	-	pur	2833	N/A	-	/	/	-	=				
c	S1	PL3	No	Lait infantile en poudre	Ø	Ø	Ø	Ø	/	-	pur	2382	N/A	-	/	/	-	=				
c	S2	PL3	No	Lait infantile en poudre	Ø	Ø	Ø	-LE	/	-	pur	2291	N/A	-	/	/	-	=				
c	A10	PL1	No	Maroilles	+LB	+LA	+MB	+MA	<i>L.monocytogenes</i>	+	pur	2795	27.14	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	B1	PL1	No	Epoisses	+LA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	3035	3810	+	+MB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=

Protocol 3 (LSB - Easy II lysis) Extension study (IPL 2006)																						
DAIRY PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)							Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
c	B3	PL1	No	Reblochon	Ø	-LE	Ø	Ø	/	-	pur	2571	3714	+	+MA	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD
c	C2	PL1	No	Munster	+MA	+MA	+MB	+MA	<i>L.monocytogenes</i>	+	pur	2778	2469	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	C4	PL1	No	Maroilles	+LB(2)	Ø	+LB	+MA	<i>L.monocytogenes</i>	+	pur	2918	31.17	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	N18	PL1	No	Cœur de Neufchâtel	-LE	-LE	-LE	-LE	/	-	pur	2395	2492	+	+MA	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD
c	P20	PL1	6	Saint Paulin	+LA	+LA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2537	2386	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	Q15	PL1	5.1	Brie de Meaux	Ø	-LE	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2844	N/A	-	+LA	<i>L.monocytogenes</i>	-	ND _{FN(alt)}	+	<i>L.monocytogenes</i>	+	=
c	E6	PL2	No	Ossau Iraty	+LA	+LA	+HB	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	3006	2179	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	E8	PL2	No	Fromage de chèvre	+MB	+MB	+MB	+MB	<i>L.monocytogenes</i>	+	pur	3010	1949	+	+HB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	O23	PL2	5.1	Bûche de chèvre	+LA	+MC*	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2693	2722	+	+MB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	O24	PL2	10.1	Crottin de Chavignol	-LE	+LA(1)	-ME	+LB	<i>L.monocytogenes</i>	+	pur	3228	3836	+	+LA	<i>L.monocytogenes</i>	+	=	-	<i>L.monocytogenes</i>	-	ND _{FN(alt)}
c	P21	PL2	9	Fromage de chèvre	+LB	+MD	+HB	+MA	<i>L.monocytogenes</i>	+	pur	2484	2238	+	+MB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	Q9	PL2	8.1	Bûche de chèvre	+LB	+LB	+MC	+MB	<i>L.monocytogenes</i>	+	pur	2925	2769	+	+LB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	Q13	PL3	3.1	Glace chocolat	+LC	+LC	+HB	+MB	<i>L.monocytogenes</i>	+	pur 1/10	N/A 33.20	N/A 27.33	inh +	+MA	<i>L.monocytogenes</i>	inh +	=	+	<i>L.monocytogenes</i>	+	=

Protocol 3 (LSB - Easy II lysis) - Dairy products

Protocol 3 (LSB - Easy II lysis) Renewal study (ISHA 2017)																										
DAIRY PRODUCTS																										
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					AM: iQ-Check LSB - Easy II lysis								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM		
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation		Final result	
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Palcam	Identification			
a	62	T0	Neuf Châtel raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	38.02	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
a	64	T0	Camembert of Normandie raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	37.92	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
a	66	T0	Coulommiers raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	35.64	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
a	68	T0	Comté raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	35.65	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
a	70	T0	Comté raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	37.9	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
a	72	T0	Morbier raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	33.85	N/A	-	0L	0L	0L	/	-	A	0Ø	/	/	NA	
a	57	T0	Neuf châtel raw milk	LIS	4.60	se	2.2	3h+L	3h-L	3h+L	4h-Ø	L.m	+	35.17	22.03	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+L	4h-Ø	L.m	+	PA
a	59	T0	Camembert of Normandie raw milk	LIS	4.60	se	2.2	2h+M	3h-L	3h+L	4h-L	L.m	+	N/A-32.99	N/A-21.52	IH/+*	4h+Ø	3h+M	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	61	T0	Coulommiers raw milk	LIS	4.60	se	2.2	3h+L	3h-L	3h+L	4h-Ø	L.m	+	34.31	28.31	+	4h+L	3h+L	4h+L	L.m	+	3h+L	3h-L	L.m	+	PA
a	63	T72h	Comté raw milk	LIS	4.56	se	1.8	0M	0M	0L	0M	L.m	-	34.4	26.3	+	3h+Ø	3h+L	3h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PD
a	65	T0	Comté raw milk	LIS	4.56	se	1.8	2h+M	3h-L	3h+L	4h-Ø	L.m	+	34.43	35.42	+	3h+M	3h+L	3h+M	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
a	67	T0	Morbier raw milk	LIS	4.56	se	1.8	3h+L	3h-L	3h+L	4h-Ø	L.m	+	35.19	31.5	+	3h+L	3h+L	3h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
a	69	T0	Reblochon raw milk	LIS	4.32	se	3.0	3h+L	4h-L	3h+Ø	4h-Ø	L.m	+	37.19	N/A	-	3h+L	3h+L	3h+L	L.m	-	3h+L	3h-Ø	L.m	+	ND _{FN(alt)}
a	71	T0	Mountain tome cheese raw milk	LIS	4.32	se	3.0	3h+L	3h-M	3h+Ø	4h-L	L.m	+	34.49	32.62	+	3h+L	3h+L	3h+L	L.m	+	3h+L	3h-Ø	L.m	+	PA
a	73	T0	Raclette raw milk	LIS	4.32	se	3.0	4h+H	3h-M	3h+M	4h-L	L.m	+	38.08	39.12	+	3h+L	3h+L	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	90	T0	Raw milk	/	/	/	0L	0M	0Ø	0Ø	/	-	37.04	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
b	92	T0	Raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	33.87	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
b	94	T0	Raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	34.9-33.89	42.74-N/A	+/-	0L	0L	0L	/	-	A	0L	/	/	PD _{FP(alt)}	
b	96	T0	Raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	36.37	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
b	98	T0	Raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	38.18	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
b	100	T0	Raw milk	/	/	/	0L	0L	0Ø	0Ø	/	-	38.08	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
b	102	T0	Raw milk butter	/	/	/	0M	0M	0Ø	0Ø	/	-	37.99	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
b	104	T0	Raw milk butter	/	/	/	0M	0L	0Ø	0Ø	/	-	36.86	N/A	-	0L	0L	0L	/	-	A	0L	/	/	NA	
b	75	T0	Raw milk	LIS	4.59	se	2.4	2h+M	3h-L	3h+Ø	4h-Ø	L.m	+	33.71	N/A	-	3h+L	3h+L	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	77	T0	Raw milk	LIS	4.59	se	2.4	2h+M	3h-L	3h+Ø	4h-Ø	L.m	+	34.32	25.17	+	3h+L	3h+L	3h+L	L.m	+	3h+L	4h-Ø	L.m	+	PA
b	79	T0	Raw milk	LIS	4.59	se	2.4	4h+H	3h-M	3h+L	4h-L	L.m	+	35.35	28.72	+	3h+L	4h+Ø	3h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
b	81	T0	Raw milk	LIS	4.23	se	3.2	3h+L	3h-L	3h+Ø	4h-Ø	L.m	+	35.6	29.48	+	3h+L	3h+M	3h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
b	83	T0	Raw milk	LIS	4.23	se	3.2	3h+M	3h-M	3h+M	4h-L	L.m	+	34.4	28.3	+	3h+M	3h+L	3h+M	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
b	85	T0	Raw milk	LIS	4.23	se	3.2	3h+M	3h-M	3h+L	4h-L	L.m	+	34.15	26.64	+	3h+L	3h+L	3h+L	L.m	+	3h+L	3h-L	L.m	+	PA
b	87	T0	Raw milk butter	LIS	4.62	se	2.6	3h+M	3h-L	3h+L	4h-Ø	L.m	+	35.1	22.16	+	4h+Ø	4h+L	4h+Ø	L.m	+	3h+L	4h-Ø	L.m	+	PA
b	89	T0	Raw milk butter	LIS	4.62	se	2.6	3h+M	3h-L	3h+L	4h-Ø	L.m	+	32.88	21.67	+	4h+L	4h+L	4h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA

Protocol 3 (LSB - Easy II lysis)
Renewal study (ISHA 2017)

DAIRY PRODUCTS

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Easy II lysis after storage 72h at 5°C								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation	Final result	
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Palcam	Identification		
a	57	T72h	Neuf Châtel raw milk	LIS 4.60	se	2.2	3h+L	3h-L	3h+L	4h-Ø	L.m	+	34.56	19.45	+	3h+L	3h+L	3h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
a	59	T72h	Camembert of Normandie raw milk	LIS 4.60	se	2.2	2h+M	3h-L	3h+L	4h-L	L.m	+	N/A-31.09	N/A-18.12	IH/+*	4h+Ø	3h+L	4h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
a	61	T72h	Coulommiers raw milk	LIS 4.60	se	2.2	3h+L	3h-L	3h+L	4h-Ø	L.m	+	30.25	18.67	+	4h+Ø	4h+L	4h+Ø	L.m	+	3h+Ø	3h-L	L.m	+	PA
a	63	T72h	Comté raw milk	LIS 4.56	se	1.8	0M	0M	0L	0M	L.m	-	33.26	20.36	+	4h+L	4h+L	4h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PD
a	65	T72h	Comté raw milk	LIS 4.56	se	1.8	2h+M	3h-L	3h+L	4h-Ø	L.m	+	33.857	22.36	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	67	T72h	Morbier raw milk	LIS 4.56	se	1.8	3h+L	3h-L	3h+L	4h-Ø	L.m	+	32.98	18.64	+	3h+M	3h+M	3h+M	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
a	69	T72h	Rebelochon raw milk	LIS 4.32	se	3.0	3h+L	4h-L	3h+Ø	4h-Ø	L.m	+	34.06	N/A	-	3h+L	3h+L	3h+L	L.m	-	3h+Ø	3h-L	L.m	-	ND _{FN(alt)}
a	71	T72h	Mountain tome cheese raw milk	LIS 4.32	se	3.0	3h+L	3h-M	3h+Ø	4h-L	L.m	+	34.59	18.21	+	3h+M	3h+L	3h+M	L.m	+	3h+Ø	3h-L	L.m	+	PA
a	73	T72h	Raclette raw milk	LIS 4.32	se	3.0	4h+H	3h-M	3h+M	4h-L	L.m	+	31.25	20.36	+	3h+L	3h+Ø	3h+L	L.m	+	3h+L	4h-Ø	L.m	+	PA
b	75	T72h	Raw milk	LIS 4.59	se	2.4	2h+M	3h-L	3h+Ø	4h-Ø	L.m	+	31.25	20.36	+	3h+L	3h+Ø	3h+L	L.m	+	3h+L	4h-Ø	L.m	+	PA
b	77	T72h	Raw milk	LIS 4.59	se	2.4	2h+M	3h-L	3h+Ø	4h-Ø	L.m	+	35.26	17.96	+	3h+M	3h+L	3h+M	L.m	+	4h+Ø	3h-Ø	L.m	+	PA
b	79	T72h	Raw milk	LIS 4.59	se	2.4	4h+H	3h-M	3h+L	4h-L	L.m	+	32.58	1743	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+L	4h-Ø	L.m	+	PA
b	81	T72h	Raw milk	LIS 4.23	se	3.2	3h+L	3h-L	3h+Ø	4h-Ø	L.m	+	33.05	21.36	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+L	4h-Ø	L.m	+	PA
b	83	T72h	Raw milk	LIS 4.23	se	3.2	3h+M	3h-M	3h+M	4h-L	L.m	+	33.09	25.64	+	3h+L	3h+L	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	85	T72h	Raw milk	LIS 4.23	se	3.2	3h+M	3h-M	3h+L	4h-L	L.m	+	34.56	24.12	+	3h+L	3h+L	3h+L	L.m	+	3h+L	3h-L	L.m	+	PA
b	87	T72h	Raw milk butter	LIS 4.62	se	2.6	3h+M	3h-L	3h+L	4h-Ø	L.m	+	33.12	19.84	+	3h+L	3h+L	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
b	89	T72h	Raw milk butter	LIS 4.62	se	2.6	3h+M	3h-L	3h+L	4h-Ø	L.m	+	37.08	17.58	+	4h+Ø	4h+L	4h+Ø	L.m	+	3h+L	3h-L	L.m	+	PA

Protocol 3 (LSB - Easy II lysis) - Seafood products

Protocol 3 (LSB - Easy II lysis) Extension study (IPL 2006)																						
SEAFOOD PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)							Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
a	B18	PP1	No	Filet de tilapia	+LA	-LA	+MA	-MA	<i>L.innocua</i>	-	pur	2818	N/A	-	-MA	<i>L.innocua</i>	-	=	-	/	-	=
a	G16	PP1	No	Saumon frais	Ø	Ø	Ø	Ø	/	-	pur	3176	N/A	-	Ø	/	-	=	-	/	-	=
a	G17	PP1	No	Saumon frais	Ø	Ø	Ø	Ø	/	-	pur	3272	N/A	-	/	/	-	=	-	/	-	=
a	G18	PP1	No	Saumon frais	Ø	Ø	Ø	Ø	/	-	pur	3051	N/A	-	/	/	-	=	-	/	-	=
a	G19	PP1	No	Saumon frais	Ø	Ø	Ø	Ø	/	-	pur	3240	N/A	-	/	/	-	=	-	/	-	=
a	R18	PP1	No	Filet de flétan	-LE	Ø	-ME	-LE	/	-	pur	2826	N/A	-	/	/	-	=				
a	T11	PP1	No	Filet de sabre	-LE	-LE	Ø	Ø	/	-	pur	3118	N/A	-	/	/	-	=				
a	K2	PP3	No	Tartare de saumon	Ø	-LE	Ø	Ø	/	-	pur	2250	N/A	-	Ø	/	-	=	-	/	-	=
a	E3	PP1	No	Harengs	-LE	Ø	-ME	Ø	/	-	pur	3129	3720	+	+LB	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD
a	G20	PP1	No	Saumon frais	+LA	+LA	+HB *	+MB*	<i>L.monocytogenes</i>	+	pur	3002	2474	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	H1	PP1	No	Saumon frais	+LA	+LA	+HA	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2588	2361	+	+HB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
a	H2	PP1	No	Saumon frais	+LA	+LA	+HA	+HA	<i>L.monocytogenes</i>	+	pur	2513	2505	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	H3	PP1	No	Saumon frais	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2414	2268	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	H4	PP1	No	Saumon frais	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2610	3492	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	H5	PP1	No	Saumon frais	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2415	2102	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	M20	PP1	No	Darnes de lieu noir	+LA(4)	+LA	+LB	+LA	<i>L.monocytogenes</i>	+	pur	2598	3164	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	N8	PP1	No	Cocktail de fruits de mer surgelé	Ø	-ME	+HA	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2267	3239	+	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
a	N19	PP1	No	Cocktail de fruits de mer surgelé	Ø	+LB(2)	+LA	+MB	<i>L.monocytogenes</i>	+	pur	2445	3022	+	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
b	C1	PP2	No	Saumon fumé	Ø	-LE	Ø	Ø	/	-	pur	2644	N/A	-	-LE (Fraser : -LA)	<i>L.innocua</i>	-	=	-	/	-	=
b	K10	PP2	No	Saumon fumé	Ø	Ø	Ø	-LE	/	-	pur	3474	4108	+	Ø	/	-	PDFP(alt)	-	/	-	=
b	N9	PP2	No	Saumon fumé d'Irlande	-LE	Ø	-ME	-ME	/	-	pur	2443	N/A	-	Ø	/	-	=	-	/	-	=
b	Q21	PP2	No	Truite fumée	Ø	Ø	Ø	-LE	/	-	pur	2913	N/A	-	/	/	-	=				
b	Q22	PP2	No	Sardines fumées	Ø	Ø	Ø	Ø	/	-	pur	2946	N/A	-	/	/	-	=				
b	Q23	PP2	No	Saumon fumé	Ø	Ø	Ø	Ø	/	-	pur	2768	N/A	-	/	/	-	=				
b	R19	PP2	No	Thon fumé	Ø	Ø	Ø	Ø	/	-	pur	2996	N/A	-	/	/	-	=				
b	T9	PP2	No	Saumon fumé	Ø	Ø	Ø	Ø	/	-	pur	3102	N/A	-	/	/	-	=				
b	A15	PP3	No	Harengs marinés	Ø	Ø	-ME	Ø	/	-	pur	3461	N/A	-	-LE	/	-	=	-	/	-	=
b	C6	PP3	No	Harengs marinés	Ø	Ø	-LE	Ø	/	-	pur	2745	N/A	-	Ø	/	-	=	-	/	-	=
b	M18	PP1	No	Haddock	+LB	+LB	+LB	+LA	<i>L.monocytogenes</i>	+	pur	2593	3260	+	+LB*	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	A13	PP2	No	Flétan fumé	Ø	+LA	+HB	+MA	<i>L.monocytogenes</i>	+	pur	2806	3107	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	A14	PP2	No	Saumon fumé	+LA	+LB	+HA	+MB	<i>L.monocytogenes</i>	+	pur	2871	N/A	-	+HA	<i>L.monocytogenes</i>	-	NDFN(alt)	-	/	-	ND
b	B8	PP2	No	Saumon fumé	+LA	+LA	+HA	+HA	<i>L.monocytogenes</i>	+	pur	2234	3667	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	B9	PP2	No	Saumon fumé	+LA(3)	+LA(2)	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2085	2498	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	C3	PP2	No	Lardons de saumon fumé	Ø	+LA	+LB	+MB	<i>L.monocytogenes</i>	+	pur	2528	28.14	+	+LA(48 h)	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=

Protocol 3 (LSB - Easy II lysis) Extension study (IPL 2006)																						
SEAFOOD PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)							Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
b	L8	PP2	No	Saumon fumé	Ø	Ø	+HB	+HA	<i>L.innocua</i>	-	pur	2324	2468	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD
b	M16	PP2	No	Eglefin fumé	+LB*	+LB*	+LB*	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2663	3391	+	-LA (Fraser : +MB*)	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
b	M17	PP2	No	Sprats fumés	+MA	+MA	+HA	+HA	<i>L.monocytogenes</i>	+	pur	2594	2273	+	+LB	<i>L.monocytogenes</i>	+	=	inh +	<i>L.monocytogenes</i>	inh +	=
b	R20	PP2	No	Saumon fumé d'Ecosse	Ø	Ø	Ø	Ø	/	-	pur	28.12	4512	+	+LA	<i>L.monocytogenes</i>	+	PD	+	<i>L.monocytogenes</i>	+	PD
b	S5	PP2	No	Eglefin fumé	Ø	-LE	-LE	-LE	/	-	pur	2326	2761	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>		PD	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD
b	M19	PP3	No	Kippers	+LA(2)	+LB(2)	+LA	+LA	<i>L.monocytogenes</i>	+	pur	2597	3709	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	T10	PP1	No	Miettes de crabe	Ø	Ø	-LE	Ø	/	-	pur	3111	N/A	-	/	/	-	=				
c	S13	PP2	No	Nonnettes de poissons fumés	-LE	-LE	-LE	-ME	/	-	pur	2290	N/A	-	/	/	-	=				
c	B10	PP3	No	Rillettes de thon	Ø	Ø	Ø	Ø	/	-	pur	2131	N/A	-	/	/	-	=	-	/	-	=
c	C7	PP3	No	Tarama	-LE	-LE	-ME	-LE	/	-	pur	3184	N/A	-	Ø	/	-	=	-	/	-	=
c	M14	PP3	No	Filet de poisson à la provençale	-LE	-LE	Ø	-LE	/	-	pur	3519	N/A	-	-LA	<i>L.innocua</i>	-	=	-	<i>L.innocua</i>	-	=
c	M21	PP3	No	Accras de morue	Ø	Ø	-LE	-LE	/	-	pur	2506	N/A	-	/	/	-	=	-	/	-	=
c	S4	PP3	No	Tartare de saumon à la moutarde	-LE	-LE	-ME	-ME	/	-	pur	2240	N/A	-	/	/	-	=				
c	T8	PP3	No	Coquilles de saumon frais	Ø	Ø	Ø	Ø	/	-	pur	3144	N/A	-	/	/	-	=				
c	S3	PP2	No	Canapés de saumon fumé	-LE	-ME	-LE	-ME	/	-	pur	2288	N/A	-	/	/	-	=				
c	K3	PP1	No	Crevettes cuites	+MB	+LB*	+MB	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2270	2529	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	M15	PP1	No	Crevettes cuites	+LB*	+MB*	+MB *	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2617	2839	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	S19	PP2	No	Paniers au saumon fumé	+LC	+LB*	+MB *	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	3006	2606	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	E2	PP3	No	Terrine langoustines	+HA	+MB	+HB	+MB	<i>L.monocytogenes</i>	+	pur	2816	1856	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	K1	PP3	No	Accras de morue	+MA	+MA	+HA	+HA	<i>L.monocytogenes</i>	+	pur	2208	1832	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	N7	PP3	No	Brochettes de saumon frais	+LB	+LA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2254	4233	+	Ø (Fraser : Ø) RLspp : +HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	N20	PP3	No	Calamars à la romaine	+LB	+LB	+LB*	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2465	2434	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	N25	PP3	No	Poisson à la bordelaise	+MD	+MB*	+HA	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2335	2320	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=

Protocol 3 (LSB - Easy II lysis) Seafood products

Protocol 3 (LSB - Easy II lysis) Renewal study (ISHA 2017)																										
SEAFOOD PRODUCTS																										
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Easy II lysis								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirma- tion a	Confirmation b			Final result	Fraser		Confirmation	Final result		
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Palcam	Identification			
a	86	T0	Salmon filet	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.81	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA	
a	88	T0	Cod filed		/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.02	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA	
c	74	T0	Stick with crab flavour	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.26	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/	NA	
c	101	T0	Stick with crab flavour	LIS	4.83	se	2.8	3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	33.78	28.38	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	103	T0	Rillette of sardines	LIS	4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.24	26.15	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
c	105	T0	Tarama with cod eggs	LIS	4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	35.81	36.93	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Easy II lysis after storage 72h at 5°C								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM	
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirma- tion a	Confirmation b			Final result	Fraser		Confirmation	Final result		
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results		RLM	AL	RLM		Identification	O&A	Palcam			Identification
c	101	T72h	Stick with crab flavour	LIS	4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	35.87	29.65	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	103	T72h	Rillette of sardines	LIS	4.83	se	2.8	3h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	33.02	24.13	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	105	T72h	Tarama with cod eggs	LIS	4.83	se	2.8	3h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	33.65	27.18	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA

Protocol 3 (LSB - Easy II lysis) - Vegetable products

Protocol 3 (LSB - Easy II lysis) Extension study (IPL 2006)																						
VEGETABLE PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)							Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
a	A7	PV1	No	Haricots verts surgelés	Ø	Ø	Ø	Ø	/	-	pur	2801	N/A	-	/	/	-	=	-	/	-	=
a	O21	PV1	No	Mélange de poivrons surgelés	-LE	-LE	-ME	-LE	/	-	pur	2823	N/A	-	/	/	-	=	-	/	-	=
a	O22	PV1	No	Légumes pour potage surgelés	Ø	Ø	Ø	Ø	/	-	pur	2773	N/A	-	/	/	-	=	-	/	-	=
a	J8	PV2	No	Epinards branches	+LA	-LA	+MA	-MA	L.welshimeri	-	pur	2595	N/A	-	-LB	L.welshimeri	-	=	-	L.welshimeri	-	=
a	Q16	PV2	No	Chou rouge	Ø	Ø	Ø	Ø	/	-	pur	2907	N/A	-	/	/	-	=				
a	S12	PV2	No	Carottes râpées	-LE	-LE	-ME	-ME	/	-	pur	2282	N/A	-	/	/	-	=				
a	S17	PV3	No	Petits paniers de légumes surgelés	Ø	-LE	Ø	Ø	/	-	pur		N/A	-	/	/	-	=				
a	R9	PV3	No	Haricots verts surgelés	Ø	Ø	Ø	Ø	/	-	pur	2824	N/A	-	/	/	-	=				
a	N14	PV1	No	Champignons surgelés	+LA	+LA	+MA	+MA	L.monocytogenes	+	pur	2721	N/A	-	Ø	/	-	ND	-	/	-	ND
a	J4	PV2	No	Epinards branches	+LA(3)	+LB(3)	+MA	+MA	L.monocytogenes	+	pur	2713	2908	+	+LA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
a	J5	PV2	No	Epinards hachés	+LB	+LB	+MB	+MA	L.monocytogenes	+	pur	2706	2821	+	+LB	L.monocytogenes	+	=	+	L.monocytogenes	+	=
a	Q7	PV2	5.1	Carottes râpées	+LB(2)	Ø	+HA	+MA	L.monocytogenes	+	pur	2903	3225	+	+LA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	Q26	PV2	No	Salade composée	Ø	Ø	Ø	Ø	/	-	pur	3021	N/A	-	/	/	-	=				
b	S11	PV2	No	Mélange salade, maïs, carottes	Ø	Ø	Ø	Ø	/	-	pur	2342	N/A	-	/	/	-	=				
b	M4	PV3	No	Pommes de terre précuites	Ø	Ø	Ø	Ø	/	-	pur	2639	N/A	-	/	/	-	=	-	/	-	=
b	R10	PV3	No	Courgettes précuites surgelées	Ø	Ø	-LE	-LE	/	-	pur	2825	N/A	-	/	/	-	=				
b	J2	PV2	No	Poêlée de légumes frais	+LB	+MB*	+MB	+MB*	L.monocytogenes L.innocua	+	pur	2556	2311	+	+MB*	L.monocytogenes L.innocua	+	=	+	L.monocytogenes L.innocua	+	=
b	Q1	PV2	10	Salade 4ème gamme	+LA	+LA	+MA	+MA	L.monocytogenes	+	pur	2948	2975	+	+LA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	M1	PV3	No	Poêlée champêtre	+LA	+MB	+MA	+MA	L.monocytogenes	+	pur	2777	2955	+	+MB	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	M5	PV3	No	Pommes de terre précuites	+LB	+MA	+LB	+MB	L.monocytogenes	+	pur	2495	1986	+	+HA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	O2	PV3	No	Pommes de terre précuites	+MA	+MA	+HA	+MA	L.monocytogenes	+	pur	2556	N/A	-	Ø	/	-	ND	-	/	-	ND
b	O20	PV3	No	Pommes de terre précuites	+MA	+MA	+HA	+MA	L.monocytogenes	+	pur	2596	2074	+	+HA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	P9	PV3	16	Poêlée romaine	Ø	-LE	+HA	+LA	L.monocytogenes	+	pur	2212	2212	+	+HA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
b	Q8	PV3	6.1	Poêlée de légumes	+LB	+LB	+MB	+MB	L.monocytogenes	+	pur	2882	2523	+	+LA	L.monocytogenes	+	=	+	L.monocytogenes	+	=
c	N15	PV2	No	Jardinière de légumes	Ø	Ø	Ø	-LE	/	-	pur	2367	N/A	-	/	/	-	=	-	/	-	=
c	R11	PV2	No	Fond de Pommes de terre à farcir	+LA	+LA	+LB*	+LB*	L.innocua	+	pur	2789	N/A	-	Ø (Fraser : Ø)	/	-	=	-	/	-	=
c	L10	PV3	No	Mousse aux trois légumes	-LE	-LE	-ME	-ME	/	-	pur	2338	N/A	-	-ME	/	-	=	-	/	-	=
c	N17	PV3	No	Coucous (semoule et légumes)	-LE	-LE	-LE	-ME	/	-	pur	2474	N/A	-	/	/	-	=	-	/	-	=
c	Q17	PV3	No	Salade de penne napolitaine	Ø	Ø	-LE	-ME	/	-	pur	2945	N/A	-	/	/	-	=				
c	Q19	PV3	No	Céleri rémoulade	-LE	-LE	-ME	-ME	/	-	pur	2905	N/A	-	/	/	-	=				
c	Q20	PV3	No	Concombre, carottes et chou en sauce	Ø	Ø	Ø	Ø	/	-	pur	2853	N/A	-	/	/	-	=				
c	R8	PV3	No	Tapenade Olives et Tomates	Ø	Ø	-LE	-LE	/	-	pur	2927	N/A	-	/	/	-	=				

Protocol 3 (LSB - Easy II lysis) Extension study (IPL 2006)																						
VEGETABLE PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)							Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
c	S14	PV3	No	Légumes façon paysanne	-LE	-LE	Ø	-ME	/	-	pur	2366	N/A	-	Ø (Fraser : Ø)	/	-	=				
c	S16	PV3	No	Purée de légumes du soleil	-LE	-LE	-LE	-ME	/	-	pur	2381	N/A	-	/	/	-	=				
c	T1	PV3	No	Pommes de terre et poivrons sauce curry	Ø	-LE	-LE	-LE	/	-	pur	3133	N/A	-	/	/	-	=				
c	T3	PV2	No	Mélange quatre légumes	Ø	-LE	Ø	Ø	/	-	pur	3098	N/A	-	/	/	-	=				
c	J1	PV2	No	Petits pois	+LB	+LB*	+MB	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pur	2481	2268	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	P10	PV3	16	Purée chou-fleur, brocolis	+LB	+MA	+MB	+LB	<i>L.monocytogenes</i>	+	pur	2195	2195	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	Q2	PV3	15	Riz et légumes en julienne	+LA	+LA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2836	2655	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	Q6	PV3	3.1	Gratin de chou-fleur	+LA	+LA	+MA	+MA	<i>L.monocytogenes</i>	+	pur	2874	2839	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	T2	PV3	No	Carottes râpées sauce vinaigrette	Ø	-LE	Ø	Ø	/	-	pur	3103	N/A	-	/	/	-	=				

Protocol 3 (LSB - Easy II lysis) Vegetable products

Protocol 3 (LSB - Easy II lysis) Renewal study (ISHA 2017)																										
VEGETABLE PRODUCTS																										
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					AM: iQ-Check LSB - Easy II lysis								Additional pathway of confirmation ISO 16140-2:2016				Concordance RM/AM		
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Confirmation		Final result	
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Palcam	Identification			
a	106	T0	Banana	/	/	/	0L	0L	0Ø	0Ø	/	-	35.95	N/A	-	0L	0L	0L	/	-	0Ø	0Ø	/	-	NA	
a	108	T0	Grape	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	32.31-34.01	34.07-N/A	+/-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	PDFP(alt)	
a	111	T0	Banana	LIS	4.10	se	1.6	3h+M	3h-L	3h+I	4h-L	L.m	+	34.59	31.15	+	3h+L	3h-L	3h+L	L.m	+	4h+L	4h-L	L.m	+	PA
a	113	T0	Grape	LIS	4.10	se	1.6	3h+L	4h-L	4h+L	4h-L	L.m	+	36.8	33.12	+	2h+M	3h-L	2h+M	L.m	+	3h+Ø	4h-Ø	L.m	+	PA
a	115	T0	Tomato	LIS	4.10	se	1.6	4h+Ø	4h-L	4h+L	4h-Ø	L.m	+	33.91	23.89	+	3h+L	4h-Ø	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	117	T0	Plums red	LIS	4.35	se	2.0	3h+Ø	4h-Ø	3h+I	4h-Ø	L.m	+	34.58	25.47	+	4h+L	4h-L	4h+L	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
a	119	T0	Pear	LIS	4.35	se	2.0	3h+M	4h-Ø	4h+L	4h-L	L.m	+	34.39	20.63	+	3h+L	4h-L	3h+L	L.m	+	4h+L	4h-L	L.m	+	PA
a	121	T0	Yellow plum	LIS	4.35	se	2.0	3h+Ø	4h-Ø	4h+L	4h-L	L.m	+	34.44	35.75	+	3h+L	3h-L	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
a	123	T0	Estar apple	LIS	4.17	se	1.8	3h+M	4h-L	4h+L	4h-L	L.m	+	39.21	19.88	+	4h+L	4h-L	4h+L	L.m	+	4h+L	4h-L	L.m	+	PA
a	125	T0	Canada grey apple	LIS	4.17	se	1.8	3h+Ø	4h-Ø	4h+L	4h-L	L.m	+	33.78	30.18	+	3h+L	4h-L	3h+L	L.m	+	4h+Ø	3h-Ø	L.m	+	PA
b	116	T0	Julienne of vegetables	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.55	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA	
b	118	T0	Grated carrot	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.95	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA	
b	120	T0	Sliced cucumber	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.71	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA	
b	122	T0	Prepared lettuce heart	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.25	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA	
b	124	T0	Mix of young sprouts	/	/	/	0L	0L	0Ø	0Ø	/	-	33.53	N/A	-	0L	0L	0L	/	-	0Ø	0Ø	/	-	NA	
b	126	T0	Sliced leek	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.69	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA	
b	133	T0	Julienne of vegetables	LIS	4.80	se	3.0	3h+M	4h-L	3h+L	4h-L	L.m	+	37.59	15.46	+	3h+L	4h-Ø	3h+L	L.m	+	4h+L	4h-L	L.m	+	PA
b	135	T0	Grated carrot	LIS	4.81	se	2.6	3h+M	4h-L	3h+L	4h-L	L.m	+	33.73	32.06	+	3h+L	4h-Ø	3h+L	L.m	+	4h+L	4h-L	L.m	+	PA
b	137	T0	Sliced cucumber	LIS	4.81	se	2.6	3h+L	4h-L	4h+Ø	4h-Ø	L.m	+	34.73	28.49	+	3h+L	4h-L	3h+L	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
c	159	T0	Wax bean	LIS	4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	35.53	N/A	+	0Ø	0Ø	0Ø	/	A	/	/	/	/	ND
c	161	T0	peas steamed	LIS	4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	32.12	20.99	+	4h+Ø	3h-Ø	4h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+	PA
c	163	T0	Green lentils cooked	LIS	4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	32.97	23.88	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA
c	165	T0	Green beans	LIS	4.79	se	2.6	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.32	24.25	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Easy II lysis after storage 72h at 5°C										Additional pathway of confirmation ISO 16140-2:2016					Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirma- tion a	Confirmation b			Final result	Fraser		Confirmation	Final result				
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results		RLM	AL	RLM		Identification	O&A	Palcam		Identification			
a	111	T72h	Banana	LIS 4.10	se	1.6	3h+M	3h-L	3h+I	4h-L	L.m	+	33.06	29.13	+	3h+L	3h-L	3h+L	L.m	+	3h+Ø	4h-L	L.m	+	PA			
a	113	T72h	Grape	LIS 4.10	se	1.6	3h+L	4h-L	4h+L	4h-L	L.m	+	34.01	30.56	+	3h+L	3h-L	3h+L	L.m	+	4h+L	4h-L	L.m	+	PA			
a	115	T72h	Tomato	LIS 4.10	se	1.6	4h+Ø	4h-L	4h+L	4h-Ø	L.m	+	33.98	24.62	+	3h+L	4h-Ø	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA			
a	117	T72h	Plums red	LIS 4.35	se	2.0	3h+Ø	4h-Ø	3h+I	4h-Ø	L.m	+	33.56	26.13	+	4h+L	4h-Ø	4h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PA			
a	119	T72h	Pear	LIS 4.35	se	2.0	3h+M	4h-Ø	4h+L	4h-L	L.m	+	33.47	18.59	+	4h+L	4h-Ø	4h+L	L.m	+	4h+L	4h-L	L.m	+	PA			
a	121	T72h	Yellow plum	LIS 4.35	se	2.0	3h+Ø	4h-Ø	4h+L	4h-L	L.m	+	33.54	28.13	+	3h+L	3h-L	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA			
a	123	T72h	Estar apple	LIS 4.17	se	1.8	3h+M	4h-L	4h+L	4h-L	L.m	+	33.09	18.48	+	4h+L	4h-L	4h+L	L.m	+	3h+Ø	4h-Ø	L.m	+	PA			
a	125	T72h	Canada grey apple	LIS 4.17	se	1.8	3h+Ø	4h-Ø	4h+L	4h-L	L.m	+	34.12	24.12	+	3h+L	4h-L	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA			
b	133	T72h	Julienne of vegetables	LIS 4.80	se	3.0	3h+M	4h-L	3h+L	4h-L	L.m	+	33.78	23.65	+	4h+L	4h-Ø	4h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA			
b	135	T72h	Grated carrot	LIS 4.81	se	2.6	3h+M	4h-L	3h+L	4h-L	L.m	+	34.81	23.58	+	3h+L	4h-Ø	3h+L	L.m	+	4h+Ø	4h-Ø	L.m	+	PA			
b	137	T72h	Sliced cucumber	LIS 4.81	se	2.6	3h+L	4h-L	4h+Ø	4h-Ø	L.m	+	34.74	25.16	+	1h+L	1h-L	1h+L	L.m	+	3h+Ø	3h-Ø	L.m	+	PA			
c	159	T72h	Wax bean	LIS 4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.89	N/A	+	0Ø	0Ø	0Ø	/	-	4h+Ø	4h-Ø	L.m	+	ND			
c	161	T72h	peas steamed	LIS 4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.14	19.56	+	4h+Ø	3h-Ø	4h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+	PA			
c	163	T72h	Green lentils cooked	LIS 4.78	se	3.2	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	36.02	24.12	+	4h+Ø	3h-Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA			
c	165	T72h	Green beans	LIS 4.79	se	2.6	4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	34.05	23.64	+	4h+Ø	4h-Ø	4h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+	PA			

Protocol 3 (LSB - Easy II lysis) - RTE/RTRH

Protocol 3 (LSB - Easy II lysis) Extension study (IPL 2006)																						
RTE - RTRH																						
Type	Ref	Cat	C A	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)							Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
a	S7	PP3	No	Crevettes en taboulé	-LE	-LE	Ø	-LE	/	-	pur	2443	N/A	-	/	/	-	=				
a	N4	PP3	No	Faluche au thon	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2145	2713	+	+LA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	N5	PP3	No	Faluche aux crevettes	+LA	+LB	+HA	+MB	<i>L.monocytogenes</i>	+	pur	2199	3049	+	+LB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
a	N6	PP3	No	Faluche aux crevettes	+LB	+LB	+HA	+MB	<i>L.monocytogenes</i>	+	pur	2210	2877	+	+LB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	B14	PC3	No	Couscous (merguez cuites, légumes, semoule)	Ø	Ø	Ø	Ø	/	-	pur	2368	N/A	-	-LE	/	-	=	-	/	-	=
b	S10	PC2	No	Tomates farcies prêtes à cuire	Ø	-LE	+HA	-MB	<i>L.innocua</i>	-	pur	2366	2868	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD
b	R16	PC3	No	Crêpinettes au vin blanc	+LA	-LA	+LB	-LB	<i>L.welshimeri</i>	-	pur	2919	3047	+	+MB*	<i>L.welshimeri</i> <i>L.monocytogenes</i>	+	PD	inh +	<i>L.welshimeri</i> <i>L.monocytogenes</i>	inh +	PD
b	B13	PV3	No	Pommes de terre rissolées	Ø	Ø	Ø	Ø	/	-	pur	2455	3036	+	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	PD
b	Q4	PV3	25	Gâteau de céleri	+LB	+LB	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2699	2135	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	S15	PV3	No	Flans de chou-fleur	-LE	Ø	-ME	-ME	/	-	pur	2291	N/A	-	Ø (Fraser : Ø)	/	-	=				
c	E1	PL3	No	Tartelettes fruits	+MA	-MA	+MA	-MA	<i>L.innocua</i>	-	pur	3184	N/A	-	-HB	<i>L.innocua</i>	-	=	-	/	-	=
c	R1	PL3	No	Religieuses au café	-LE	-LE	-LE	-ME	/	-	pur	2970	N/A	-	/	/	-	=				
c	R2	PL3	No	Riz au lait	Ø	Ø	Ø	Ø	/	-	pur	2793	N/A	-	/	/	-	=				
c	S18	PP3	No	Petits paniers au poisson	-LE	-LE	-ME	-ME	/	-	pur	3143	N/A	-	/	/	-	=				
c	N10	PL3	No	Tartelette framboise	+LB	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pur	2338	N/A	-	Ø	/	-	ND	-	/	-	ND

Protocol 3 (LSB - Easy II lysis) RTE/RTRH

Protocol 3 (LSB - Easy II lysis) Renewal study (ISHA 2017)																								
RTE/RTRH																								
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					Final result	AM: iQ-Check LSB - Easy II lysis								Confirmation ISO 16140-2			
				Strain	Type	Level	Half Fraser		Fraser		Confirmation		iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Identification	Final result
							O&A	Palcam	O&A	Palcam	Identification		Ct C. int	Ct FAM	Results	RLM	AL	RLM	Identification		O&A	Palcam		
a	2	T0	Tabouleh with chicken	/	/	/	0L	0L	0L	0L	/	-	33.41	N/A	-	0M	0M	0M	/	-	0L	0L	/	/
a	4	T0	strabourgeoise salad	/	/	/	0L	0L	0Ø	0Ø	/	-	33.4	N/A	-	0L	0L	0L	/	-	0L	0L	/	/
a	6	T0	Piémontaise with ham	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.44	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
a	8	T0	Sandwich with salmon and chives	/	/	/	0M	0M	0Ø	0M	/	-	33.35	N/A	-	0M	0L	0M	/	-	0L	0L	/	/
a	10	T0	Sandwich with ham and Emmental	/	/	/	0M	0M	0M	0M	/	-	33.62	N/A	-	0Ø	0Ø	0Ø	/	-	0M	0M	/	/
a	12	T0	Sandwich with tuna and crudities	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.52	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
a	14	T0	Sandwich with ham and butter	/	/	/	0L	0Ø	0Ø	0Ø	/	-	34	N/A	-	0L	0L	0L	/	-	0L	0L	/	/
a	16	T0	Sandwich with rosette and butter	/	/	/	0L	0L	0Ø	0Ø	/	-	33.94	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
a	18	T0	Sandwich with chicken and crudities	/	/	/	0L	0Ø	0Ø	0Ø	/	-	N/A-33.76	N/A-N/A	-	0L	0L	0L	/	-	0L	0L	/	/
a	20	T0	Sandwich with ham and cheddar	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.67	N/A	-	0L	0L	0L	/	-	0L	0L	/	/
a	1	T0	Tabouleh with chicken	LIS 4.6	se	2.2	4h+M	4h-M	4h+M	4h-M	L.m	+	34.38	26.84	+	3h+L	3h+M	3h+L	L.m	+	3h+M	4h-M	L.m	+
a	3	T0	strabourgeoise salad	LIS 4.6	se	2.2	3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	34.56	28.31	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+
a	5	T0	Piémontaise with ham	LIS 4.6	se	2.2	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.66	26.16	+	3h+Ø	2h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+
a	7	T0	Sandwich with salmon and chives	LIS 4.24	se	2.8	3h+Ø	4h-M	3h+Ø	3h-Ø	L.m	+	36.86	28.65	-	3h+L	3h+L	3h+L	L.m	+	3h+Ø	3h-Ø	L.m	+
a	9	T0	Sandwich with ham and Emmental	LIS 4.24	se	2.8	4h+Ø	4h-M	3h+Ø	4h-Ø	L.m	+	35.86	31.58	+	3h+L	3h+Ø	3h+L	L.m	+	3h+L	3h-L	L.m	+
a	11	T0	Sandwich with tuna and crudities	LIS 4.24	se	2.8	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	34.71	28.39	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+L	4h-L	L.m	+
a	13	T0	Sandwich with ham and butter	LIS 4.86	se	1.8	2h+L	3h-Ø	3h+Ø	3h-Ø	L.m	+	34.32	25.41	+	2h+L	2h+Ø	2h+L	L.m	+	2h+Ø	3h-Ø	L.m	+
a	15	T0	Sandwich with rosette and butter	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.8	29.54	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+
a	17	T0	Sandwich with chicken and crudities	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.63	30.89	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+
b	22	T0	Pizza with three cheeses	/	/	/	0L	0L	0Ø	0Ø	/	-	33.82	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
b	24	T0	Pizza with ham and cheese	/	/	/	0L	0Ø	0Ø	0Ø	/	-	33.41	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
b	26	T0	Pizza with three melting cheeses	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	36.51	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
b	28	T0	Pizza with comté, emmental and lardons	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	34.11	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
b	30	T0	Pizza with ham and mushroom	/	/	/	0L	0L	0Ø	0Ø	/	-	37.31	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
b	32	T0	Flammekueche with smoked lardons	/	/	/	0L	0L	0Ø	0Ø	/	-	38.23	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
b	34	T0	Croissant with ham	/	/	/	0L	0M	0L	0L	/	-	39.6	N/A	-	0L	0Ø	0L	/	-	0M	0M	/	/
b	36	T0	Lorrain quiche	/	/	/	0L	0L	0Ø	0Ø	/	-	33.46	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
b	38	T0	Flaky goat cheese	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.08	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
b	40	T0	Provençal pastry	/	/	/	0M	0M	0M	0M	/	-	38.2	N/A	-	0L	0L	0L	/	-	0L	0M	/	/
b	23	T0	Pizza with three cheeses	LIS 4.88	se	2.2	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	34.52	28.03	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+
b	25	T0	Pizza with ham and cheese	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	35.28	26.27	+	3h+Ø	2h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
b	27	T0	Pizza with three melting cheeses	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	36.15	22.14	+	3h+Ø	2h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
b	29	T0	Pizza with comté, emmental and lardons	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.87	27.76	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
b	31	T0	Pizza with ham and mushroom	LIS 4.46	se	2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.56	27.47	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+
b	33	T0	Flammekueche with smoked lardons	LIS 4.46	se	2	2h+L	4h-M	2h+Ø	2h-M	L.m	+	33.22	21.18	+	2h+L	2h+M	2h+L	L.m	+	2h+L	3h-L	L.m	+
c	42	T0	Raspberries tart	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	37.24	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
c	44	T0	Apples tart	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.76	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
c	46	T0	Mille-feuilles	/	/	/	0L	0L	0Ø	0Ø	/	-	34.05	N/A	-	0L	0Ø	0L	/	-	0L	0L	/	/
c	48	T0	Donuts with pastry cream	/	/	/	0L	0Ø	0Ø	0Ø	/	-	37.86	N/A	-	0Ø	0Ø	0Ø	/	-	0L	0L	/	/
c	50	T0	Pudding	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	34/ 40.04	46.32-N/A	+/-	0L	0Ø	0L	/	-	0L	0L	/	/
c	52	T0	Stick with pastry cream	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	38.6	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	/
c	35	T0	Raspberries tart	LIS 4.46	se	2	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	34.42	27.94	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
c	37	T0	Apple pie	LIS 4.7	se	2.8	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	34.63	N/A-24.82	-	3h+Ø	4h+Ø	3h+Ø	L.m	-	3h+Ø	4h-Ø	L.m	+
c	39	T0	Mille-feuilles	LIS 4.7	se	2.8	4h+M	4h-M	4h+M	4h-M	L.m	+	34.99	36.24	+	3h+M	4h+M	3h+M	L.m	+	3h+M	4h-M	L.m	+

**Protocol 3 (LSB - Easy II lysis)
Renewal study (ISHA 2017)**

RTE/RTRH

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					AM: iQ-Check LSB - Easy II lysis								Confirmation ISO 16140-2				
												iQ-Check			Confirmation a	Confirmation b			Final result					
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	Ct C. int	Ct FAM	Results	RLM	AL	RLM		Identification	O&A	Palcam	Identification	Final result
							O&A	Palcam	O&A	Palcam	Identification													
c	41	T0	Savarin with rum and pastry cream	LIS 4.7	se	2.8	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	36.32	31.73	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
c	43	T0	Pudding	LIS 4.93	se	3.2	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	34.6	28	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
c	45	T0	Choux with pastry cream	LIS 4.93	se	3.2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.06	25.55	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
c	47	T0	Strawberries tart	LIS 4.93	se	3.2	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	34.52	21.53	+	2h+Ø	2h+Ø	2h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+
c	49	T0	Savarin with rum and pastry cream	LIS 4.91	se	1.6	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	36.79/33.56	N/A/24.99	IV/+	3h+Ø	3h+Ø	3h+Ø	L.m	P	3h+Ø	3h-Ø	L.m	+
c3	51	T0	Choux with pastry cream	LIS 4.91	se	1.6	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.97	22.01	+	3h+Ø	3h+Ø	3h+Ø	L.m	P	3h+Ø	4h-Ø	L.m	+
c3	53	T0	Pudding	LIS 4.91	se	1.6	3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	33.75	22.25	+	3h+Ø	3h+Ø	3h+Ø	L.m	P	3h+Ø	4h-Ø	L.m	+

ST	SN	Time	Sample	Contamination			RM: ISO 11290-1					AM: iQ-Check LSB - Easy II lysis								Confirmation ISO 16140-2				
												iQ-Check			Confirmation a	Confirmation b			Final result					
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	Ct C. int	Ct FAM	Results	RLM	AL	RLM		Identification	O&A	Palcam	Identification	Final result
							O&A	Palcam	O&A	Palcam	Identification													
a	1	T72h	Tabouleh with chicken	LIS 4.6	se	2.2	4h+M	4h-M	4h+M	4h-M	L.m	+	33.25	21.03	+	3h+L	3h+L	3h+L	L.m	+	3h+L	4h-L	L.m	+
a	3	T72h	Strabourgeoise salad	LIS 4.6	se	2.2	3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	32.98	25.61	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+
a	5	T72h	Piémontaise with ham	LIS 4.6	se	2.2	4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.48	18.54	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+
a	7	T72h	Sandwich with salmon and chives	LIS 4.24	se	2.8	3h+Ø	4h-M	3h+Ø	3h-Ø	L.m	+	34.25	26.06	+	3h+L	3h+L	3h+L	L.m	+	3h+L	3h-Ø	L.m	+
a	9	T72h	Sandwich with ham and Emmental	LIS 4.24	se	2.8	4h+Ø	4h-M	3h+Ø	4h-Ø	L.m	+	32.69	17.85	+	3h+M	3h+M	3h+M	L.m	+	3h+M	3h-M	L.m	+
a	11	T72h	Sandwich with tuna and crudities	LIS 4.24	se	2.8	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.26	22.31	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
a	13	T72h	Sandwich with ham and butter	LIS 4.86	se	1.8	2h+L	3h-Ø	3h+Ø	3h-Ø	L.m	+	33.14	18.45	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	2h+Ø	3h-Ø	L.m	+
a	15	T72h	Sandwich with rosette and butter	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.08	19.54	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+
a	17	T72h	Sandwich with chicken and crudities	LIS 4.86	se	1.8	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.95	18.36	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+
b	23	T72h	Pizza with three cheeses	LIS 4.88	se	2.2	3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	33.64	18.27	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+
b	25	T72h	Pizza with ham and cheese	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.15	21.45	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+
b	27	T72h	Pizza with three melting cheeses	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	33.02	28.49	+	2h+L	2h+Ø	2h+L	L.m	+	3h+Ø	3h-Ø	L.m	+
b	29	T72h	Pizza with comté, emmental and lardons	LIS 4.89	se	2.6	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.15	25.52	+	3h+Ø	2h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
b	31	T72h	Pizza with ham and mushroom	LIS 4.46	se	2.0	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.84	29.87	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	4h+Ø	4h-Ø	L.m	+
b	33	T72h	Flammekueche with smoked lardons	LIS 4.46	se	2.0	2h+L	4h-M	2h+Ø	2h-M	L.m	+	35.02	30.88	+	3h+M	3h+M	3h+M	L.m	+	2h+L	3h-L	L.m	+
c	35	T72h	Raspberries tart	LIS 4.46	se	2.0	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	36.54	27.04	+	2h+L	2h+Ø	2h+L	L.m	+	2h+Ø	3h-Ø	L.m	+
c	37	T72h	Apples pies	LIS 4.7	se	2.8	3h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	36.28	26.28	+	2h+L	2h+Ø	2h+L	L.m	+	3h+Ø	3h-Ø	L.m	+
c	39	T72h	Mille-feuille	LIS 4.7	se	2.8	4h+M	4h-M	4h+M	4h-M	L.m	+	34.21	22.36	+	3h+L	4h+M	3h+L	L.m	+	3h+L	3h-L	L.m	+
c	41	T72h	Savarin with rum and pastry cream	LIS 4.7	se	2.8	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.54	24.18	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
c	43	T72h	Pudding	LIS 4.93	se	3.2	4h+Ø	4h-Ø	3h+Ø	4h-Ø	L.m	+	33.56	18.45	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	2h+Ø	4h-Ø	L.m	+
c	45	T72h	Choux with pastry cream	LIS 4.93	se	3.2	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	34.22/33.98	N/A-17.69	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
c	47	T72h	Strawberries tart	LIS 4.93	se	3.2	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	33.78	28.06	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+
c	49	T72h	Savarin with rum and pastry cream	LIS 4.91	se	1.6	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	33.15	24.06	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+
c	51	T72h	Choux with pastry cream	LIS 4.91	se	1.6	3h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	33.62	25.08	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	4h-Ø	L.m	+
c	53	T72h	Pudding	LIS 4.91	se	1.6	3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	33.48	17.95	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	3h-Ø	L.m	+

Protocol 3 (LSB - Easy II lysis) - Environmental products

Protocol 3 (LSB - Easy II lysis) Extension study (IPL 2006)																						
ENVIRONMENTAL PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)							Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
a	D6	EN1	No	Eau de process	Ø	Ø	-LE	-LE	/	-	puree	3404	N/A	-	Ø	/	-	=	-	/	-	=
a	I13	EN1	No	Condensation centrale eau glacée	Ø	Ø	Ø	Ø	/	-	pure	2262	N/A	-	/	/	-	=	-	/	-	=
a	J9	EN1	No	Eau retour transfert hydraulique	Ø	Ø	-LE	-LE	/	-	pure	2626	N/A	-	Ø	/	-		-	/	-	
a	J10	EN1	No	Eau débordement refroidisseur	+LA	-LA	+LA	-MA	<i>L.innocua</i>	-	pure	2693	N/A	-	-LA	<i>L.innocua</i>	-	=	-	<i>L.innocua</i>	-	=
a	J11	EN1	No	Eau débordement glazurage Gyro	Ø	Ø	Ø	Ø	/	-	pure	2696	N/A	-	-LE	/	-	=	-	/	-	=
a	J12	EN1	No	Eau débordement jacuzy	Ø	Ø	-LE	-LE	/	-	pure	2708	N/A	-	Ø	/	-	=	+	Ø	-	FP
a	I19	EN1	No	Eau stagnante vibrants dispatching	+LB*	+LB	+MB	+MB	<i>L.monocytogenes L.innocua</i>	+	pure	2314	2431	+	+MB*	<i>L.monocytogenes L.innocua</i>	+	=	+	<i>L.monocytogenes L.innocua</i>	+	=
a	I20	EN1	No	Eau epierreur à contre courant L2	+LB*	+LB	+MB	+MB	<i>L.monocytogenes L.innocua</i>	+	pure	2337	2467	+	+MB*	<i>L.monocytogenes L.innocua</i>	+	=	+	<i>L.monocytogenes L.innocua</i>	+	=
b	C9	EN2	No	Surface hall déballage cartons	-LE	-LE	-ME	Ø	/	-	pure 1/10	N/A 33.84	N/A 39.72	inh -	-ME	/	inh -	=	inh -	/	inh -	=
b	C10	EN2	No	Surface bac sale	-ME	-LE	-HE	-LE	/	-	pure	3394	3926	+	-HE (Fraser : -HE)	/	-	PDF _{FP(alt)}	+	/	-	PDF _{FP(alt)}
b	D1	EN2	No	Joint Chambre froide	-LE	Ø	-ME	-LE	/	-	pure 1/10	N/A 33.15	N/A N/A	inh -	Ø	/	inh -	=	inh -	/	inh -	=
b	D4	EN2	No	Sol atelier découpe	Ø	Ø	Ø	Ø	/	-	pure	1910	N/A	-	Ø	/	-	=	-	/	-	=
b	E9	EN2	No	Surface atelier découpe poissonnerie	+MB	-MA	+HA	-MA	<i>L.innocua</i>	-	pure	1905	N/A	-	-MB	<i>L.innocua</i>	-	=	-	/	-	=
b	G1	EN2	No	Surface ligne blanc machine table tournante	Ø	Ø	Ø	Ø	/	-	pure	3141	N/A	-	/	/	-	=	-	/	-	=
b	G4	EN2	No	Surface ligne filetage main Planche	Ø	Ø	Ø	Ø	/	-	pure	3130	N/A	-	/	/	-	=	-	/	-	=
b	G5	EN2	No	Surface ligne filetage main Bac rinçage	Ø	Ø	Ø	Ø	/	-	pure	3347	N/A	-	Ø	/	-	=	-	/	-	=
b	G6	EN2	No	Surface ligne saumon Darneuse Holac	Ø	Ø	Ø	Ø	/	-	pure	3166	N/A	-	/	/	-	=	-	/	-	=
b	G7	EN2	No	Surface ligne saumon pont pesée saumons	Ø	Ø	Ø	Ø	/	-	pure	3203	N/A	-	Ø	/	-	=	-	/	-	=
b	G9	EN2	No	Ligne saumon siphon têteuse	Ø	Ø	Ø	Ø	/	-	pure	4018	N/A	-	/	/	-	=	-	/	-	=
b	G10	EN2	No	Surface ligne blanc machine bac rinçage	-LE	-LE	Ø	-LE	/	-	pure	3484	N/A	-	Ø	/	-	=	-	/	-	=
b	I2	EN2	No	Rouleau sous tapis sortie parage	Ø	-LA(1)	+LB	-MB	<i>L.welshimeri</i>	-	pure	2304	N/A	-	/	/	-	=	-	/	-	=
b	I10	EN2	No	Cloison tunnel 4	Ø	Ø	Ø	-LE	/	-	pure	2291	N/A	-	/	/	-	=	-	/	-	=
b	I11	EN2	No	Pelle jaune entrée T4	Ø	Ø	-LE	-LE	/	-	pure	2295	N/A	-	/	/	-	=	-	/	-	=
b	I14	EN2	No	Aimant rouillé ligne 4	Ø	Ø	Ø	Ø	/	-	pure	2194	N/A	-	/	/	-	=	-	/	-	=
b	I16	EN2	No	Tablier Fab	Ø	-LE	Ø	Ø	/	-	pure	2314	N/A	-	-MA	<i>L.innocua</i>	-	=	-	<i>L.innocua</i>	-	=
b	I18	EN2	No	Ventilo refroidisseur 4	+LB*	-LD(1)	+MB	-LB	<i>L.innocua</i>	-	pure	2316	N/A	-	-MB	<i>L.innocua</i>	-	=	-	<i>L.innocua</i>	-	=
b	I4	EN1	No	Surface humide tunnel 3	+MA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	pure	2171	1829	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
b	I5	EN1	No	Caniveau zone filmeuse	+MA	+LA	+MA	+MA	<i>L.monocytogenes</i>	+	pure	2223	2136	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=

Protocol 3 (LSB - Easy II lysis)
Extension study (IPL 2006)
ENVIRONMENTAL PRODUCTS

Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)								Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result	Result		Identifications	Result		
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications							
b	I12	EN1	No	Tuyau arrosage entrée T4	+MA	+LA	+MB	+MB	<i>L.monocytogenes</i>	+	pure	2303	2241	+	+MB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	D3	EN2	No	Surface table inox	+LB	+LB	+HB	+MA	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pure	1885	2905	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
b	D7	EN2	No	Surface sale accrochage	+LB	+LB	+LB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pure	1924	N/A	-	Ø (Fraser : Ø)	/	-	ND	-	/	-	ND	
b	G2	EN2	No	Surface ligne saumon pont pesée filets	+MB*	+MA	+MB *	+MB*	<i>L.monocytogenes</i>	+	pure	3072	2473	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	G3	EN2	No	Surface ligne saumon Booder 51	+LA	+LA	+MB *	+MB*	<i>L.monocytogenes</i>	+	pure	3113	2031	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	G8	EN2	No	Surface ligne saumon tapis bleu	+MB*	+MA	+HB *	+MA	<i>L.monocytogenes</i>	+	pure	2927	1848	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	G11	EN2	No	Ligne saumon siphon Boader 200	+MB*	+MB*	+LB*	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pure	3018	1831	+	+HA	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
b	G12	EN2	No	Ligne saumon tapis déchets	+MB*	+MB*	+MB *	+LB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pure	2925	1814	+	+HA	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
b	G13	EN2	No	Surface ligne saumon ététeuse	Ø	+LA(4)	+HA	+MA	<i>L.monocytogenes</i>	+	pure	3189	N/A	-	Ø	/	-	ND	-	/	-	ND	
b	G14	EN2	No	Ligne saumon tapis parage	+LB*	+LA	+MB *	+MB*	<i>L.monocytogenes</i>	+	pure	2967	1962	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	G15	EN2	No	Surface ligne saumon Boader 200	+HB*	+MA	+MB *	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pure	3048	1765	+	+HA	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
b	I1	EN2	No	Rouleau sous tapis parage1	+LB*	+LB	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pure	2291	2430	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
b	I3	EN2	No	Tapis tunnel 3	+MA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	pure	2986	1989	+	+MA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	I7	EN2	No	Tapis parage zone mélange	+MA	+MA	+MB	+MB	<i>L.monocytogenes</i>	+	pure	2316	2285	+	+HB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	I9	EN2	No	Pelle zone mélange	+MA	+MA	+MA	+MA	<i>L.monocytogenes</i>	+	pure	2296	2165	+	+HA	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	E11	EN2	No	Eponge plumeuse	+LA(4)	+LA	+LB	+LA	<i>L.monocytogenes</i>	+	pure	3387	1853	+	+HB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
b	E12	EN2	No	Eponge salle d'accrochage	+LB	+LB	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pure	1935	2402	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
c	B17	EN3	No	Résidus maïs	-HE	-ME	-ME	-ME	/	-	pure	2837	N/A	-	/	/	-	=	-	/	-	=	
c	C11	EN3	No	Résidus table inox	-ME	+MB	+HB	+MB	<i>L.ivanovii</i>	-	pure	3494	3793	+	-HC	<i>L.ivanovii</i> souche pure = -	-	PDFP(alt)	+	<i>L.ivanovii</i>	-	PDFP(alt)	
c	D2	EN3	No	Résidus poivrons	Ø	Ø	-LE	Ø	/	-	pure	3489	N/A	-	Ø	/	-	=	-	/	-	=	
c	D5	EN3	No	Résidus sol	+LB	-LB	+MB	-MB	<i>L.welshimeri</i>	-	pure	1897	N/A	-	+HA(48 h)	<i>L.welshimeri</i>	-	=	-	/	-	=	
c	E13	EN3	No	Résidus bac échaudoir	-LE	-LE	-LE	-LE	/	-	pure	3409	N/A	-	Ø	/	-	=	-	/	-	=	
c	F6	EN3	No	Déchets de parage de gorge de porc	Ø	Ø	Ø	Ø	/	-	pure	3479	N/A	-	Ø	/	-	=	-	/	-	=	
c	I15	EN3	No	Résidus tapis Mec Parma	Ø	Ø	Ø	Ø	/	-	pure	2314	N/A	-	-ME	/	-	=	-	/	-	=	
c	E10	EN3	No	Résidus poisson bac sale	+LB(1)	+LA	+HA	+MB	<i>L.monocytogenes</i>	+	pure		3167	+	+MB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=	
c	F1	EN3	No	Résidus pour fabrication pâté	+MA	+MB	+HB	+HB	<i>L.monocytogenes</i>	+	pure		2883	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
c	F2	EN3	No	Résidus foie et cœur de porc	+MB	+MB	+HB	+HB	<i>L.monocytogenes</i> <i>L.innocua</i> <i>L.welshimeri</i>	+	pure	2446	2133	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i> <i>L.welshimeri</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i> <i>L.welshimeri</i>	+	=	
c	F3	EN3	No	Résidus pour fabrication pâté	+LB	+LB	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pure	2654	2577	+	+HB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	
2c	F4	EN3	No	Résidus gras de porc	+MB	+MA	+HB	+MB	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	pure	2444	2051	+	+HB	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=	+	<i>L.monocytogenes</i> <i>L.welshimeri</i>	+	=	

Protocol 3 (LSB - Easy II lysis) Extension study (IPL 2006)																						
ENVIRONMENTAL PRODUCTS																						
Type	Ref	Cat	CA	Product (in French)	Reference method						Alternative method LSB, Easy II lysis (T0)							Agreement	Alternative method LSB, Easy II lysis (after 72 h at 2 - 8°C)			Agreement
					Fraser 1/2		Fraser		Identifications	Result	ADN	Direct lysis		Result	Confirmations		Result		Result	Identifications	Result	
					P1	AL1	P2	AL2				Ct C. int	Ct FAM		Streaking onto RLM	Identifications						
c	F5	EN3	No	Résidus crépinette	+LA	+LA	+HA	+MA	<i>L.monocytogenes</i>	+	pure	2810	3147	+	+HB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	I6	EN3	No	Résidus caniveau zone mélange	+MA	+MA	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pure	2243	2212	+	+MB	<i>L.monocytogenes</i>	+	=	+	<i>L.monocytogenes</i>	+	=
c	I8	EN3	No	Résidus trémie zone mélange	+LB*	+LB	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pure	2282	2798	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=
c	I17	EN3	No	Résidus bac déchets entrée Gyro	+MB*	+LB	+MB	+MB	<i>L.monocytogenes</i> <i>L.innocua</i>	+	pure	2307	2630	+	+MB*	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=	+	<i>L.monocytogenes</i> <i>L.innocua</i>	+	=

Protocol 3 (LSB - Easy II lysis) - Environmental samples

Protocol 3 (LSB - Easy II lysis) Renewal study (ISHA 2017) ENVIRONMENTAL SAMPLES																									
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Easy II lysis								Confirmation ISO 16140-2				Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Identification	Final result	
O&A	Palcam	O&A	Palcam				Identification	Ct C. int	Ct FAM	Results	RLM		AL	RLM	Identification	O&A	Palcam								
a	134	T0	Processed water 1	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	32.56	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
a	135	T0	Processed water 2	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.98	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
a	136	T0	Processed water 3	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.48	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
a	137	T0	Processed water 4	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	33.75	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
a	179	T0	Processed water 1	LIS 4.2	se	2.4	3h+Ø	2h-Ø	3h+Ø	2h-Ø	L.m	+	34.52	18.45	+	3h+Ø	3h+Ø	3h+Ø	L.m	-	3h+Ø	3h+Ø	L.m	+	PA
a	181	T0	Processed water 2	LIS 4.2	se	2.4	3h+Ø	3h-Ø	2h+Ø	2h-Ø	L.m	+	3612	16.45	+	3h+Ø	4h+Ø	3h+Ø	L.m	-	3h+Ø	3h+Ø	L.m	+	PA
a	183	T0	Processed water 3	LIS 4.2	se	2.4	3h+Ø	3h-Ø	2h+Ø	2h-Ø	L.m	+	33.56	20.64	+	2h+Ø	3h+Ø	2h+Ø	L.m	-	3h+Ø	3h+Ø	L.m	+	PA
a	185	T0	Processed water 4	LIS 4.44	se	3.0	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.54/35.06	N/A-N/A	-	3h+Ø	3h+Ø	3h+Ø	L.m	-	3h+Ø	3h+Ø	L.m	+	ND _{FN(alt)}
a	187	T0	Processed water 5	LIS 4.44	se	3.0	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	36.21	15.48	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	3h+Ø	4h+Ø	L.m	+	PA
a	189	T0	Processed water 6	LIS 4.44	se	3.0	3h+Ø	2h-Ø	3h+Ø	2h-Ø	L.m	+	34.52	25.16	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	4h+Ø	L.m	+	PA
a	191	T0	Processed water 7	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	32.58	18.45	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA
a	193	T0	Processed water 8	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.69	22.18	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	4h+Ø	3h+Ø	L.m	+	PA
b	145	T0	Residue 1	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	32.01	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
b	147	T0	Residue 2	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	34.16	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
b	149	T0	Residue 3	/	/	/	0Ø	0Ø	0Ø	0Ø	/	-	35.49	N/A	-	0Ø	0Ø	0Ø	/	-	0Ø	0Ø	/	-	NA
c	195	T0	Residue	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	35.48	16.99	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	4h+Ø	L.m	+	PA
ST	SN	Time	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check LSB - Easy II lysis								Confirmation ISO 16140-2				Concordance RM/AM
				Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	iQ-Check			Confirmation a	Confirmation b			Final result	Fraser		Identification	Final result	
O&A	Palcam	O&A	Palcam				Identification	Ct C. int	Ct FAM	Results	RLM		AL	RLM	Identification	O&A	Palcam								
a	179	T72h	Processed water 1	LIS 4.2	se	2.4	3h+Ø	2h-Ø	3h+Ø	2h-Ø	L.m	+	33.56	17.84	+	4h+Ø	3h+Ø	4h+Ø	L.m	+	4h+Ø	4h+Ø	L.m	+	PA
a	181	T72h	Processed water 2	LIS 4.2	se	2.4	3h+Ø	3h-Ø	2h+Ø	2h-Ø	L.m	+	33.18	17.05	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	4h+Ø	4h+Ø	L.m	+	PA
a	183	T72h	Processed water 3	LIS 4.2	se	2.4	3h+Ø	3h-Ø	2h+Ø	2h-Ø	L.m	+	33.69	21.58	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	3h+Ø	4h+Ø	L.m	+	PA
a	185	T72h	Processed water 4	LIS 4.44	se	3.0	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.02	N/A	-	4h+Ø	4h+Ø	4h+Ø	L.m	-	3h+Ø	4h+Ø	L.m	+	ND _{FN(alt)}
a	187	T72h	Processed water 5	LIS 4.44	se	3.0	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.45	15.04	+	3h+Ø	3h+Ø	3h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA
a	189	T72h	Processed water 6	LIS 4.44	se	3.0	3h+Ø	2h-Ø	3h+Ø	2h-Ø	L.m	+	34.01	20.14	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	4h+Ø	3h+Ø	L.m	+	PA
a	191	T72h	Processed water 7	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.47	19.45	+	3h+Ø	4h+Ø	3h+Ø	L.m	+	3h+Ø	4h+Ø	L.m	+	PA
a	193	T72h	Processed water 8	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.19	19.67	+	4h+Ø	4h+Ø	4h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA
c	195	T72h	Residue	LIS 4.50	se	1.8	2h+Ø	2h-Ø	2h+Ø	2h-Ø	L.m	+	33.64	19.35	+	2h+Ø	3h+Ø	2h+Ø	L.m	+	3h+Ø	3h+Ø	L.m	+	PA

Protocols 4 and 5 (LSB – With or without FDRS - Easy II lysis) - Environmental samples

Protocols 4 and 5 (LSB -With or without FDRS - Easy II lysis) Extension study (ADRIA Développement 2019)																																
ENVIRONMENTAL SAMPLES																																
Date of analysis	Ref	Product (French name)	Product	Reference method ISO 11290-1*						Alternative method: iQ-Check <i>Listeria monocytogenes</i>																				Type		
										LSB for 18 h at 30°C																						
				Fraser 1/2		Fraser		Identifications	Result	Protocol 4 Easy II lysis				Protocol 5 FDRS Easy II lysis				Confirmation						Final result Easy II lysis		Final result FDRS Easy II lysis		Agreement Easy II lysis			Agreement FDRS Easy II lysis	
										APF Classic		APF Fast		APF Classic		APF Fast								APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast		APF Classic	APF Fast
				AL	Palcam	AL	Palcam			Ct FAM	Result	Ct FAM	Result	Ct FAM	Result	Ct FAM	Result	AL	Palcam	Subculture in Fraser	RLM	RLSP	Identifications	APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast		APF Classic	APF Fast
2019	4045	Eau de rinçage (environnement mer)	Rinsing water (seafood environment)	st	st	st	st			/	-	-	-	-	-	-	-	-	-	st	st	-	st	-	/	-	-	-	-	NA	NA	NA
2019	4058	Eau de rinçage découpe poulet	Rinsing water (poultry environment)	st	st	st	st	/	-	-	-	-	-	-	-	-	-	st	st	-	st	st	/	-	-	-	-	NA	NA	NA	NA	a
2019	4060	Eau process (bœuf)	Process water (beef environment)	-	-	-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	+ (NC on TSYEA)	/	-	-	-	-	NA	NA	NA	NA	a
2019	4061	Eau bac de lavage (bœuf)	Process water (beef environment)	st	st	st	st	/	-	-	-	-	-	-	-	-	-	st	st	-	st	st	/	-	-	-	-	NA	NA	NA	NA	a
2019	4062	Eau de rinçage végétaux	Rinsing water (vegetable environment)	st	st	-	st	/	-	-	-	-	-	-	-	-	-	st	-	-	-	+ (NC on TSYEA)	/	-	-	-	-	NA	NA	NA	NA	a
2019	4681	Eau process (bœuf)	Process water (beef environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	30.67	+	31.20	+	30.89	+	31.40	+	H+	+	/	+	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	a
2019	4682	Eau de rinçage (jambon végétal)	Rinsing water (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	32.10	+	32.33	+	31.93	+	32.44	+	H+/H-	+	/	+	+	<i>L.monocytogenes/ L.innocua L.innocua</i>	+	+	+	+	PA	PA	PA	PA	a
2019	4683	Eau rinçage (thon)	Rinsing water (seafood environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	31.77	+	32.27	+	32.34	+	32.65	+	H+	+	/	+	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	a
2019	4684	Eau rinçage (saumon)	Rinsing water (seafood environment)	st	st	st	st	/	-	35.12	+	35.60	+	35.60	+	35.99	+	H+/H-	+	/	+	+	<i>L.monocytogenes/ L.innocua L.innocua</i>	+	+	+	+	PD	PD	PD	PD	a
2019	4685	Eau rinçage (saumon)	Rinsing water (seafood environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	31.44	+	32.01	+	31.30	+	31.76	+	H+	+	/	+	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	a
2019	4686	Eau rinçage (thon)	Rinsing water (seafood environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	-	-	-	-	-	-	st	st	-	st	st	/	-	-	-	-	ND	ND	ND	ND	a
2019	4687	Eau rinçage (thon)	Rinsing water (seafood environment)	H+/H-	+	H+/H-	+	<i>L.monocytogenes/ L.innocua L.innocua</i>	+	37.22	+	38.29	+	36.20	+	36.42	+	H+/H-	+	/	+	+	<i>L.monocytogenes/ L.innocua L.innocua</i>	+	+	+	+	PA	PA	PA	PA	a
2019	4688	Eau rinçage (environnement mer)	Rinsing water (seafood environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	35.63	+	36.00	+	35.12	+	34.85	+	H+	+	/	+	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	a
2019	5081	Eau rinçage bol (environnement laitier)	Rinsing water (dairy environment)	H-	+	H-	+	<i>L.innocua</i>	-	33.08	+	33.30	+	33.35	+	32.96	+	H+/H-	+	/	+	+	<i>L.monocytogenes /L.innocua L.innocua</i>	+	+	+	+	PD	PD	PD	PD	a
2019	5086	Eau rinçage (environnement végétaux)	Rinsing water (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	36.28	+	36.33	+	36.06	+	36.51	+	H+	+	/	+	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	a
2019	5091	Eau rinçage (environnement volaille)	Rinsing water (poultry environment)	H+/H-	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	32.04	+	31.73	+	32.14	+	31.84	+	H+/H-	+	/	+	+	<i>L.monocytogenes/ L.innocua L.innocua</i>	+	+	+	+	PA	PA	PA	PA	a
2019	5591	Eau de rinçage bol (environnement carné)	Rinsing water (meat environment)	st	st	st	st	/	-	-	-	-	-	-	-	-	-	st	-	-	-	st		-	-	-	-	NA	NA	NA	NA	a
2019	5592	Eau de rinçage bol (environnement laitier)	Rinsing water (dairy environment)	st	st	-	-	/	-	-	-	-	-	-	-	-	-	H-	+	-	- (yellow)	st		-	-	-	-	NA	NA	NA	NA	a

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Protocols 4 and 5 (LSB -With or without FDRS - Easy II lysis) Extension study (ADRIA Développement 2019)																																
ENVIRONMENTAL SAMPLES																																
Date of analysis	Ref	Product (French name)	Product	Reference method ISO 11290-1*						Alternative method: iQ-Check <i>Listeria monocytogenes</i>																			Type			
										LSB for 18 h at 30°C																						
				Fraser 1/2		Fraser		Identifications	Result	Protocol 4 Easy II lysis				Protocol 5 FDRS Easy II lysis				Confirmation						Final result Easy II lysis		Final result FDRS Easy II lysis		Agreement Easy II lysis		Agreement FDRS Easy II lysis		
										APF Classic		APF Fast		APF Classic		APF Fast								APF Classic	APF Fast	APF Classic	APF Fast	APF Classic		APF Fast	APF Classic	APF Fast
AL	Palcam	AL	Palcam	Ct FAM	Result	Ct FAM	Result			Ct FAM	Result	Ct FAM	Result	AL	Palcam	Subculture in Fraser	RLM	RLSP	Identifications	APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast					
2019	5593	Eau de rinçage bol (environnement végétaux)	Rinsing water (vegetable environment)	-	st	-	-	/	-	-	-	-	-	-	-	-	st		-	-	-	-	NA	NA	NA	NA	a					
2019	5594	Eau de rinçage bol (environnement végétaux)	Rinsing water (vegetable environment)	-	st	st	st	/	-	-	-	-	-	-	-	-	st		-	-	-	-	NA	NA	NA	NA	a					
2019	5077	Eponge lame cutter (environnement laitier)	Sponge (dairy environment)	st	-	st	-	/	-	32.19	+	32.08	+	32.29	+	32.23	+	H+/H- -	+	/	+	+	<i>L.monocytogenes/ L.innocua L.innocua</i>	+	+	+	+	PD	PD	PD	PD	b
2019	5078	Eponge paillasse découpe fromage	Sponge (dairy environment)	H+/- /H-	+	H+/- /H-	+	<i>L.monocytogenes/ L.innocua</i>	+	-	-	-	-	-	-	-	H-	+	/	1+d/	+	<i>L.innocua</i>	-	-	-	-	ND	ND	ND	ND	b	
2019	5079	Chiffonnette cutter (environnement laitier)	Wipe (dairy environment)	H-	+	H-	+	<i>L.innocua</i>	-	37.98/-/-	+/-/-	-	-	-	-	-	H-	+	/	-	+	<i>L.innocua (5x hem-)</i>	-	-	-	-	PDFP(alt)	NA	NA	NA	b	
2019	5082	Eponge cutter (environnement végétaux)	Sponge (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	33.11	+	33.20	+	33.66	+	33.04	+	H+	+	/	+	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	b
2019	5083	Eponge balance (environnement végétaux)	Sponge (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	33.10	+	33.24	+	33.22	+	33.40	+	H+	+	/	+	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	b
2019	5084	Chiffonnette outils découpe végétaux	Wipe (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-/39.29/ 37.16	- /+/-	-/-	-/-	40.90	+	39.34	+	H+	+	/	+	+	<i>L.monocytogenes</i>	-	-	+	+	ND	ND	PA	PA	b
2019	5087	Eponge cutter (environnement volaille)	Sponge (poultry environment)	H+/-/H-	+	H+/-/H-	+	<i>L.innocua</i>	-	31.06	+	30.93	+	30.78	+	30.68	+	H+	+	/	+	+	<i>L.monocytogenes</i>	+	+	+	+	PD	PD	PD	PD	b
2019	5088	Eponge paillasse découpe volaille	Sponge (poultry environment)	H+/-/H-	+	H-	+	<i>L.monocytogenes/ L.innocua</i>	+	31.41	+	31.13	+	31.43	+	31.24	+	H+/H- -	+	/	+	+	<i>L.monocytogenes/ L.innocua L.innocua</i>	+	+	+	+	PA	PA	PA	PA	b
2019	5089	Chiffonnette balance (environnement carné)	Wipe (meat environment)	H+/-/H-	+	H+/-/H-	+	<i>L.innocua</i>	-	30.56	+	30.33	+	30.02	+	29.91	+	H+	+	/	+	+	<i>L.monocytogenes</i>	+	+	+	+	PD	PD	PD	PD	b
2019	5578	Chiffonnette paillasse découpe végétaux	Wipe after cleaning process (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	34.20	+	33.40	+	33.97	+	35.35	+	H+	+	/	+	+(1)	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	b
2019	5579	Chiffonnette après nettoyage plan de travail (environnement laitier)	Wipe (dairy environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	33.13	+	34.73	+	33.28	+	33.29	+	H+	+	/	+	st	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	b
2019	5580	Chiffonnette cutter (environnement végétaux)	Wipe (vegetable environment)	st	st	st	st	/	-	-	-	-	-	-	-	-	st	-	-	-	st		-	-	-	-	NA	NA	NA	NA	b	
2019	5581	Chiffonnette après nettoyage balance (environnement carné)	Wipe after cleaning process (meat environment)	-	-	st	-	/	-	-	-	-	-	39.75/ -/-	+/- /-	-	-	st	-	-	-	st		-	-	-	-	NA	NA	PDFP(alt)	NA	b
2019	5582	Chiffonnette après nettoyage plan de travail (environnement carné)	Wipe after cleaning process (meat environment)	st	-	st	-	/	-	-	-	-	-	-	-	-	st	-	-	-	st		-	-	-	-	NA	NA	NA	NA	b	
2019	5583	Chiffonnette cutter (environnement laitier)	Wipe (dairy environment)	st	-	st	-	/	-	-	-	-	-	-	-	-	-	-	-	-	st		-	-	-	-	NA	NA	NA	NA	b	

Protocols 4 and 5 (LSB -With or without FDRS - Easy II lysis) Extension study (ADRIA Développement 2019)																																		
ENVIRONMENTAL SAMPLES																																		
Date of analysis	Ref	Product (French name)	Product	Reference method ISO 11290-1♦						Alternative method: iQ-Check <i>Listeria monocytogenes</i>																				Type				
										LSB for 18 h at 30°C																								
				Fraser 1/2		Fraser		Identifications	Result	Protocol 4 Easy II lysis				Protocol 5 FDRS Easy II lysis				Confirmation								Final result Easy II lysis		Final result FDRS Easy II lysis			Agreement Easy II lysis		Agreement FDRS Easy II lysis	
										APF Classic		APF Fast		APF Classic		APF Fast										APF Classic		APF Fast			APF Classic		APF Fast	
				AL	Palcam	AL	Palcam			Ct FAM	Result	Ct FAM	Result	Ct FAM	Result	Ct FAM	Result	AL	Palcam	Subculture in Fraser	RLM	RLSP	Identifications	APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast		APF Classic	APF Fast		
2019	5080	Déchets fromage	Residues (dairy environment)	H-	+	H-	+			<i>L.innocua</i>	-	-	-	-	-	-	-	-	H-	+	/	-	+	<i>L.innocua</i>	-	-	-	-	NA	NA	NA	NA	c	
2019	5085	Déchets végétaux 4è gamme	Residues (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	40.02/-/-	+/-/-	-	-	-	-	-	st	st	st	-	st	5x(AL/Pal/F)-	-	-	-	-	PA _{FP(alt)}	ND	ND	ND	c			
2019	5090	Déchets viande veau	Residues (veal environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	32.28	+	33.94	+	35.89	+	36.17	+	H+/H-	+	/	+	+	<i>L.monocytogenes</i> / <i>L.innocua</i>	+	+	+	+	PA	PA	PA	PA	c		
2019	5589	Poussière aspirateur (environnement laitier)	Dust (dairy environment)	H-	+	-	-	<i>L.seeligeri</i>	-	-	-	-	-	-	-	-	H-d	d	-	-	+	<i>L.seeligeri</i>	-	-	-	-	NA	NA	NA	NA	c			
2019	5590	Poussière aspirateur (environnement laitier)	Dust (dairy environment)	st	-	st	-	/	-	-	-	-	-	-	-	-	st	st	-	st	st		-	-	-	-	NA	NA	NA	NA	c			

Protocols 4 and 5 (LSB - FDRS - Easy II lysis) Extension study (ADRIA Développement 2019)																												
ENVIRONMENTAL SAMPLES																												
Date of analysis	Ref	Product (French name)	Product	Reference method ISO 11290-1 [♦]						Alternative method: iQ-Check <i>Listeria monocytogenes</i>																		Type
										LSB for 18 h at 30°C + 72 h at 5°C ± 3°C																		
				Fraser 1/2		Fraser		Identifications	Result	Protocol 4 Easy II lysis				Protocol 5 FDRS Easy II lysis				Confirmation	Final result Easy II lysis		Final result FDRS Easy II lysis		Agreement Easy II lysis		Agreement FDRS Easy II lysis			
										APF Classic		APF Fast		APF Classic		APF Fast			APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast		
				AL	Palcam	AL	Palcam			Ct FAM	Result	Ct FAM	Result	Ct FAM	Result	Ct FAM	Result	Identifications										
2019	4060	Eau process (bœuf)	Process water (beef environment)	-	-	-	-	/	-	41.36/40.84/39.51	+ / + / +	-	-	-	-	-	-	- (5Fraser/AL/Palcam)	-	-	-	-	PDF _{FP(alt)}	NA	NA	NA	a	
2019	4062	Eau de rinçage végétaux	Rinsing water (vegetable environment)	st	st	-	st	/	-	-	-	-	-	-	-	-	-	/	-	-	-	-	NA	NA	NA	NA	a	
2019	4681	Eau process (bœuf)	Process water (beef environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	25.70	+	27.34	+	26.14	+	25.67	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	a	
2019	4682	Eau de rinçage (jambon végétal)	Rinsing water (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	26.01	+	27.46	+	26.14	+	27.17	+	<i>L.monocytogenes</i> / <i>L.innocua</i> <i>L.innocua</i>	+	+	+	+	PA	PA	PA	PA	a	
2019	4683	Eau rinçage (thon)	Rinsing water (seafood environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	27.11	+	28.71	+	27.97	+	28.09	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	a	
2019	4684	Eau rinçage (saumon)	Rinsing water (seafood environment)	st	st	st	st	/	-	30.22	+	31.08	+	30.70	+	30.52	+	<i>L.monocytogenes</i> / <i>L.innocua</i> <i>L.innocua</i>	+	+	+	+	PD	PD	PD	PD	a	
2019	4685	Eau rinçage (saumon)	Rinsing water (seafood environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	26.45	+	27.81	+	27.65	+	27.6	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	a	
2019	4686	Eau rinçage (thon)	Rinsing water (seafood environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	-	-	-	-	-	-	/	-	-	-	-	ND	ND	ND	ND	a	
2019	4687	Eau rinçage (thon)	Rinsing water (seafood environment)	H+/H-	+	H+/H-	+	<i>L.monocytogenes</i> / <i>L.innocua</i> <i>L.innocua</i>	+	30.32	+	31.56	+	31.55	+	31.22	+	<i>L.monocytogenes</i> / <i>L.innocua</i> <i>L.innocua</i>	+	+	+	+	PA	PA	PA	PA	a	
2019	4688	Eau rinçage (environnement mer)	Rinsing water (seafood environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	29.82	+	30.88	+	30.88	+	30.8	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	a	
2019	5081	Eau rinçage bol (environnement laitier)	Rinsing water (dairy environment)	H-	+	H-	+	<i>L.innocua</i>	-	31.49	+	31.75	+	32.00	+	31.96	+	<i>L.monocytogenes</i> / <i>L.innocua</i>	+	+	+	+	PD	PD	PD	PD	a	
2019	5086	Eau rinçage (environnement végétaux)	Rinsing water (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	32.79	+	33.06	+	33.75	+	34.18	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	a	
2019	5091	Eau rinçage (environnement volaille)	Rinsing water (poultry environment)	H+/H-	+	H+/H-	+	<i>L.monocytogenes</i> / <i>L.innocua</i>	+	29.24	+	29.75	+	33.05	+	30.03	+	<i>L.monocytogenes</i> / <i>L.innocua</i>	+	+	+	+	PA	PA	PA	PA	a	
2019	5591	Eau de rinçage bol (environnement carné)	Rinsing water (meat environment)	st	st	st	st	/	-	-	-	-	-	-	-	-	-	/	-	-	-	-	NA	NA	NA	NA	a	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Protocols 4 and 5 (LSB - FDRS - Easy II lysis)
Extension study (ADRIA Développement 2019)

ENVIRONMENTAL SAMPLES

Date of analysis	Ref	Product (French name)	Product	Reference method ISO 11290-1 [♦]						Alternative method: iQ-Check <i>Listeria monocytogenes</i>																		Type
										LSB for 18 h at 30°C + 72 h at 5°C ± 3°C																		
				Fraser 1/2		Fraser		Identifications	Result	Protocol 4 Easy II lysis				Protocol 5 FDRS Easy II lysis				Confirmation	Final result Easy II lysis		Final result FDRS Easy II lysis		Agreement Easy II lysis		Agreement FDRS Easy II lysis			
										APF Classic		APF Fast		APF Classic		APF Fast			APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast		
AL	Palcam	AL	Palcam	Ct FAM	Result	Ct FAM	Result			Ct FAM	Result	Ct FAM	Result	Identifications														
2019	5592	Eau de rinçage bol (environnement laitier)	Rinsing water (dairy environment)	st	st	-	-	/	-	-	-	-	-	-	-	-	/	-	-	-	-	NA	NA	NA	NA	a		
2019	5077	Eponge lame cutter (environnement laitier)	Sponge (dairy environment)	st	-	st	-	/	-	35.19	+	34.9	+	37.06	+	36.91	+	<i>L.monocytogenes</i> / <i>L.innocua</i> <i>L.innocua</i>	+	+	+	+	PD	PD	PD	PD	b	
2019	5078	Eponge pailleasse découpe fromage	Sponge (dairy environment)	H+/-/H-	+	H+/-/H-	+	<i>L.monocytogenes</i> / <i>L.innocua</i>	+	-	-	-	-	41.61/40.33/-	+/-/-	-	-	<i>L.innocua</i> (5x hem-)	-	-	-	-	ND	ND	PA _{FP(alt)}	ND	b	
2019	5079	Chiffonnette cutter (environnement laitier)	Wipe (dairy environment)	H-	+	H-	+	<i>L.innocua</i>	-	-	-	-	-	-	-	-	<i>L.innocua</i>	-	-	-	-	NA	NA	NA	NA	b		
2019	5082	Eponge cutter (environnement végétaux)	Sponge (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	31.48	+	31.61	+	31.39	+	31.96	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	b	
2019	5083	Eponge balance (environnement végétaux)	Sponge (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	30.85	+	30.81	+	29.44	+	31.15	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	b	
2019	5084	Chiffonnette outils découpe végétaux	Wipe (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	39.71	+	39.91	+	37.35	+	39.44	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	b	
2019	5087	Eponge cutter (environnement volaille)	Sponge (poultry environment)	H+/-/H-	+	H+/-/H-	+	<i>L.innocua</i>	-	30.12	+	30.72	+	31.35	+	31.6	+	<i>L.monocytogenes</i>	+	+	+	+	PD	PD	PD	PD	b	
2019	5088	Eponge pailleasse découpe volaille	Sponge (poultry environment)	H+/-/H-	+	H-	+	<i>L.monocytogenes</i> / <i>L.innocua</i>	+	30.03	+	29.7	+	29.58	+	30.2	+	<i>L.monocytogenes</i> / <i>L.innocua</i>	+	+	+	+	PA	PA	PA	PA	b	
2019	5089	Chiffonnette balance (environnement carné)	Wipe (meat environment)	H+/-/H-	+	H+/-/H-	+	<i>L.innocua</i>	-	27.57	+	27.29	+	28.41	+	28.49	+	<i>L.monocytogenes</i>	+	+	+	+	PD	PD	PD	PD	b	
2019	5578	Chiffonnette pailleasse découpe végétaux	Wipe after cleaning process (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	30.80	+	30.91	+	30.50	+	30.79	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	b	
2019	5579	Chiffonnette après nettoyage plan de travail (environnement laitier)	Wipe (dairy environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	28.55	+	28.8	+	29.07	+	28.64	+	<i>L.monocytogenes</i>	+	+	+	+	PA	PA	PA	PA	b	
2019	5580	Chiffonnette cutter (environnement végétaux)	Wipe (vegetable environment)	st	st	st	st	/	-	-	-	-	-	-	-	-	/	-	-	-	-	NA	NA	NA	NA	b		
2019	5581	Chiffonnette après nettoyage balance (environnement carné)	Wipe after cleaning process (meat environment)	-	-	st	-	/	-	-	-	-	-	-	-	-	/	-	-	-	-	NA	NA	NA	NA	b		

Protocols 4 and 5 (LSB - FDRS - Easy II lysis) Extension study (ADRIA Développement 2019)																												
ENVIRONMENTAL SAMPLES																												
Date of analysis	Ref	Product (French name)	Product	Reference method ISO 11290-1 [♦]						Alternative method: iQ-Check <i>Listeria monocytogenes</i>																		Type
										LSB for 18 h at 30°C + 72 h at 5°C ± 3°C																		
				Fraser 1/2		Fraser		Identifications	Result	Protocol 4 Easy II lysis				Protocol 5 FDRS Easy II lysis				Confirmation	Final result Easy II lysis		Final result FDRS Easy II lysis		Agreement Easy II lysis		Agreement FDRS Easy II lysis			
										APF Classic		APF Fast		APF Classic		APF Fast			APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast		
AL	Palcam	AL	Palcam	Ct FAM	Result	Ct FAM	Result			Ct FAM	Result	Ct FAM	Result	Identifications														
2019	5584	Chiffonnette après nettoyage plan de travail (environnement végétaux)	Wipe after cleaning process (vegetable environment)	-	-	-	-	/	-	-	-	-	-	-	-	-	-	/	-	-	-	-	NA	NA	NA	NA	b	
2019	5588	Eponge cutter (environnement végétaux)	Sponge (vegetable environment)	-	-	-	-	/	-	-	-	-	-	-	-	-	-	/	-	-	-	-	NA	NA	NA	NA	b	
2019	4046	Déchets saumon	Residues (seafood environment)	H-	+	H-	+	<i>L.innocua</i>	-	38.02	+	35.87	+	36.66	+	35.64	+	<i>L.monocytogenes</i>	+	+	+	+	PD	PD	PD	PD	c	
2019	4047	Déchets poissons	Residues (seafood environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	-	-	-	-	-	-	/	-	-	-	-	ND	ND	ND	ND	c	
2019	4048	Déchets pareuse	Residues (seafood environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	33.07	+	32.40	+	32.70	+	31.63	+	<i>L.monocytogenes/ L.innocua</i>	+	+	+	+	PA	PA	PA	PA	c	
2019	4049	Déchets thon	Residues (seafood environment)	H-	+	H-	+	<i>L.innocua</i>	-	-	-	-	-	-	-	-	-	<i>L.innocua</i>	-	-	-	-	NA	NA	NA	NA	c	
2019	4050	Déchets chantilly	Residues (dairy environment)	st	st	st	st	/	-	29.00	+	29.77	+	29.66	+	29.50	+	<i>L.monocytogenes</i>	+	+	+	+	PD	PD	PD	PD	c	
2019	4051	Déchets chantilly	Residues (dairy environment)	H-	+	H-	+	<i>L.innocua</i>	-	33.57	+	34.30	+	33.16	+	32.52	+	<i>L.monocytogenes/ L.innocua</i>	+	+	+	+	PD	PD	PD	PD	c	
2019	4052	Déchets fromage	Residues (dairy environment)	H-	+	H-	+	<i>L.innocua</i>	-	-	-	40.18/-/-	+/-/-	-	-	-	-	<i>L.innocua (5x hem-)</i>	-	-	-	-	NA	PDFP(alt)	NA	NA	c	
2019	4053	Déchets fromage	Residues (dairy environment)	H-	+	H-	+	<i>L.innocua</i>	-	-	-	-	-	-	-	-	-	<i>L.innocua</i>	-	-	-	-	NA	NA	NA	NA	c	
2019	4056	Déchets poissons	Residues (seafood environment)	H-d	d	H-d	d	Gram NC	-	-	-	-	-	-	-	-	-	/	-	-	-	-	NA	NA	NA	NA	c	
2019	4059	Déchets brocoli	Residues (vegetable environment)	st	-	-	-	/	-	-	-	-	-	-	-	-	-	/	-	-	-	-	NA	NA	NA	NA	c	
2019	4689	Déchets saumon	Residues (seafood environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	-	-	-	-	-	-	/	-	-	-	-	ND	ND	ND	ND	c	
2019	4690	Déchets saumon herbes	Residues (seafood environment)	H+/H-	+	H+/H-	+	<i>L.monocytogenes/ L.innocua L.innocua</i>	+	-	-	-	-	-	-	-	-	/	-	-	-	-	ND	ND	ND	ND	c	
2019	5080	Déchets fromage	Residues (dairy environment)	H-	+	H-	+	<i>L.innocua</i>	-	-	-	-	-	-	-	-	-	<i>L.innocua</i>	-	-	-	-	NA	NA	NA	NA	c	
2019	5085	Déchets végétaux 4è gamme	Residues (vegetable environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	-	-	-	-	-	-	/	-	-	-	-	ND	ND	ND	ND	c	
2019	5090	Déchets viande veau	Residues (veal environment)	H+	+	H+	+	<i>L.monocytogenes</i>	+	30.14	+	30.3	+	33.16	+	32.92	+	<i>L.monocytogenes/ L.innocua</i>	+	+	+	+	PA	PA	PA	PA	c	

Protocols 4 and 5 (LSB - FDRS - Easy II lysis) Extension study (ADRIA Développement 2019)																												
ENVIRONMENTAL SAMPLES																												
Date of analysis	Ref	Product (French name)	Product	Reference method ISO 11290-1 [♦]						Alternative method: iQ-Check <i>Listeria monocytogenes</i>																		Type
										LSB for 18 h at 30°C + 72 h at 5°C ± 3°C																		
				Fraser 1/2		Fraser		Identifications	Result	Protocol 4 Easy II lysis				Protocol 5 FDRS Easy II lysis				Confirmation	Final result Easy II lysis		Final result FDRS Easy II lysis		Agreement Easy II lysis		Agreement FDRS Easy II lysis			
										APF Classic		APF Fast		APF Classic		APF Fast			APF Classic	APF Fast	APF Classic	APF Fast	APF Classic	APF Fast				
				AL	Palcam	AL	Palcam			Ct FAM	Result	Ct FAM	Result	Ct FAM	Result	Ct FAM	Result	Identifications							APF Classic	APF Fast	APF Classic	
2019	5589	Poussière aspirateur (environnement laitier)	Dust (dairy environment)	H-	+	-	-	<i>L.seeligeri</i>	-	-	-	-	-	-	-	-	-	/	-	-	-	-	NA	NA	NA	NA	c	

Appendix 5 – Relative level of detection study: raw data (Extension study, ISHA (2017) - Extension study, ADRIA (2019))

Protocol 1 (ISHA-2017): Half Fraser - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM: iQ-Check Half Fraser- Standard II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	Results	Identification	Final result	
						O&A	Palcam	O&A	Palcam						
Meat products	O1	Ground beef	LIS.4.26	se	0	0L	0L	0L	0L	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0L	0L	0L	0L	/	-	-	/	-	
	O3					0L	0L	0L	0L	/	-	-	/	-	
	O4					0L	0L	0L	0L	/	-	-	/	-	
	O5					0L	0L	0L	0L	/	-	-	/	-	
	f1				1.1	0M	0H	0M	0L	/	-	-	/	-	RM : 15/20 AM: 15/20
	f2					4h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f3					2h+H	2h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f4					3h+L	3h-H	4h+L	3h-H	L.m	+	+	L.m	+	
	f5					0L	0H	0L	0L	/	-	-	/	-	
	f6					3h+M	4h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f7					4h+L	3h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f8					0L	0L	0L	0L	/	-	-	/	-	
	f9					0M	0H	0M	0L	/	-	-	/	-	
	f10					2h+L	2h-L	4h+L	4h-M	L.m	+	+	L.m	+	
	f11					0L	0L	0M	0L	L.m	+	+	L.m	+	
	f12					2h+L	2h-L	4h+L	4h-M	L.m	+	+	L.m	+	
	f13					0L	0L	0L	0L	L.m	+	+	L.m	+	
	f14					3h+L	3h-L	4h+L	3h-M	L.m	+	+	L.m	+	
	f15					0L	0H	0M	0L	/	-	-	/	-	
	f16					4h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f17					2h+L	2h-L	4h+L	4h-L	L.m	+	+	L.m	+	
	f18					2h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f19					3h+L	2h-L	3h+L	4h-L	L.m	+	+	L.m	+	
	f20					2h+L	2h-M	4h+L	4h-H	L.m	+	+	L.m	+	
	F1				2.1	3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	RM: 5/5 AM: 5/5
	F2					2h+L	3h-L	2h+L	2h-L	L.m	+	+	L.m	+	
F3	1h+M	3h-M	3h+L	3h-M		L.m	+	+	L.m	+					
F4	3h+L	3h-L	3h+L	2h-L		L.m	+	+	L.m	+					
F5	3h+L	3h-M	4h+L	3h-L		L.m	+	+	L.m	+					

Protocol 1 (ISHA 2017): Half Fraser - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check Half Fraser standard II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	Results	Identi- fication	Final result	
						O&A	Palcam	O&A	Palcam						
Dairy products	O1	Raw milk	LIS.4.32	se	0	0M	0L	0L	0L	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0L	0L	0M	0L	/	-	-	/	-	
	O3					0L	0M	0L	0L	/	-	-	/	-	
	O4					0L	0L	0L	0M	/	-	-	/	-	
	O5					0L	0M	0L	0L	/	-	-	/	-	
	f1				0.1	4h+L	3h-L	3h+L	3h-L	L.m	+	-	/	-	RM : 14/20 AM: 15/20
	f2					4h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f3					0L	0L	0L	0L	/	-	+	L.m	+	
	f4					0L	0L	0L	0L	/	-	+	L.m	+	
	f5					3h+L	3h-L	4h+L	3h-L	L.m	+	-	/	-	
	f6					3h+M	4h-L	3h+L	3h-M	L.m	+	+	L.m	+	
	f7					4h+L	3h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f8					0M	0L	0M	0L	/	-	-	/	-	
	f9					3h+L	3h-L	4h+L	3h-L	L.m	+	-	/	-	
	f10					2h+L	2h-L	4h+L	4h-M	L.m	+	+	L.m	+	
	f11					4h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f12					2h+L	2h-L	4h+L	4h-M	L.m	+	+	L.m	+	
	f13					0L	0L	0L	0L	/	-	+	L.m	+	
	f14					3h+L	3h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f15					0L	0L	0L	0L	/	-	-	/	-	
	f16					4h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f17					0L	0L	0L	0L	/	-	+	L.m	+	
	f18					2h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f19					3h+L	2h-L	3h+L	4h-L	L.m	+	+	L.m	+	
	f20					2h+L	2h-M	4h+L	4h-L	L.m	+	+	L.m	+	
	F1				3.1	3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	RM 5/5 AM 5/5
	F2					2h+L	3h-L	2h+L	2h-L	L.m	+	+	L.m	+	
F3	1h+M	3h-M	3h+L	3h-M		L.m	+	+	L.m	+					
F4	3h+L	3h-L	3h+L	2h-L		L.m	+	+	L.m	+					
F5	3h+L	3h-M	4h+L	3h-L		L.m	+	+	L.m	+					

Protocol 1 (ISHA 2017): Half Fraser - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check Half Fraser- standard II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	Results	Identification	Final result	
						O&A	Palcam	O&A	Palcam						
Sea food products	O1	Cod filet	LIS.4.15	se	0	0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O5					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f1				0.1	3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	RM : 12/20 AM: 12/20
	f2					2h+Ø	2h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f3					0Ø	0Ø	0Ø	0Ø	/	A	-	/	A	
	f4					0Ø	0Ø	0Ø	0Ø	/	A	-	/	A	
	f5					0Ø	0Ø	0Ø	0Ø	/	A	-	/	A	
	f6					0Ø	0Ø	0Ø	0Ø	/	A	-	/	A	
	f7					2h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f8					2h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
	f9					0Ø	0Ø	0Ø	0Ø	/	A	-	/	A	
	f10					2h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f11					0Ø	0Ø	0Ø	0Ø	/	A	-	/	A	
	f12					0Ø	0Ø	0Ø	0Ø	/	A	-	/	A	
	f13					3h+Ø	2h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
	f14					3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f15					0Ø	0Ø	0Ø	0Ø	/	A	-	/	A	
	f16					3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f17					2h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f18					2h+Ø	2h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
	f19					3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
	f20					2h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
F1	2.1	3h+Ø	3hØ	3h+Ø	3hØ	L.m	+	+	L.m	+	RM 5/5 AM 5/5				
F2		4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F3		4h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+					
F4		3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+					
F5		3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+					

Protocol 1 (ISHA 2017): Half Fraser - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check Half Fraser- standard II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	Results	Identification	Final result	
						O&A	Palcam	O&A	Palcam						
Vegetal products	O1	Salad	LIS.4.35	se	0	0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O5					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f1				1	4h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	RM : 13/20 AM: 13/20
	f2					4h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f5					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f6					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f7					4h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f8					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f9					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f10					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f11					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f12					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f13					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f14					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f15					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f16					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f17					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f18					3h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f19					3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
	f20					4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+	
F1	3.1	3h+Ø	3hØ	3h+Ø	3hØ	L.m	+	+	L.m	+	RM 5/5 AM 5/5				
F2		3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F3		3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+					
F4		3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+					
F5		3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+					

Protocol 1 (ISHA 2017): Half Fraser - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1					AM : iQ-Check Half Fraser standard II lysis			Number of positive results per method	
			Strain	Type	Level	Half Fraser		Fraser		Identification	Final result	Results	Identification		Final result
						O&A	Palcam	O&A	Palcam						
RTE- RTRH	O1	Pasta salad	LIS.4.46	se	0	0L	0L	0H	0L	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0L	0L	0H	0L	/	-	-	/	-	
	O3					0L	0L	0H	0L	/	-	-	/	-	
	O4					0L	0L	0H	0L	/	-	-	/	-	
	O5					0L	0L	0H	0L	/	-	-	/	-	
	f1				0.1	2h+L	2h-L	3h+H	3h-H	L.m	+	+	L.m	+	RM : 15/20 AM: 15/20
	f2					3h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f3					1h+H	1h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f4					3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	
	f5					2h+L	2h-L	4h+L	4h-L	L.m	+	+	L.m	+	
	f6					3h+M	3h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f7					3h+L	3h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f8					0L	0L	0M	0L	/	-	-	/	-	
	f9					2h+L	3h-L	3h+L	3h-M	L.m	+	+	L.m	+	
	f10					0M	0H	0M	0L	/	-	-	/	-	
	f11					0L	0L	0M	0L	/	-	-	/	-	
	f12					2h+L	1h-L	4h+L	3h-M	L.m	+	+	L.m	+	
	f13					0L	0L	0M	0L	/	-	-	/	-	
	f14					3h+L	3h-L	4h+L	3h-M	L.m	+	+	L.m	+	
	f15					3h+L	2h-L	3h+L	3h-M	L.m	+	+	L.m	+	
	f16					3h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f17					2h+L	1h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f18					0M	0L	0M	0L	/	-	-	/	-	
	f19					3h+L	2h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f20					2h+L	2h-M	4h+L	3h-H	L.m	+	+	L.m	+	
	F1				3	3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	RM 5/5 AM 5/5
	F2					2h+L	3h-L	2h+L	2h-L	L.m	+	+	L.m	+	
	F3					1h+M	3h-M	3h+L	3h-M	L.m	+	+	L.m	+	
F4	3h+L	3h-L	3h+L	2h-L		L.m	+	+	L.m	+					
F5	3h+L	3h-M	4h+L	3h-L		L.m	+	+	L.m	+					

Protocol 1 (ISHA 2017): Half Fraser - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 112390-1						AM : iQ-Check Half Fraser Standard II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confirmation	Final result	Results	Identification	Final result	
						O&A	Palcam	O&A	Palcam						
Environmental sample	O1	Processed water	LIS.4.50	se	0	0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O5					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f1				1	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	RM : 12/20 AM: 12/20
	f2					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f3					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f5					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f6					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f7					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f8					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f9					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f10					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f11					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f12					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f13					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f14					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f15					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f16					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f17					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f18					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f19					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f20					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
F1	3.1	3h+Ø	3hØ	4h+Ø	3hØ	L.m	+	+	L.m	+	RM 5/5 AM 5/5				
F2		4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F3		4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F4		3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F5		3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					

Protocol 2 (ISHA 2017): LSB - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check LSB - Standard II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	Results	Identification	Final result	
						O&A	Palcam	O&A	Palcam						
Meat products	O1	Ground beef	LIS.4.26	se	0	0L	0L	0L	0L	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0L	0L	0L	0L	/	-	-	/	-	
	O3					0L	0L	0L	0L	/	-	-	/	-	
	O4					0L	0L	0L	0L	/	-	-	/	-	
	O5					0L	0L	0L	0L	/	-	-	/	-	
	f1				1.1	0M	0H	0M	0L	/	-	+	L.m	+	RM : 15/20 AM: 15/20
	f2					4h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f3					2h+H	2h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f4					3h+L	3h-H	4h+L	3h-H	L.m	+	-	/	-	
	f5					0L	0H	0L	0L	/	-	+	L.m	+	
	f6					3h+M	4h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f7					4h+L	3h-L	4h+L	3h-L	L.m	+	-	/	-	
	f8					0L	0L	0L	0L	/	-	+	L.m	+	
	f9					0M	0H	0M	0L	/	-	+	L.m	+	
	f10					2h+L	2h-L	4h+L	4h-M	L.m	+	+	L.m	+	
	f11					0L	0L	0M	0L	L.m	+	-	/	-	
	f12					2h+L	2h-L	4h+L	4h-M	L.m	+	-	/	-	
	f13					0L	0L	0L	0L	L.m	+	+	L.m	+	
	f14					3h+L	3h-L	4h+L	3h-M	L.m	+	+	L.m	+	
	f15					0L	0H	0M	0L	/	-	+	L.m	+	
	f16					4h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f17					2h+L	2h-L	4h+L	4h-L	L.m	+	+	L.m	+	
	f18					2h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f19					3h+L	2h-L	3h+L	4h-L	L.m	+	-	/	-	
	f20					2h+L	2h-M	4h+L	4h-H	L.m	+	+	L.m	+	
	F1				2.1	3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	RM: 5/5 AM: 5/5
	F2					2h+L	3h-L	2h+L	2h-L	L.m	+	+	L.m	+	
	F3					1h+M	3h-M	3h+L	3h-M	L.m	+	+	L.m	+	
F4	3h+L	3h-L	3h+L	2h-L		L.m	+	+	L.m	+					
F5	3h+L	3h-M	4h+L	3h-L		L.m	+	+	L.m	+					

Protocol 2 (ISHA 2017): LSB - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check LSB - Standard II lysis			Number of positive results per method
						Half Fraser		Fraser		Confir- mation	Final result	Results	Identifi- cation	Final result	
			Strain	Type	Level	O&A	Palcam	O&A	Palcam						
Dairy products	O1	Raw milk	LIS.4.32	se	0	0M	0L	0L	0L	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0L	0L	0M	0L	/	-	-	/	-	
	O3					0L	0M	0L	0L	/	-	-	/	-	
	O4					0L	0L	0L	0M	/	-	-	/	-	
	O5					0L	0M	0L	0L	/	-	-	/	-	
	f1				0.1	4h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	RM : 14/20 AM: 11/20
	f2					4h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f3					0L	0L	0L	0L	/	-	-	/	-	
	f4					0L	0L	0L	0L	/	-	-	/	-	
	f5					3h+L	3h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f6					3h+M	4h-L	3h+L	3h-M	L.m	+	+	L.m	+	
	f7					4h+L	3h-L	4h+L	3h-L	L.m	+	-	/	-	
	f8					0M	0L	0M	0L	/	-	+	L.m	+	
	f9					3h+L	3h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f10					2h+L	2h-L	4h+L	4h-M	L.m	+	-	/	-	
	f11					4h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f12					2h+L	2h-L	4h+L	4h-M	L.m	+	-	/	-	
	f13					0L	0L	0L	0L	/	-	-	/	-	
	f14					3h+L	3h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f15					0L	0L	0L	0L	/	-	-	/	-	
	f16					4h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f17					0L	0L	0L	0L	/	-	+	L.m	+	
	f18					2h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f19					3h+L	2h-L	3h+L	4h-L	L.m	+	-	/	-	
	f20					2h+L	2h-M	4h+L	4h-L	L.m	+	-	/	-	
	F1				3.1	3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	RM 5/5 AM 5/5
	F2					2h+L	3h-L	2h+L	2h-L	L.m	+	+	L.m	+	
	F3					1h+M	3h-M	3h+L	3h-M	L.m	+	+	L.m	+	
F4	3h+L	3h-L	3h+L	2h-L		L.m	+	+	L.m	+					
F5	3h+L	3h-M	4h+L	3h-L		L.m	+	+	L.m	+					

Protocol 2 (ISHA 2017): LSB - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1					AM : iQ-Check LSB - Standard II lysis			Number of positive results per method	
			Strain	Type	Level	Half Fraser		Fraser		Confir-mation	Final result	Results	Identifi-cation		Final result
						O&A	Palcam	O&A	Palcam						
Sea food products	O1	Cod filet	LIS.4.15	se	0	0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O5					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f1				0.1	3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	RM : 12/20 AM: 11/20
	f2					2h+Ø	2h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f4					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f5					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f6					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f7					2h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f8					2h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
	f9					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f10					2h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	-	/	-	
	f11					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f12					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f13					3h+Ø	2h-Ø	3h+Ø	4h-Ø	L.m	+	-	/	-	
	f14					3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f15					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f16					3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f17					2h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f18					2h+Ø	2h-Ø	3h+Ø	4h-Ø	L.m	+	-	/	-	
	f19					3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
	f20					2h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	-	/	-	
F1	2.1	3h+Ø	3hØ	3h+Ø	3hØ	L.m	+	+	L.m	+	RM 5/5 AM 5/5				
F2		4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F3		4h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+					
F4		3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+					
F5		3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+					

Protocol 2 (ISHA 2017): LSB - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check LSB - Standard II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	Results	Identifi-cation	Final result	
						O&A	Palcam	O&A	Palcam						
Vegetal products	O1	Salad	LIS.4.35	se	0	0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O5					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f1				1	4h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	RM : 13/20 AM: 11/20
	f2					4h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f3					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f5					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f6					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f7					4h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f8					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f9					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f10					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f11					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f12					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f13					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f14					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f15					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f16					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f17					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f18					3h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f19					3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
	f20					4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+	
F1	3.1	3h+Ø	3hØ	3h+Ø	3hØ	L.m	+	+	L.m	+	RM 5/5 AM 5/5				
F2		3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F3		3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+					
F4		3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+					
F5		3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+					

Protocol 2 (ISHA 2017): LSB - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check LSB - Standard II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	Results	Identifi- cation	Final result	
						O&A	Palcam	O&A	Palcam						
RTE-RTRH	O1	Pasta salad	LIS.4.46	se	0	0L	0L	0H	0L	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0L	0L	0H	0L	/	-	-	/	-	
	O3					0L	0L	0H	0L	/	-	-	/	-	
	O4					0L	0L	0H	0L	/	-	-	/	-	
	O5					0L	0L	0H	0L	/	-	-	/	-	
	f1				0.1	2h+L	2h-L	3h+H	3h-H	L.m	+	-	/	-	RM : 15/20 AM: 14/20
	f2					3h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f3					1h+H	1h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f4					3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	
	f5					2h+L	2h-L	4h+L	4h-L	L.m	+	+	L.m	+	
	f6					3h+M	3h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f7					3h+L	3h-L	4h+L	3h-L	L.m	+	-	/	-	
	f8					0L	0L	0M	0L	/	-	-	/	-	
	f9					2h+L	3h-L	3h+L	3h-M	L.m	+	+	L.m	+	
	f10					0M	0H	0M	0L	/	-	-	/	-	
	f11					0L	0L	0M	0L	/	-	+	L.m	+	
	f12					2h+L	1h-L	4h+L	3h-M	L.m	+	+	L.m	+	
	f13					0L	0L	0M	0L	/	-	-	/	-	
	f14					3h+L	3h-L	4h+L	3h-M	L.m	+	+	L.m	+	
	f15					3h+L	2h-L	3h+L	3h-M	L.m	+	+	L.m	+	
	f16					3h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f17					2h+L	1h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f18					0M	0L	0M	0L	/	-	-	/	-	
	f19					3h+L	2h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f20					2h+L	2h-M	4h+L	3h-H	L.m	+	+	L.m	+	
	F1				3	3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	RM 5/5 AM 5/5
	F2					2h+L	3h-L	2h+L	2h-L	L.m	+	+	L.m	+	
	F3					1h+M	3h-M	3h+L	3h-M	L.m	+	+	L.m	+	
F4	3h+L	3h-L	3h+L	2h-L		L.m	+	+	L.m	+					
F5	3h+L	3h-M	4h+L	3h-L		L.m	+	+	L.m	+					

Protocol 2 (ISHA 2017): LSB - Standard II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check LSB - Standard II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	Results	Identification	Final result	
						O&A	Palcam	O&A	Palcam						
Environmetal sample	O1	Processed water	LIS.4.50	se	0	0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O5					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f1				1	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	RM : 12/20 AM: 10/20
	f2					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f3					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f4					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f5					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	-	/	-	
	f6					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	-	/	-	
	f7					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f8					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f9					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f10					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f11					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f12					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f13					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f14					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f15					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	-	/	-	
	f16					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	-	/	-	
	f17					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f18					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f19					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f20					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
F1	3.1	3h+Ø	3hØ	4h+Ø	3hØ	L.m	+	+	L.m	+	RM 5/5 AM 5/5				
F2		4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F3		4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F4		3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F5		3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	P	+	L.m	P					

Protocol 3 (ISHA 2017): LSB - Easy II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check LSB Easy II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	Results	Identification	Final result	
						O&A	Palcam	O&A	Palcam						
Meat products	O1	Ground beef	LIS.4.26	se	0	0L	0L	0L	0L	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0L	0L	0L	0L	/	-	-	/	-	
	O3					0L	0L	0L	0L	/	-	-	/	-	
	O4					0L	0L	0L	0L	/	-	-	/	-	
	O5					0L	0L	0L	0L	/	-	-	/	-	
	f1					0M	0H	0M	0L	/	-	+	L.m	+	
	f2				1.1	4h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	RM : 15/20 AM: 15/20
	f3					2h+H	2h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f4					3h+L	3h-H	4h+L	3h-H	L.m	+	-	/	-	
	f5					0L	0H	0L	0L	/	-	+	L.m	+	
	f6					3h+M	4h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f7					4h+L	3h-L	4h+L	3h-L	L.m	+	-	/	-	
	f8					0L	0L	0L	0L	/	-	+	L.m	+	
	f9					0M	0H	0M	0L	/	-	+	L.m	+	
	f10					2h+L	2h-L	4h+L	4h-M	L.m	+	+	L.m	+	
	f11					0L	0L	0M	0L	L.m	+	-	/	-	
	f12					2h+L	2h-L	4h+L	4h-M	L.m	+	-	/	-	
	f13					0L	0L	0L	0L	L.m	+	+	L.m	+	
	f14					3h+L	3h-L	4h+L	3h-M	L.m	+	+	L.m	+	
	f15					0L	0H	0M	0L	/	-	+	L.m	+	
	f16					4h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f17					2h+L	2h-L	4h+L	4h-L	L.m	+	+	L.m	+	
	f18					2h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f19					3h+L	2h-L	3h+L	4h-L	L.m	+	-	/	-	
	f20				2h+L	2h-M	4h+L	4h-H	L.m	+	+	L.m	+		
	F1				2.1	3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	RM: 5/5 AM: 5/5
	F2					2h+L	3h-L	2h+L	2h-L	L.m	+	+	L.m	+	
	F3					1h+M	3h-M	3h+L	3h-M	L.m	+	+	L.m	+	
F4	3h+L	3h-L	3h+L	2h-L		L.m	+	+	L.m	+					
F5	3h+L	3h-M	4h+L	3h-L		L.m	+	+	L.m	+					

Protocol 3 (ISHA 2017): LSB - Easy II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check LSB EasyII lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	Results	Identifi- cation	Final result	
						O&A	Palcam	O&A	Palcam						
Dairy products	O1	Raw milk	LIS.4.32	se	0	0M	0L	0L	0L	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0L	0L	0M	0L	/	-	-	/	-	
	O3					0L	0M	0L	0L	/	-	-	/	-	
	O4					0L	0L	0L	0M	/	-	-	/	-	
	O5					0L	0M	0L	0L	/	-	-	/	-	
	f1				0.1	4h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	RM : 14/20 AM: 11/20
	f2					4h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f3					0L	0L	0L	0L	/	-	-	/	-	
	f4					0L	0L	0L	0L	/	-	-	/	-	
	f5					3h+L	3h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f6					3h+M	4h-L	3h+L	3h-M	L.m	+	+	L.m	+	
	f7					4h+L	3h-L	4h+L	3h-L	L.m	+	-	/	-	
	f8					0M	0L	0M	0L	/	-	+	L.m	+	
	f9					3h+L	3h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f10					2h+L	2h-L	4h+L	4h-M	L.m	+	-	/	-	
	f11					4h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f12					2h+L	2h-L	4h+L	4h-M	L.m	+	-	/	-	
	f13					0L	0L	0L	0L	/	-	-	/	-	
	f14					3h+L	3h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f15					0L	0L	0L	0L	/	-	-	/	-	
	f16					4h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f17					0L	0L	0L	0L	/	-	+	L.m	+	
	f18					2h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f19					3h+L	2h-L	3h+L	4h-L	L.m	+	-	/	-	
	f20					2h+L	2h-M	4h+L	4h-L	L.m	+	-	/	-	
	F1				3.1	3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	RM 5/5 AM 5/5
	F2					2h+L	3h-L	2h+L	2h-L	L.m	+	+	L.m	+	
	F3					1h+M	3h-M	3h+L	3h-M	L.m	+	+	L.m	+	
F4	3h+L	3h-L	3h+L	2h-L		L.m	+	+	L.m	+					
F5	3h+L	3h-M	4h+L	3h-L		L.m	+	+	L.m	+					

Protocol 3 (ISHA 2017): LSB - Easy II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1					AM : iQ-Check LSB Easy II lysis			Number of positive results per method	
			Strain	Type	Level	Half Fraser		Fraser		Confir-mation	Final result	Results	Identification		Final result
						O&A	Palcam	O&A	Palcam						
Seafood products	O1	Cod filet	LIS.4.15	se	0	0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O5					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f1				0.1	3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	RM : 12/20 AM: 10/20
	f2					2h+Ø	2h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f4					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f5					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f6					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f7					2h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f8					2h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
	f9					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f10					2h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	-	/	-	
	f11					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f12					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f13					3h+Ø	2h-Ø	3h+Ø	4h-Ø	L.m	+	-	/	-	
	f14					3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f15					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f16					3h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f17					2h+Ø	2h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f18					2h+Ø	2h-Ø	3h+Ø	4h-Ø	L.m	+	-	/	-	
	f19					3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
	f20					2h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	-	/	-	
F1	2.1	3h+Ø	3hØ	3h+Ø	3hØ	L.m	+	+	L.m	+	RM 5/5 AM 5/5				
F2		4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F3		4h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+					
F4		3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+					
F5		3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+					

Protocol 3 (ISHA 2017): LSB - Easy II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check LSB Easy II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	Results	Identifi- cation	Final result	
						O&A	Palcam	O&A	Palcam						
Vegetal products	O1	Salad	LIS.4.35	se	0	0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O5					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f1				1	4h+Ø	4h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	RM : 13/20 AM: 11/20
	f2					4h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f3					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f5					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f6					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f7					4h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f8					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f9					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f10					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f11					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f12					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f13					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f14					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f15					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f16					4h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f17					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f18					3h+Ø	4h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f19					3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+	
	f20					4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+	
F1	3.1	3h+Ø	3hØ	3h+Ø	3hØ	L.m	+	+	L.m	+	RM 5/5 AM 5/5				
F2		3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F3		3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+					
F4		3h+Ø	3h-Ø	3h+Ø	4h-Ø	L.m	+	+	L.m	+					
F5		3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+					

Protocol 3 (ISHA 2017): LSB - Easy II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check LSB Easy II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Identi- fication	Final result	Results	Identifi- cation	Final result	
						O&A	Palcam	O&A	Palcam						
RTE- RTRH	O1	Pasta salad	LIS.4.46	se	0	0L	0L	0H	0L	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0L	0L	0H	0L	/	-	-	/	-	
	O3					0L	0L	0H	0L	/	-	-	/	-	
	O4					0L	0L	0H	0L	/	-	-	/	-	
	O5					0L	0L	0H	0L	/	-	-	/	-	
	f1				0.1	2h+L	2h-L	3h+H	3h-H	L.m	+	-	/	-	RM : 15/20 AM: 14/20
	f2					3h+L	3h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f3					1h+H	1h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f4					3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	
	f5					2h+L	2h-L	4h+L	4h-L	L.m	+	+	L.m	+	
	f6					3h+M	3h-M	3h+L	3h-M	L.m	+	+	L.m	+	
	f7					3h+L	3h-L	4h+L	3h-L	L.m	+	-	/	-	
	f8					0L	0L	0M	0L	/	-	-	/	-	
	f9					2h+L	3h-L	3h+L	3h-M	L.m	+	+	L.m	+	
	f10					0M	0H	0M	0L	/	-	-	/	-	
	f11					0L	0L	0M	0L	/	-	+	L.m	+	
	f12					2h+L	1h-L	4h+L	3h-M	L.m	+	+	L.m	+	
	f13					0L	0L	0M	0L	/	-	-	/	-	
	f14					3h+L	3h-L	4h+L	3h-M	L.m	+	+	L.m	+	
	f15					3h+L	2h-L	3h+L	3h-M	L.m	+	+	L.m	+	
	f16					3h+L	2h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f17					2h+L	1h-L	4h+L	3h-L	L.m	+	+	L.m	+	
	f18					0M	0L	0M	0L	/	-	-	/	-	
	f19					3h+L	2h-L	3h+L	3h-L	L.m	+	+	L.m	+	
	f20					2h+L	2h-M	4h+L	3h-H	L.m	+	+	L.m	+	
	F1				3	3h+L	3h-H	3h+L	3h-H	L.m	+	+	L.m	+	RM 5/5 AM 5/5
	F2					2h+L	3h-L	2h+L	2h-L	L.m	+	+	L.m	+	
F3	1h+M	3h-M	3h+L	3h-M		L.m	+	+	L.m	+					
F4	3h+L	3h-L	3h+L	2h-L		L.m	+	+	L.m	+					
F5	3h+L	3h-M	4h+L	3h-L		L.m	+	+	L.m	+					

Protocol 3 (ISHA 2017): LSB - Easy II lysis

Category	SN	Sample	Contamination			RM: ISO 11290-1						AM : iQ-Check LSB - Easy II lysis			Number of positive results per method
			Strain	Type	Level	Half Fraser		Fraser		Confir- mation	Final result	Results	Identi- fication	Final result	
						O&A	Palcam	O&A	Palcam						
Environmetal sample	O1	Processed water	LIS.4.50	se	0	0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	RM : 0/5 AM : 0/5
	O2					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O3					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O4					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	O5					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f1				1	3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	RM : 12/20 AM: 10/20
	f2					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f3					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f4					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f5					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	-	/	-	
	f6					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	-	/	-	
	f7					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f8					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f9					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f10					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	-	/	-	
	f11					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f12					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f13					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f14					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f15					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	-	/	-	
	f16					3h+Ø	3h-Ø	3h+Ø	3h-Ø	L.m	+	-	/	-	
	f17					0Ø	0Ø	0Ø	0Ø	/	-	+	L.m	+	
	f18					3h+Ø	3h-Ø	4h+Ø	3h-Ø	L.m	+	+	L.m	+	
	f19					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
	f20					0Ø	0Ø	0Ø	0Ø	/	-	-	/	-	
F1	3.1	3h+Ø	3hØ	4h+Ø	3hØ	L.m	+	+	L.m	+	RM 5/5 AM 5/5				
F2		4h+Ø	4h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F3		4h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F4		3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					
F5		3h+Ø	3h-Ø	4h+Ø	4h-Ø	L.m	+	+	L.m	+					

Protocol 4 (ADRIA 2019): LSB - Easy II lysis

Production environmental samples: Process water
L. monocytogenes Ad2503

Aerobic mesophilic flora :8.1.10² CFU/g

ADRIA Développement (Extension, 2019)

Sample N°	Inoculation level	Reference method: ISO 11290-1/A1♦						Alternative method: iQ-Check <i>Listeria monocytogenes</i>												
		Fraser 1/2		Fraser 1		Final result	Positive / total	Easy II lysis without FDRS LSB 18h 30°C				Confirmation					Final result without FDRS		Positive / total	
								APF Classic		APF Fast										
		O&A	Palcam	O&A	Palcam			Ct FAM	Result	Ct FAM	Result	AL	Palcam	RLM	RLSP	Result	APF Classic	APF Fast	APF Classic	APF Fast
4575	0	-	-	-	-	-	0/5	-	-	-	-	st	st	-	st	-	-	-	-	
4576		st	-	-	-	-		-	-	-	-	st	st	-	st	-	-	-	-	
4577		-	-	-	-	-		-	-	-	-	st	-	-	st	-	-	-	-	
4578		-	-	st	-	-		-	-	-	-	st	st	-	st	-	-	-	-	
4579		st	-	st	-	-		-	-	-	-	st	st	-	st	-	-	-	-	
4648	0.1	st	-	st	-	-	11/20	36.15	+	37.52	+	H+	+	+	+	+	+	+	+	
4649		H+	+	H+	+	+		-	-	-	-	st	st	st	st	-	-	-	-	
4650		st	-	st	-	-		37.83	+	36.73	+	H+	+	+	+	+	+	+	+	
4651		H+	+	H+	+	+		-	-	-	-	st	st	st	st	-	-	-	-	
4652		st	-	st	-	-		37.68	+	37.44	+	H+	+	+	+	+	+	+	+	
4653		H+	+	H+	+	+		-	-	-	-	st	-	st	st	-	-	-	-	
4654		H+	+	H+	+	+		-	-	-	-	st	st	-	st	-	-	-	-	
4655		st	-	-	-	-		40.40	+	38.89	+	H+	+	+	+	+	+	+	+	
4656		st	-	st	-	-		-	-	-	-	st	st	st	st	-	-	-	-	
4657		H+	+	H+	+	+		-	-	-	-	st	-	-	st	-	-	-	-	
4658		H+	+	H+	+	+		-	-	-	-	st	st	-	st	-	-	-	-	
4659		H+	+	H+	+	+		-	-	-	-	st	st	-	st	-	-	-	-	
4660		st	-	-	-	-		-	-	-	-	st	st	st	st	-	-	-	-	
4661		st	-	-	-	-		-	-	-	-	st	st	-	st	-	-	-	-	
4662		H+	+	H+	+	+		37.81	+	39.27	+	H+	+	+	+	+	+	+	+	
4663		st	-	st	-	-		-	-	-	-	st	st	st	st	-	-	-	-	
4664		H+	+	H+	+	+		-	-	-	-	st	st	-	st	-	-	-	-	
4665		st	-	st	-	-		37.59	+	42.77	+	H+	+	+	+	+	+	+	+	
4666		H+	+	H+	+	+		-	-	-	-	st	st	-	st	-	-	-	-	
4667		H+	+	H+	+	+		-/41.29/39.66	-/+	39.12	+	H+	+	+	+	+	-	+	+	
4668	2.1	st	st	st	st	-	4/5	35.10	+	36.29	+	H+	+	+	+	+	+	+		
4669		H+	+	H+	+	+		36.03	+	37.18	+	H+	+	+	+	+	+	+		
4670		H+	+	H+	+	+		38.78	+	38.15	+	H+	+	+	+	+	+	+		
4671		H+	+	H+	+	+		36.35	+	36.87	+	H+	+	+	+	+	+	+		
4672		H+	+	H+	+	+		37.32	+	36.37	+	H+	+	+	+	+	+	+		

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Protocol 5 (ADRIA 2019): LSB - Easy II lysis

Production environmental samples: Process water
L. monocytogenes Ad2503

Aerobic mesophilic flora :8.1.10² CFU/g

ADRIA Développement (Extension, 2019)

Sample N°	Inoculation level	Reference method: ISO 11290-1/A1*					Alternative method: iQ-Check <i>Listeria monocytogenes</i>									
		Fraser 1/2		Fraser 1		Final result	Positive / total	Easy II with FDRS LSB 18h 30°C				Confirmation	Final result with FDRS		Positive / total	
								APF Classic		APF Fast			APF Classic	APF Fast		
		O&A	Palcam	O&A	Palcam			Ct FAM	Result	Ct FAM	Result					
4575	0	-	-	-	-	-	0/5	-	-	-	-	-	-	-	0/5	0/5
4576		st	-	-	-	-		-	-	-	-	-	-			
4577		-	-	-	-	-		-	-	-	-	-	-			
4578		-	-	st	-	-		-	-	-	-	-	-			
4579		st	-	st	-	-		-	-	-	-	-	-			
4648	0.1	st	-	st	-	-	11/20	36.28	+	37.02	+	+	+	+	6/20	7/20
4649		H+	+	H+	+	+		-	-	-	-	-	-			
4650		st	-	st	-	-		35.48	+	36.77	+	+	+	+		
4651		H+	+	H+	+	+		-	-	-	-	-	-	-		
4652		st	-	st	-	-		36.18	+	37.71	+	+	+	+		
4653		H+	+	H+	+	+		-	-	-	-	-	-	-		
4654		H+	+	H+	+	+		-	-	-	-	-	-	-		
4655		st	-	-	-	-		38.14	+	39.78	+	+	+	+		
4656		st	-	st	-	-		-	-	-	-	-	-	-		
4657		H+	+	H+	+	+		-	-	-	-	-	-	-		
4658		H+	+	H+	+	+		-	-	-	-	-	-	-		
4659		H+	+	H+	+	+		-	-	-	-	-	-	-		
4660		st	-	-	-	-		-	-	-	-	-	-	-		
4661		st	-	-	-	-		-	-	-	-	-	-	-		
4662		H+	+	H+	+	+		38.20	+	38.72	+	+	+	+		
4663		st	-	st	-	-		-	-	-	-	-	-	-		
4664		H+	+	H+	+	+		-	-	-	-	-	-	-		
4665		st	-	st	-	-		38.42	+	37.54	+	+	+	+		
4666		H+	+	H+	+	+		-	-	-	-	-	-	-		
4667		H+	+	H+	+	+		-/38.36/-	-/+/-	41.27	+	+	-	+		
4668	2.1	st	st	st	st	-	4/5	35.59	+	37.18	+	+	+	+	5/5	5/5
4669		H+	+	H+	+	+		36.11	+	36.55	+	+	+	+		
4670		H+	+	H+	+	+		37.24	+	37.03	+	+	+	+		
4671		H+	+	H+	+	+		37.15	+	38.19	+	+	+	+		
4672		H+	+	H+	+	+		36.93	+	36.28	+	+	+	+		

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Appendix 6 – Inclusivity and exclusivity study: raw data
(Initial validation study, IPL (2005 - 2006) - Extension study, ADRIA (2019))

INCLUSIVITY - Half Fraser (Initial validation - IPL 2005)						
Code	Strain	Origin	Inoculation level	Pure DNA		Results
				Ct FAM	Ct C. int	
A20	<i>Listeria monocytogenes</i>	Raw milk cheese	6.9	21.4	35.4	+
L11	<i>Listeria monocytogenes</i>	Spinach	6.1	25.0	34.8	+
L121	<i>Listeria monocytogenes</i>	Cheese	6.5	26.7	35.5	+
L123	<i>Listeria monocytogenes</i>	Mozzarella	7.4	27.1	34.6	+
L124	<i>Listeria monocytogenes</i>	Perch fillet	7.4	27.8	34.0	+
L125	<i>Listeria monocytogenes</i>	Fried vegetables	10.9	28.6	33.9	+
L130	<i>Listeria monocytogenes</i>	Minced meat	6.9	25.6	34.3	+
L20	<i>Listeria monocytogenes</i>	Salmon	7.1	27.5	35.5	+
L25	<i>Listeria monocytogenes</i>	Hen	8.8	29.0	34.6	+
L69	<i>Listeria monocytogenes</i>	Sausage	8.8	26.7	33.8	+
L70	<i>Listeria monocytogenes</i>	Smoked salmon	5.9	25.7	34.5	+
L7	<i>Listeria monocytogenes</i> 1/2a	Munster	10.8	28.1	34.8	+
L10	<i>Listeria monocytogenes</i> 1/2a	Rillettes	7.6	28.1	35.0	+
L116	<i>Listeria monocytogenes</i> 1/2a	Fish	5.4	22.1	34.6	+
L119	<i>Listeria monocytogenes</i> 1/2a	Munster	13.3	28.4	33.6	+
L12	<i>Listeria monocytogenes</i> 1/2a	Smoked salmon	7.1	30.6	34.5	+
L129	<i>Listeria monocytogenes</i> 1/2a	Fried potatoes	5.1	29.3	34.5	+
L4	<i>Listeria monocytogenes</i> 1/2a	ATTCC 35152	8.3	27.0	33.9	+
L40	<i>Listeria monocytogenes</i> 1/2a	Munster	6.9	27.0	35.9	+
L42	<i>Listeria monocytogenes</i> 1/2a	Chicken cutlet	9.5	29.0	34.4	+
L43	<i>Listeria monocytogenes</i> 1/2a	Minced meat	6.3	27.7	33.8	+
L44	<i>Listeria monocytogenes</i> 1/2a	Sausage	5.7	27.9	33.6	+
L45	<i>Listeria monocytogenes</i> 1/2a	Rabbit terrine	6.1	25.9	34.1	+
L47	<i>Listeria monocytogenes</i> 1/2a	Fried potatoes	5.2	30.4	34.6	+
L5	<i>Listeria monocytogenes</i> 1/2a	Smoked salmon baccn	5.5	25.9	35.6	+
L6	<i>Listeria monocytogenes</i> 1/2a	Pizza	5.4	30.7	34.5	+
L13	<i>Listeria monocytogenes</i> 1/2b	Pork ear	4.9	24.8	34.4	+
L37	<i>Listeria monocytogenes</i> 1/2b	Raw milk maroilles	6.0	22.9	35.4	+
L48	<i>Listeria monocytogenes</i> 1/2b	Pork tongue	7.6	32.1	34.3	+
L49	<i>Listeria monocytogenes</i> 1/2b	Chicken liver cream	4.3	32.5	34.6	+
L51	<i>Listeria monocytogenes</i> 1/2b	Ripened cheese	3.9	33.5	34.6	+
L52	<i>Listeria monocytogenes</i> 1/2b	SLCC 2755	2.7	33.4	33.7	+
L117	<i>Listeria monocytogenes</i> 1/2c	Montbéliard sausage	5.0	21.9	34.0	+
L14	<i>Listeria monocytogenes</i> 1/2c	Minced meat	4.9	33.2	33.8	+
L15	<i>Listeria monocytogenes</i> 1/2c	Beef	6.8	25.5	34.6	+
L17	<i>Listeria monocytogenes</i> 1/2c	Pork breast	9.2	29.5	34.5	+
L18	<i>Listeria monocytogenes</i> 1/2c	Munster	2.7	30.8	34.1	+
L53	<i>Listeria monocytogenes</i> 1/2c	Chopped steak	4.4	30.7	33.9	+
L54	<i>Listeria monocytogenes</i> 1/2c	Beef Burgundy	8.4	29.4	34.4	+

INCLUSIVITY - Half Fraser (Initial validation - IPL 2005)						
Code	Strain	Origin	Inoculation level	Pure DNA		Results
				Ct FAM	Ct C. int	
L55	<i>Listeria monocytogenes</i> 3b	SLCC 2540	8.7	30.7	33.0	+
L56	<i>Listeria monocytogenes</i> 3c	SLCC 2479	9.1	26.4	33.9	+
L57	<i>Listeria monocytogenes</i> 4a	ATCC 19114	5.4	42.3	33.5	+
L32	<i>Listeria monocytogenes</i> 4b	Munster	7.1	25.6	34.3	+
L33	<i>Listeria monocytogenes</i> 4b	ATCC 19115	4.3	29.3	34.4	+
L58	<i>Listeria monocytogenes</i> 4b	Salad	6.1	27.1	34.6	+
L60	<i>Listeria monocytogenes</i> 4d	ATCC	7.8	30.7	33.6	+
L61	<i>Listeria monocytogenes</i> 4e	ATCC 19118	7.3	31.8	34.1	+
L62	<i>Listeria monocytogenes</i> 4e	Reblochon	7.4	28.2	34.3	+
L63	<i>Listeria monocytogenes</i> 4e	Munster	7.0	27.3	34.9	+
L67	<i>Listeria monocytogenes</i> 7	SLCC 2482	8.3	30.4	33.5	+

AL: Agar *Listeria*RLM: RAPID[®]*L.mono*RLSP: RAPID[®]*Listeria* spp.

INCLUSIVITY Extension study (ADRIA Développement - 2019)												
N°	Strain	Species	Reference	Molecular serotypes	Origin	LSB for 18h at 30°C - FDRS Easy II Protocol						
						Inoculation level in 225ml LSB broth	CT FAM	Result	10µl AL	10 µl Palcam	0.1ml RLM	0.1ml RLSP
1	<i>Listeria</i>	<i>monocytogenes</i>	153	VI b	Soft cheese (Munster)	35	24.98	+	H+	+	+	+
2	<i>Listeria</i>	<i>monocytogenes</i>	1011/1410	II a	Frozen broccoli	31	26.09	+	H+	+	+	+
3	<i>Listeria</i>	<i>monocytogenes</i>	1972/2399	VI b	Puff pastry with mushrooms	28	28.24	+	H+	+	+	+
4	<i>Listeria</i>	<i>monocytogenes</i>	1973/2400	VI b	Puff pastry egg and ham (Quiche lorraine)	16	26.04	+	H+	+	+	+
5	<i>Listeria</i>	<i>monocytogenes</i>	2407/3139	IV b	Tripes with tomatoes	27	25.41	+	H+	+	+	+
6	<i>Listeria</i>	<i>monocytogenes</i>	2760/3145	II a	Raw bacon	29	25.84	+	H+	+	+	+
7	<i>Listeria</i>	<i>monocytogenes</i>	32.183	II b	Croque-Monsieur	32	24.56	+	H+	+	+	+
8	<i>Listeria</i>	<i>monocytogenes</i>	38/181	II a	Toulouse sausages	22	25.68	+	H+	+	+	+
9	<i>Listeria</i>	<i>monocytogenes</i>	5721/6179	IV b	Smoked bacon	18	26.25	+	H+	+	+	+
10	<i>Listeria</i>	<i>monocytogenes</i>	7111/7516	IV b	Pâté (Rillettes)	36	24.29	+	H+	+	+	+
11	<i>Listeria</i>	<i>monocytogenes</i>	850/109	II a	RTE food (deli salad with seafood)	16	27.43	+	H+	+	+	+
12	<i>Listeria</i>	<i>monocytogenes</i>	877/113	II a	Environmental sample (pastry)	14	26.79	+	H+	+	+	+
13	<i>Listeria</i>	<i>monocytogenes</i>	913/1048	IV b	Black pudding	9	28.85	+	H+	+	+	+
14	<i>Listeria</i>	<i>monocytogenes</i>	A00C014	II a	Sausage	35	26.38	+	H+	+	+	+
15	<i>Listeria</i>	<i>monocytogenes</i>	A00C022	II a	Merguez	20	26.38	+	H+	+	+	+
16	<i>Listeria</i>	<i>monocytogenes</i>	A00C024	II a	Sausage	21	24.76	+	H+	+	+	+
17	<i>Listeria</i>	<i>monocytogenes</i>	A00C036	II a	Poultry (guinea)	13	25.14	+	H+	+	+	+
18	<i>Listeria</i>	<i>monocytogenes</i>	A00C039	II a	Sausages	11	25.11	+	H+	+	+	+
19	<i>Listeria</i>	<i>monocytogenes</i>	A00C040	IV b	Cooked delicatessen (Museau)	21	26.22	+	H+	+	+	+
20	<i>Listeria</i>	<i>monocytogenes</i>	A00C041	La	Sausage	15	25.38	+	H+	+	+	+
21	<i>Listeria</i>	<i>monocytogenes</i>	A00C042	IV b	Raw sausage	23	25.51	+	H+	+	+	+
22	<i>Listeria</i>	<i>monocytogenes</i>	A00C043	II a	Smoked Bacon	35	26.40	+	H+	+	+	+
23	<i>Listeria</i>	<i>monocytogenes</i>	A00C044	II b	Poultry (duck)	36	28.68	+	H+	+	+	+
24	<i>Listeria</i>	<i>monocytogenes</i>	A00C052	II b	RTE food (Osso bucco with turkey)	20	24.55	+	H+	+	+	+
25	<i>Listeria</i>	<i>monocytogenes</i>	A00C053	II a	Gizzards	37	25.82	+	H+	+	+	+
26	<i>Listeria</i>	<i>monocytogenes</i>	A00C054	IV b	Beef hart	34	29.34	+	H+	+	+	+
27	<i>Listeria</i>	<i>monocytogenes</i>	A00C055	II a	Raw sausages	23	31.48	+	H+	+	+	+

INCLUSIVITY Extension study (ADRIA Développement - 2019)												
N°	Strain	Species	Reference	Molecular serotypes	Origin	LSB for 18h at 30°C - FDRS Easy II Protocol						
						Inoculation level in 225ml LSB broth	CT FAM	Result	10µl AL	10 µl Palcam	0.1ml RLM	0.1ml RLSP
28	Listeria	monocytogenes	A00E008	II a	Environmental sample	19	31.34	+	H+	+	+	+
29	Listeria	monocytogenes	A00E049	II a	Environmental sample (smoked salmon)	25	31.62	+	H+	+	+	+
30	Listeria	monocytogenes	A00E082	II a	Environmental sample (smoked salmon)	22	31.42	+	H+	+	+	+
31	Listeria	monocytogenes	A00L097	II a	Milk	40	33.06	+	H+	+	+	+
32	Listeria	monocytogenes	A00M009	II a	Smoked salmon	23	33.06	+	H+	+	+	+
33	Listeria	monocytogenes	A00M032	IV b	Smoked salmon	25	31.90	+	H+	+	+	+
34	Listeria	monocytogenes	A00M045	II a	Smoked salmon	26	32.73	+	H+	+	+	+
35	Listeria	monocytogenes	A00M088	II a	Smoked salmon	40	29.63	+	H+	+	+	+
36	Listeria	monocytogenes	Ad235	II b	Poultry	26	30.41	+	H+	+	+	st (24h) + (48 h)
37	Listeria	monocytogenes	Ad253	II b	Hard cheese	42	34.53	+	H+	+	+	st (24h) + (48 h)
38	Listeria	monocytogenes	Ad260	II a	Semi hard cheese	23	32.20	+	H+	+	+	+
39	Listeria	monocytogenes	Ad265	II b	Tong	26	32.13	+	H+	+	+	+
40	Listeria	monocytogenes	Ad266	II a	Poultry	36	31.23	+	H+	+	+	+
41	Listeria	monocytogenes	Ad267	II b	Dry sausage	21	36.43	+	H+	+	+	+
42	Listeria	monocytogenes	Ad268	IV b	Cured ham	20	29.19	+	H+	+	+	+
43	Listeria	monocytogenes	Ad270	IV b	Fermented sausage	37	30.36	+	H+	+	+	+
44	Listeria	monocytogenes	Ad272	IV b	Fermented sausage	28	- (1/10) 33.32	invalid (1/10) +	H+	+	+	+
45	Listeria	monocytogenes	Ad273	II b	Cured delicatessen	21	30.33	+	H+	+	+	+
46	Listeria	monocytogenes	Ad274	II a	Ready-to-eat food (Asiatic meal)	22	28.85	+	H+	+	whites colonies	+
47	Listeria	monocytogenes	Ad534	II b	Fruits	21	29.18	+	H+	+	+	+
48	Listeria	monocytogenes	Ad548	II a	Environment (seafood)	25	30.06	+	H+	+	+	+
49	Listeria	monocytogenes	Ad623	II b	Bread crumbs	20	- (1/10) 30.20	invalid (1/10) +	H+	+	+	+
50	Listeria	monocytogenes	Ad665	II a	Raw milk	32	29.01	+	H+	+	+	+

EXCLUSIVITY (2005) (Initial validation - IPL 2005)												
Code	Strain	Origin	Inoculation level into 225 ml of Half Fraser	Pure DNA		Results	Streaking onto TSAYE	Inoculation level into 225 ml	Pure DNA		Results	Streaking onto TSAYE
				Ct FAM	Ct C. int				Ct FAM	Ct C. int		
L64	<i>Listeria innocua</i>	Epoisses	6.70E+04	N/A	33.5	-	/	/	/	/	/	/
L71	<i>Listeria innocua</i>	Avesnes dumpling	6.70E+04	N/A	33	-	/	/	/	/	/	/
L78	<i>Listeria innocua</i>	Cockerel	3.40E+04	N/A	31.6	-	/	/	/	/	/	/
L77	<i>Listeria innocua 6a</i>	Toulouse sausage	6.80E+04	N/A	33.3	-	/	/	/	/	/	/
L76	<i>Listeria innocua 6b</i>	Chopped steak	1.80E+04	N/A	33.4	-	/	/	/	/	/	/
L80	<i>Listeria ivanovii</i>	Collection	2.60E+04	N/A	33.2	-	/	/	/	/	/	/
L151	<i>Listeria ivanovii</i>	Ground beef pavement	6.20E+04	N/A	33.2	-	/	/	/	/	/	/
L133	<i>Listeria ivanovii</i>	Roquefort	7.90E+04	N/A	33.2	-	/	/	/	/	/	/
L146	<i>Listeria grayii</i>	Collection	3.60E+04	N/A	33.7	-	/	/	/	/	/	/
L143	<i>Listeria grayii</i>	Frozen fries	2.20E+04	N/A	33.7	-	/	/	/	/	/	/
L142	<i>Listeria seeligeri</i>	Raw milk cheese	5.90E+04	N/A	34.3	-	/	/	/	/	/	/
L84	<i>Listeria seeligeri</i>	Chopped steak	7.80E+04	N/A	34.4	-	/	/	/	/	/	/
L91	<i>Listeria welshimeri</i>	Rosette	1.25E+05	N/A	34.9	-	/	/	/	/	/	/
L99	<i>Listeria welshimeri</i>	Sausage	1.02E+05	N/A	34.8	-	/	/	/	/	/	/
L87	<i>Listeria welshimeri</i>	Chopped steak	7.70E+04	N/A	33.9	-	/	/	/	/	/	/
L83	<i>Listeria seeligeri</i>	Pork tongue in jelly	7.50E+05	N/A	33.7	-	/	/	/	/	/	/
BA1	<i>Bacillus cereus</i>	Egg	9.00E+04	N/A	31.2	-	+	/	/	/	/	/
BA5	<i>Bacillus sphaericus</i>	Meat product	2.00E+04	N/A	33.8	-	+	/	/	/	/	/
BA4	<i>Bacillus stearothermophilus</i>	Dairy product	1.10E+05	N/A	31.2	-	+	/	/	/	/	/
15	<i>Brochotrix</i>	Minced meat	4.80E+04	N/A	33.8	-	+	/	/	/	/	/
Le3	<i>Candida albicans</i>	Collection	7.30E+04	N/A	31.4	-	+	/	/	/	/	/
26	<i>Corynebacteria aquaticum</i>	Raw milk cheese	6.70E+04	N/A	31.0	-	+	/	/	/	/	/
3	<i>Corynebacteria spp.</i>	Collection	1.60E+05	N/A	31.9	-	+	/	/	/	/	/
E1	<i>Enterococcus faecalis</i>	Egg	7.30E+04	N/A	34	-	+	/	/	/	/	/
E6	<i>Enterococcus faecalis</i>	ATCC 19433 Collection	2.40E+05	N/A	31.2	-	+	/	/	/	/	/

EXCLUSIVITY (2005) (Initial validation - IPL 2005)												
Code	Strain	Origin	Inoculation level into 225 ml of Half Fraser	Pure DNA		Results	Streaking onto TSAYE	Inoculation level into 225 ml	Pure DNA		Results	Streaking onto TSAYE
				Ct FAM	Ct C. int				Ct FAM	Ct C. int		
E2	<i>Enterococcus faecium</i>	ATCC 3286 Collection	2.50E+05 1.40E+05	31.5 33.7	37.6 38.8	+	+	4,60E+04	N/A	34,5	-	+
E7	<i>Enterococcus faecium</i>	CIP 5433 Collection	2.60E+05	N/A	31.3	-	+	/	/	/	/	/
L139	<i>Jonesia denitrificans</i>	Collection	3.20E+05	N/A	33.6	-	+	/	/	/	/	/
22	<i>Lactobacillus plantarum</i>	Dairy product	2.00E+05	N/A	31.4	-	+	/	/	/	/	/
M3	<i>Micrococcus spp.</i>	Environment	6.80E+04	N/A	33.9	-	+	/	/	/	/	/
32	<i>Rhodococcus aqu</i>	Meat product	3.80E+04	N/A	33.7	-	+	/	/	/	/	/
Le5	<i>Saccharymoces cerevisiae</i>	Coffee extract	1.10E+05	N/A	33.9	-	+	/	/	/	/	/
ST17	<i>Staphylococcus aureus</i>	Yogurt	2.20E+04	N/A	33.8	-	+	/	/	/	/	/

EXCLUSIVITY (Extension study - IPL (2006))						
Code	Strain	Origin	Inoculation level in nutritive broth	Pure DNA		Results
				Ct FAM	Ct C. int	
L1	<i>Listeria grayi</i>	Frozen fries	1.00E+05	N/A	25.75	-
L140	<i>Listeria grayi</i>	ATCC 19120	1.00E+05	N/A	25.71	-
L142	<i>Listeria innocua</i>	Gozgonzola	1.00E+05	N/A	25.87	-
L146	<i>Listeria innocua</i>	Smoked halibut	1.00E+06	N/A	25.23	-
L147	<i>Listeria innocua</i>	Epoisses	3.00E+05	N/A	24.92	-
L154	<i>Listeria innocua</i>	Epoisses	4.50E+05	N/A	25.79	-
L155	<i>Listeria innocua</i>	Spinach	4.00E+05	N/A	25.88	-
L157	<i>Listeria innocua</i>	Avesnes dumplings	4.00E+05	N/A	25.85	-
L158	<i>Listeria innocua</i>	Cockerel	3.50E+05	N/A	25.96	-
L159	<i>Listeria innocua 6a</i>	Toulouse sausage	4.00E+05	N/A	25.44	-
L173	<i>Listeria innocua 6b</i>	Grounded beef	4.50E+05	N/A	26.39	-
L175	<i>Listeria innocua 6a</i>	ATCC 33090	1.50E+05	N/A	26.26	-
L180	<i>Listeria ivanovii</i>	Grounded beef	4.50E+05	N/A	25.98	-
L182	<i>Listeria ivanovii</i>	Smear environment	1.02E+05	N/A	25.71	-
L3	<i>Listeria ivanovii</i>	Collection	3.70E+05	N/A	25.05	-
L82	<i>Listeria ivanovii</i>	Anti-bird net	1.50E+05	N/A	26.55	-
(C11)	<i>Listeria ivanovii</i>	Environmental waste	1.00E+06	N/A	30.27	-
L85	<i>Listeria seeligeri</i>	Sewer water	1.00E+05	N/A	24.98	-
L86	<i>Listeria seeligeri</i>	Grounded beef	1.40E+05	N/A	25.51	-
L87	<i>Listeria seeligeri 1/2b</i>	Tongue	3.00E+05	N/A	25.20	-
L90	<i>Listeria welshimeri</i>	Spread dough	1.00E+05	N/A	25.52	-
L91	<i>Listeria welshimeri</i>	Ham	1.00E+05	N/A	25.40	-
BA2	<i>Bacillus cereus</i>	Beet	3.00E+05	N/A	25.70	-
BA4	<i>Bacillus stearothermophilus</i>	Dairy product	3.00E+05	N/A	24.72	-
BA5	<i>Bacillus sphaericus</i>	Meat product	2.00E+05	N/A	25.37	-
BA7	<i>Bacillus coagulans</i>	Collection	5.00E+05	N/A	25.49	-
E1	<i>Enterococcus faecalis</i>	Egg product	3.00E+05	N/A	25.97	-
E2	<i>Enterococcus faecium</i>	ATCC 3286 Collection	3.00E+05	N/A	26.30	-
E3	<i>Streptococcus bovis</i>	Collection	2.30E+05	N/A	25.24	-
E6	<i>Enterococcus faecalis</i>	ATCC 19433 Collection	4.00E+05	N/A	26.40	-
E7	<i>Enterococcus faecium</i>	PAC 5433 Collection	6.70E+05	N/A	25.47	-
33	<i>Lactobacillus casei</i>	Dairy product	2.30E+05	N/A	25.63	-
L139	<i>Jonesia denitrificans</i>	Collection	1.60E+05	N/A	25.62	-
Le1	<i>Rhodotorula rubra</i>	Pastry	2.00E+05	N/A	25.66	-
Le3	<i>Candida albicans</i>	Collection	9.00E+05	N/A	25.22	-
ST3	<i>Staphylococcus epidermidis</i>	Yogurt	4.80E+05	N/A	25.35	-

Appendix 7 – Artificial contamination of samples - Enrichment in LSB II broth (Extension studies, 2023 and 2024)

Date of analysis	N° Sample	Product (French name)	Product	Artificial contaminations					Global result <i>Listeria monocytogenes</i>					Category	Type
				Strain	Origin	Injury protocol	Inoculation level CFU/sample		Without FDRS		With FDRS		Result		
							Numeration	Mean	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW			
2022	3803	Salade Manhattan pâte, crudités, œuf, poulet rôti, carottes et fromage	RTE (Salad with chicken, eggs, paste...)	<i>Listeria monocytogenes</i> Ad494 <i>Listeria welshimeri</i> Ad1175	Piemontese / Cantonese rice	Seeding storage 72h at 3°C	3-0-2-2-2 1-2-2-1-1	1.8 1.4	+	+	+	+	+	1	a
2022	3804	Piémontaise au jambon	RTE (Salad with potatoes, ham...)	<i>Listeria monocytogenes</i> Ad494 <i>Listeria welshimeri</i> Ad1175	Piemontese / Cantonese rice	Seeding storage 72h at 3°C	3-0-2-2-2 1-2-2-1-1	1.8 1.4	+	+	+	+	+	1	a
2022	3805	Taboulé à l'orientale	Oriental tabbouleh	<i>Listeria monocytogenes</i> Ad1492 <i>Listeria innocua</i> Ad1676	Seafood salad / Goat cheese and spinach puff pastry	Seeding storage 72h at 3°C	3-2-0-2-2 1-2-3-1-0	1.8 1.4	+	+	+	+	+	1	a
2022	3806	Demi involtini à la ricotta	Half-involtini with ricotta cheese	<i>Listeria monocytogenes</i> Ad1492 <i>Listeria innocua</i> Ad1676	Seafood salad / Goat cheese and spinach puff pastry	Seeding storage 72h at 3°C	3-2-0-2-2 1-2-3-1-0	1.8 1.4	+	+	+	+	+	1	a
2022	3807	Tortilla	Tortilla	<i>Listeria monocytogenes</i> Ad1193 <i>Listeria innocua</i> Ad644	Omelet / Raw baguette	Seeding storage 72h at 3°C	2-2-4-2-3 2-2-1-1-2	2.6 1.6	+	+	+	+	+	1	c
2022	3808	Tortilla à l'oignon	Onion tortilla	<i>Listeria monocytogenes</i> Ad1757 <i>Listeria seeligeri</i> Ad1780	Eggs slices / Raw milk	Seeding storage 72h at 3°C	1-2-0-1-0 1-0-1-2-4	0.8 1.6	+	+	+	+	+	1	c
2022	3809	Choux chantilly	Pastry	<i>Listeria monocytogenes</i> Ad1193 <i>Listeria innocua</i> Ad644	Omelette / Raw baguette	Seeding storage 72h at 3°C	2-2-4-2-3 2-2-1-1-2	2.6 1.6	+	+	+	+	+	1	c
2022	3810	Charlotte framboise	Pastry	<i>Listeria monocytogenes</i> Ad551 <i>Listeria innocua</i> Ad644	Pastry environment / Raw baguette	Seeding storage 72h at 3°C	2-0-0-1-2 2-2-1-1-2	1.0 1.6	+	+	+	+	+	1	c
2022	3811	Ile flottante	Custard based dessert	<i>Listeria monocytogenes</i> Ad1757 <i>Listeria seeligeri</i> Ad1780	Eggs slices / Raw milk	Seeding storage 72h at 3°C	1-2-0-1-01-0-1-2-4	0.8 1.6	+	+	+	+	+	1	c
2022	3812	Mousse au chocolat	Confectionary (chocolate)	<i>Listeria monocytogenes</i> Ad551 <i>Listeria innocua</i> Ad644	Pastry environment / Raw baguette	Seeding storage 72h at 3°C	2-0-0-1-2 2-2-1-1-2	1.0 1.6	+	+	+	+	+	1	c
2023	813	Crème anglaise à la vanille	Custard	<i>Listeria monocytogenes</i> Ad1757	Egg product	Seeding storage 48h at 3°C	4-5-4-3-5	4.1	+	+	+	+	+	1	c
2023	814	Mousse fraise	Strawberry mousse	<i>Listeria monocytogenes</i> Ad1757	Egg product	Seeding storage 48h at 3°C	4-5-4-3-5	4.1	+	+	+	+	+	1	c
2023	815	Eclair au chocolat	Pastry	<i>Listeria monocytogenes</i> Ad1757	Egg product	Seeding storage 48h at 3°C	4-5-4-3-5	4.1	+	+	+	+	+	1	c
2023	3760	Chiffonnette hall techno production pâté fini (porc) après nettoyage	Wipe after cleaning process	<i>Listeria monocytogenes</i> Ad1255	Environment (pork/bovine)	Seeding storage 72h at 3°C	3-0-1-3-3	2	+	+	+	+	+	2	a
2022	3761	Chiffonnette grille siphon VHS 19 après nettoyage	Wipe after cleaning process	<i>Listeria innocua</i> Ad1251	Environment (pork/bovine)	Seeding storage 72h at 3°C	5-2-1-3-4	3.0	+	+	+	+	+	2	a
2022	3762	Chiffonnette VHS2 table transfert environnement carné, après nettoyage	Wipe after cleaning process	<i>Listeria monocytogenes</i> Ad1255	Environment (pork/bovine)	Seeding storage 72h at 3°C	3-0-1-3-3	2.0	+	+	+	+	+	2	a
2022	3763	Chiffonnette pompe production crème glacée avant nettoyage	Wipe before cleaning process	<i>Listeria monocytogenes</i> Ad615	Dairy environment	Seeding storage 72h at 3°C	2-3-4-1-0	2.0	+	+	+	+	+	2	a
2022	3764	Chiffonnette pompe production crème glacée après nettoyage	Wipe after cleaning process	<i>Listeria monocytogenes</i> Ad615	Dairy environment	Seeding storage 72h at 3°C	2-3-4-1-0	2	-	-	-	-	-	2	a
2022	3765	Chiffonnette environnement laitier avant nettoyage	Wipe before cleaning process	<i>Listeria monocytogenes</i> Ad615	Dairy environment	Seeding storage 72h at 3°C	2-3-4-1-0	2.0	+	+	+	+	+	2	a
2023	723	Chiffonnette de surface réception UPM, après nettoyage	Wipe after cleaning process	<i>Listeria monocytogenes</i> Ad1255	Environment (pork/bovine)	Seeding storage 48h at 3°C	5-6-6-3-8	5.6	+	+	+	+	+	2	a
2023	724	Chiffonnette de surface table de façonnage brioche après désinfection	Wipe after cleaning process	<i>Listeria monocytogenes</i> Ad615	Dairy environment	Seeding storage 48h at 3°C	4-5-6-5-8	5.6	-	-	-	-	-	2	a
2023	822	Chiffonnette environnement végétal avant nettoyage	Wipe before cleaning process	<i>Listeria monocytogenes</i> Ad2503 <i>Listeria seeligeri</i> Ad651	Environment (vegetable) Environment	Seeding storage 48h at 3°C	2-1-0-1-2 3-0-2-1-1	1.2 1.4	+	+	+	+	+	2	a

Date of analysis	N° Sample	Product (French name)	Product	Artificial contaminations					Global result <i>Listeria monocytogenes</i>					Category	Type
				Strain	Origin	Injury protocol	Inoculation level CFU/sample		Without FDRS		With FDRS		Result		
							Numeration	Mean	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW			
2023	823	Chiffonnette environnement laitier (production glace) avant nettoyage	Wipe before cleaning process	<i>Listeria monocytogenes</i> Ad550 <i>Listeria seeligeri</i> Ad652	Dairy environment Dairy environment	Seeding storage 48h at 3°C	0-2-3-4-0 1-1-3-2-4	1.8 2.2	+	+	+	+	+	2	a
2023	824	Chiffonnette environnement porc (production pâté)	Wipe before cleaning process	<i>Listeria monocytogenes</i> Ad2503 <i>Listeria seeligeri</i> Ad651	Environment (vegetable) Environment	Seeding storage 48h at 3°C	2-1-0-1-2 3-0-2-1-1	1.2 1.4	+	+	+	+	+	2	a
2023	725	Déchets viande bovine	Wastes (Meat)	<i>Listeria monocytogenes</i> Ad1255	Environment (pork/bovine)	Seeding storage 48h at 3°C	5-6-6-3-8	5.6	+	+	+	+	+	2	b
2023	726	Déchets viande bovine	Wastes (Meat)	<i>Listeria monocytogenes</i> Ad1263	Environment (pork/bovine)	Seeding storage 48h at 3°C	3-3-5-1-3	3.0	+	+	+	+	+	2	b
2023	727	Déchets de production biscuit	Wastes	<i>Listeria monocytogenes</i> Ad1263	Environment (pork/bovine)	Seeding storage 48h at 3°C	3-3-5-1-3	3.0	+	+	+	+	+	2	b
2023	728	Déchets saumon	Wastes (Salmon)	<i>Listeria monocytogenes</i> Ad1679	Environment (seafood)	Seeding storage 48h at 3°C	3-1-5-3-0	2.4	+	+	+	+	+	2	b
2023	729	Déchets poisson dessous épineux	Wastes (Fish)	<i>Listeria monocytogenes</i> Ad1679	Environment (seafood)	Seeding storage 48h at 3°C	3-1-5-3-0	2.4	+	+	+	+	+	2	b
2023	825	Déchets découpe viande	Wastes (Meat)	<i>Listeria monocytogenes</i> Ad1261 <i>Listeria welshimeri</i> Ad1262	Environment (pork/bovine) Environment (pork/bovine)	Seeding storage 48h at 3°C	1-0-1-0-0 1-2-2-4-1	0.4 2.0	+	+	+	+	+	2	b
2023	826	Déchets caséinate production pâté	Wastes (Meat)	<i>Listeria monocytogenes</i> Ad1261 <i>Listeria welshimeri</i> Ad1262	Environment (pork/bovine) Environment (pork/bovine)	Seeding storage 48h at 3°C	1-0-1-0-0 1-2-2-4-1	0.4 2.0	+	+	+	+	+	2	b
2023	827	Déchets sardines	Wastes (Sardine)	<i>Listeria monocytogenes</i> Ad1679 <i>Listeria innocua</i> Ad1677	Environment (seafood) Environment (seafood)	Seeding storage 48h at 3°C	0-3-3-4-2 2-0-2-1-2	2.4 1.4	-	-	-	-	-	2	b
2023	960	Déchets viande bovine	Wastes (Meat)	<i>Listeria monocytogenes</i> Ad243 <i>Listeria innocua</i> Ad1257	Environment (pork/bovine) Environment (pork/bovine)	Seeding storage 48h at 3°C	0-2-0-0-1 2-1-0-0-1	0.6 0.8	-	-	-	-	-	2	b
2023	961	Déchets saumon	Wastes (Salmon)	<i>Listeria monocytogenes</i> Ad549 <i>Listeria welshimeri</i> Ad1268	Environment (seafood) Environment (seafood)	Seeding storage 48h at 3°C	2-2-0-1-0 1-0-0-1-0	1.0 0.4	+	+	+	+	+	2	b
2022	3759	Eau de process fabrication pâté fini	Process water	<i>Listeria innocua</i> Ad1251	Environment (pork/bovine)	Seeding storage 72h at 3°C	5-2-1-3-4	3	-	-	-	-	-	2	c
2023	730	Eau de process sortie laveuse, environnement volaille	Process water	<i>Listeria monocytogenes</i> Ad1255	Environment (pork/bovine)	Seeding storage 48h at 3°C	5-6-6-3-8	5.6	+	+	+	+	+	2	c
2023	731	Eau de process environnement laitier	Process water	<i>Listeria monocytogenes</i> Ad615	Dairy environment	Seeding storage 48h at 3°C	4-5-6-5-8	5.6	+	+	+	+	+	2	c
2023	732	Eau de process environnement laitier	Process water	<i>Listeria monocytogenes</i> Ad615	Dairy environment	Seeding storage 48h at 3°C	4-5-6-5-8	5.6	+	+	+	+	+	2	c
2023	733	Eau de rinçage production galette végétale + algues	Rinsing water	<i>Listeria monocytogenes</i> Ad1679	Environment (seafood)	Seeding storage 48h at 3°C	3-1-5-3-0	2.4	+	+	+	+	+	2	c
2023	734	Eau de process production de steak végétal	Process water	<i>Listeria monocytogenes</i> Ad1263	Environment (pork/bovine)	Seeding storage 48h at 3°C	3-3-5-1-3	3.0	+	+	+	+	+	2	c
2023	828	Eau de process environnement laitier	Process water	<i>Listeria monocytogenes</i> Ad550 <i>Listeria seeligeri</i> Ad652	Dairy environment Dairy environment	Seeding storage 48h at 3°C	0-2-3-4-0 1-1-3-2-4	1.8 2.2	+	+	+	+	+	2	c
2023	829	Eau de process environnement végétal	Process water	<i>Listeria monocytogenes</i> Ad2503 <i>Listeria seeligeri</i> Ad651	Environment (vegetable) Environment	Seeding storage 48h at 3°C	2-1-0-1-2 3-0-2-1-1	1.2 1.4	+	+	+	+	+	2	c
2023	830	Eau de rinçage environnement carné	Rinsing water	<i>Listeria monocytogenes</i> Ad1261 <i>Listeria welshimeri</i> Ad1262	Environment (pork/bovine) Environment (pork/bovine)	Seeding storage 48h at 3°C	1-0-1-0-0 1-2-2-4-1	0.4 2.0	+	+	+	+	+	2	c
2023	964	Eau de process lait	Process water	<i>Listeria monocytogenes</i> Ad550	Dairy environment	Seeding storage 48h at 3°C	2-1-1-2-2	1.6	+	+	+	+	+	2	c
2023	965	Eau de process environnement carné	Process water	<i>Listeria monocytogenes</i> Ad550	Dairy environment	Seeding storage 48h at 3°C	2-1-1-2-2	1.6	-	-	-	-	-	2	c
2023	966	Eau de process batch 2 (environnement carné)	Process water	<i>Listeria monocytogenes</i> Ad243 <i>Listeria innocua</i> Ad1257	Environment (pork/bovine) Environment (pork/bovine)	Seeding storage 48h at 3°C	0-2-0-0-1 2-1-0-0-1	0.6 0.8	+	+	+	+	+	2	c

Year of analysis	N° Sample	Product (French name)	Product	Artificial contaminations						Global results					Category	Type
										iQ-Check <i>L. monocytogenes</i> 20h						
				Strain	Origin	Injury protocol	Injury evaluation	Inoculation level CFU/sample		Without FDRS		With FDRS		Result		
Enumeration	Mean	CFX 96	CFX Opus					CFX 96	CFX Opus							
2023	1730	Fromage au lait cru de vache Reblochon	Raw cow milk cheese	<i>L. monocytogenes</i> A00L0097 <i>L. welshimeri</i> Ad1667	Milk / Raw milk cheese	Seeding storage 48 hours at 3°C ± 2°C	/	1-5-2-3-4 1-0-1-0-3	3.0 0.8	+	+	+	+	+	3	a
2023	1731	Fromage au lait cru de vache Gorgonzola	Raw cow milk cheese	<i>L. monocytogenes</i> A00L0098 <i>L. innocua</i> Ad658	Milk / Gorgonzola	Seeding storage 48 hours at 3°C ± 2°C	/	1-4-3-2-1 1-3-2-0-0	2.2 1.2	+	+	+	+	+	3	a
2023	1732	Fromage au lait cru de brebis pâte persillée	Raw ewe milk cheese	<i>L. monocytogenes</i> Ad1784 <i>L. innocua</i> Ad658	Ewe milk / Gorgonzola	Seeding storage 48 hours at 3°C ± 2°C	/	4-1-3-2-1 1-3-2-0-0	2.2 1.2	+	+	+	+	+	3	a
2023	1733	Fromage au lait cru de brebis	Raw ewe milk cheese	<i>L. monocytogenes</i> Ad1785	Milk	Seeding storage 48 hours at 3°C ± 2°C	/	3-2-0-1-3	1.8	+	+	+	+	+	3	a
2023	1733	Fromage au lait cru de chèvre Rocamadour	Raw goat milk cheese	<i>L. monocytogenes</i> 910	Milk	Seeding storage 48 hours at 3°C ± 2°C	/	1-3-2-0-0	1.2	+	+	+	+	+	3	a
2023	1734	Fromage au lait cru de brebis fondant	Raw ewe milk cheese	<i>L. monocytogenes</i> 17501	Milk	Seeding storage 48 hours at 3°C ± 2°C	/	3-0-1-1-1	1.2	+	+	+	+	+	3	a
2023	1735	Fromage au lait cru de chèvre Picodon	Raw goat milk cheese	<i>L. monocytogenes</i> 909 <i>L.welshimeri</i> Ad1667	Raw milk cheese	Seeding storage 48 hours at 3°C ± 2°C	/	0-1-1-0-2 1-0-1-0-3	0.8 0.8	-	-	+	+	+	3	a
2023	1720	Lait cru de vache	Raw cow milk	<i>L. monocytogenes</i> A00L097 <i>L.seeligeri</i> Ad1780	Milk / Raw milk	Seeding storage 48 hours at 3°C ± 2°C	/	1-5-2-3-4 2-1-3-1-2	3.0 1.8	+	+	+	+	+	3	b
2023	1721	Lait cru de vache	Raw cow milk	<i>L. monocytogenes</i> A00L098 <i>L.seeligeri</i> Ad1780	Milk / Raw milk	Seeding storage 48 hours at 3°C ± 2°C	/	1-4-3-2-1 2-1-3-1-2	2.2 1.8	+	+	+	+	+	3	b
2023	1722	Lait cru de vache	Raw cow milk	<i>L. monocytogenes</i> 17501	Milk	Seeding storage 48 hours at 3°C ± 2°C	/	3-0-1-1-1	1.2	+	+	+	+	+	3	b
2023	1726	Lait cru de chèvre	Raw goat milk	<i>L. monocytogenes</i> 909 <i>L.innocua</i> Ad1771	Milk / Ewe milk	Seeding storage 48 hours at 3°C ± 2°C	/	0-1-1-0-2 1-0-3-4-4	0.8 2.4	+	+	+	+	+	3	b
2023	1727	Lait cru de chèvre	Raw goat milk	<i>L. monocytogenes</i> 910	Milk	Seeding storage 48 hours at 3°C ± 2°C	/	1-3-2-0-0	1.2	+	+	+	+	+	3	b
2023	3701	Beurre de baratte non pasteurisé	Butter raw milk	<i>L. monocytogenes</i> Ad3119 <i>L. innocua</i>	Butter / milk	Seeding storage 48h at 3°C	/	0-0-0-1-1 0-0-0-1-2	0.4 0.6	+	+	+	+	+	3	b
2023	3702	Beurre de baratte cru	Butter raw milk	<i>L. monocytogenes</i> Ad3119 <i>L. innocua</i>	Butter / milk	Seeding storage 48h at 3°C	/	0-0-0-1-1 0-0-0-1-2	0.4 0.6	+	+	+	+	+	3	b
2023	3705	Faisselle au lait cru	Raw fermented milk	<i>L. monocytogenes</i> Ad3119	Butter	Seeding storage 48h at 3°C	/	2-4-2-4-1	2.6	-	-	-	-	-	3	b
2023	2825	Lait de vache 1/2 écrémé pasteurisé	Pasteurized cow milk	<i>L. monocytogenes</i> AOOL099 <i>L.innocua</i> Ad1788	Milk / Raw milk	Seeding storage 48h at 3°C	/	1-1-1-1-0 1-0-0-0-0	0.8 0.2	+	+	+	+	+	3	c
2023	2826	Lait de vache 1/2 écrémé pasteurisé	Pasteurized cow milk	<i>L. monocytogenes</i> 17866 <i>L.innocua</i> Ad1787	Milk / Raw milk	Seeding storage 48h at 3°C	/	1-0-1-0-1 1-1-1-0-0	0.6 0.6	+	+	+	+	+	3	c
2023	2827	Lait de vache 1/2 écrémé pasteurisé aromatisé mangue / fruit de la passion	Pasteurized cow milk flavoured	<i>L. monocytogenes</i> AOOL099 <i>L.seeligeri</i> Ad1237	Milk / Raw milk	Seeding storage 48h at 3°C	/	1-1-1-1-0 0-0-0-0-1	0.8 0.2	+	+	+	+	+	3	c
2023	2828	Fromage à pâte molle au lait pasteurisé de vache	Pasteurized cow cheese	<i>L. monocytogenes</i> Ad629 <i>L.seeligeri</i> Ad674	Cheese / Cheese	Seeding storage 48h at 3°C	/	0-1-1-2-1 1-2-0-0-1	1.0 0.8	+	+	+	+	+	3	c
2023	2829	Fromage au lait de brebis pasteurisé	Pasteurized ewe cheese	<i>L. monocytogenes</i> Ad630 <i>L.innocua</i> Ad661	Cheese / Cheese	Seeding storage 48h at 3°C	/	0-1-1-0-1 0-1-0-0-0	0.6 0.2	+	+	+	+	+	3	c
2023	2831	Lait frais de chèvre pasteurisé	Pasteurized goat milk	<i>L. monocytogenes</i> 17866	Milk	Seeding storage 48h at 3°C	/	1-0-2-1-1	1.0	+	+	+	+	+	3	c
2023	3071	Lait demi écrémé déshydraté	Powdered half-skimmed milk	<i>L. monocytogenes</i> Ad250	Milk	Seeding lyophilized strain storage 2 weeks at ambient temperature	/	/	0.6	+	+	+	+	+	3	c
2023	3543	Brique pur brebis	Pasteurized ewe cheese	<i>L. monocytogenes</i> Ad630	Cheese	Spiking 10 min 60°C	0.1	4-2-4-9-6	5	+	+	+	+	+	3	c
2023	3545	Tomme des Pyrénées	Pasteurized cow cheese	<i>L. monocytogenes</i> Ad630	Cheese	Spiking 10 min 60°C	0.1	4-2-4-9-6	5	+	+	+	+	+	3	c
2023	2754	Crème glacée à la vanille "cookie"	Ice cream	<i>L.seeligeri</i> Ad1782 <i>L. monocytogenes</i> Ad637	Milk / Raw milk	Spiking 1 week at -20°C	0.1 4.1	0-0-0-0-0 1-2-0-0-0	0 0.6	-	-	-	-	-	3	c

Year of analysis	N° Sample	Product (French name)	Product	Artificial contaminations						Global results					Category	Type
				iQ-Check <i>L. monocytogenes</i> 20h												
				Strain	Origin	Injury protocol	Injury evaluation	Inoculation level CFU/sample		Without FDRS		With FDRS		Result		
Enumeration	Mean	CFX 96	CFX Opus					CFX 96	CFX Opus							
2023	2755	Crème glacée à la vanille "caramel"	Ice cream	<i>L. seeligeri</i> Ad1782 <i>L. monocytogenes</i> Ad637	Milk / Raw milk	Spiking 1 week at -20°C	0.1 4.1	0-0-0-0-0 1-2-0-0-0	0 0.6	-	-	-	-	-	3	c
2023	2830	Fromage au lait de chèvre pasteurisé	Pasteurized goat cheese	<i>L. monocytogenes</i> Ad523 <i>L. seeligeri</i> Ad674	Cheese / Cheese	Seeding storage 48h at 3°C	/	2-2-1-1-0 1-2-0-0-1	1.2 0.8	-	-	-	-	-	3	c
2023	2833	Lait frais de brebis pasteurisé	Pasteurized ewe milk	<i>L. monocytogenes</i> Ad629	Cheese	Seeding storage 48h at 3°C	/	0-2-2-4-2	2.0	+	+	+	+	+	3	c
2023	3073	Lait entier déshydraté	Powdered whole milk	<i>L. monocytogenes</i> 18024	Milk	Seeding lyophilized strain storage 2 weeks at ambient temperature	/	/	0.9	-	-	-	-	-	3	c
2023	3075	Lait écrémé déshydraté	Powdered skimmed milk	<i>L. monocytogenes</i> 18024	Milk	Seeding lyophilized strain storage 2 weeks at ambient temperature	/	/	0.9	-	-	-	-	-	3	c
2023	3261	Crème glacée vanille	Ice cream	<i>L. monocytogenes</i> Ad637	Milk	Seeding storage 2 weeks at -20°C	/	1-2-1-1-2	1.4	-	-	-	-	-	3	c
2023	3263	Crème glacée à la vanille	Ice cream	<i>L. monocytogenes</i> Ad637	Milk	seeding storage 2 weeks at -20°C	/	1-2-1-1-2	1.4	-	-	-	-	-	3	c

Year of analysis	N° Sample	Product (French name)	Product	Artificial contaminations						Global result	Category	Type
				Strain	Origin	Injury protocol	Injury evaluation	Inoculation level CFU/test portion		L.mono 18 h		
								Enumeration	Mean	CFX Opus		
2023	3955	Onglet de bœuf	Beef	Listeria welshimeri Ad3204	Frozen ground steak	Seeding 48h 3±2°C	/	1-0-0-0-1	0.4	-	4	a
2024	1699	Escalope de dinde	Turkey escalope	Listeria monocytogenes Ad266	Chicken	Seeding 48h 3±2°C	/	2-2-3-0-1	1.6	+	4	a
2024	1700	Steak haché 5%MG	Ground beef 5%fat	Listeria welshimeri Ad3204	Ground beef	Seeding 48h 3±2°C	/	3-4-6-0-1	2.8	-	4	a
2024	1701	Aiguillettes de poulet	Chicken	Listeria monocytogenes Ad266 Listeria ivanovii Ad2465	Chicken Poultry	Seeding 48h 3±2°C	/	(2-2-3-0-1)/2 (12-3-6-3-7)/2	0.8 3.1	-	4	a
2024	2274	Cuisse de canard	Duck leg	Listeria monocytogenes CIP78.40	Sheep	Seeding 72h 3±2°C	/	2-1-5-2-3	2.6	+	4	a
2024	2275	Filet de bœuf	Cut of beef	Listeria monocytogenes CIP78.40	Sheep	Seeding 72h 3±2°C	/	2-1-5-2-3	2.6	+	4	a
2024	2276	Côte d'agneau	Lamb chop	Listeria monocytogenes CIP78.40	Sheep	Seeding 72h 3±2°C	/	2-1-5-2-3	2.6	+	4	a
2024	1704	Viande de hachis parmentier	Shepherd's pie meat	Listeria monocytogenes Ad1218 Listeria welshimeri Ad3204	Ground beef	Seeding 48h 3±2°C	/	(1-1-2-5-0)/2 (3-4-6-0-1)/2	0.9 1.4	+	4	b
2024	1705	Bœuf charolais au médoc	Wine beef	Listeria monocytogenes Ad1218 Listeria welshimeri Ad3204	Ground beef	Seeding 48h 3±2°C	/	(1-1-2-5-0)/2 (3-4-6-0-1)/2	0.9 1.4	+	4	b
2024	1706	Viande couscous	Couscous meat	Listeria monocytogenes Ad266	Chicken	Seeding 48h 3±2°C	/	2-2-3-0-1	1.6	+	4	b
2024	2659	Canard confit sauce au poivre	Duck confit with mushroom sauce	Listeria monocytogenes A00C052	Turkey osso bucco	Spiking 5min at 60°C	0.5	3-5-3-6-6	4.6	-	4	b
2024	2660	Emincés de bœuf sauce au poivre	Sliced beef with pepper sauce	Listeria monocytogenes A00C052	Turkey osso bucco	Spiking 5min at 60°C	0.5	3-5-3-6-6	4.6	-	4	b
2024	2661	Paupiette de veau	Veal paupiette	Listeria monocytogenes A00C052	Turkey osso bucco	Spiking 5min at 60°C	0.5	3-5-3-6-6	4.6	+	4	b
2024	2662	Blanquette de veau	Veal blanquette	Listeria monocytogenes A00C052	Turkey osso bucco	Spiking 5min at 60°C	0.5	3-5-3-6-6	4.6	-	4	b
2024	2663	Langue de bœuf sauce piquante	Beef tongue with spicy sauce	Listeria monocytogenes A00C052	Turkey osso bucco	Spiking 5min at 60°C	0.5	3-5-3-6-6	4.6	-	4	b
2024	2664	Rougail saucisses	Sausage rougail	Listeria monocytogenes A00C054	Beef heart	Spiking 5min at 60°C	0.5	4-2-4-3-1	2.8	-	4	b
2024	2665	Joue de porc sauce provençale	Pork cheek and Provençal sauce	Listeria monocytogenes A00C054	Beef heart	Spiking 5min at 60°C	0.5	4-2-4-3-1	2.8	-	4	b
2024	2666	Porc au caramel	Pork with caramel	Listeria monocytogenes A00C054	Beef heart	Spiking 5min at 60°C	0.5	4-2-4-3-1	2.8	-	4	b
2024	2667	Poulet tikka massala	Chicken tikka massala	Listeria monocytogenes A00C054	Beef heart	Spiking 5min at 60°C	0.5	4-2-4-3-1	2.8	-	4	b
2024	2783	Fondant bœuf	Beef fondant	Listeria monocytogenes A00C054	Beef heart	Seeding 48h 3±2°C	/	5-4-5-4-4	4.4	+	4	b
2024	2784	Bœuf bourguignon	Bourguignon potatoes and carrot	Listeria monocytogenes A00C054	Beef heart	Seeding 48h 3±2°C	/	5-4-5-4-4	4.4	+	4	b
2024	2785	Emincé bœuf sauce au poivre	Sliced beef with pepper sauce	Listeria monocytogenes Ad1218	Ground beef	Seeding 48h 3±2°C	/	1-3-3-3-2	2.4	+	4	b
2024	2786	Bœuf bourguignon	Bourguignon	Listeria monocytogenes Ad1218	Ground beef	Seeding 48h 3±2°C	/	1-3-3-3-2	2.4	+	4	b
2024	2787	Aiguillette poulet en ratatouille	Chicken wings in ratatouille sauce	Listeria monocytogenes Ad266	Chicken	Seeding 48h 3±2°C	/	4-3-9-2-1	3.8	+	4	b
2024	2788	Poulet au curry	Chicken in curry sauce	Listeria monocytogenes Ad266	Chicken	Seeding 48h 3±2°C	/	4-3-9-2-1	3.8	+	4	b
2024	2789	Poulet tikka massala	Tikka massala chicken	Listeria monocytogenes Ad667	Chicken leg	Seeding 48h 3±2°C	/	8-1-4-0-4	3.4	+	4	b
2024	2790	Joue de porc sauce provençale	Pork cheek in provençal sauce	Listeria monocytogenes Ad645	Pork chop	Seeding 48h 3±2°C	/	6-4-3-4-3	4	+	4	b
2024	2791	Porc au caramel	Caramel pork	Listeria monocytogenes Ad243	Pork	Seeding 48h 3±2°C	/	4-7-3-4-0	3.6	+	4	b
2024	2792	Colombo de porc	Pork colombo	Listeria monocytogenes Ad243	Pork	Seeding 48h 3±2°C	/	4-7-3-4-0	3.6	+	4	b
2023	3949	Salami pur porc	Salamo	Listeria monocytogenes Ad268 Listeria innocua Ad671	Dry ham Smoked bacon	Seeding 48h 3±2°C	/	1-0-0-0-0 1-0-0-0-0	0.2 0.2	-	4	c
2023	3953	Jambon cuit	Ham	Listeria innocua Ad671	Smoked bacon	Seeding 48h 3±2°C	/	1-0-0-0-0	0.2	-	4	c
2023	3954	Bacon fumé	Bacon	Listeria seeligeri Ad1297	Merguez	Seeding 48h 3±2°C	/	0-0-0-2-1	0.6	-	4	c
2023	3956	Chipolatas pur porc	Chipolatas	Listeria grayi Ad3288	Smoked bacon	Seeding 48h 3±2°C	/	0-2-1-0-0	0.6	-	4	c
2024	1707	Bacon	Bacon	Listeria seeligeri Ad1297	Merguez	Seeding 48h 3±2°C	/	3-2-4-0-2	2.2	-	4	c
2024	1708	Rillettes de porc	Pork rillettes	Listeria monocytogenes Ad267 Listeria seeligeri Ad1297	Dry sausage Merguez	Seeding 48h 3±2°C	/	(5-3-5-3-4)/2 (3-2-4-0-2)/2	2.0 1.1	+	4	c
2024	1709	Lardons nature	Bacon	Listeria grayi Ad3288	Smoked bacon	Seeding 48h 3±2°C	/	3-2-1-2-3	2.2	-	4	c
2024	1710	Pancetta	Pancetta	Listeria seeligeri Ad1297	Merguez	Seeding 48h 3±2°C	/	3-2-4-0-2	2.2	-	4	c
2024	2277	Rosette	Rosette	Listeria monocytogenes Ad275	Pork	Seeding 72h 3±2°C	/	2-1-2-1-3	1.8	-	4	c
2024	2278	Cervelas	Cervelas	Listeria monocytogenes Ad275	Pork	Seeding 72h 3±2°C	/	2-1-2-1-3	1.8	+	4	c

Year of analysis	N° Samp le	Product (French name)	Product	Artificial contaminations						Global result	Category	Type
				Strain	Origin	Injury protocol	Injury evaluation	Inoculation level CFU/test portion		CFX Opus		
								Enumeration	Mean			
2024	2605	Chou	Cabbage	Listeria welshimeri Ad3251	Guacamole	Seeding 48h at 3±2°C	/	2-1-0-0-0	0.6	-	5	a
2024	2606	Brocoli	Broccoli	Listeria monocytogenes 1011/1410	Frozen broccoli	Seeding 48h at 3±2°C	/	2-0-0-0-0	0.4	+	5	a
2024	2607	Haricots verts	Green beans	Listeria monocytogenes 1011/1410/ Listeria seeligeri Ad1293	Frozen broccoli Persil	Seeding 48h at 3±2°C	/	2-0-0-0-0/2-0-1-1-1 (/2)	0.2/0.5	+	5	a
2024	2608	Chou-fleur	Cauliflower	Listeria monocytogenes 1011/1410/ Listeria seeligeri Ad1293	Frozen broccoli Persil	Seeding 48h at 3±2°C	/	2-0-0-0-0/2-0-1-1-1 (/2)	0.2/0.5	-	5	a
2024	2610	Persil	Parsley	Listeria welshimeri Ad3251	Guacamole	Seeding 48h at 3±2°C	/	2-1-0-0-0	0.6	-	5	a
2024	2611	Ciboulette	Chives	Listeria monocytogenes 1011/1410	Frozen broccoli	Seeding 48h at 3±2°C	/	2-0-0-0-0	0.4	+	5	a
2024	2613	Carottes râpées	Grated carrots	Listeria welshimeri Ad3251/ Listeria monocytogenes Ad1672	Guacamole Zucchini	Seeding 48h at 3±2°C	/	2-1-0-0-0/2-4-1-2-3 (/2)	0.3/1.2	-	5	a
2024	3733	Tomate	Tomato	Listeria monocytogenes Ad2598	Salad	Seeding 48h at 3±2°C	/	5-4-3-3-1	3.2	+	5	a
2024	3734	Poireau	Leek	Listeria monocytogenes Ad2598	Salad	Seeding 48h at 3±2°C	/	5-4-3-3-1	3.2	+	5	a
2024	3735	Oignons	Onions	Listeria monocytogenes Ad1238	Vegetables	Seeding 48h at 3±2°C	/	2-2-0-5-0	1.8	+	5	a
2024	3736	Courgette	Zucchini	Listeria monocytogenes Ad1238	Vegetables	Seeding 48h at 3±2°C	/	2-2-0-5-0	1.8	+	5	a
2024	3737	Aubergine	Eggplant	Listeria monocytogenes Ad1212	Mushrooms	Seeding 48h at 3±2°C	/	2-1-5-4-3	3.0	+	5	a
2024	3738	Salade	Salad	Listeria monocytogenes Ad1212	Mushrooms	Seeding 48h at 3±2°C	/	2-1-5-4-3	3.0	+	5	a
2024	2614	Ratatouille surgelée	Frozen ratatouille	Listeria welshimeri Ad3251	Guacamole	Seeding 2 weeks at -20°C	/	1-1-3-2-1	1.6	-	5	b
2024	2615	Poêlée à la basquaise surgelée	Frozen stir-fried vegetables	Listeria seeligeri Ad1293	Parsley	Seeding 2 weeks at -20°C	/	0-0-1-2-1	0.8	-	5	b
2024	2616	Poêlée champêtre surgelée	Frozen stir-fried vegetables	Listeria seeligeri Ad1293	Parsley	Seeding 2 weeks at -20°C	/	0-0-1-2-1	0.8	+	5	b
2024	2617	Poireaux en rondelles surgelés	Frozen sliced leeks	Listeria monocytogenes 1011/1410	Frozen broccoli	Seeding 2 weeks at -20°C	/	3-1-4-1-3	2.4	-	5	b
2024	2618	Chou-fleur fleurettes surgelés	Frozen cauliflower florets	Listeria welshimeri Ad3251	Guacamole	Seeding 2 weeks at -20°C	/	1-1-3-2-1	1.6	-	5	b
2024	2619	Cartottes en rondelles surgelées	Frozen sliced carrots	Listeria monocytogenes Ad1672	Zucchini	Seeding 2 weeks at -20°C	/	1-3-1-0-3	1.6	+	5	b
2024	3496	Frites fraîches	Fresh fries	Listeria monocytogenes Ad1180	Frozen fries	Seeding 48h at 3±2°C	/	0-2-7-3-6	3.6	+	5	b
2024	3497	Galette soja, poivre, persil	Soy, pepper and parsley pancake	Listeria monocytogenes Ad3263	Couscous vegetables	Seeding 48h at 3±2°C	/	3-3-3-2-2	2.6	+	5	b
2024	3505	Oignons émincés surgelés	Frozen sliced onions	Listeria monocytogenes Ad3268	Sliced red onions	Seeding 2 weeks at -20°C	/	4-4-4-3-6	4.2	-	5	b
2024	3506	Trio de poivrons lanières surgelés	Trio of frozen pepper strips	Listeria monocytogenes Ad543	Slices peppers	Seeding 2 weeks at -20°C	/	3-2-2-2-4	2.6	+	5	b
2024	3507	Epinards en branches surgelés	Frozen spinach	Listeria monocytogenes Ad543	Slices peppers	Seeding 2 weeks at -20°C	/	3-2-2-2-4	2.6	+	5	b
2024	3508	Printanière de légumes surgelée	Frozen spring vegetables	Listeria monocytogenes Ad1498	Macedonia	Seeding 2 weeks at -20°C	/	3-5-2-6-5	4.2	+	5	b
2024	3509	Risotto de légumes verts surgelé	Frozen green vegetables risotto	Listeria monocytogenes Ad3263	Couscous vegetables	Seeding 2 weeks at -20°C	/	5-5-5-3-3	4.2	+	5	b
2024	3510	Potage de légumes variés surgelé	Frozen mixed vegetable soup	Listeria monocytogenes Ad1498	Macedonia	Seeding 2 weeks at -20°C	/	3-5-2-6-5	4.2	+	5	b
2024	3511	Poêlée rustique surgelée	Frozen rustic stir-fry	Listeria monocytogenes Ad3263	Couscous vegetables	Seeding 2 weeks at -20°C	/	5-5-5-3-3	4.2	+	5	b
2024	2609	Gaspacho	Gaspacho	Listeria monocytogenes Ad1672	Zucchini	Seeding 48h at 3±2°C	/	2-4-1-2-3	2.4	+	5	c
2024	2612	Mélange de crudités chou blanc-céleri-carottes	Mix of raw vegetables	Listeria welshimeri Ad3251/ Listeria monocytogenes Ad1672	Guacamole Zucchini	Seeding 48h at 3±2°C	/	2-1-0-0-0/2-4-1-2-3 (/2)	0.3/1.2	+	5	c
2024	3498	Falafels végétaux coriandre, menthe	Vegetable falafels with coriander and mint	Listeria monocytogenes Ad3263	Couscous vegetables	Seeding 48h at 3±2°C	/	3-3-3-2-2	2.6	+	5	c
2024	3739	Galette végétale	Vegetable cake	Listeria monocytogenes Ad1498	Macedonia	Seeding 48h at 3±2°C	/	3-1-2-3-1	2.0	+	5	c
2024	3740	Vegetal balls	Vegetal balls	Listeria monocytogenes Ad1498	Macedonia	Seeding 48h at 3±2°C	/	3-1-2-3-1	2.0	+	5	c
2024	3743	Purée de courgettes	Zucchini puree	Listeria monocytogenes Ad3267	Broccoli	Spiking 5min at 60°C	0.9	0-0-1-0-0	0.2	-	5	c
2024	3744	Ecrasé de pommes de terre et deux carottes	Mashed potatoes and two carrots	Listeria monocytogenes Ad3267	Broccoli	Spiking 5min at 60°C	0.9	0-0-1-0-0	0.2	-	5	c
2024	3745	Velouté 8 légumes et pois chiches	8 vegetables soup with chick peas	Listeria monocytogenes Ad1238	Vegetables	Spiking 5min at 60°C	0.8	0-0-1-1-0	0.4	-	5	c
2024	3746	Soupe carottes et poireaux	Carrot and leek soup	Listeria monocytogenes Ad1238	Vegetables	Spiking 5min at 60°C	0.8	0-0-1-1-0	0.4	-	5	c

Year of analysis	N° Samp le	Product (French name)	Product	Artificial contaminations						Global result	Category	Type
				Strain	Origin	Injury protocol	Injury evaluation	Inoculation level CFU/test portion		CFX Opus		
								Enumeration	Mean			
2024	3747	Betterave entière cuite	Whole cooked beetroot	Listeria monocytogenes Ad2598	Salad	Spiking 5min at 60°C	1.0	3-1-3-4-2	2.6	-	5	c
2024	2737	Filet de dorade sebaste	Fillet of bream	Listeria seeligeri Ad2638/ Listeria monocytogenes Ad2599	Trout Salmon	Seeding 48h at 3±2°C	/	3-3-5-4-3/1-1-3-3-3 (/2)	1.8/1.1	+	6	a
2024	2738	Dos de cabillaud	Raw cod	Listeria seeligeri Ad2638/ Listeria monocytogenes Ad2599	Trout Salmon	Seeding 48h at 3±2°C	/	3-3-5-4-3/1-1-3-3-3 (/2)	1.8/1.1	+	6	a
2024	2739	Filet de merlan	Raw whiting fillet	Listeria monocytogenes Ad2599	Salmon	Seeding 48h at 3±2°C	/	3-3-5-4-3	3.6	+	6	a
2024	2740	Filet de lieu noir	Raw fillet of saithe	Listeria seeligeri Ad2638	Trout	Seeding 48h at 3±2°C	/	1-1-3-3-3	2.2	-	6	a
2024	2741	Merlu petit	Small hake	Listeria monocytogenes Ad1182/ Listeria welshimeri Ad642	Tuna steak Sea bream	Seeding 48h at 3±2°C	/	0-3-1-1-3/2-0-1-2-1 (/2)	0.8/0.6	+	6	a
2024	2742	Pavé de truite	Trout	Listeria welshimeri Ad642	Sea bream	Seeding 48h at 3±2°C	/	0-3-1-1-3	1.6	-	6	a
2024	2743	Filet d'Eglefin	Haddock fillet	Listeria monocytogenes Ad1182	Tuna steak	Seeding 48h at 3±2°C	/	2-0-1-2-1	1.2	+	6	a
2024	3499	Longe de thon rouge	Red tuna	Listeria monocytogenes Ad1182	Tuna steak	Seeding 48h at 3±2°C	/	2-2-3-0-1	1.6	+	6	a
2024	3500	Filet de lieu noir sans peau	Skinless pollack fillet	Listeria monocytogenes Ad994	Fresh trout	Seeding 48h at 3±2°C	/	1-3-4-4-0	2.4	+	6	a
2024	3501	Dorade royale	Royal sea bream	Listeria monocytogenes Ad994	Fresh trout	Seeding 48h at 3±2°C	/	1-3-4-4-0	2.4	+	6	a
2024	3502	Encornet	Squid	Listeria monocytogenes Ad1182	Tuna steak	Seeding 48h at 3±2°C	/	2-2-3-0-1	1.6	+	6	a
2024	2744	Saumon fumé	Smoked salmon	Listeria monocytogenes Ad128/ Listeria innocua Ad1674	Smoked salmon Smoked salmon	Seeding 48h at 3±2°C	/	1-1-5-4-2/1-3-5-3-0 (/2)	1.3/1.2	+	6	b
2024	2745	Truite fumée	Smoked trout	Listeria innocua Ad1674	Smoked salmon	Seeding 48h at 3±2°C	/	1-3-5-3-0	2.4	-	6	b
2024	2746	Filet de maquereaux fumés	Smoked mackerel fillet	Listeria innocua Ad1674	Smoked salmon	Seeding 48h at 3±2°C	/	1-3-5-3-0	2.4	-	6	b
2024	2747	Anchois marinés à l'ail	Marinated anchovies	Listeria monocytogenes Ad128	Smoked salmon	Seeding 48h at 3±2°C	/	1-1-5-4-2	2.6	-	6	b
2024	2748	Encornet au chorizo mariné	Squid with chorizo, marinated	Listeria monocytogenes Ad128	Smoked salmon	Seeding 48h at 3±2°C	/	1-1-5-4-2	2.6	+	6	b
2024	2749	Harengs marinés au vinaigre	Herring marinated with vinegar	Listeria monocytogenes Ad128/ Listeria innocua Ad1674	Smoked salmon Smoked salmon	Seeding 48h at 3±2°C	/	1-1-5-4-2/1-3-5-3-0 (/2)	1.3/1.2	-	6	b
2024	3189	Emincés de saumon fumé à l'aneth et aromatisé au citron	Sliced smoked salmon with dill and flavored with lemon	Listeria grayi Ad1198 Listeria monocytogenes Ad141	Smoked salmon	Seeding 48h at 3±2°C	/	2-0-0-2-0/1-1-1-4-2	0.8/1.8 (2.6)	+	6	b
2024	3190	Saumon mariné gravlax aneth citron	Gravlax marinated salmon with dill and lemon	Listeria grayi Ad1198 Listeria monocytogenes Ad141	Smoked salmon	Seeding 48h at 3±2°C	/	2-0-0-2-0/1-1-1-4-2	0.8/1.8 (2.6)	+	6	b
2024	3191	Carpaccio de saumon façon gravlax et sa marinade	Salmon carpaccio with marinade	Listeria grayi Ad1198 Listeria monocytogenes Ad141	Smoked salmon	Seeding 48h at 3±2°C	/	2-0-0-2-0/1-1-1-4-2	0.8/1.8 (2.6)	+	6	b
2024	3192	Harengs fumés doux	Sweet smoked herring	Listeria innocua Ad1674 Listeria monocytogenes Ad141	Smoked salmon	Seeding 48h at 3±2°C	/	1-1-1-4-2/1-3-1-2-1	1.8/1.6 (3.4)	+	6	b
2024	3193	Maquereaux fumés	Smoked mackerel fillet	Listeria innocua Ad1674 Listeria monocytogenes Ad141	Smoked salmon	Seeding 48h at 3±2°C	/	1-1-1-4-2/1-3-1-2-1	1.8/1.6 (3.4)	+	6	b
2024	3194	Emincés de truite fumée	Sliced smoked trout	Listeria innocua Ad1674 Listeria monocytogenes Ad141	Smoked salmon	Seeding 48h at 3±2°C	/	1-1-1-4-2/1-3-1-2-1	1.8/1.6 (3.4)	+	6	b
2024	3503	Anchois marinés provençale	Provence marinated anchovies	Listeria monocytogenes Ad128	Smoked salmon	Seeding 48h at 3±2°C	/	3-4-3-4-4	3.6	-	6	b
2024	3504	Saumon façon sashimi	Sashimi-style salmon	Listeria monocytogenes Ad128	Smoked salmon	Seeding 48h at 3±2°C	/	3-4-3-4-4	3.6	+	6	b
2024	2750	Dos de cabillaud amande et pistache	Ready to eat cod	Listeria monocytogenes Ad128/ Listeria innocua Ad1674	Smoked salmon Smoked salmon	Seeding 48h at 3±2°C	/	1-1-5-4-2/1-3-5-3-0 (/2)	1.3/1.2	+	6	c
2024	2751	Panés au poisson	Breaded fish	Listeria innocua Ad1233/ Listeria monocytogenes Ad1186	Breaded cod Breaded cod	Seeding 48h at 3±2°C	/	3-1-3-1-2/0-0-1-2-3 (/2)	1.0/0.6	+	6	c
2024	2753	Coquille St-Jacques	Ready to eat scallops	Listeria monocytogenes Ad1186	Breaded cod	Seeding 48h at 3±2°C	/	3-1-3-1-2	2.0	+	6	c
2024	2754	Navarin de St-Jacques	Ready to eat scallops	Listeria innocua Ad1233	Breaded cod	Seeding 48h at 3±2°C	/	0-0-1-2-3	1.2	+	6	c

Appendix 8 – Sensitivity study: raw data - Enrichment in LSB II broth (Extension studies, 2023 and 2024)

COMPOSITE FOODS																																									
Year of analysis	N° Sample	Product (French name)	Product	ALTERNATIVE METHOD: iQ-Check <i>Listeria monocytogenes</i> II																											Category	Type									
				1:10 with LSB II Broth -18h at 37°C																																					
				iQ-Check <i>Listeria monocytogenes</i> II																		Fraser	Final result confirmation	Final result				Agreement Ref/Alt													
				1:10 with Half Fraser - 24h at 30°C						Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast																									
				Half Fraser		Fraser		Identifi- cation	Result	CFX96 Deep Well			CFX Opus Deep Well			CFX96 Deep Well			CFX Opus Deep Well									w/o FDRS		w FDRS			w/o FDRS		w FDRS						
				O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result			RAPID <i>L.mono</i> (100µL)	RAPID <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identifi- cation	Result			CFX96 DW	CFX Opus DW	CFX96 DW	CFX opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW	
2022	3302	Sandwich viennois thon-crudités	RTE (Sandwich tuna and crudity)	H+	+	H+	+	<i>L.mono L.inno</i>	+	N/A	34.16	-	N/A	33.60	-	N/A	34.90	-	N/A	35.35	-	-	st	-	-	st	/	-	-	-	-	-	-	-	ND	ND	ND	ND	1	a	
2022	3304	Club sandwich jambon-emmental	RTE (Sandwich cheese and ham)	H-d	-	H-d	-	<i>L. seel</i>	-	N/A	35.45	-	N/A	35.11	-	N/A	34.98	-	N/A	34.79	-	+spp	+	H-d	H-d	-	<i>L. seel</i>	-	-	-	-	-	-	-	NA	NA	NA	NA	1	a	
2022	3305	Sandwich supérieur emmental	RTE (Sandwich cheese and ham)	H+/H-	+	H+/H-	+	<i>L.mono L.inno</i>	+	39.33	34.53	+	N/A/ 41.58 /N/A	34.96/ 34.02/ 34.53	-	+	40.59	35.04	+	N/A/ 41.65/ 40.21	35.34/ 34.66/ 35.51	-	+	+spp	+	H+/H-	H+/H-	+	<i>L.mono L.inno</i>		+	+	-	+	-	PA	ND _{FN(alt)}	PA	ND _{FN(alt)}	1	a
2022	3312	Macédoine de légumes	RTE (vegetable macedoine)	st	st	st	st	/	-	N/A	33.22	-	N/A	33.86	-	N/A	33.02	-	N/A	33.06	-	st	st	st	st	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	a		
2022	3462	Sandwich poulet-tomates-œufs viennois	RTE (Sandwich chicken, eggs, tomato)	st	-	-	-	/	-	N/A	32.20	-	N/A	32.31	-	N/A	32.51	-	N/A	32.57	-	-	st	-	-	st	/	-	-	-	-	-	-	NA	NA	NA	NA	1	a		
2022	3670	Triangle jambon-mozzarella	RTE (Sandwich ham and cheese)	H-	+	H-	+	<i>L.seel</i>	-	N/A	36.79	-	N/A	36.25	-	N/A	37.04	-	N/A	40.24	-	+	-	H+d	H+d	+	<i>L.mono</i>		+	-	-	-	-	NA	NA	NA	NA	1	a		
										N/A	32.56	-	N/A	33.58	-	N/A	33.90	+	N/A	34.71	-																				
										39.49	33.72	+	N/A	34.42	-	N/A	34.99	-	N/A	34.01	-																				
2022	3673	Club sandwich jambon supérieur / Emmental	RTE (Sandwich ham and cheese)	-	-	st	st	/	-	N/A	33.82	-	N/A	34.74	-	N/A	34.25	-	N/A	35.11	-	-	st	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	a			
2022	3803	Salade Manhattan pâte, crudités, œuf, poulet rôti, carottes et fromage	RTE (Salad with chicken, eggs, paste...)	H+	+	H+	+	<i>L.mono</i>	+	29.30	32.62	+	29.40	33.02	+	29.15	32.03	+	29.31	32.80	+	+/ +spp	+	H+	H+/H-	+	<i>L.mono L.welsh</i>		+	+	+	+	+	PA	PA	PA	PA	1	a		
2022	3804	Piemontaise au jambon	RTE (Salad with potatoes, ham...)	H+/H-	+	H+/H-	+	<i>L.mono L.welsh</i>	+	29.00	33.13	+	29.03	33.25	+	29.51	33.92	+	29.09	33.13	+	+/ +spp	+	H+/H-	H+/H-	+	<i>L.mono L.welsh</i>		+	+	+	+	+	PA	PA	PA	PA	1	a		
2022	3805	Taboulé à l'orientale	Oriental tabbouleh	H+	+	H+/H-	+	<i>L.mono L.inno</i>	+	32.79	33.08	+	33.33	33.52	+	32.40	33.01	+	32.40	33.07	+	+/ spp	+	H+	H+/H-	+	<i>L.mono L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	1	a		
2022	3806	Demi involtini à la ricotta	Half-involtini with ricotta cheese	H+/H-	+	H+/H-	+	<i>L.mono L.inno</i>	+	36.81	35.47	+	37.10	36.51	+	35.45	35.47	+	35.26	36.14	+	+/ +spp	+	H+/H-	H+/H-	+	<i>L.mono L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	1	a		
2023	102	Salade ROMA (pâtes, crudités, mozzarella, jambon)	RTE (Salad with paste, cheese, ham...)	-	-	-	st	/	-	N/A	33.40	-	N/A	33.16	-	N/A	33.39	-	N/A	33.59	-	-	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	a			
2023	103	Salade parisienne, jambon, emmental	RTE (Salad with ham and cheese)	st	st	st	st	/	-	N/A	32.31	-	N/A	32.59	-	N/A	32.65	-	N/A	32.87	-	st	st	-	st	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	a		
2023	104	Salade torsade, poulet rôti	RTE (Salad with paste and chicken)	st	st	st	st	/	-	N/A	32.61	-	N/A	32.54	-	N/A	32.67	-	N/A	32.94	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	1	a		
2023	105	Piemontaise au jambon	RTE (Salad with potatoes, ham...)	-	-	-	-	/	-	N/A	34.55	-	N/A	34.62	-	N/A	34.25	-	N/A	34.28	-	-	st	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	a			
2023	106	Macédoine de légumes	RTE (vegetable macedoine)	-	-	-	st	/	-	N/A	32.84	-	N/A	32.95	-	N/A	33.09	-	N/A	33.25	-	-	st	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	a			
2023	107	Riz à la provençale au thon et basilic	RTE (Rice, tuna and basil)	-	-	st	st	/	-	N/A	33.16	-	N/A	33.14	-	N/A	32.63	-	N/A	32.64	-	+spp d	+	H-	H-	-	-(Gram -x5/plate)	-		-	-	-	-	NA	NA	NA	NA	1	a		

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

COMPOSITE FOODS																																								
Year of analysis	N° Sample	Product (French name)	Product	ALTERNATIVE METHOD: iQ-Check <i>Listeria monocytogenes</i> II																												Category	Type							
				Reference method: ISO 11290-1♦																																				
				1:10 with LSB II Broth -18h at 37°C																																				
				iQ-Check <i>Listeria monocytogenes</i> II																		Fraser	Final result confirmation	Final result				Agreement Ref/Alt												
				1:10 with Half Fraser - 24h at 30°C						Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast								Confirmation						w/o FDRS				w FDRS		w/o FDRS		w FDRS		
Half Fraser		Fraser		Identifi- cation	Result	CFX96 Deep Well			CFX Opus Deep Well			CFX96 Deep Well			CFX Opus Deep Well			RAPID <i>L.mono</i> (100µL)	RAPID <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identifi- cation	Result	Final result confirmation	CFX96 DW	CFX Opus DW	CFX96 DW	CFX opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW							
O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result																							
2023	108	Taboulé oriental	Oriental tabbouleh	-	-	-	-	/	-	N/A	33.03	-	N/A	33.04	-	N/A	32.71	-	N/A	33.15	-	-	-	-	-	-	/	-	-	-	-	-	NA	NA	NA	NA	1	a		
2023	109	Taboulé oriental	Oriental tabbouleh	-	-	-	-	/	-	N/A	32.65	-	N/A	32.31	-	N/A	32.58	-	N/A	32.47	-	-	st	H-	H-	-	-(Gram - x5/plate)	-	-	-	-	-	-	NA	NA	NA	NA	1	a	
2023	110	Mini involtini bresaola et fromage	Mini-involtini with cheese	-	-	-	-	/	-	N/A	36.03	-	N/A	38.68	-	N/A	36.85	-	N/A	36.34	-	-	-	-	-	-	/	-	-	-	-	-	NA	NA	NA	NA	1	a		
2023	749	Beignet râpé pomme de terre/cheddar	Potato fritter with cheese	H+	+	H+	+	<i>L.mono</i>	+	N/A	36.72	-	N/A	36.81	-	N/A	37.20	-	N/A	36.79	-	-	-	-	-	-	/	-	-	-	-	-	ND	ND	ND	ND	1	a		
2023	761	Paillason de légumes et fromage	RTE (vegetable and cheese)	H+	+	H+	+	<i>L.mono</i>	+	N/A	36.26	-	N/A	36.95	-	N/A	36.36	-	N/A	36.49	-	-	-	-	-	-	/	-	-	-	-	-	ND	ND	ND	ND	1	a		
2022	3297	Falafels préparés merguez	RTRH (Falafel)	H-	+	H-	+	<i>L.inno</i>	-	N/A	33.50	-	N/A	33.96	-	N/A	34.62	-	N/A	34.74	-	+spp	+	+	+	-	<i>L.inno</i>	-	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3298	Feuilletés chèvre-épinards	RTH (Puff spinach cheese)	H- (5)	+	H-	+	<i>L.inno</i>	-	N/A	33.29	-	N/A	33.37	-	N/A	33.45	-	N/A	33.79	-	+spp	+	H-	H-	+	<i>L.inno</i>	-	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3299	Noix de Saint-Jacques à la bretonne	RTRH (scallop)	st	st	st	st	/	-	N/A	32.97	-	N/A	33.11	-	N/A	33.55	-	N/A	32.94	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3300	Paëlla	RTRH (Paella)	H-d	-d	H-d	-d	-(NC on TSYEA x5/plate)	-	N/A	33.11	-	31.32 N/A N/A	33.74 33.39 32.90	+	-	N/A	33.09	-	N/A	33.13	-	+spp	st	H-d	-	+(1)	<i>L.inno</i>	-	-	-	-	-	-	NA	PD _{FP(alt)}	NA	NA	1	b
2022	3301	Croque veggie tomates	RTRH (Tomato, cereals)	st	-	-	st	/	-	N/A	33.24	-	N/A	33.06	-	N/A	33.35	-	N/A	33.44	-	-	st	st	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3303	Nuggets cuits	Nuggets	st	-	-	-	/	-	N/A	33.32	-	N/A	33.44	-	N/A	33.02	-	N/A	33.02	-	-	st	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3306	Feuilleté jambon-fromage	RTH (Puff ham, cheese)	-	-	-	-	/	-	N/A	34.15	-	N/A	34.32	-	N/A	34.92	-	N/A	34.76	-	-	st	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3307	Pépites fromage ail et fines herbes panées	RTRH (Nuggets herbs and cheese)	H+	+	H+	+	<i>L.mono</i>	+	39.75	34.53	+	38.52	35.32	+	39.17	35.70	+	38.73	35.52	+	+/ +spp	+	H+/H-	H+ (1)	+	<i>L.mono</i> <i>L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	1	b	
2022	3308	Nuggets de saumon	Salmon nuggets	H+	+	H+	+	<i>L.mono</i>	+	27.73	32.58	+	27.74	32.34	+	27.15	32.33	+	27.05	31.98	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	1	b	
2022	3309	Nuggets de saumon	Salmon nuggets	H+	+	H+	+	<i>L.mono</i>	+	24.50	33.00	+	24.34	32.05	+	26.44	31.97	+	26.67	32.07	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	1	b	
2022	3310	Nuggets de saumon	Salmon nuggets	st	-	-	-	/	-	40.95	32.74	+	38.57	33.24	+	39.77	33.13	+	39.02	33.44	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PD	PD	PD	PD	1	b	
2022	3311	Légumes ratatouille	RTRH (vegetable ratatouille)	st	st	st	st	/	-	N/A	33.02	-	N/A	34.00	-	N/A	33.36	-	N/A	33.03	-	-	st	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3314	Coquilles Saint-Jacques	RTRH (scallop)	-	-	-	-	/	-	N/A	32.86	-	N/A	33.29	-	N/A	33.38	-	N/A	32.83	-	-	st	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3315	Gratin de choux fleurs crème fraîche et emmental	RTRH (Cream, cauliflower)	-	st	-	-	/	-	N/A	33.26	-	N/A	33.89	-	N/A	33.59	-	N/A	33.20	-	-	st	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3317	Paniers tartiflette	RTH (Puff ham, cheese)	H-	+	H-	+	<i>L.inno</i>	-	35.31 N/A N/A	34.80 34.03 33.86	+	-	N/A	34.30	-	N/A	34.78	-	N/A	34.32	-	+spp	+	H-	H-	+	<i>L.inno</i>	-	-	-	-	-	-	PD _{FP(alt)}	NA	NA	NA	1	b
2022	3461	Tourte poularde-cèpes	RTH (Puff chicken, mushroom)	H+	+	H+	+	<i>L.mono</i>	+	31.59	32.16	+	31.85	32.52	+	32.06	33.70	+	32.19	33.57	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	1	b	
2022	3463	Paëlla	RTRH (Paella)	-	-	st	-	/	-	N/A	31.71	-	N/A	32.10	-	N/A	32.41	-	N/A	32.21	-	st	st	-	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3464	Paëlla	RTRH (Paella)	-	st	st	st	/	-	N/A	32.03	-	N/A	32.25	-	N/A	32.11	-	N/A	32.22	-	-	st	-	-	st	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3465	Galette soja-légumes	RTRH (vegetables soya)	H+	+	H+	+	<i>L.mono</i>	+	33.52	31.86	+	33.74	32.29	+	33.82	32.11	+	34.11	32.36	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	1	b	

COMPOSITE FOODS																																							
Year of analysis	N° Sample	Product (French name)	Product	ALTERNATIVE METHOD: iQ-Check <i>Listeria monocytogenes</i> II																								Category	Type										
				Reference method: ISO 11290-1♦																																			
				1:10 with LSB II Broth -18h at 37°C																																			
				iQ-Check <i>Listeria monocytogenes</i> II										Confirmation								Fraser	Final result confirmation	Final result						Agreement Ref/Alt									
				Easy II lysis protocol - Without FDRS APF Fast			Easy II lysis protocol - With FDRS APF Fast			w/o FDRS		w FDRS												w/o FDRS		w FDRS													
Half Fraser		Fraser		Identifi- cation	Result	CFX96 Deep Well			CFX Opus Deep Well			CFX96 Deep Well			CFX Opus Deep Well			RAPID ^L .mono (100µL)	RAPID ^L <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)		Identifi- cation	Result	CFX96 DW	CFX Opus DW	CFX96 DW	CFX opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW						
O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result																						
2022	3469	Buffalo wings	Chicken wings	st	st	st	st	/	-	38.93	32.10	+	38.12	32.15	+	42.14	32.34	+	N/A 39.62 N/A	31.85 32.93 33.26	- + -	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	-	PD	PD	PD	NA _{FN(alt)}	1	b
2022	3471	Galette soja- tomates-basilic	RTRH (soya,tomato, basilic)	H-	+	H-	+	<i>L.inno</i>	-	N/A	31.89	-	N/A	32.04	-	N/A	32.31	-	N/A	32.12	-	-	-	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b
2022	3472	Paillasson de légumes	RTRH (cheese and vegetable)	-	-	-	-	/	-	31.38	35.12	+	31.26	34.78	+	30.75	33.38	+	30.79	33.33	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PD	PD	PD	PD	1	b
2022	3473	Galette de soja à la provençale	RTRH (	st	-	st	-	/	-	N/A	32.36	-	N/A	32.20	-	N/A	32.67	-	N/A	32.52	-	-	st	-	-	st	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b
2022	3474	Paëlla	RTRH (Paella)	st	-	-	-	/	-	N/A	32.09	-	N/A	32.49	-	N/A	32.09	-	N/A	32.38	-	-	-	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b
2022	3671	Cordon bleu de dinde	RTRH (Ham and cheese escalope)	H-	+	H-	+	<i>L.wels h</i>	-	37.98	32.89	+	38.11	32.21	+	37.99	32.58	+	39.15	32.89	+	+spp / x5: +/-spp	+	H- / x5: H+/H-	H-	+	<i>L.mono L.welsh</i>		+	+	+	+	+	PD	PD	PD	PD	1	b
2022	3672	Palet fromage de chèvre	RTRH (Palet of goat cheese)	-	-	-	-	/	-	N/A	32.59	-	N/A	33.19	-	N/A	32.24	-	N/A	33.32	-	-	-	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b
2022	3674	Panini kebab	Pannini kebab	H+	+	H+	+	<i>L.mono</i>	+	26.89	32.69	+	27.01	31.74	+	25.41	31.72	+	25.76	31.50	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	1	b
2022	3575	Nuggets saumon	Salmon nuggets	H+	+	H+	+	<i>L.mono</i>	+	24.75	32.51	+	24.41	31.32	+	23.99	31.84	+	24.31	31.33	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	1	b
2022	3676	Nuggets saumon	Salmon nuggets	H+	+	H+	+	<i>L.mono</i>	+	23.88	31.99	+	23.99	31.35	+	24.87	31.63	+	25.14	31.72	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	1	b
2022	3677	Palet choux-fleur brocolis	RTRH (Palet of cauliflower and broccoli)	H+	+	H+	+	<i>L.mono</i>	+	25.36	31.65	+	25.67	32.26	+	25.04	32.33	+	25.97	32.70	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	1	b
2022	3678	Brunoise méridionale	RTRH (vegetables, cream)	-	-	-	-	/	-	N/A	32.81	-	N/A	33.03	-	N/A	32.75	-	N/A	33.29	-	-	-	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	b
2022	3470	Pâte à quiche	Raw dough	H+/H-	+	H+/H-	+	<i>L.mono L.inno</i>	+	31.49	32.02	+	31.39	32.15	+	32.68	33.58	+	32.56	33.79	+	+/-spp	+	H+/H-	H+/H-	+	<i>L.mono L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	1	c
2022	3807	Tortilla	Tortilla	H+/H-	+	H+/H-	+	<i>L.mono L.inno</i>	+	24.07	31.78	+	24.31	32.07	+	24.07	31.13	+	24.20	31.44	+	+/-spp	+	H+/H-	H+/H-	+	<i>L.mono L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	1	c
2022	3808	Tortilla à l'oignon	Onion tortilla	st	st	st	st	/	-	27.10	33.34	+	27.09	33.46	+	26.41	33.55	+	26.13	32.76	+	+	+	H+	H+/H-	+	<i>L.mono L.inno</i>		+	+	+	+	+	PD	PD	PD	PD	1	c
2022	3809	Choux chantilly	Pastry	H+/H-	+	H+/H-	+	<i>L.mono L.inno</i>	+	29.16	32.24	+	29.22	32.28	+	28.58	31.99	+	28.88	32.42	+	+/-spp	+	H+/H-	H+/H-	+	<i>L.mono L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	1	c
2022	3810	Charlotte framboise	Pastry	H+	+	H+	+	<i>L.mono</i>	+	31.05	32.28	+	31.11	33.26	+	30.85	32.54	+	31.08	33.20	+	+/-spp	+	H+/H-	H+/H-	+	<i>L.mono L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	1	c
2022	3811	Ile flottante	Custard based dessert	H+/H-	+	H+/H-	+	<i>L.mono L.seel</i>	+	27.96	32.00	+	28.04	32.10	+	28.01	31.74	+	28.55	32.57	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	1	c
2022	3812	Mousse au chocolat	Confectionary (chocolate)	H+/H-	+	H+/H-	+	<i>L.mono L.inno</i>	+	31.56	33.35	+	31.29	33.71	+	31.86	35.00	+	31.62	35.57	+	+/-spp	+	H+/H-	H+/H-	+	<i>L.mono L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	1	c
2023	111	Tortilla	Tortilla	st	st	st	st	/	-	N/A	32.54	-	N/A	32.08	-	N/A	32.72	-	N/A	32.36	-	st	-	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	112	Tortilla au chorizo	Chorizo tortilla	st	-	st	st	/	-	N/A	33.07	-	N/A	32.18	-	N/A	32.86	-	N/A	33.37	-	-	-	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	113	Tortilla à l'oignon	Onion tortilla	st	st	st	st	/	-	N/A	33.44	-	N/A	33.51	-	N/A	33.69	-	N/A	34.11	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	114	Coupe profiterole	Pastry	-	-	H-d	-	-(NC on TSYEA x5)	-	N/A	33.62	-	N/A	33.61	-	N/A	32.55	-	N/A	33.15	-	+spp d	+d	H-d	H-d	-	-(catalase, Gram - x5/plate)	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	115	Crème anglaise	Custard	st	-	st	st	/	-	N/A	32.59	-	N/A	32.69	-	N/A	32.03	-	N/A	32.70	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	116	Mousse citron	Lemon mousse	st	st	st	st	/	-	N/A	35.66	-	N/A	34.42	-	N/A	35.65	-	N/A	34.59	-	st	st	-	st	-	/	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	117	Ile flottante	Custard based dessert	st	st	st	st	/	-	N/A	33.02	-	N/A	32.61	-	N/A	32.75	-	N/A	33.09	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	1	c

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Half Fraser		Fraser		Identifi- cation	Result	CFX96 Deep Well			CFX Opus Deep Well			CFX96 Deep Well			CFX Opus Deep Well			RAPID <i>L.mono</i> (100µL)	RAPID <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identifi- cation	Result	Final result confirmation	CFX96 DW	CFX Opus DW	CFX96 DW	CFX opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW							
O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result																							
2023	118	Mousse chocolat noir	Chocolate mousse	st	st	st	st	/	-	N/A N/A*	N/A 33.00	i/- *	N/A N/A*	N/A 32.35	i/- *	N/A N/A*	N/A 32.81	i/- *	N/A N/A*	N/A 33.29	i/- *	st	st	st	st	st	/	-	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	119	Gâteau tutti frutti	Pastry	st	st	st	st	/	-	N/A	32.56	-	N/A	32.74	-	N/A	32.31	-	N/A	32.81	-	st	st	st	st	st	/	-	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	515	Choux chantilly	Pastry	st	-	-	-	/	-	N/A	32.57	-	N/A	32.46	-	N/A	33.18	-	N/A	32.19	-	st	st	st	st	-	/	-	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	516	Tartelette citron	Lemon tartlet	st	st	st	st	/	-	N/A	32.50	-	N/A	32.48	-	N/A	33.11	-	N/A	33.47	-	-	st	st	st	st	/	-	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	517	Mousse au chocolat à l'ancienne	Chocolate mousse	-	-	-	-	/	-	N/A	33.72	-	N/A	34.24	-	N/A	33.23	-	N/A	34.01	-	+sppd	st	H-d	H-d	-	-(Gram - x5/plate)	-	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	750	Pâte feuilletée	Raw dough	-	-	-	-	/	-	N/A	34.06	-	N/A	34.49	-	N/A	34.88	-	N/A	35.02	-	-	-	-	-	-	/	-	-	-	-	-	-	-	NA	NA	NA	NA	1	c
2023	813	Crème anglaise à la vanille	Custard	H+	+	H+	+	<i>L.mono</i>	+	26.60	33.04	+	26.15	32.52	+	26.06	32.00	+	26.03	32.11	+	+	+	H+	H+	+	<i>L.mono</i>	/	+	+	+	+	+	+	PA	PA	PA	PA	1	c
2023	814	Mousse fraise	Strawberry mousse	H+	+	H+	+	<i>L.mono</i>	+	30.87	34.70	+	30.00	35.30	+	28.53	33.98	+	28.33	35.55	+	+	+	H+	H+	+	<i>L.mono</i>	/	+	+	+	+	+	+	PA	PA	PA	PA	1	c
2023	815	Eclair au chocolat	Pastry	H+	+	H+	+	<i>L.mono</i>	+	24.74	31.89	+	24.48	31.47	+	24.37	31.54	+	24.36	32.16	+	+	+	H+	H+	+	<i>L.mono</i>	/	+	+	+	+	+	+	PA	PA	PA	PA	1	c

PRODUCTION ENVIRONMENTAL SAMPLES																																							
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 [†]		ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																												Category	Type				
						1:10 with LSB II Broth -18h at 37°C																																	
				iQ-Check <i>Listeria monocytogenes</i> II										Confirmation										Fraser	Final result confirmation	Final result				Agreement Ref/Alt									
				1:10 with Half Fraser - 24h at 30°C					Easy II lysis protocol - Without FDRS APF Fast																	Easy II lysis protocol - With FDRS APF Fast					w/o FDRS		w FDRS			w/o FDRS		w FDRS	
				Half Fraser		Fraser		Identifi- cation	Result	CFX96 Deep Well			CFX Opus Deep Well			CFX96 Deep Well			CFX Opus Deep Well			RAPID [®] <i>L. mono</i> (100µL)	RAPID [®] <i>Listeria</i> (100µL)	AL (100µL)		AL (10µL)	Palcam (10µL)	Identifi- cation	Result	CFX96 DW	CFX Opus DW	CFX96 DW	CFX opus DW			CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW
O&A	PALCAM	O&A	PALCAM	FAM Cq	I.C. Cq	Result	FAM Cq			I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID [®] <i>L. mono</i> (100µL)	RAPID [®] <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identifi- cation	Result	CFX96 DW	CFX Opus DW	CFX96 DW	CFX opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW							
2022	3760	Chiffonnette hall techno production pâté fini (porc) après nettoyage	Wipe after cleaning process	H+	+	H+	+	<i>L.mono</i>	+	37.55	32.36	+	38.45	32.87	+	38.08	32.10	+	38.64	32.11	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	2	a
2022	3761	Chiffonnette grille siphon VHS 19 après nettoyage	Wipe after cleaning process	H-	+	H-	+	<i>L.inno</i>	-	37.33	32.39	+	37.22	32.50	+	36.76	32.57	+	38.48	32.78	+	+/+spp	+	H+/H-	H+/H-	+	<i>L.mono</i> <i>L.inno</i>		+	+	+	+	+	PD	PD	PD	PD	2	a
2022	3762	Chiffonnette VHS2 table transfert environnement carné, après nettoyage	Wipe after cleaning process	H+	+	H+	+	<i>L.mono</i>	+	27.04	31.75	+	28.46	31.98	+	26.94	31.58	+	28.35	32.01	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	2	a
2022	3763	Chiffonnette pompe production crème glacée avant nettoyage	Wipe before cleaning process	H+	+	H+	+	<i>L.mono</i>	+	35.38	32.43	+	35.72	32.51	+	35.40	32.52	+	35.67	32.64	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	2	a
2022	3764	Chiffonnette pompe production crème glacée après nettoyage	Wipe after cleaning process	st	st	st	st	/	-	N/A	32.27	-	N/A	32.64	-	N/A	32.47	-	N/A	32.94	-	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	a	
2022	3765	Chiffonnette environnement laitier avant nettoyage	Wipe before cleaning process	H+	+	H+	+	<i>L.mono</i>	+	29.84	32.14	+	30.21	31.98	+	29.17	31.91	+	30.13	32.18	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	2	a
2023	524	Chiffonnette surface tapis trancheur	Wipe before cleaning process	st	st	st	st	/	-	N/A	32.37	-	N/A	32.75	-	N/A	32.40	-	N/A	32.49	-	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	a	
2023	525	Chiffonnette Hall techno, pâté fine porc après désinfection	Wipe after cleaning process	st	st	st	st	/	-	N/A	32.63	-	N/A	32.35	-	N/A	32.57	-	N/A	32.82	-	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	a	
2023	723	Chiffonnette de surface réception UPM, après nettoyage	Wipe after cleaning process	H+	+	H+	+	<i>L.mono</i>	+	32.01	33.15	+	31.43	32.25	+	31.15	33.03	+	31.20	32.15	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	2	a
2023	724	Chiffonnette de surface table de façonnage brioche après désinfection	Wipe after cleaning process	st	st	st	st	/	-	N/A	33.12	-	N/A	32.51	-	N/A	33.02	-	N/A	32.78	-	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	a	
2023	757	Chiffonnette prélèvement de surface environnement bovin	Wipe before cleaning process	H-	+	H-	+	<i>L.welsh</i>	-	28.86	31.68	+	32.00	33.01	+	28.86	31.68	+	32.12	33.30	+	+	+	H+/H-	H+/H-	+	<i>L.mono</i> <i>L.welsh</i>		+	+	+	+	+	PD	PD	PD	PD	2	a
2023	758	Ecouvillon surface brioche	Swab	st	st	st	st	/	-	N/A	32.53	-	N/A	33.36	-	N/A	32.53	-	N/A	33.64	-	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	a	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

PRODUCTION ENVIRONMENTAL SAMPLES																																								
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 [†]						ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																							Category	Type						
										1:10 with LSB II Broth -18h at 37°C																														
				iQ-Check <i>Listeria monocytogenes</i> II												Confirmation								Fraser	Final result confirmation	Final result				Agreement Ref/Alt										
				1:10 with Half Fraser - 24h at 30°C						Easy II lysis protocol - Without FDRS APF Fast																Easy II lysis protocol - With FDRS APF Fast						w/o FDRS			w FDRS		w/o FDRS		w FDRS	
				Half Fraser		Fraser		Identifi- cation	Result	CFX96 Deep Well			CFX Opus Deep Well			CFX96 Deep Well			CFX Opus Deep Well			RAPID <i>L.mono</i> (100µL)	RAPID <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identifi- cation	Result	Final result confirmation	CFX96 DW	CFX Opus DW	CFX96 DW	CFX opus DW		CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW		
				O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result																			
2023	822	Chiffonnette environnement végétal avant nettoyage	Wipe before cleaning process	H+	+	H+	+	<i>L.mono</i>	+	37.66	32.74	+	36.90	32.59	+	N/A 35.70 35.88	33.01 32.84 33.13	- + +	40.79	32.68	+	+	(6)/+sp p	+d (5)	H+ (7)/H-	H-	+	<i>L.mono</i> <i>L.seel</i>		+	+	+	-	+	PA	PA	ND _{FN(alt)}	PA	2	a
2023	823	Chiffonnette environnement laitier (production glace) avant nettoyage	Wipe before cleaning process	H+	+	H+	+	<i>L.mono</i>	+	33.27	32.76	+	33.84	32.55	+	33.13	33.04	+	33.72	32.25	+	+/+spp d	+	H+	H+	+	<i>L.mono</i> <i>L.seel</i>		+	+	+	+	+	PA	PA	PA	PA	2	a	
2023	824	Chiffonnette environnement porc (production pâté)	Wipe before cleaning process	H+ (4)	+	H+	+	<i>L.mono</i>	+	N/A	33.13	-	N/A	32.70	-	N/A	33.12	-	N/A	32.87	-	+spp	+	H-	H-	+	<i>L.seel</i>	-	-	-	-	-	-	ND	ND	ND	ND	2	a	
2023	955	Chiffonnette pompe crème glacée avant nettoyage	Wipe before cleaning process	st	st	st	-	/	-	N/A	33.12	-	N/A	33.33	-	N/A	33.82	-	N/A	33.38	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	a	
2023	956	Chiffonnette table crème glacée avant nettoyage	Wipe before cleaning process	st	st	st	st	/	-	N/A	33.53	-	N/A	33.23	-	N/A	33.29	-	N/A	33.04	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	a	
2023	957	Chiffonnette environnement laitier après nettoyage	Wipe after cleaning process	st	st	st	st	/	-	N/A	33.05	-	N/A	33.00	-	N/A	33.39	-	N/A	32.66	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	a	
2023	958	Chiffonnette TA8 arbre couteaux, après nettoyage	Wipe after cleaning process	st	st	st	st	/	-	N/A	33.66	-	N/A	32.80	-	N/A	33.15	-	N/A	33.11	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	a	
2023	959	Chiffonnette local plonge après nettoyage	Wipe after cleaning process	st	st	st	st	/	-	N/A	33.13	-	N/A	33.02	-	N/A	33.31	-	N/A	33.11	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	a	
2023	526	Déchets poisson CP3 trancheur	Wastes (Fish)	st	st	st	st	/	-	N/A	32.46	-	N/A	32.27	-	N/A	32.54	-	N/A	32.18	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	b	
2023	527	Déchets poisson Scan 4 trancheur	Wastes (Fish)	H+	+	H+	+	<i>L.mono</i>	+	35.91	32.09	+	36.49	32.33	+	36.32	32.71	+	38.45	32.23	+	+/+spp	+	H+/H-	H+/H-	+	<i>L.mono</i> <i>L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	2	b	
2023	528	Déchets viande	Wastes (Meat)	st	st	st	st	/	-	N/A	32.98	-	N/A	32.73	-	N/A	33.03	-	N/A	32.36	-	st	-	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	b	
2023	529	Déchets caséinate, production de pâté	Wastes (Meat)	-	-	-	-	/	-	N/A	32.97	-	N/A	32.74	-	N/A	33.86	-	N/A	33.26	-	-	st	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	2	b	
2023	715	Déchets matière bovin bac	Wastes (Meat)	-	-	st	st	/	-	N/A	33.34	-	N/A	32.75	-	N/A	33.15	-	N/A	32.52	-	-	-	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	2	b	
2023	716	Déchets miettes de mélangeur volaille sortie peseur	Wastes (Meat)	st	st	st	-	/	-	N/A	33.31	-	N/A	32.73	-	N/A	33.63	-	N/A	32.59	-	-	-	st	st	-	/	-	-	-	-	-	-	NA	NA	NA	NA	2	b	
2023	725	Déchets viande bovine	Wastes (Meat)	H+	+	H+	+	<i>L.mono</i>	+	41.59	35.78	+	37.96	33.39	+	38.02	34.99	+	39.84	34.83	+	+/+spp	+	H+/H-	H+/H-	+	<i>L.mono</i> <i>L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	2	b	
2023	726	Déchets viande bovine	Wastes (Meat)	H+	+	H+	+	<i>L.mono</i>	+	34.55	33.46	+	32.86	32.35	+	34.67	32.72	+	33.97	32.40	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	2	b	
2023	727	Déchets de production biscuit	Wastes	H+	+	H+	+	<i>L.mono</i>	+	32.44	33.77	+	30.41	32.65	+	30.90	34.20	+	31.08	32.51	+	+/+spp d	+	H+	H+	+	<i>L.mono</i> <i>L.seel</i>		+	+	+	+	+	PA	PA	PA	PA	2	b	
2023	728	Déchets saumon	Wastes (Salmon)	H+	+	H+	+	<i>L.mono</i>	+	33.31	33.13	+	31.52	32.33	+	31.54	33.29	+	31.92	32.29	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	2	b	

PRODUCTION ENVIRONMENTAL SAMPLES																																								
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 [†]						ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																								Category	Type					
										1:10 with LSB II Broth -18h at 37°C																														
				iQ-Check <i>Listeria monocytogenes</i> II												Confirmation								Fraser	Final result confirmation	Final result				Agreement Ref/Alt										
				1:10 with Half Fraser - 24h at 30°C						Easy II lysis protocol - Without FDRS APF Fast																Easy II lysis protocol - With FDRS APF Fast						w/o FDRS				w FDRS		w/o FDRS		w FDRS
				Half Fraser		Fraser		Identifi- cation	Result	CFX96 Deep Well			CFX Opus Deep Well			CFX96 Deep Well			CFX Opus Deep Well			RAPID [®] <i>L.mono</i> (100µL)	RAPID [®] <i>Listeria</i> (100µL)			AL (100µL)	AL (10µL)	Palcam (10µL)	Identifi- cation	Result	CFX96 DW	CFX Opus DW	CFX96 DW			CFX opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW
				O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result																			
				2023	729	Déchét poisson dessous épineux	Wastes (Fish)	H+	+	H+	+	<i>L.mono</i>	+	33.91	33.66	+	31.52	32.48	+	32.68	33.33	+	32.98	32.74	+	+	+	H+	H+	+	<i>L.mono</i>		+			+	+	+	+	PA
2023	759	Déchets truite	Wastes (Trout)	st	-	st	-	/	-	33.32	33.05	+	33.86	33.21	+	33.32	33.05	+	33.81	33.92	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PD	PD	PD	PD	2	b	
2023	760	Déchét chutes de parage saumon	Wastes (Salmon)	st	st	-	-	/	-	N/A	32.88	-	N/A	33.39	-	N/A	32.88	-	N/A	33.86	-	-	st	-	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	b	
2023	825	Déchets découpe viande	Wastes (Meat)	H+/H-	+	H+/H-	+	<i>L.mono</i> <i>L.inno</i>	+	36.14	33.15	+	36.09	32.58	+	40.97	32.83	+	42.48	33.68	+	+/+spp	+	H+/H-	H+/H-	+	<i>L.mono</i> <i>L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	2	b	
2023	826	Déchets caséinate production pâté	Wastes (Meat)	H+/H-	+	H+/H-	+	<i>L.mono</i> <i>L.welsh</i>	+	31.74	33.04	+	32.05	32.37	+	32.46	34.44	+	32.39	33.80	+	+/+spp d	+	H+	H+	+	<i>L.mono</i> <i>L.welsh</i>		+	+	+	+	+	PA	PA	PA	PA	2	b	
2023	827	Déchets sardines	Wastes (Sardine)	st	st	st	st	/	-	N/A	33.11	-	N/A	32.71	-	N/A	32.98	-	N/A	32.67	-	st	-	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	b	
2023	960	Déchét viande bovine	Wastes (Meat)	H-	+	H-	+	<i>L.inno</i>	-	N/A	33.37	-	N/A	33.60	-	N/A	33.30	-	N/A	33.08	-	+spp	+	H-	H-	+	<i>L.inno</i>	-	-	-	-	-	-	NA	NA	NA	NA	2	b	
2023	961	Déchets saumon	Wastes (Salmon)	H+/H-	+	H+/H-	+	<i>L.mono</i> <i>L.inno</i>	+	N/A	34.67	-	N/A	34.38	-	N/A	38.12	-	N/A	37.05	-	st	st	st	st	st	/	-	-	-	-	-	-	ND	ND	ND	ND	2	b	
2023	962	Déchets sardines	Wastes (Sardine)	st	st	st	st	/	-	N/A	32.67	-	N/A	32.36	-	N/A	32.39	-	N/A	32.07	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	b	
2023	963	Déchets pâté de porc fini	Wastes (Meat)	-	-	-	-	/	-	N/A	33.54	-	N/A	33.14	-	N/A	35.06	-	N/A	34.21	-	st	st	-	-	-	/	-	-	-	-	-	-	NA	NA	NA	NA	2	b	
2022	3759	Eau de process fabrication pâté fini	Process water	H-	+	H-	+	<i>L.inno</i>	-	N/A	32.57	-	N/A	32.97	-	N/A	32.54	-	N/A	32.44	-	+spp	+	H-	H-	+	<i>L.inno</i>	-	-	-	-	-	-	NA	NA	NA	NA	2	c	
2023	3766	Eau de rinçage PR-eau laveur extérieur	Rinsing water	st	st	st	st	/	-	N/A	32.45	-	N/A	32.43	-	N/A	32.64	-	N/A	32.99	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	c	
2023	530	Eau de process laveuse automatique, industrie poisson	Process water	H-	+	H-	+	<i>L.inno</i>	-	N/A	32.69	-	N/A	32.36	-	N/A	32.62	-	N/A	32.52	-	+spp	+	H-	H-	+	<i>L.inno</i>	-	-	-	-	-	-	NA	NA	NA	NA	2	c	
2023	531	Eau de process environnement laitier	Process water	st	-	st	-	/	-	N/A	32.92	-	N/A	32.29	-	N/A	32.67	-	N/A	32.99	-	-	st	-	st	-	/	-	-	-	-	-	-	NA	NA	NA	NA	2	c	
2023	532	Eau de rinçage production mousse de foie	Rinsing water	st	st	st	st	/	-	N/A	32.64	-	N/A	32.65	-	N/A	32.90	-	N/A	32.47	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	c	
2023	717	Eau de process filteuse environnement porc	Wastes (Meat)	st	st	st	st	/	-	N/A	32.83	-	N/A	32.54	-	N/A	33.12	-	N/A	32.75	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	c	
2023	730	Eau de process sortie laveuse, environnement volaille	Process water	H+	+	H+	+	<i>L.mono</i>	+	32.25	32.65	+	33.15	32.19	+	30.24	32.39	+	30.46	32.08	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	2	c	
2023	731	Eau de process environnement laitier	Process water	H+	+	H+	+	<i>L.mono</i>	+	33.75	34.10	+	30.53	32.21	+	32.46	33.99	+	33.41	33.37	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	2	c	
2023	732	Eau de process environnement laitier	Process water	st	st	st	st	/	-	34.25	33.19	+	32.56	32.92	+	32.10	33.13	+	33.30	31.86	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PD	PD	PD	PD	2	c	
2023	733	Eau de rinçage production galette végétale + algues	Rinsing water	H+	+	H+	+	<i>L.mono</i>	+	N/A	33.35	-	32.01 N/A N/A	32.27 35.20 35.04	+	-	N/A	33.04	-	N/A	32.12	-	st	st	st	st	/	-	-	-	-	-	-	ND	PA _{FP(alt)}	ND	ND	2	c	

PRODUCTION ENVIRONMENTAL SAMPLES																																							
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 [†]						ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																									Category	Type			
										1:10 with LSB II Broth -18h at 37°C																													
				iQ-Check <i>Listeria monocytogenes</i> II															Confirmation								Fraser	Final result confirmation	Final result				Agreement Ref/Alt						
				Easy II lysis protocol - Without FDRS APF Fast										Easy II lysis protocol - With FDRS APF Fast															w/o FDRS		w FDRS		w/o FDRS				w FDRS		
				Half Fraser		Fraser		Identifi- cation	Result	CFX96 Deep Well			CFX Opus Deep Well			CFX96 Deep Well			CFX Opus Deep Well			RAPID [®] <i>L.mono</i> (100µL)	RAPID [®] <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)			Identifi- cation	Result	CFX96 DW	CFX Opus DW	CFX96 DW	CFX opus DW			CFX96 DW	CFX Opus DW	CFX96 DW
				O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result																		
2023	734	Eau de process production de steak végétal	Process water	H+	+	H+	+	<i>L.mono</i>	+	30.86	32.73	+	29.62	31.63	+	29.80	32.65	+	29.82	31.63	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	2	c
2023	756	Eau de process environnement laitier (fin de lavage lait)	Process water	st	st	-	st	/	-	N/A	32.79	-	N/A	33.33	-	N/A	32.79	-	N/A	33.33	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	c
2023	828	Eau de process environnement laitier	Process water	H+	+	H+	+	<i>L.mono</i>	+	33.35	33.38	+	33.53	32.91	+	33.05	33.24	+	33.41	32.41	+	+/-spp d	+	H+	H+	+	<i>L.mono</i> <i>L.inno</i>		+	+	+	+	+	PA	PA	PA	PA	2	c
2023	829	Eau de process environnement végétal	Process water	H+	+	H+	+	<i>L.mono</i> <i>L.seel</i>	+	N/A	33.02	-	N/A	32.69	-	N/A	33.30	-	N/A	32.34	-	+spp	+	H-	H-	+	<i>L.seel</i>	-	-	-	-	-	-	ND	ND	ND	ND	2	c
2023	830	Eau de rinçage environnement carné	Rinsing water	H+/-	+	H+/- H-	+	<i>L.mono</i> <i>L.welsh</i>	+	36.59	33.15	+	36.27	32.43	+	39.15	33.18	+	38.90	32.68	+	+/-spp	+	H+/-	H+/-	+	<i>L.mono</i> <i>L.welsh</i>		+	+	+	+	+	PA	PA	PA	PA	2	c
2023	964	Eau de process lait	Process water	H+	+	H+	+	<i>L.mono</i>	+	34.39	34.14	+	34.25	34.18	+	34.18	33.94	+	33.51	33.39	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PA	PA	PA	PA	2	c
2023	965	Eau de process environnement carné	Process water	st	st	st	st	/	-	N/A	33.27	-	N/A	33.13	-	N/A	33.14	-	N/A	33.06	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	c
2023	966	Eau de process batch 2 (environnement carné)	Process water	st	st	st	st	/	-	30.87	32.66	+	30.61	32.21	+	31.01	32.88	+	30.97	32.59	+	+	+	H+	H+	+	<i>L.mono</i>		+	+	+	+	+	PD	PD	PD	PD	2	c
2023	967	Eau de process laitier	Process water	st	-	st	-	/	-	N/A	33.36	-	N/A	33.10	-	N/A	33.22	-	N/A	33.29	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	c
2023	968	Eau de process dinde surgelée	Process water	st	st	st	st	/	-	N/A	33.65	-	N/A	33.07	-	N/A	32.84	-	N/A	33.47	-	st	st	st	st	st	/	-	-	-	-	-	-	NA	NA	NA	NA	2	c

DAIRY PRODUCTS																																							
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1♦						ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																								Category	Type				
				1:10 with Half Fraser - 24h at 30°C						1:10 with prewarmed LSBII Broth 20 h at 37°C																													
										Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast						Confirmation								Fraser	Final result confirmation <i>Listeria monocytogenes</i>	Final result				Agreement Ref/Alt			
				Half Fraser		Fraser		Identi- fication	Result	CFX96 DW			CFX Opus DW			CFX96 DW			CFX Opus DW													w/o FDRS	w FDRS		w/o FDRS		w FDRS		
				O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID/ <i>L.mono</i> (100µL)	RAPID/ <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identifi- cation	Result	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW			
2023	1728	Fromage au lait cru de vache pâte cuite	Raw cow milk cheese	H+	+	H+	+	<i>L. mono</i>	+	31.64	34.22	+	32.32	33.58	+	33.23	33.24	+	34.51	33.35	+	+	+	H+	H+	+	<i>L monoc</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	a
2023	2742	Maroilles au lait cru de vache	Raw cow milk cheese	st	st	st	-	/	-	32.65	34.49	+	32.94	35.85	+	33.23	36.21	+	32.86	35.06	+	+	+	H+	H+	+	<i>L mono</i>	/	+	+	+	+	+	PD	PD	PD	PD	3	a
2023	2752	Fromage au lait cru de chèvre 158	Raw goat milk cheese	H+	+	H+	+	<i>L. mono</i>	+	41.07	32.82	+	41.98	32.99	+	42.44	33.07	+	N/A N/A N/A	32.94 33.12 32.98	-/-	- / + (x5)	+ d ni / +	- / + (x5)	- / + (x5)	- / + (x5)	<i>L mono</i>	/	+	+	+	+	-	PA	PA	PA	ND _{FN(alt)}	3	a
2023	2753	Fromage au lait cru de chèvre 252	Raw goat milk cheese	st	st	H+	+	<i>L. mono</i>	+	N/A N/A 41.17	33.08 33.08 32.46	-/-	N/A N/A N/A	32.97 32.46 32.78	-/-	41.29	32.82	+	42.73	32.91	+	+	+	H+	H+	+	<i>L mono</i>	/	+	-	-	+	+	ND _{FN(alt)}	ND _{FN(alt)}	PA	PA	3	a
2023	1730	Fromage au lait cru de vache Reblochon	Raw cow milk cheese	H+	+	H+	+	<i>L. mono</i>	+	33.97	33.43	+	34.25	33.16	+	34.19	33.4	+	34.46	33.65	+	+	+	H+	H+	+	<i>L mono</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	a
2023	1731	Fromage au lait cru de vache Gorgonzola	Raw cow milk cheese	H+	+	H+	+	<i>L. mono</i>	+	31.69	32.61	+	32.11	32.71	+	31.12	32.76	+	31.63	33.16	+	+	+	H+	H+	+	<i>L.mono / L. inno</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	a
2023	1732	Fromage au lait cru de brebis pâte persillée	Raw ewe milk cheese	-	-	H+	+	<i>L. mono</i>	+	N/A N/A 40.57	32.81 37.67 36.78	-/-	N/A N/A N/A	34.14 32.43 34.86	-/-	N/A N/A 43.39	32.88 36.62 33.32	-/-	N/A N/A 40.07	33.67 34.32 35.00	-/-	- (+ X5)	-	-	-	-	<i>L mono</i>	- (+ X5)	+	-	-	-	-	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	3	a
2023	1733	Fromage au lait cru de brebis	Raw ewe milk cheese	H+	+	H+	+	<i>L. mono</i>	+	36.09	32.85	+	37.22	33.78	+	36.94	32.78	+	39.22	34.26	+	+	+	H+	H+	+	<i>L mono</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	a
2023	1733	Fromage au lait cru de chèvre Rocamadour	Raw goat milk cheese	H+	+	H+	+	<i>L. mono</i>	+	N/A 39.32 37.32	34.53 32.68 32.18	-/+	N/A 38.08 38.23	32.57 32.66 33.17	-/+	N/A N/A N/A	33.26 32.92 33.15	-/-	N/A N/A N/A	33.12 32.81 32.81	-/-	+	+	H+	H+	+	<i>L mono</i>	/	+	-	-	-	-	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	3	a
2023	1734	Fromage au lait cru de brebis fondant	Raw ewe milk cheese	H+	+	H+	+	<i>L. mono</i>	+	33.84	32.61	+	35.05	34.31	+	34.77	32.84	+	37.03	34.27	+	+	+	H+	H+	+	<i>L mono</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	a
2023	1735	Fromage au lait cru de chèvre Picodon	Raw goat milk cheese	-	-	H-	+	<i>L welsh</i>	-	N/A 40.27 40.23	37.1 32.88 33.1	-/+	N/A N/A 39.18	37.9 32.77 32.41	-/-	38.15	34.04	+	42.08	34.57	+	+	+	H+	H+	+	<i>L mono</i>	/	+	-	-	+	+	NA _{FN(alt)}	NA _{FN(alt)}	PD	PD	3	a
2023	1729	Fromage au lait cru de vache Camembert	Raw cow milk cheese	H-	+	H-	+	<i>L inno</i>	-	N/A	33.37	-	N/A N/A*	N/A 32.99*	i / -*	N/A	34.27	-	N/A	33.12	-	-	+	-	-	+	<i>L inno</i>	-	-	-	-	-	-	NA	NA	NA	NA	3	a
2023	2741	Coulommiers au lait cru de vache	Raw cow milk cheese	-	-	st	-	/	-	N/A	38.23	-	N/A	39.14	-	N/A	39.9	-	N/A	43.09	-	-	-	-	-	-		-	-	-	-	-	-	NA	NA	NA	NA	3	a
2023	2743	Brie de Meaux au lait cru de vache	Raw cow milk cheese	st	st	st	st	/	-	N/A	38.23	-	N/A	38.7	-	N/A	38.7	-	N/A	38.11	-	-	+	-	-	+	<i>L inno</i>	-	-	-	-	-	-	NA	NA	NA	NA	3	a
2023	2744	Munster au lait cru de vache	Raw cow milk cheese	H-	+	H-	+	<i>L. inno</i>	-	N/A	34.3	-	N/A	34.87	-	N/A	33.92	-	N/A	34.45	-	-	+	-	-	+	<i>L inno</i>	-	-	-	-	-	-	NA	NA	NA	NA	3	a
2023	2745	Reblochon au lait cru de vache	Raw cow milk cheese	st	st	st	st	/	-	N/A	33.73	-	N/A	34.1	-	N/A	34.02	-	N/A	33.91	-	-	-	-	-	-		-	-	-	-	-	-	NA	NA	NA	NA	3	a
2023	2746	Le grand caprin au lait cru de chèvre	Raw goat milk cheese	st	st	st	st	/	-	N/A	33.12	-	N/A	33.13	-	N/A	33.04	-	N/A	33.1	-	-	-	-	-	-		-	-	-	-	-	-	NA	NA	NA	NA	3	a
2023	2747	Rocamadour au lait cru de chèvre	Raw goat milk cheese	st	st	st	st	/	-	N/A N/A*	N/A 33.21*	i / -*	N/A N/A*	N/A 32.89*	i / -*	N/A N/A*	N/A 33.48*	i / -*	N/A N/A*	N/A 32.95*	i / -*	-	-	-	-	-		-	-	-	-	-	-	NA	NA	NA	NA	3	a
2023	2748	Majette au lait cru de vache	Raw cow milk cheese	st	st	st	st	/	-	N/A	35.68	-	N/A	36.26	-	N/A	36.38	-	N/A	35.63	-	-	-	-	-	-		-	-	-	-	-	-	NA	NA	NA	NA	3	a

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

DAIRY PRODUCTS																																											
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 [♦]		ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																												Category	Type								
				1:10 with Half Fraser - 24h at 30°C						1:10 with prewarmed LSBII Broth 20 h at 37°C																																	
										Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast						Confirmation										Fraser	Final result confirmation <i>Listeria monocytogenes</i>			Final result				Agreement Ref/Alt			
										CFX96 DW			CFX Opus DW			CFX96 DW			CFX Opus DW																	w/o FDRS		w FDRS		w/o FDRS		w FDRS	
				Half Fraser	Fraser		Identi- fication	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID <i>L.mono</i> (100µL)	RAPID <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identifi- cation	Result	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW	CFX96 DW				CFX Opus DW	CFX96 DW	CFX Opus DW					
O&A	PALCAM	O&A	PALCAM	FAM Cq	I.C. Cq	Result			FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID <i>L.mono</i> (100µL)	RAPID <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identifi- cation	Result	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW											
2023	2749	Roves des garrigues au lait cru de chèvre	Raw goat milk cheese	st	st	st	st	/	-	N/A	33.69	-	N/A	34.11	-	N/A	34.65	-	N/A	33.34	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	a									
2023	2750	Saint Nicolas de la Dalmerie au lait cru de brebis	Raw ewe milk cheese	st	st	st	st	/	-	N/A	33.16	-	N/A	33.18	-	N/A	32.92	-	N/A	32.82	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	a									
2023	2751	Brie de Meaux au lait cru de vache	Raw cow milk cheese	st	st	st	st	/	-	N/A	36.29	-	N/A	36.01	-	N/A	37.49	-	N/A	36.42	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	a									
2023	3703	Tomme de brebis au lait cru au romarin	Raw ewe milk cheese	-	-	st	-		-	N/A	32.82	-	N/A	33.01	-	N/A	32.92	-	N/A	33.48	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	a									
2023	3704	Roquefort au lait cru de brebis	Raw ewe milk cheese	-	-	-	-		-	N/A	33.04	-	N/A	33.25	-	N/A	33.29	-	N/A	33.04	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	a									
2023	1723	Lait cru de brebis	Raw ewe milk	H+	+	H+	+	<i>L. mono</i>	+	24.87	32.1	+	24.7	31.7	+	24.68	31.6	+	25.28	31.76	+	+	+	+	+	+	<i>L. mono</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	b				
2023	1725	Lait cru de brebis	Raw ewe milk	H+	+	H+	+	<i>L. mono</i>	+	32.08	32.61	+	34.17	32.86	+	35.63	32.52	+	36.48	33.25	+	+	-	+	+	+	<i>L. mono</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	b				
2023	2934	Lait cru de vache	Raw cow milk	H+	+	H+	+	<i>L. mono</i>	+	N/A	33.73	-	N/A	32.76	-	N/A	33.69	-	N/A	33.45	-	-	-	-	-	-	-	-	ND	ND	ND	ND	3	b									
2023	1720	Lait cru de vache	Raw cow milk	H+	+	H+	+	<i>L. mono</i>	+	28.79	33.1	+	29.52	33.37	+	29.41	34.11	+	30.26	33.08	+	+	+	+	+	+	<i>L. mono</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	b				
2023	1721	Lait cru de vache	Raw cow milk	H+	+	H+	+	<i>L. mono</i>	+	32.2	36.99	+	33.31	36.61	+	33.38	36.31	+	34.02	35.04	+	+	+	+	+	+	<i>L. mono</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	b				
2023	1722	Lait cru de vache	Raw cow milk	-	-	-	-	/	-	32.5	33.1	+	32.21	33.16	+	32.33	34.03	+	32.99	33.66	+	+	+	+	+	+	<i>L. mono</i>	/	+	+	+	+	+	PD	PD	PD	PD	3	b				
2023	1726	Lait cru de chèvre	Raw goat milk	H-	+	H-	+	<i>L. inno</i>	-	29.48	32.36	+	30.13	32.55	+	29.74	32.39	+	30.77	32.59	+	+	+	+	+	+	<i>L.mono / L. inno</i>	/	+	+	+	+	+	PD	PD	PD	PD	3	b				
2023	1727	Lait cru de chèvre	Raw goat milk	H+	+	H+	+	<i>L. mono</i>	+	35.48	32.9	+	36.89	33.05	+	33.34	33.15	+	34.28	33.47	+	+	+	+	+	+	<i>L. mono</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	b				
2023	3701	Beurre de baratte non pasteurisé	Butter raw milk	-	-	-	-		-	31.41	33.78	+	31.32	34.33	+	31.14	33.86	+	31.04	33.46	+	+	+	+	+	+	<i>L.mono / L. inno</i>	/	+	+	+	+	+	PD	PD	PD	PD	3	b				
2023	3702	Beurre de baratte cru	Butter raw milk	+	+	+	+	<i>L. inno</i>	-	26.75	33.12	+	26.33	32.47	+	26.28	32.38	+	26.06	32.72	+	+	+	+	+	+	<i>L.mono / L. inno</i>	/	+	+	+	+	+	PD	PD	PD	PD	3	b				
2023	1724	Lait cru de brebis	Raw ewe milk	-	-	-	-	/	-	N/A	33.04	-	N/A	32.93	-	N/A	32.95	-	N/A	33.3	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	b									
2023	2821	Crème crue fermière	Raw cream	st	st	st	st	/	-	N/A	33.39	-	N/A	33.29	-	N/A	33.52	-	N/A	33.28	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	b									
2023	2822	Crème crue fermière	Raw cream	st	st	st	st	/	-	N/A	33.67	-	N/A	33.19	-	N/A	33.55	-	N/A	33.19	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	b									
2023	2823	Fromage blanc au lait cru de vache	Cottage cheese raw cow milk	st	st	st	st	/	-	N/A	36.62	-	N/A	35.56	-	N/A	37.05	-	N/A	36.05	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	b									
2023	2824	Faisselle au lait cru	Cottage cheese raw cow milk	-	-	-	-	/	-	N/A	33.48	-	N/A	33.69	-	N/A	33.15	-	N/A	33.67	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	b									
2023	2932	Lait cru de vache	Raw cow milk	H-	+	H-	+	<i>L. inno</i>	-	N/A	33.25	-	N/A	33.17	-	N/A	33.68	-	N/A	33.42	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	b									
2023	2935	Lait cru de vache	Raw cow milk	st	st	st	st	/	-	N/A	33.11	-	N/A	33.06	-	N/A	33.48	-	N/A	33.26	-	-	+	+	+	+	<i>L.inno</i>	-	-	-	-	-	-	NA	NA	NA	NA	3	b				
2023	3536	Lait ribot	Fermented milk	st	st	st	st	/	-	N/A	34.04	-	N/A	33.89	-	N/A	33.61	-	N/A	33.83	-	-	st	st	st	-		-	NA	NA	NA	NA	3	b									
2023	3537	Lait ribot	Fermented milk	-	-	st	-	/	-	N/A	35.12	-	N/A	34.2	-	N/A	34.01	-	N/A	34.37	-	-	-	-	-	-	st	-	NA	NA	NA	NA	3	b									
2023	3705	Faisselle au lait cru	Raw fermented milk	-	st	-	-		-	N/A	33.26	-	N/A	33.34	-	N/A	33.08	-	N/A	34.01	-	-	st	-	-	-	-	-	NA	NA	NA	NA	3	b									
2023	3706	Faisselle au lait cru	Raw fermented milk	st	-	st	-		-	N/A	33.56	-	N/A	33.93	-	N/A	33.04	-	N/A	34.33	-	-	st	-	-	-	-	-	NA	NA	NA	NA	3	b									

DAIRY PRODUCTS																																							
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 [♦]						ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																								Category	Type				
				1:10 with Half Fraser - 24h at 30°C						1:10 with prewarmed LSBII Broth 20 h at 37°C																													
										Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast						Confirmation										Fraser	Final result confirmation <i>Listeria monocytogenes</i>			Final result			
				Half Fraser		Fraser		Identi- fication	Result	CFX96 DW			CFX Opus DW			CFX96 DW			CFX Opus DW																w/o FDRS	w FDRS	w/o FDRS		w FDRS
				O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID/ <i>L.mono</i> (100µL)	RAPID/ <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identi- fication	Result	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW					
2023	2825	Lait de vache 1/2 écrémé pasteurisé	Pasteurized cow milk	H+	+	H+	+	<i>L. mono</i>	+	N/A	33.07	-	N/A	33.26	-	N/A	32.8	-	N/A	32.9	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	ND	3	c			
2023	2826	Lait de vache 1/2 écrémé pasteurisé	Pasteurized cow milk	H+	+	H+	+	<i>L. mono</i>	+	N/A	32.8	-	N/A	32.92	-	N/A	32.84	-	N/A	33.12	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	ND	3	c			
2023	2827	Lait de vache 1/2 écrémé pasteurisé aromatisé mangue / fruit de la passion	Pasteurized cow milk flavoured	H+	+	H+	+	<i>L. mono</i>	+	N/A	34.03	-	N/A	34.13	-	N/A	34.17	-	N/A	34.13	-	-	-	-	-	+	<i>L.seel</i>	-	-	-	-	-	ND	ND	ND	ND	3	c	
2023	2828	Fromage à pâte molle au lait pasteurisé de vache	Pasteurized cow cheese	-	-	+d	+d	<i>L. grayi</i>	-	32.94	35.32	+	33.28	36.07	+	30.38	33.22	+	30.54	32.94	+	+	+	+	+	+	<i>L.monos</i>	/	+	+	+	+	+	PD	PD	PD	PD	3	c
2023	2829	Fromage au lait de brebis pasteurisé	Pasteurized ewe cheese	st	st	st	st	/	-	38.38	32.87	+	38.3	33.09	+	38.52	32.81	+	39.22	32.99	+	+	+	+	+	+	<i>L.mono</i>	/	+	+	+	+	+	PD	PD	PD	PD	3	c
2023	2831	Lait frais de chèvre pasteurisé	Pasteurized goat milk	H+	+	H+	+	<i>L. mono</i>	+	N/A	32.69	-	N/A	33.48	-	N/A	33.56	-	N/A	33.05	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	ND	3	c		
2023	2834	Lait frais de brebis pasteurisé	Pasteurized ewe milk	H+	+	H+	+	<i>L. mono</i>	+	27.46	31.78	+	27.46	31.81	+	27.76	32.04	+	27.48	31.35	+	+	+	+	+	+	<i>L.mono</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	c
2023	3071	Lait demi écrémé déshydraté	Powdered half-skimmed milk	-	-	H+	+	<i>L. mono</i>	+	N/A	33.01	-	N/A	32.67	-	N/A	33.15	-	N/A	32.8	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	ND	3	c		
2023	3543	Brique pur brebis	Pasteurized ewe cheese	st	-	st	-	/	-	33.13	32.94	+	33.01	32.71	+	33.37	32.74	+	33.09	32.65	+	-	+	+	+	+	<i>L.mono</i>	/	+	+	+	+	+	PD	PD	PD	PD	3	c
2023	3545	Tomme des Pyrénées	Pasteurized cow cheese	H+	+	H+	+	<i>L. mono</i>	+	N/A N/A 41.29	33.41 34.44 34.41	- / - / +	N/A N/A N/A	32.99 34.71 33.29	- / - / -	N/A N/A N/A	34.21 35.42 34.39	- / - / -	N/A N/A N/A	34.04 35.26 34.28	- / - / -	-	+	+	+	+	<i>L.mono</i>	/	+	-	-	-	-	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	3	c
2023	2754	Crème glacée à la vanille "cookie"	Ice cream	-	-	-	-	/	-	N/A	33.09	-	N/A	33.48	-	N/A	33.62	-	N/A	33.55	-	-	-	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	c		
2023	2755	Crème glacée à la vanille "caramel"	Ice cream	st	st	-	-	/	-	N/A	33.47	-	N/A	32.82	-	N/A	32.86	-	N/A	32.96	-	-	-	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	c		
2023	2830	Fromage au lait de chèvre pasteurisé	Pasteurized goat cheese	st	st	st	st	/	-	N/A	32.64	-	N/A	32.65	-	N/A	33.18	-	N/A	32.83	-	-	-	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	c		
2023	2832	Lait frais de chèvre pasteurisé	Pasteurized goat milk	H-	+	H-	+	<i>L inno</i>	-	N/A	33.02	-	N/A	32.91	-	N/A	32.8	-	N/A	32.97	-	-	+	-	-	+	<i>L.inno</i>	-	-	-	-	-	-	NA	NA	NA	NA	3	c
2023	2833	Lait frais de brebis pasteurisé	Pasteurized ewe milk	H+	+	H+	+	<i>L. mono</i>	+	28.23	32.2	+	28.17	31.83	+	28.08	32.02	+	28	31.49	+	+	+	+	+	+	<i>L.mono</i>	/	+	+	+	+	+	PA	PA	PA	PA	3	c
2023	2835	Lait de vache pasteurisé aromatisé cappuccino	Pasteurized cow milk flavoured	st	st	st	st	/	-	N/A	32.97	-	N/A	33.29	-	N/A	33.37	-	N/A	33.26	-	-	-	-	-	+	<i>L.seel</i>	-	-	-	-	-	-	NA	NA	NA	NA	3	c
2023	3072	Lait demi écrémé déshydraté	Powdered half-skimmed milk	-	-	-	-	/	-	N/A	33.83	-	N/A	32.68	-	N/A	33.09	-	N/A	32.28	-	-	+d	-	-	-	<i>L.inno</i>	-	-	-	-	-	-	NA	NA	NA	NA	3	c
2023	3073	Lait entier déshydraté	Powdered whole milk	-	-	-	-	/	-	N/A	32.89	-	N/A	32.5	-	N/A	33.02	-	N/A	32.63	-	-	-	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	c		

DAIRY PRODUCTS																																							
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 [♦]		ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																												Category	Type				
				1:10 with Half Fraser - 24h at 30°C						1:10 with prewarmed LSBII Broth 20 h at 37°C																													
										Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast						Confirmation								Fraser	Final result confirmation <i>Listeria monocytogenes</i>	Final result				Agreement Ref/Alt			
				CFX96 DW			CFX Opus DW			CFX96 DW			CFX Opus DW			w/o FDRS	w FDRS	w/o FDRS		w FDRS																			
				Half Fraser	Fraser	Identi- fication	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID ^L <i>mono</i> (100µL)	RAPID ^L <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identifi- cation	Result	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW		CFX96 DW	CFX Opus DW			CFX96 DW	CFX Opus DW		
O&A	PALCAM	O&A	PALCAM	FAM Cq	I.C. Cq			Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID ^L <i>mono</i> (100µL)	RAPID ^L <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identifi- cation	Result	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW	CFX96 DW	CFX Opus DW		CFX96 DW	CFX Opus DW						
2023	3074	Lait entier déshydraté	Powdered whole milk	-	-	-	-	/	-	N/A	33.6	-	N/A	32.68	-	N/A	33.15	-	N/A	32.43	-	-	-	-	-	-	-	-	-	-		NA	NA	NA	NA	3	c		
2023	3075	Lait écrémé déshydraté	Powdered skimmed milk	-	-	-	-	/	-	N/A	32.85	-	N/A	32.69	-	N/A	32.99	-	N/A	33.05	-	-	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	c			
2023	3076	Lait écrémé déshydraté	Powdered skimmed milk	-	-	-	-	/	-	N/A	33.21	-	N/A	32.47	-	N/A	33.32	-	N/A	32.53	-	-	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	c			
2023	3077	Lait demi écrémé déshydraté	Powdered half-skimmed milk	-	-	-	-	/	-	N/A	32.95	-	N/A	32.63	-	N/A	33.1	-	N/A	32.76	-	-	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	c			
2023	3078	Lait écrémé déshydraté	Powdered skimmed milk	-	-	-	-	/	-	N/A	32.12	-	N/A	32.88	-	N/A	32.97	-	N/A	32.74	-	-	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	c			
2023	3260	Crème glacée vanille	Ice cream	H-	+	H-	+	<i>L. seel</i>	-	N/A	33.14	-	N/A	33.38	-	N/A	33.59	-	N/A	33.1	-	-	+	-	-	+	<i>L seel</i>	-	-	-	-	-	NA	NA	NA	NA	3	c	
2023	3261	Crème glacée vanille	Ice cream	st	-	st	-	/	-	N/A	33.37	-	N/A	33.01	-	N/A	33.08	-	N/A	32.93	-	-	st	-	-	-	-	-	-	-	NA	NA	NA	NA	3	c			
2023	3262	Crème glacée à la vanille	Ice cream	H-	+	H-	+	<i>L. seel</i>	-	N/A	33.7	-	N/A	32.57	-	N/A	33.04	-	N/A	33.34	-	-	+	-	-	+	<i>L seel</i>	-	-	-	-	-	NA	NA	NA	NA	3	c	
2023	3263	Crème glacée à la vanille	Ice cream	st	-	st	st	/	-	N/A	33.26	-	N/A	32.83	-	N/A	33.35	-	N/A	33.05	-	-	-	-	-	-	-	-	-	-	NA	NA	NA	NA	3	c			
2023	3544	Brique pur brebis	Pasteurized ewe cheese	H-	-	H-	+	<i>L inno</i>	-	N/A	33.02	-	N/A	33.17	-	N/A	33.06	-	N/A	33.1	-	-	+	-d	-d	-	<i>L. inno</i>	-	-	-	-	-	NA	NA	NA	NA	3	c	
2023	3546	Tomme des Pyrénées	Pasteurized cow cheese	st	-	st	st	/	-	N/A	33.39	-	N/A	33.09	-	N/A	33.27	-	N/A	32.92	-	-	+	-d	-d	-	<i>L. inno</i>	-	-	-	-	-	NA	NA	NA	NA	3	c	

MEAT AND POULTRY PRODUCTS																									
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 (2017) ♦						Alternative method : iQ-Check <i>Listeria monocytogenes</i> II														Category	Type
										1/10 with LSB II Broth pre warmed -18h at 37°C															
				1/10 with Half Fraser - 24h at 30°C						iQ-Check <i>Listeria monocytogenes</i> II 18 h			Confirmation							Subcult ure in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>	iQ-Check <i>Listeria monocytogenes</i> II 18 h			
										Easy II lysis protocol - Without FDRS APF Fast															
				Half Fraser		Fraser		Identification	Result	CFX Opus Deepwell												Result			
				O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identification (biochemical galery)							
2023	3955	Onglet de bœuf	Beef	H-	+	H-	+	<i>L.welshimeri</i>	-	N/A	33.75	-	+spp	+	H-	H-	+	<i>L.welshimeri</i>	-	-	-	NA	4	a	
2024	1699	Escalope de dinde	Turkey escalope	H+	+	H+	+	<i>L. monocytogenes</i>	+	38.53	32.63	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	a	
2024	1700	Steak haché 5%MG	Ground beef 5%fat	H-	+	H-	+	<i>L. welshimeri</i>	-	N/A	32.68	-	+spp	+	H-	H-	+(1)	<i>L. welshimeri</i>	-	-	-	NA	4	a	
2024	1701	Aiguillettes de poulet	Chicken	H+	+	H+	+	<i>L. ivanovii (x12)</i>	-	N/A	32.69	-	+spp	+	H+	H+	+	<i>L. ivanovii (x7)</i>	-	-	-	NA	4	a	
2024	2274	Cuisse de canard	Duck leg	H+	+	H+	+	<i>L. monocytogenes</i>	+	22.7	32	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	a	
2024	1277	Merguez	Merguez	H+/H- -	+	H+/H- -	+	<i>L. welshimeri</i> <i>L. monocytogenes</i>	+	32.93	32.25	+	+/+spp	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	c	
2024	1278	Steak haché	Ground beef	H+/H- -	+	H+/H- -	+	<i>L. welshimeri</i> <i>L. monocytogenes</i>	+	N/A/ 40.75/ N/A	32.55/ 32.51 /32.37	-/+/-	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	-	ND _{FN(alt)}	4	a	
2024	1279	Steak haché de volaille	Ground poultry	H+/H- d	+	H+/H- -	+	<i>L. welshimeri</i> <i>L. monocytogenes</i>	+	40.56	32.37	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	a	
2024	1280	Jambon de porc	Pork meat	H+	+	H+	+	<i>L. monocytogenes</i>	+	N/A	32.37	-	-C	-	-C	st	-C	/	-	-	-	ND	4	a	
2024	1281	Steak haché de volaille	Ground poultry	H+/H- -	+	H+/H- -	+	<i>L. welshimeri</i> <i>L. monocytogenes</i>	+	37.4	32.28	+	+/+spp	+	H+/H-	H+/H-	+	<i>L. welshimeri</i> <i>L. monocytogenes</i>	+	+	+	PA	4	a	
2024	1282	Poulet	Poultry	st	st	st	st	/	-	N/A	32.45	-	-	-C	-C	st	-B	/	-	-	-	NA	4	a	
2024	1283	Flanchet de porc 10%MG	Pork flank	H-d	-	st	-	/	-	35.01	32.73	+	+	+	H+/H-d H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PD	4	a	
2024	1284	Emincé kebab dinde rôti et poulet	Sliced roast turkey and chicken kebab	-	-	-	-	/	-	N/A	32.38	-	+spp d / -B	-C	-B	-C	-C	/	-	-	-	NA	4	b	
2024	1286	Dés de poulet fumés	Diced smoked chicken	st	-	st	-	/	-	N/A	32.39	-	-C	-C	st	st	-C	/	-	-	-	NA	4	b	
2024	1287	Saucisse de poulet	Poultry sausage	st	st	st	st	/	-	N/A	32.57	-	-C	-C	st	st	-C	/	-	-	-	NA	4	c	
2024	1288	Saucisse fumée	Smoked sausage	H+/H- -	+	H+/H- -	+	<i>L. welshimeri</i> <i>L. monocytogenes</i>	+	N/A	32.07	-	+spp	+	H-	H-	+	<i>L. welshimeri</i>	-	-	-	ND	4	c	
2024	1289	Chorizo fumé pur porc	Smoked chorizo	H-	+	H-	+	<i>L. welshimeri</i>	-	N/A	32.34	-	-C	-C	-C	st	-C	/	-	-	-	NA	4	c	
2024	1290	Pâté de campagne maison	Pâté	st	st	st	st	/	-	N/A	32.39	-	-C	-C	-C	st	-C	/	-	-	-	NA	4	c	
2024	1291	Jambon cuit supérieur - Dés	Cooked ham	H+	+	H+	+	<i>L. monocytogenes</i>	+	N/A	32.35	-	-C	-C	-C	st	-C	/	-	-	-	ND	4	c	
2024	1292	Boudin noir	Black sausage	st	st	st	st	/	-	N/A	32.58	-	-C	-C	-C	st	-C	/	-	-	-	NA	4	c	
2024	1293	Saucisse fumée cuite	Cooked smoked sausage	st	st	st	-	/	-	N/A	32.44	-	-C	-C	-C	st	-C	/	-	-	-	NA	4	c	
2024	1294	Saucisson	Sausage	st	st	st	st	/	-	N/A	32.34	-	-C	-C	-C	st	-C	/	-	-	-	NA	4	c	
2024	1295	Miettes bacon fumé	Smoked bacon	st	st	st	st	/	-	N/A	32.36	-	-C	-C	-C	st	-C	/	-	-	-	NA	4	c	
2024	2275	Filet de bœuf	Cut of beef	H+	+(9)	H+	+	<i>L. monocytogenes</i>	+	34.19	33.31	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	a	
2024	2276	Côte d'agneau	Lamb chop	H+/H- -	+	H+/H- H+	+	<i>L. monocytogenes</i> <i>L. welshimeri</i>	+	33.88	33.24	+	+/+spp	+	H-	H-	+	<i>L. monocytogenes</i> <i>L. innocua</i>	+	+	+	PA	4	a	
2024	1704	Viande de hachis parmentier	Shepherd's pie meat	H+	+	H+	+	<i>L. monocytogenes</i>	+	N/A	32.74	-	+	+	H-	H-	+	<i>L. welshimeri</i>	-	-	-	ND	4	b	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

MEAT AND POULTRY PRODUCTS																									
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 (2017) ♦						Alternative method : iQ-Check <i>Listeria monocytogenes</i> II														Category	Type
										1/10 with LSB II Broth pre warmed -18h at 37°C															
				1/10 with Half Fraser - 24h at 30°C						iQ-Check <i>Listeria monocytogenes</i> II 18 h			Confirmation							Subcult ure in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>	iQ-Check <i>Listeria monocytogenes</i> II 18 h			
										Easy II lysis protocol - Without FDRS APF Fast															
				Half Fraser		Fraser		Identification	Result	CFX Opus Deepwell			RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identification (biochemical galery)	Result						
				O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result													
2024	1705	Bœuf charolais au médoc	Wine beef	H+/H- -	+	H+/H- -	+	<i>L. monocytogenes</i> <i>L. welshimeri</i>	+	40.42/ N/A/ N/A	33.11/3 3.19/ 33.01	+/-/-	st	st	st	st	-	/	-	-	-	PA _{FP(alt)}	4	b	
2024	1706	Viande couscous	Couscous meat	H+	+	H+	+	<i>L. monocytogenes</i>	+	26.41	31.4	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	b	
2024	2659	Canard confit sauce au poivre	Duck confit with mushroom sauce	st	st	st	st	/	-	N/A	33	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2660	Emincés de bœuf sauce au poivre	Sliced beef with pepper sauce	st	st	st	st	/	-	N/A/ N/A/ N/A	32.28/ 33.23/ 33.49	-/-/-	+	+	H+	H+ (3)	+ (5)	<i>L. monocytogenes</i>	+	+	-	NA	4	b	
2024	2661	Paupiette de veau	Veal paupiette	st	st	H+	+	<i>L. monocytogenes</i>	+	N/A	32.28	-	st	st	st	st	st	/	-	-	-	ND	4	b	
2024	2662	Blanquette de veau	Veal blanquette	st	st	st	st	/	-	N/A	32.46	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2663	Langue de bœuf sauce piquante	Beef tongue with spicy sauce	st	st	st	st	/	-	N/A	32.62	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	1923	Escalope de dinde	Turkey escalope	-	-	-	-	/	-	37.88	32.54	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PD	4	a	
2024	1924	Saucisse de volaille fumée	Smoked poultry sausage	st	st	H+	+	<i>L. monocytogenes</i>	+	33.05	32.28	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	c	
2024	1925	Steak haché de volaille	Ground poultry	H-	-	H-	+	<i>L. welshimeri</i>	-	N/A	32.57	-	-	-	-	-	-	/	-	-	-	NA	4	a	
2024	1926	Langue de bœuf en sauce	Beef tongue	st	st	st	-	/	-	N/A	3256	-	-	-	-	H- (1)	-	<i>L. innocua</i>	-	-	-	NA	4	b	
2024	1927	Saucisse (kit charcuterie vrac)	Sausage	st	st	st	-	/	-	N/A/ 36.41/ 35.83	33.17/ 33.29/ 33.47	-/+/+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	-	NA _{FN(alt)}	4	c	
2024	1928	Boudin noir	Black sausage	H+	+	H+/H- -	+	<i>L. monocytogenes</i> <i>L. innocua</i>	+	28.4	31.69	+	+	+	H+/H-	H+/H-	+	<i>L. monocytogenes</i> <i>L. innocua</i>	+	+	+	PA	4	c	
2024	1929	Pavé au poivre	Pepper steak	st	-	st	-	/	-	N/A	32.48	-	-	-	-	st	-	/	-	-	-	NA	4	c	
2024	1930	Poitrine fumée en tranches	Smoked bacon	st	+	H+	+	<i>L. monocytogenes</i>	+	33.25	32.33	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	c	
2024	2664	Rougail saucisses	Sausage rougail	st	st	st	st	/	-	N/A	32.73	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2665	Joue de porc sauce provençale	Pork cheek and Provencal sauce	st	st	st	st	/	-	N/A	32.57	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2666	Porc au caramel	Pork with caramel	st	st	st	st	/	-	N/A	32.78	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2667	Poulet tikka massala	Chicken tikka massala	st	st	st	st	/	-	N/A	32.93	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2783	Fondant bœuf	Beef fondant	H+	+	H+	+	<i>L. monocytogenes</i>	+	40	32.5	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	b	
2024	2533	Boulettes de bœuf surgelées	Frozen beef balls	-	-	-	-	/	-	N/A	32.9	-	-	-	-	-	-	/	-	-	-	NA	4	a	
2024	2534	Steak haché surgelé	Frozen grounded beef	-	st	-	st	/	-	N/A	32.6	-	-	st	-	-	-	/	-	-	-	NA	4	a	
2024	2535	Cuisse de poulet surgelé	Frozen chicken	-	-	-	st	/	-	N/A	32.16	-	-	st	-	-	-	/	-	-	-	NA	4	a	
2024	2536	Aiguillettes de poulet	Chicken strips	-	st	-	st	/	-	N/A	32.72	-	-	st	-	-	-	/	-	-	-	NA	4	a	
2024	2537	Côte de veau	Veal chop	-	-	-	-	/	-	N/A	32.6	-	-	st	-	-	-	/	-	-	-	NA	4	a	
2024	2538	Côte de porc	Pork chop	-	-	-	-	/	-	N/A	32.51	-	-	st	st	st	-	/	-	-	-	NA	4	a	
2024	2539	Tranche à griller agneau	Lamb grill slice	-	st	-	-	/	-	N/A	32.38	-	-	st	st	-	-	/	-	-	-	NA	4	a	
2024	2540	Sauté de dinde surgelé	Frozen turkey	H-	+	+	+	/	-	N/A	32.34	-	+d	+	H-d	H-d	+	/	-	-	-	NA	4	a	
2024	2542	Blanquette de veau	Veal blanquette	st	st	st	st	/	-	N/A	32.58	-	st	st	st	st	st	/	-	-	-	NA	4	b	

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										1/10 with LSB II Broth pre warmed -18h at 37°C															
										iQ-Check <i>Listeria monocytogenes</i> II 18 h			Confirmation								Subcult ure in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>	iQ-Check <i>Listeria monocytogenes</i> II 18 h		
				1/10 with Half Fraser - 24h at 30°C						Easy II lysis protocol - Without FDRS APF Fast													Final result		
				Half Fraser		Fraser		Identification	Result	CFX Opus Deepwell			RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identification (biochemical galery)	Result						
				O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result													
2024	2543	Poulet basquaise	Basque chicken	st	st	st	st	/	-	N/A	32.39	-	-	st	-	-	st	/	-	-	-	NA	4	b	
2024	2546	Lapin aux deux moutardes	Mustard rabbit	st	st	st	st	/	-	N/A	32.68	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2547	Pâté de campagne maison	Pâté	st	st	-	-	/	-	N/A	32.37	-	-	-	-	-	st	/	-	-	-	NA	4	c	
2024	2548	Coppa	Coppa	-	-	-	-	/	-	N/A	32.57	-	-	st	-	-	-	/	-	-	-	NA	4	c	
2024	2549	Lardons fumés	Smoked bacon	-	st	st	st	/	-	N/A	32.6	-	+d	+	H-	H-d	+	/	-	-	-	NA	4	c	
2024	2784	Bœuf bourguignon	Bourguignon potatoes and carrot	H+	+	H+	+	<i>L. monocytogenes</i>	+	32.29	32.47	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	b	
2024	2785	Emincé bœuf sauce au poivre	Sliced beef with pepper sauce	H+	+	H+	+	<i>L. monocytogenes</i>	+	32.5	32.41	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	b	
2024	2786	Bœuf bourguignon	Bourguignon	st	st	st	st	/	-	32.65	32.33	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PD	4	b	
2024	2787	Aiguillette poulet en ratatouille	Chicken wings in ratatouille sauce	H+	+	H+	+	<i>L. monocytogenes</i>	+	34.91	32.49	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	b	
2024	2788	Poulet au curry	Chicken in curry sauce	H+	+	H+	+	<i>L. monocytogenes</i>	+	33	32.32	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	b	
2024	2789	Poulet tikka massala	Tikka massala chicken	H+	+	H+	+	<i>L. monocytogenes</i>	+	39.32	32.37	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	b	
2024	2790	Joue de porc sauce provençale	Pork cheek in provencal sauce	H+	+	H+	+	<i>L. monocytogenes</i>	+	32.67	32.12	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	b	
2024	2791	Porc au caramel	Caramel pork	H+	+	H+	+	<i>L. monocytogenes</i>	+	31.4	32.22	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	b	
2024	2792	Colombo de porc	Pork colombo	H+	+	H+	+	<i>L. monocytogenes</i>	+	32.29	32.06	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	b	
2024	2672	Canard confit, sauce champignon	Duck confit, with mushroom sauce	st	st	st	st	/	-	N/A	32.68	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2673	Emincés de bœuf, sauce poivre	Sliced beef and pepper sauce	st	st	st	st	/	-	N/A	32.5	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2674	Paupiette de veau	Veal paupiette	st	st	st	st	/	-	N/A	32.61	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2675	Blanquette de veau	Veal blanquette	st	st	st	st	/	-	N/A	32.3	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2676	Langue de bœuf sauce piquante	Beef tongue with spicy sauce	st	st	st	st	/	-	N/A	32.78	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2677	Sauté de porc	Stir-fried pork	st	st	st	st	/	-	N/A	32.31	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2678	Filet de poulet aux câpres	Chicken fillet with capers	st	st	st	st	/	-	N/A	32.62	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2679	Poulet tikka massala	Tikka massala chicken	st	st	st	st	/	-	N/A	32.62	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2680	Colombo de porc	Pork colombo	st	st	st	st	/	-	N/A	32.43	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2024	2681	Aiguillettes de poulet à la méditerranéenne	Mediterranean chicken strips	st	st	st	st	/	-	N/A	32.5	-	st	st	st	st	st	/	-	-	-	NA	4	b	
2023	3949	Salami pur porc	Salamo	st	st	st	st	/	-	N/A	33.13	-	st	st	st	st	st	/	-	-	-	NA	4	c	
2023	3953	Jambon cuit	Ham	st	st	st	st	/	-	N/A	33.08	-	st	st	st	st	st	/	-	-	-	NA	4	c	
2023	3954	Bacon fumé	Bacon	H-	+	H-	+	<i>L. innocua</i>	-	N/A	32.95	-	st	st	st	st	st	/	-	-	-	NA	4	c	
2023	3956	Chipolatas pur porc	Chipolatas	H-	+	H-	+	<i>L. innocua</i>	-	N/A	32.63	-	+spp	+	H-	H-	+	<i>L. welshimeri</i>	-	-	-	NA	4	c	
2024	1707	Bacon	Bacon	st	st	st	st	/	-	N/A	32.75	-	+	+	H-	H-	+	<i>L. seeligeri</i>	-	-	-	NA	4	c	
2024	1708	Rillettes de porc	Pork rillettes	H-	+	H-	+	<i>L. seeligeri</i>	-	28.3	31.79	+	+	+	H+/H-	H+	+	<i>L. monocytogenes</i> <i>L. seeligeri</i>	+	+	+	PD	4	c	
2024	1709	Lardons nature	Bacon	H-	+(2)	st	-	<i>L. grayi</i>	-	N/A	33.14	-	+spp	st	H-	H-	-	<i>L. grayi</i>	-	-	-	NA	4	c	

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										1/10 with LSB II Broth pre warmed -18h at 37°C															
										iQ-Check <i>Listeria monocytogenes</i> II 18 h		Confirmation								Subcult ure in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>	iQ-Check <i>Listeria monocytogenes</i> II 18 h			
				1/10 with Half Fraser - 24h at 30°C						Easy II lysis protocol - Without FDRS APF Fast												Final result	Agreement Ref/Alt		
				Half Fraser		Fraser		Identification	Result	CFX Opus Deepwell			RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identification (biochemical galery)	Result						
				O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result													
2024	1710	Pancetta	Pancetta	H-	+	H-	+	<i>L. seeligeri</i>	-	N/A	33.21	-	+spp	st	H-	H-	+	<i>L. seeligeri</i>	-	-	-	NA	4	c	
2024	2277	Rosette	Rosette	st	st	st	st	/	-	N/A	33.44	-	-	st	-	st	st	/	-	-	-	NA	4	c	
2024	2278	Cervelas	Cervelas	H+	+	H+	+	<i>L. monocytogenes</i>	+	24.55	31.41	+	+	+	H+	H+	+	<i>L. monocytogenes</i>	+	+	+	PA	4	c	

VEGETABLES																																	
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method : iQ-Check <i>Listeria monocytogenes</i> 1:10 with LSBII Broth pre warmed-18h at 37°C														Category	Type								
										iQ-Check <i>Listeria monocytogenes</i> II 18 h			Confirmation						Subculture in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>	iQ-Check <i>Listeria monocytogenes</i> II 18 h												
				1:10 with Half Fraser - 24h at 30°C						CFX Opus Deep Well												Final result	Agreement Ref/Alt										
				Half Fraser		Fraser		Identification	Result																	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)
				O&A	PALCAM	O&A	PALCAM																										
2024	2181	Chou-fleur riz	Cauliflower	-	st	st	st	/	-	32.81	33.18	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PD	5	a									
2024	2182	Mélange légumes (carottes, oignons, navets)	Vegetables mix	st	st	st	st	/	-	N/A	33.13	-	-	st	-		-	/	-	-	-	NA	5	a									
2024	2184	Brocolis hachés	Ground broccoli	H+/H-	+	H+/H-	+	<i>L. mono</i> <i>L. innoc</i>	+	26.02	31.98	+	+/+spp	+	H+/H-	H+/H-	+	<i>L. mono</i> <i>L. innoc</i>	+	+	+	PA	5	a									
2024	2185	Ciboulette	Chive	-	-	st	-	/	-	N/A	32.73	-	-	-	-	-	-	/	-	-	-	NA	5	a									
2024	2186	Persil frisé	Curly parsley	-	-	-	-	/	-	N/A	32.92	-	-	-	-	-	-	/	-	-	-	NA	5	a									
2024	2605	Chou	Cabbage	st	st	st	st	/	-	40.67 41.01 38.6	32.39 33.16 33.27	+/+/+	st	st	st	st	st	/	-(x5)	-	-	PD _{FP(alt)}	5	a									
2024	2606	Brocoli	Broccoli	H+	+	H+	+	<i>L. mono</i>	+	N/A	32.46	-	+spp d/-	st	-	-	st	/	-	-	-	ND	5	a									
2024	2607	Haricots verts	Green beans	-	-	H-	+	<i>L. seeli</i>	-	39.83 N/A 41.59	32.38 32.93 33.04	+/+/-	+spp d/-	+d/-	H-d/-	-	-	/	+(x5: <i>L. mono</i>)	+(after Fraser)	+	PA	5	a									
2024	2608	Chou-fleur	Cauliflower	st	st	st	st	/	-	37.37 39.45 37.17	32.19 32.93 33.2	+/+/+	+spp	+(spp)	H-	H-	st	<i>L. seeli</i>	-	-	-	PD _{FP(alt)}	5	a									
2024	2610	Persil	Parsley	-	+	H-	+	<i>L. seeli</i> (x3)	-	N/A	32.49	-	+spp	+(spp)	H-	H-	+	<i>L. welsh</i>	-	-	-	NA	5	a									
2024	2611	Ciboulette	Chives	H+	+	H+	+	<i>L. mono</i>	+	N/A	32.35	-	+spp d/-	+d/-	-	-	-	/	-	-	-	ND	5	a									
2024	2613	Carottes râpées	Grated carrots	st	st	st	st	/	-	N/A	32.39	-	-	st	-	-	-	/	-	-	-	NA	5	a									
2024	3733	Tomate	Tomato	H+	+	H+	+	<i>L. mono</i>	+	23.4	31.6	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	5	a									
2024	3734	Poireau	Leek	H+	+	H+	+	<i>L. mono</i>	+	30.82	33.51	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	5	a									
2024	3735	Oignons	Onions	st	st	st	-	/	-	32.82	33.43	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PD	5	a									
2024	3736	Courgette	Zucchini	H+	+	H+	+	<i>L. mono</i>	+	25.06	32.71	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	5	a									
2024	3737	Aubergine	Eggplant	H+	+	H+	+	<i>L. mono</i>	+	27.29	33.37	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	5	a									
2024	3738	Salade	Salad	H+	+	H+	+	<i>L. mono</i>	+	23.9	32.85	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	5	a									
2024	2860	Wok du soleil	Vegetables wok	-	-	st	-	/	-	31.9	32.15	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PD	5	a									
2024	2932	Légumes pour couscous	Vegetables for couscous	H-d/-	-	-	-	/	-	N/A	33.16	-	-	+d/-	H-d/-	-	-	/	-	-	-	NA	5	a									
2024	3123	Courgettes en julienne	Julienne zucchini	H+	+	H+	+	<i>L. mono</i>	+	28.48	31.81	+	+/+spp	+	H+/H-	H+/H-	+	<i>L. mono</i> <i>L. innoc</i>	+	+	+	PA	5	a									
2024	3124	Champignons émincés	Sliced mushrooms	-	-	-	st	/	-	N/A	33.28	-	-	-	-	-	-	/	-	-	-	NA	5	a									
2024	3125	Persil plat	Flat parsley	-	st	-	st	/	-	N/A	32.86	-	-	-	-	-	st	/	-	-	-	NA	5	a									
2024	3755	Tomate	Tomato	-	-	-	-	/	-	N/A	34.43	-	-	-	-	-	st	/	-	-	-	NA	5	a									
2024	3756	Poireau	Leek	st	st	st	st	/	-	N/A	34.44	-	st	st	-	st	-	/	-	-	-	NA	5	a									
2024	2183	Haricots verts très fins surgelés	Frozen green beans	H-	+	H-	+	<i>L. innoc</i>	-	N/A	33.12	-	+spp	+(spp)	H-d	H-	-	<i>L. innoc</i>	-	-	-	NA	5	b									
2024	2187	Mélange légumes grillés	Roasted vegetables mix	-	-	-	-	/	-	N/A	33.3	-	-	-	-	-	-	/	-	-	-	NA	5	b									

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

VEGETABLES																									
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method : iQ-Check <i>Listeria monocytogenes</i> 1:10 with LSBII Broth pre warmed-18h at 37°C														Category	Type
										iQ-Check <i>Listeria monocytogenes</i> II 18 h			Confirmation						Subculture in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>	iQ-Check <i>Listeria monocytogenes</i> II 18 h				
				1:10 with Half Fraser - 24h at 30°C						CFX Opus Deep Well											Final result	Agreement Ref/Alt			
				Half Fraser		Fraser		Identification	Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identification (biochemical galery)	Result						
				O&A	PALCAM	O&A	PALCAM																		
				2024	2188	Poêlée champêtre surgelée	Frozen fried vegetables	-	-	H-	+	<i>L. innoc</i>	-	N/A 40.1 39.48	33 33.26 32.64	-/+ / +	+ / +spp	+	H-	H+d/H-	+	<i>L. innoc</i> <i>L. mono</i>	+		
2024	2189	Mini röstis patate douce	Yam roast	st	st	st	st	/	-	N/A	33.45	-	-	-	-	-	-	/	-	-	-	NA	5	b	
2024	2192	Potimarron en cube surgelés	Frozen pumpink brick	H-	+	H-	+	<i>L. welsh</i>	-	N/A	33.18	-	st	st	-	st	st	/	-	-	-	NA	5	b	
2024	2193	Courgettes grillées	Roasted zucchini	H+	+	H+	+	<i>L. mono</i>	+	24.19	31.26	+	+spp	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	5	b	
2024	2194	Printanière de légumes	Fried vegetables	-	-	st	st	/	-	N/A	33.12	-	-	-	-	-	st	/	-	-	-	NA	5	b	
2024	2614	Ratatouille surgelée	Frozen ratatouille	-	-	-	-	/	-	N/A	32.41	-	-	st	-	-	-	/	-	-	-	NA	5	b	
2024	2615	Poêlée à la basquaise surgelée	Frozen stir-fried vegetables	-	-	-	-	/	-	N/A	32.19	-	-	st	-	-	-	/	-	-	-	NA	5	b	
2024	2616	Poêlée champêtre surgelée	Frozen stir-fried vegetables	H+/H-	+	H+	+	<i>L. seeli</i> <i>L. mono</i>	+	N/A	32.2	-	+spp	+	(spp)	H-	H-	+	<i>L. seeli</i>	-	-	-	ND	5	b
2024	2617	Poireaux en rondelles surgelés	Frozen sliced leeks	st	st	st	st	/	-	N/A	32.27	-	-	st	-	-	-	/	-	-	-	NA	5	b	
2024	2618	Chou-fleur fleurettes surgelés	Frozen cauliflower florets	st	st	st	st	/	-	N/A	32.97	-	+spp	+	(spp)	H-	H-	+	<i>L. welsh</i>	-	-	-	NA	5	b
2024	2619	Cartottes en rondelles surgelées	Frozen sliced carrots	H+	+	H+	H+	<i>L. mono</i>	+	36.53	32.48	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	5	b	
2024	3496	Frites fraîches	Fresh fries	H+	+	H+	+	<i>L. mono</i>	+	23.57	31.52	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	5	b	
2024	3497	Galette soja, poivre, persil	Soy, pepper and parsley pancake	H+	+	H+	+	<i>L. mono</i>	+	N/A	33.26	-	-	-	-	-	-	/	-	-	-	ND	5	b	
2024	3505	Oignons émincés surgelés	Frozen sliced onions	st	st	st	st	/	-	N/A	33.37	-	-	-	-	-	-	/	-	-	-	NA	5	b	
2024	3506	Trio de poivrons lanières surgelés	Trio of frozen pepper strips	H+/H-	+	H+/H-	+	<i>L. innoc</i> <i>L. mono</i>	+	29.37	32.96	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	5	b	
2024	3507	Epinards en branches surgelés	Frozen spinach	H+	+	H+	+	<i>L. mono</i>	+	27.01	33.05	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	5	b	
2024	3508	Printanière de légumes surgelée	Frozen spring vegetables	H+	+	H+	+	<i>L. mono</i>	+	25.69	32.1	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	5	b	
2024	3509	Risotto de légumes verts surgelé	Frozen green vegetables risotto	H+/H-	+	H+	+	<i>L. mono</i> <i>L. seeli</i>	+	26.09	32.16	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	5	b	

VEGETABLES																									
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method : iQ-Check <i>Listeria monocytogenes</i>														Category	Type
										1:10 with LSBII Broth pre warmed-18h at 37°C															
				iQ-Check <i>Listeria monocytogenes</i> II 18 h						Confirmation								Subculture in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>	iQ-Check <i>Listeria monocytogenes</i> II 18 h					
																				1:10 with Half Fraser - 24h at 30°C		Final result			
				Half Fraser		Fraser		Identification	Result	CFX Opus Deep Well			RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identification (biochemical galery)	Result	Final result confirmation <i>Listeria monocytogenes</i>	Final result	Agreement Ref/Alt			
O&A	PALCAM	O&A	PALCAM	FAM Cq	I.C. Cq	Result																			
2024	3510	Potage de légumes variés surgelé	Frozen mixed vegetable soup	H+	+	H+	+	<i>L. mono</i>	+	N/A	33.41	-	-	-	-	-	-	/	-	-	-	ND	5	b	
2024	3511	Poêlée rustique surgelée	Frozen rustic stir-fry	H+	+	H+	+	<i>L. mono</i>	+	28	32.74	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	5	b	
2024	2930	Gratin de chou-fleur et brocolis bio	Cauliflower and broccoli gratin	H-d/-	-	-	-	/	-	N/A	32.47	-	-	+d/-	-	-	-	/	-	-	-	NA	5	b	
2024	3127	Poêlée parisienne	Parisian stir-fry	-	-	H-d/-	-	/	-	N/A	34.67	-	+spp	+	H-	H-	+	<i>L. innoc</i>	-	-	-	NA	5	b	
2024	3128	Galette de soja provençale	Provençal soy pancake	-	-	-	-	/	-	N/A	32.99	-	+spp d /-	st	-	-	-	/	-	-	-	NA	5	b	
2024	3129	Palets chou/brocoli	Cabbage/broccoli patties	H+	+	H+	+	<i>L. mono</i>	+	27.71	32.19	+	+/+spp	+	H+/H-	H+/H-	+	<i>L. mono</i> <i>L. innoc</i>	+	+	+	PA	5	b	
2024	3490	Oignons émincés surgelés	Frozen sliced onions	st	st	st	st	/	-	N/A	33.24	-	-	st	-	st	st	/	-	-	-	NA	5	b	
2024	3491	Trio de poivrons lanières surgelés	Trio of frozen pepper strips	-	-	-	-	/	-	N/A	33.33	-	-	st	-	-	-	/	-	-	-	NA	5	b	
2024	3492	Frites fraîches	Fresh fries	st	st	-	-	/	-	N/A	33.29	-	-	-	-	-	-	/	-	-	-	NA	5	b	
2024	3493	Galette soja, poivre, persil	Soy, pepper and parsley pancake	-	-	-	-	/	-	N/A	33.69	-	-	st	st	st	st	/	-	-	-	NA	5	b	
2024	2190	Epinards hachés crème surgelés	Frozen ground spinach	H+	+	H+	+	<i>L. mono</i>	+	29.4	32.33	+	+spp	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	5	c	
2024	2191	Pommes de terres blanchies	Whitened potatoes	-	-	-	-	/	-	28.19	32.13	+	+/+spp	+	H+/H-	H+/H-	+	<i>L. mono</i> <i>L. innoc</i>	+	+	+	PD	5	c	
2024	2195	Pommes rissoles prérites	Pre-fried potatoes	H-	-	-	-	<i>L. grayi</i>	-	N/A	33.05	-	-	-	-	-	-	/	-	-	-	NA	5	c	
2024	2609	Gaspacho	Gaspacho	H+	+	H+	+	<i>L. mono</i>	+	31.54	32.02	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	5	c	
2024	2612	Mélange de crudités chou blanc-céleri-carottes	Mix of raw vegetables	st	st	st	st	/	-	33.44	32.53	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PD	5	c	
2024	3498	Falafels végétaux coriandre, menthe	Vegetable falafels with coriander and mint	H+	+	H+	+	<i>L. mono</i>	+	32.83	33.2	+	-	d	-	-	-	<i>L. mono</i>	+	+	+	PA	5	c	
2024	3739	Galette végétale	Vegetable cake	H+	+	H+	+	<i>L. mono</i>	+	25.78	33.14	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	5	c	
2024	2929	Aubergines grillées	Grilled eggplant	H-d	-	H-d	-	<i>L. seeli</i>	-	N/A	32.9	-	-	+d	-	H-d	-	<i>L. seeli</i>	-	-	-	NA	5	c	
2024	2931	Knack végétal préparation fumée	Smoked vegetable knack	H-d	-	-	-	<i>L. seeli</i>	-	N/A	32.26	-	-	+d	-	-	-	<i>L. seeli</i>	-	-	-	NA	5	c	
2024	2933	Champignons cuits coupés	Cut cooked mushrooms	st	-	-	-	/	-	N/A	32.6	-	st	st	st	st	st	/	-	-	-	NA	5	c	
2024	2934	Poivrons rouges grillés	Grilled red peppers	H+	+	H+	+	<i>L. mono</i>	+	N/A	32.9	-	st	st	-	st	st	/	+(x5: <i>L.monocytogenes</i>)	+ (after Fraser)	-	ND _{FN(alt)}	5	c	

VEGETABLES																													
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										1:10 with Half Fraser - 24h at 30°C						iQ-Check <i>Listeria monocytogenes</i> II 18 h						Confirmation						Subculture in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>
				Half Fraser		Fraser		Identification	Result																				
				O&A	PALCAM	O&A	PALCAM			FAM Cq	I.C. Cq	Result																	
				2024	3126	Purée de courgettes	Zucchini puree	H+/H-	+	H+/H-	+	<i>L. mono</i> <i>L. seeli</i>	+	29.22	32.3	+	+/-spp	+	H+/H-	H+/H-	+	<i>L. mono</i> <i>L. innoc</i>	+			+	+	PA	5
2024	3740	Vegetal balls	Vegetal balls	-	-	-	st	/	-	28.28	32.94	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PD	5	c					
2024	3743	Purée de courgettes	Zucchini puree	-	st	st	st	/	-	N/A	37.43	-	-	-	-	-	st	/	/	-	-	NA	5	c					
2024	3744	Ecrasé de pommes de terre et deux carottes	Mashed potatoes and two carrots	-	st	st	st	/	-	N/A	34.17	-	-	st	st	st	st	/	-	-	-	NA	5	c					
2024	3745	Velouté 8 légumes et pois chiches	8 vegetables soup with chick peas	st	st	st	st	/	-	N/A	34.09	-	-	st	st	st	st	/	-	-	-	NA	5	c					
2024	3746	Soupe carottes et poireaux	Carrot and leek soup	st	st	st	st	/	-	N/A	34.12	-	st	st	st	st	st	/	-	-	-	NA	5	c					
2024	3747	Betterave entière cuite	Whole cooked beetroot	st	st	st	st	/	-	N/A	34.79	-	-	st	-	st	st	/	+(<i>L. mono</i>)	+(after fraser)	-	NA _{FN(alt)}	5	c					
2024	3494	Falafels végétaux coriandre, menthe	Vegetable falafels with coriander and mint	-	-	-	-	/	-	N/A	33.33	-	-	-	-	-	-	/	-	-	-	NA	5	c					
2024	3750	Soupe carottes et poireaux	Carrot and leek soup	st	st	st	st	/	-	N/A	34.1	-	st	st	st	st	st	/	-	-	-	NA	5	c					
2024	3751	Betterave entière cuite	Whole cooked beetroot	st	st	st	st	/	-	N/A	34.89	-	st	st	st	st	st	/	-	-	-	NA	5	c					
2024	3752	Purée de courgettes	Zucchini puree	-	-	-	-	/	-	N/A	42.76	-	st	st	st	st	st	/	-	-	-	NA	5	c					
2024	3753	Ecrasé de pommes de terre et deux carottes	Mashed potatoes and two carrots	st	st	st	st	/	-	N/A	34.44	-	st	st	st	st	-	/	-	-	-	NA	5	c					
2024	3754	Velouté 8 légumes et pois chiches	8 vegetables soup with chick peas	st	st	st	st	/	-	N/A	34.58	-	st	st	st	st	st	/	-	-	-	NA	5	c					
2024	3757	Galette végétale	Vegetable cake	-	-	-	st	/	-	N/A	34.58	-	-	-	-	-	-	/	-	-	-	NA	5	c					
2024	3758	Vegetal balls	Vegetal balls	-	-	st	-	/	-	N/A	34.73	-	-	st	-	-	-	/	-	-	-	NA	5	c					

FISHERY AND SEAFOOD PRODUCTS																									
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method : iQ-Check <i>Listeria monocytogenes</i>														Category	Type
										1:10 with LSB2 Broth pre warmed-18h at 37°C															
				iQ-Check <i>Listeria monocytogenes</i> II 18 h						Confirmation								Subculture in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>	iQ-Check <i>Listeria monocytogenes</i> II 18 h					
																				1:10 with Half Fraser - 24h at 30°C		CFX Opus Deep Well			
				Half Fraser	Fraser	Identification	Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identification (biochemical gallery)	Result								
2024	1931	Tranche de colin nature	Sliced hake	st	-	st	-	/	-	N/A	32.71	-	-	st	st	st	-	/	-	-	-	NA	6	a	
2024	1932	Crevettes rouges surgelées	Frozen red shrimps	st	-	st	-	/	-	N/A	32.04	-	-	st	st	st	-	/	-	-	-	NA	6	a	
2024	1934	Saumon chair crue	Raw salmon	H+/H-	+	H+/H-	+	<i>L. mono</i> <i>L. innoc</i>	+	N/A N/A 39.34	32.22 32.51 32.6	-/-/+	+/+spp	+	H+/H-	H+/H-	+	<i>L. mono</i> <i>L. innoc</i>	+	+	-	ND _{FN(alt)}	6	a	
2024	2937	Paupiettes de saumon	Salmon paupiettes	-	-	-	-	/	-	N/A 38.1 37.42	32.31 32.91 32.74	-/+/+	+	+	-	-	-	<i>L. mono</i>	+	+	-	NA _{FN(alt)}	6	a	
2024	2939	Pavé de saumon	Salmon steak	st	st	st	st	/	-	N/A	32.75	-	st	st	st	st	st	/	-	-	-	NA	6	a	
2024	3111	Sardine	Sardine	st	st	st	st	/	-	N/A	32.8	-	+spp	+(spp)	H-	H-	+	<i>L. innoc</i>	+	-	-	NA	6	a	
2024	3113	Crevettes crues congelées	Frozen raw shrimp	-	-	-	-	/	-	N/A	33.07	-	-	-	-	-	-	/	-	-	-	NA	6	a	
2024	3478	Encornet	Squid	st	st	st	-	/	-	N/A	33.6	-	-	st	-	-	-	/	-	-	-	NA	6	a	
2024	3479	Pavé de truite	Trout steak	st	st	st	st	/	-	30.98	32.87	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PD	6	a	
2024	3480	Filet de cabillaud sans peau	Skinless cod fillet	st	st	st	-	/	-	N/A	33.5	-	st	st	-	st	-	/	-	-	-	NA	6	a	
2024	3483	Longe de thon rouge	Red tuna	st	st	st	-	/	-	N/A	33.27	-	-	st	-	st	-	/	-	-	-	NA	6	a	
2024	3484	Filet de lieu noir sans peau	Skinless pollack fillet	st	st	st	st	/	-	N/A	33.77	-	-	st	-			/	-	-	-	NA	6	a	
2024	3495	Dorade royale	Royal sea bream	st	st	st	-	/	-	N/A	33.55	-	-	-	-	-	-	/	-	-	-	NA	6	a	
2024	2737	Filet de dorade sebaste	Fillet of bream	H+	+	H+	+	<i>L. mono</i>	+	37.32	32.95	+	-	+	H+/H-	H+/H-	+	<i>L. mono</i> <i>L. seeli</i>	+	+	+	PA	6	a	
2024	2738	Dos de cabillaud	Raw cod	H+/H-	+	H+/H-	+	<i>L. mono</i> <i>L. seeli</i>	+	31.83	32.47	+	+spp	+	H+/H-	H+/H-	+	<i>L. mono</i> <i>L. seeli</i>	+	+	+	PA	6	a	
2024	2739	Filet de merlan	Raw whiting fillet	H+	+	H+	+	<i>L. mono</i>	+	28.41	31.82	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	a	
2024	2740	Filet de lieu noir	Raw fillet of saithe	-	-	st	-	/	-	N/A	32.87	-	+spp	+(spp)	-	H-	+	<i>L. seeli</i>	-	-	-	NA	6	a	
2024	2741	Merlu petit	Small hake	H+	+	H+	+	<i>L. mono</i>	+	N/A	32.7	-	+spp	+(spp)	H-	H-	+	<i>L. welsh</i>	-	-	-	ND	6	a	
2024	2742	Pavé de truite	Trout	H-	+	H-	+	<i>L. welsh</i>	-	N/A	33	-	+spp	+(spp)	H-	H-	+	<i>L. welsh</i>	-	-	-	NA	6	a	
2024	2743	Filet d'Eglefin	Haddock fillet	H+	-	H+	+	<i>L. mono</i>	+	29.6	31.95	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	a	
2024	3499	Longe de thon rouge	Red tuna	H+	+	H+	+	<i>L. mono</i>	+	30.53	33.07	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	a	
2024	3500	Filet de lieu noir sans peau	Skinless pollack fillet	H+	+	H+	+	<i>L. mono</i>	+	25.07	32.06	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	a	
2024	3501	Dorade royale	Royal sea bream	H+	+	H+	+	<i>L. mono</i>	+	N/A N/A N/A	34.6 33.56 34.02	-/-/-	+	+	H+	H+	+	<i>L. mono</i>	+	+	-	ND _{FN(alt)}	6	a	
2024	3502	Encornet	Squid	H+	+	H+	+	<i>L. mono</i>	+	37.42	33.92	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	a	
2024	1935	Filet de saumon de Norvège fumé	Smoked salmon	st	st	st	st	/	-	N/A	32.28	-	st	st	-	st	-	/	-	-	-	NA	6	b	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

FISHERY AND SEAFOOD PRODUCTS																									
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method : iQ-Check <i>Listeria monocytogenes</i>														Category	Type
										1:10 with LSB2 Broth pre warmed-18h at 37°C															
				iQ-Check <i>Listeria monocytogenes</i> II 18 h						Confirmation								Subculture in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>	iQ-Check <i>Listeria monocytogenes</i> II 18 h					
																				Final result		Agreement Ref/Alt			
				Half Fraser	Fraser	Identification	Result	CFX Opus Deep Well			RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identification (biochemical gallery)	Result	Final result confirmation <i>Listeria monocytogenes</i>	Final result	Agreement Ref/Alt					
O&A	PALCAM	O&A	PALCAM	FAM Cq	I.C. Cq			Result																	
2024	1937	Filet de cabillaud à la provençale	"Provencale" cod	-	-	-	-	/	-	N/A	32.41	-	-	-	-	-	-	/	-	-	-	NA	6	b	
2024	2935	Marinade de poulpe	Octopus marinade	-	-	-	-	/	-	N/A	32.89	-	-	st	-	-	-	/	-	-	-	NA	6	b	
2024	2936	Truite fumée bio	Smoked trout	H-d	+	H-d	+	<i>L. welsh</i>	-	N/A	32.28	-	+spp	+	H-	H-	+	<i>L. welsh</i>	-	-	-	NA	6	b	
2024	2938	Saumon fumé Norvège	Smoked Norwegian salmon	st	st	st	st	/	-	N/A	32.39	-	st	st	st	-	st	/	-	-	-	NA	6	b	
2024	3112	Marinade de poulpe aux poivres	Octopus marinade with peppers	-	-	H-d/-	-	/	-	N/A N/A N/A	33.22 33.77 33.55	-/-/-	-	+	-	-	-	<i>L. mono</i>	-	+	-	NA _{FN(alt)}	6	b	
2024	3115	Coquilles fine au champagne	Fine shells with champagne	H+	+	H+	+	<i>L. mono</i>	+	27.85	31.55	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	b	
2024	3116	Filets de saumon mariné à l'aneth	Salmon fillets marinated	st	st	st	st	/	-	N/A	32.94	-	+spp d/-	-	H-d/-	-	-	/	-	-	-	NA	6	b	
2024	3118	Poulpe ail et persil	Octopus with garlic and parsley	-	-	H-d/-	st	/	-	N/A	33.26	-	st	st	-	-	-	/	-	-	-	NA	6	b	
2024	3119	Filet de merlu sauce vierge	Hake fillet with vierge sauce	H-d/-	+d/-	H-d/-	+d/-	/	-	N/A	33.59	-	st	+/-	H-d/-	H-d/-	-	/	-	-	-	NA	6	b	
2024	3122	Dés saumon fumé	Diced smoked salmon	H-	+	H-	+	<i>L. welsh</i>	-	N/A	32.85	-	st	st	st	st	st	/	-	-	-	NA	6	b	
2024	3130	Saumon fumé en tranches	Sliced smoked salmon	st	st	st	st	/	-	N/A	32.61	-	-	st	-	-	st	/	-	-	-	NA	6	b	
2024	2744	Saumon fumé	Smoked salmon	H+	+	H+	+	<i>L. mono</i>	+	30.71	32.22	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	b	
2024	2745	Truite fumée	Smoked trout	st	st	st	st	/	-	N/A	32.68	-	-	st	-	st	st	/	-	-	-	NA	6	b	
2024	2746	Filet de maquereaux fumés	Smoked mackerel fillet	st	st	st	st	/	-	N/A	32.81	-	+spp	+(spp)	H-	H-	+	<i>L. innoc</i>	-	-	-	NA	6	b	
2024	2747	Anchois marinés à l'ail	Marinated anchovies	st	st	st	st	/	-	N/A	32.44	-	st	st	st	st	st	/	-	-	-	NA	6	b	
2024	2748	Encornet au chorizo mariné	Squid with chorizo, marinated	st	-	st	st	/	-	29.7	31.7	+	+spp	+	H+	H+	+	<i>L. mono</i>	+	+	+	PD	6	b	
2024	2749	Harengs marinés au vinaigre	Herring marinated with vinegar	st	st	st	st	/	-	N/A	32.95	-	st	st	st	st	st	/	-	-	-	NA	6	b	
2024	3189	Emincés de saumon fumé à l'aneth et aromatisé au citron	Sliced smoked salmon with dill and flavored with lemon	H+	+	H+	+	<i>L. mono</i>	+	33.46	32.75	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	6	b	
2024	3190	Saumon mariné gravlax aneth citron	Gravlax marinated salmon with dill and lemon	H+	+	H+	+	<i>L. mono</i>	+	27.43	31.36	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	6	b	

FISHERY AND SEAFOOD PRODUCTS																									
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										iQ-Check <i>Listeria monocytogenes</i> II 18 h			Confirmation						Subculture in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>	iQ-Check <i>Listeria monocytogenes</i> II 18 h				
				1:10 with Half Fraser - 24h at 30°C						CFX Opus Deep Well											Final result	Agreement Ref/Alt			
				Half Fraser	Fraser		Identification	Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identification (biochemical gallery)	Result							
				O&A	PALCAM	O&A			PALCAM	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identification (biochemical gallery)	Result						
2024	3191	Carpaccio de saumon façon gravlax et sa marinade	Salmon carpaccio with marinade	H+	+	H+	+	<i>L. mono</i>	+	34.29	32.53	+	+	+	H+	H+	+	<i>L. mono</i>	/	+	+	PA	6	b	
2024	3192	Harengs fumés doux	Sweet smoked herring	H+/H-	+	H+/H-	+	<i>L. monos L.innoc</i>	+	34.6	32.43	+	+/+spp	+	H+/H-	H+/H-	+	<i>L. mono L. innoc</i>	/	+	+	PA	6	b	
2024	3193	Maquereaux fumés	Smoked mackerel fillet	H+	+	H+	+	<i>L. mono</i>	+	30.96	32.4	+	+/+spp	+	H+/H-	H+/H-	+	<i>L. mono L. innoc</i>	+	+	+	PA	6	b	
2024	3194	Emincés de truite fumée	Sliced smoked trout	H+/H-	+	H+/H-	+	<i>L. mono L. innoc</i>	+	N/A	33.12	-	+spp	+	(spp)	H-	H-	+	<i>L. innoc</i>	-	-	-	ND	6	b
2024	3503	Anchois marinés provençale	Provence marinated anchovies	-	-	-	-	/	-	N/A	33.04	-	-	-	-	-	-	/	-	-	-	NA	6	b	
2024	3504	Saumon façon sashimi	Sashimi-style salmon	H+	+	H+	+	<i>L. mono</i>	+	25.31	31.73	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	b	
2024	1933	Aiguillettes de colin panés	Breaded hake	H-	-	H-	-	<i>L. seeli</i>	-	N/A	32.42	-	-	+	(spp)	H-d	-	+d	<i>L. seeli</i>	-	-	-	NA	6	c
2024	1936	Dos de colin d'Alaska cuit	Cooked hake	H+	+	H+	+	<i>L. mono</i>	+	29.46	31.53	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	c	
2024	1938	Portion de crumble de colin	Crumble of hake	-	-	H+/H-	+d	<i>L. welsh L. mono</i>	+	34.93	32.17	+	+	+	H+	H+	-	<i>L. welsh L. mono</i>	+	+	+	PA	6	c	
2024	3114	Colin gratiné fromage	Hackey with cheese gratin	-	-	H-d/-	-	/	-	N/A	32.84	-	-	st	-	-	st	/	-	-	-	NA	6	c	
2024	3117	Anchois frits	Fried anchovies	H+/H-	+	H+/H-	+	<i>L. mono L. innoc</i>	+	28.94	31.94	+	+/+spp	+	H-/H+	H+/H-	+	<i>L. mono L. innoc</i>	+	+	+	PA	6	c	
2024	3120	Calamar rings	Squid rings	H+	+	H+	+	<i>L. mono</i>	+	N/A	32.76	-	-	st	-	-	-	/	-	-	-	ND	6	c	
2024	3121	Pané de cabillaud bio	Breaded organic cold	H+	+	H+	+	<i>L. mono</i>	+	33.28	33.02	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	c	
2024	3481	Beignets de crevettes	Shrimp fritters	-	-	-	-	/	-	N/A	33.47	-	-	st	-	st	st	/	-	-	-	NA	6	c	
2024	3482	Rillettes de maquereau	Mackerel rillettes	st	st	st	st	/	-	39.62 N/A N/A	33.35 33.97 33.47	+/-/-	-	-	st	st	st	/	-	-	-	PD _{FP(alt)}	6	c	
2024	3485	Merlan pané	Breaded whiting	-	-	-	-	/	-	N/A	33.5	-	-	st	-	-	-	/	-	-	-	NA	6	c	
2024	3486	Bâtonnets de surimi	Surimi stick	st	st	st	st	/	-	N/A	33.31	-	st	st	-	-	-	/	-	-	-	NA	6	c	
2024	3487	Râpé de surimi	Grated surimi	st	st	st	st	/	-	N/A	33.35	-	st	st	st	st	-	/	-	-	-	NA	6	c	
2024	3488	Hâchés au saumon et ciboulette	Salmon and chive mince	-	st	st	-	/	-	N/A	33.74	-	-	st	-	-	st	/	-	-	-	NA	6	c	
2024	3489	Hâchés au cabillaud, crème et oignons	Cod, cream and onion mince	st	st	st	st	/	-	N/A	33.76	-	-	st	-	-	-	/	-	-	-	NA	6	c	
2024	2750	Dos de cabillaud amande et pistache	Ready to eat cod	H+	+	H+	+	<i>L. mono</i>	+	30.4	32	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	c	

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										1:10 with LSB2 Broth pre warmed-18h at 37°C															
				1:10 with Half Fraser - 24h at 30°C						iQ-Check <i>Listeria monocytogenes</i> II 18 h			Confirmation						Subculture in Fraser broth 24h at 37°C	Final result confirmation <i>Listeria monocytogenes</i>	iQ-Check <i>Listeria monocytogenes</i> II 18 h				
																					Half Fraser	Fraser			
				O&A	PALCAM	O&A	PALCAM	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i> (100µL)	RAPID' <i>Listeria</i> (100µL)	AL (100µL)	AL (10µL)	Palcam (10µL)	Identification (biochemical gallery)	Result	Final result	Agreement Ref/Alt						
				2024	2751	Panés au poisson	Breaded fish	H+	+	H+	+	<i>L. mono</i>	+	30.48	32.24	+	+	+	H+		H+	+	<i>L. mono</i>		
2024	2753	Coquille St-Jacques	Ready to eat scallops	H+	+	H+	+	<i>L. mono</i>	+	27.03	31.72	+	+	+	H+	H+	+	<i>L. mono</i>	+		+	+	PA	6	c
2024	2754	Navarin de St-Jacques	Ready to eat scallops	H+	+	H+	+	<i>L. mono</i>	+	25.01	31.29	+	+	+	H+	H+	+	<i>L. mono</i>	+	+	+	PA	6	c	
2024	3748	Rillettes de thon	Tuna rillettes	st	st	st	st	/	-	N/A	34.76	-	st	st	st	st	-	/	-	-	-	NA	6	c	
2024	3749	Rillettes de saumon	Salmon rillettes	st	-	st	st	/	-	N/A	34.14	-	st	st	st	st	st	/	-	-	-	NA	6	c	

COMPOSITE FOODS																														
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 [♦]	ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																								Category	Type
					1:10 with LSB II Broth -18h at 37°C + 72 h at 5°C ± 3°C																									
					iQ-Check <i>Listeria monocytogenes</i> II												Confirmation				Final result				Agreement Ref/Alt					
					Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast																			
					CFX96 Deep Well			CFX OPUS Deep Well			CFX96 Deep Well			CFX OPUS Deep Well																
Result.	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final Results confir- mation	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW				
2022	3302	Sandwich viennois thon-crudités	RTE (Sandwich tuna and crudity)	+	N/A	32.90	-	N/A	33.07	-	N/A	33.87	-	N/A	33.65	-	-	st	-	-	-	-	-	ND	ND	ND	ND	1	a	
2022	3305	Sandwich supérieur Emmental	RTE (Sandwich cheese and ham)	+	36.83	35.26	+	37.54	35.23	+	34.46	34.40	+	36.44	34.47	+	+	+	H+	+	+	+	+	PA	PA	PA	PA	1	a	
2022	3670	Triangle jambon-mozzarella	RTE (Sandwich ham and cheese)	-	37.91	35.82	+	38.27	37.06	+	36.14	36.41	+	35.93	36.74	+	+	+	H+	+	+	+	+	PD	PD	PD	PD	1	a	
2022	3803	Salade Manhattan pâte, crudités, œuf, poulet rôti, carottes et fromage	RTE (Salad with chicken, eggs, paste...)	+	25.31	N/A	+	26.63	34.88	+	27.89	33.98	+	28.27	35.52	+	+/+spp	+	H+/H-	+	+	+	+	+	PA	PA	PA	PA	1	a
2022	3804	Piemontaise au jambon	RTE (Salad with potatoes, ham...)	+	22.91	N/A	+	25.63	32.42	+	28.28	33.42	+	28.21	34.11	+	+/+spp	+	H+/H-	+	+	+	+	+	PA	PA	PA	PA	1	a
2022	3805	Taboulé à l'orientale	Oriental tabbouleh	+	30.54	32.58	+	30.57	33.05	+	30.70	32.57	+	29.89	33.15	+	+/+spp	+	H+/H-	+	+	+	+	+	PA	PA	PA	PA	1	a
2022	3806	Demi involtini à la ricotta	Half-involtini with ricotta cheese	+	33.55	36.23	+	33.79	36.69	+	33.02	35.99	+	33.00	35.70	+	+/+spp	+	H+/H-	+	+	+	+	+	PA	PA	PA	PA	1	a
2023	749	Beignet râpé pomme de terre/cheddar	Potato fritter with cheese	+	N/A	37.11	-	N/A	36.08	-	N/A	34.92	-	N/A	43.68	-	-	st	-	-	-	-	-	ND	ND	ND	ND	1	a	
2023	761	Paillasson de légumes et fromage	RTE (vegetable and cheese)	+	N/A	32.95	-	N/A	32.98	-	N/A	32.90	-	N/A	32.64	-	-	st	-	-	-	-	-	ND	ND	ND	ND	1	a	
2022	3307	Pépites fromage ail et fines herbes panées	RTRH (Nuggets herbs and cheese)	+	33.59	33.72	+	33.62	33.81	+	31.29	33.85	+	33.47	34.34	+	+	+	H+	+	+	+	+	PA	PA	PA	PA	1	b	
2022	3308	Nuggets de saumon	Salmon nuggets	+	22.50	32.37	+	22.23	32.65	+	N/A/N/A /N/A	33.08/ 33.30/ 33.43	- - -	N/A 22.71 22.21	33.32 32.82 32.70	- + +	+	+	H+	+	+	+	- -	PA	PA	ND _{FN(alt)}	ND _{FN(alt)}	1	b	
2022	3309	Nuggets de saumon	Salmon nuggets	+	22.59	33.03	+	22.23	32.45	+	20.39	N/A	+	22.78	32.38	+	+	+	H+	+	+	+	+	PA	PA	PA	PA	1	b	
2022	3310	Nuggets de saumon	Salmon nuggets	-	33.60	33.01	+	33.48	33.04	+	20.36	N/A	+	23.13	31.95	+	+	+	H+	+	+	+	+	PD	PD	PD	PD	1	b	
2022	3461	Tourte poularde-cèpes	RTH (Puff chicken, mushroom)	+	28.73	32.19	+	28.44	31.83	+	28.88	33.14	+	28.91	32.13	+	+	+	H+	+	+	+	+	PA	PA	PA	PA	1	b	
2022	3464	Paëlla	RTRH (Paella)	-	N/A	32.63	-	N/A	32.27	-	N/A	31.99	-	N/A	31.99	-	st	st	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3465	Galette soja-légumes	RTRH (vegetables, soya)	+	30.30	32.19	+	30.17	31.94	+	31.22	32.09	+	31.03	32.12	+	+	+	H+	+	+	+	+	PA	PA	PA	PA	1	b	
2022	3469	Buffalo wings	Chicken wings	-	31.45	32.12	+	31.46	32.08	+	31.47	32.08	+	30.66	31.83	+	+	+	H+	+	+	+	+	PD	PD	PD	PD	1	b	
2022	3471	Galette soja-tomates-basilic	RTRH (soya,tomato, basilic)	-	N/A	32.43	-	N/A	32.50	-	N/A	32.18	-	N/A	32.41	-	-	st	-	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3472	Paillasson de légumes	RTRH (cheese and vegetable)	-	27.49	33.35	+	26.37	31.68	+	28.38	33.32	+	28.30	31.97	+	+	+	H+	+	+	+	+	PD	PD	PD	PD	1	b	
2022	3473	Galette de soja à la provencale	RTRH (	-	N/A	32.24	-	N/A	32.54	-	N/A	32.34	-	N/A	32.54	-	-	st	st	-	-	-	-	NA	NA	NA	NA	1	b	
2022	3671	Cordon bleu de dinde	RTRH (Ham and cheese escalope)	-	35.96	32.59	+	36.21	32.80	+	36.67	32.42	+	37.16	33.04	+	+	+	H-	-	+	+	+	+	PD	PD	PD	PD	1	b
2022	3674	Panini kebab	Pannini kebab	+	22.32	31.80	+	22.51	31.69	+	22.64	32.18	+	22.76	31.45	+	+	+	H+	+	+	+	+	PA	PA	PA	PA	1	b	
2022	3575	Nuggets saumon	Salmon nuggets	+	21.13	32.87	+	21.61	32.54	+	20.51	33.41	+	20.42	33.30	+	+	+	H+	+	+	+	+	PA	PA	PA	PA	1	b	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

COMPOSITE FOODS																																
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 [♦]	ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																								Category	Type		
					1:10 with LSB II Broth -18h at 37°C + 72 h at 5°C ± 3°C																											
				1:10 with Half Fraser 24h at 30°C	iQ-Check <i>Listeria monocytogenes</i> II									Confirmation				Final result				Agreement Ref/Alt										
					Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast							w/o FDRS		w FDRS		w/o FDRS		w FDRS								
					CFX96 Deep Well			CFX OPUS Deep Well			CFX96 Deep Well																	CFX OPUS Deep Well				
					FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final Results confir- mation	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW				
2022	3676	Nuggets saumon	Salmon nuggets	+	22.93	31.91	+	23.37	31.37	+	21.92	33.15	+	22.24	33.04	+	+	+	H+	+	+	+	+	+	+	+	PA	PA	PA	PA	1	b
2022	3470	Pâte à quiche	Raw dough	+	29.79	33.27	+	29.46	32.61	+	29.62	33.17	+	29.25	33.33	+	+/+spp	+	H+/H-	+	+	+	+	+	+	+	PA	PA	PA	PA	1	c
2022	3807	Tortilla	Tortilla	+	20.88	32.19	+	20.96	32.68	+	21.19	31.75	+	21.10	31.99	+	+/+spp	+	H+/H-	+	+	+	+	+	+	+	PA	PA	PA	PA	1	c
2022	3808	Tortilla à l'oignon	Onion tortilla	-	24.14	31.72	+	24.29	33.04	+	23.43	32.40	+	23.00	33.34	+	+	+	H+	+	+	+	+	+	+	PD	PD	PD	PD	1	c	
2022	3809	Choux chantilly	Pastry	+	25.87	32.20	+	25.82	31.98	+	25.95	31.60	+	25.55	31.61	+	+/+spp	+	H+/H-	+	+	+	+	+	+	+	PA	PA	PA	PA	1	c
2022	3810	Charlotte framboise	Pastry	+	27.66	32.26	+	27.54	33.28	+	28.23	32.14	+	28.19	33.17	+	+/+spp	+	H+/H-	+	+	+	+	+	+	+	PA	PA	PA	PA	1	c
2022	3811	Ile flottante	Custard based dessert	+	24.08	32.26	+	24.09	32.01	+	24.51	31.24	+	24.54	31.78	+	+	+	H+	+	+	+	+	+	+	+	PA	PA	PA	PA	1	c
2022	3812	Mousse au chocolat	Confectionary (chocolate)	+	28.86	N/A	+	28.35	41.62	+	29.38	38.93	+	32.39	N/A	+	+/+spp	+	H+/H-	+	+	+	+	+	+	+	PA	PA	PA	PA	1	c
2023	813	Crème anglaise à la vanille	Custard	+	23.72	N/A	+	23.67	N/A	+	24.11	38.36	+	23.15	33.60	+	+	+	H+	+	+	+	+	+	+	+	PA	PA	PA	PA	1	c
2023	814	Mousse fraise	Strawberry mousse	+	22.57	N/A	+	22.41	N/A	+	22.62	34.28	+	22.27	31.35	+	+/spp	+	H+/H-	+	+	+	+	+	+	+	PA	PA	PA	PA	1	c
2023	815	Eclair au chocolat	Pastry	+	20.24	N/A	+	20.20	N/A	+	20.14	N/A	+	22.50	N/A	+	+	+	H+	+	+	+	+	+	+	+	PA	PA	PA	PA	1	c

PRODUCTION ENVIRONMENTAL SAMPLES																																
Year of analysis	N° Sam ple	Product (French name)	Product	Reference method: ISO 11290-1 [♦]	ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																								Category	Type		
					1:10 with LSB II Broth -18h at 37°C + 72 h at 5°C ± 3°C																											
					iQ-Check <i>Listeria monocytogenes</i> II												Confirmation				Final result				Agreement Ref/Alt							
				Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast																						
				Result.	CFX96 Deep Well			CFX OPUS Deep Well			CFX96 Deep Well			CFX OPUS Deep Well			w/o FDRS	w FDRS	w/o FDRS		w FDRS											
					FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result							RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final Results confir- mation	CFX 96 DW	CFX Opus DW			CFX 96 DW	CFX Opus DW
2022	3760	Chiffonnette hall techno production pâté fini (porc) après nettoyage	Wipe after cleaning process	+	36.64	32.29	+	36.60	32.99	+	36.45	32.58	+	35.53	33.31	+	+	+	H+	+	+	+	+	+	+	+	PA	PA	PA	PA	2	a
2022	3761	Chiffonnette grille siphon VHS 19 après nettoyage	Wipe after cleaning process	-	35.53	32.55	+	35.37	32.78	+	35.56	32.63	+	35.28	32.86	+	+/-spp	+	H+/-	+	+	+	+	+	+	PD	PD	PD	PD	2	a	
2022	3762	Chiffonnette VHS2 table transfert environnement carné, après nettoyage	Wipe after cleaning process	+	24.19	31.61	+	40.32	33.68	+	24.57	31.37	+	24.45	30.95	+	+	+	H+	+	+	+	+	+	+	PA	PA	PA	PA	2	a	
2022	3763	Chiffonnette pompe production crème glacée avant nettoyage	Wipe before cleaning process	+	32.58	32.28	+	34.63	33.06	+	33.09	32.24	+	33.35	32.72	+	+	+	H+	+	+	+	+	+	+	PA	PA	PA	PA	2	a	
2022	3765	Chiffonnette environnement laitier avant nettoyage	Wipe before cleaning process	+	26.57	31.60	+	24.72	31.26	+	28.93	31.82	+	29.15	32.22	+	+	+	H+	+	+	+	+	+	+	PA	PA	PA	PA	2	a	
2023	723	Chiffonnette de surface réception UPM, après nettoyage	Wipe after cleaning process	+	26.61	32.18	+	27.28	31.90	+	27.05	31.57	+	27.34	31.38	+	+	+	H+	+	+	+	+	+	+	PA	PA	PA	PA	2	a	
2023	724	Chiffonnette de surface table de façonnage brioche après désinfection	Wipe after cleaning process	-	N/A	32.84	-	N/A	32.81	-	N/A	32.98	-	N/A	32.82	-	-	st	st	-	-	-	-	-	-	NA	NA	NA	NA	2	a	
2023	757	Chiffonnette prélèvement de surface environnement bovin	Wipe before cleaning process	-	31.49	32.93	+	31.01	32.40	+	26.56	32.24	+	26.57	31.37	+	+/-spp	+	H+/-	+	+	+	+	+	+	PD	PD	PD	PD	2	a	
2023	822	Chiffonnette environnement végétal avant nettoyage	Wipe before cleaning process	+	36.13	33.14	+	35.18	33.04	+	37.09	33.20	+	35.60	33.12	+	+/-spp	+	H+	+	+	+	+	+	+	PA	PA	PA	PA	2	a	
2023	823	Chiffonnette environnement laitier (production glace) avant nettoyage	Wipe before cleaning process	+	29.14	32.12	+	28.95	32.03	+	29.13	32.30	+	28.87	32.16	+	+	+	H+	+	+	+	+	+	+	PA	PA	PA	PA	2	a	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

PRODUCTION ENVIRONMENTAL SAMPLES																														
Year of analysis	N° Sam ple	Product (French name)	Product	Reference method: ISO 11290-1 ♦	ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																								Category	Type
					1:10 with LSB II Broth -18h at 37°C + 72 h at 5°C ± 3°C																									
				iQ-Check <i>Listeria monocytogenes</i> II												Confirmation				Final result				Agreement Ref/Alt						
				Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast																				
				Result.	CFX96 Deep Well			CFX OPUS Deep Well			CFX96 Deep Well			CFX OPUS Deep Well						w/o FDRS	w FDRS		w/o FDRS		w FDRS					
					FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final Results confir- mation	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW		
2023	824	Chiffonnette environnemnet porc (production pâté)	Wipe before cleaning process	+	N/A	33.57	-	N/A	32.94	-	N/A	33.21	-	N/A	32.84	-	+spp	+	H+	+	-	-	-	-	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	ND _{FN(alt)}	2	a
2023	527	Déchét poisson Scan 4 trancheur	Wastes (Fish)	+	33.46	33.34	+	34.04	32.54	+	33.30	33.91	+	32.69	32.23	+	+	+	H+	+	+	+	+	+	PA	PA	PA	PA	2	b
2023	725	Déchét viande bovine	Wastes (Meat)	+	N/A 34.46	N/A 33.33	i/+*	N/A 33.63	N/A 33.04	i/+*	N/A 39.20	N/A 38.04	i/+*	N/A 36.41	N/A 34.39	i/+*	+/-spp	+	H-	+	+	+	+	+	PA	PA	PA	PA	2	b
2023	726	Déchét viande bovine	Wastes (Meat)	+	32.14	32.55	+	32.22	32.52	+	33.38	33.13	+	35.75	32.91	+	+	+	H+	+	+	+	+	+	PA	PA	PA	PA	2	b
2023	727	Déchets de production biscuit	Wastes	+	26.03	32.13	+	26.74	31.51	+	26.86	32.50	+	27.11	31.89	+	+	+	H+	+	+	+	+	+	PA	PA	PA	PA	2	b
2023	728	Déchets saumon	Wastes (Salmon)	+	27.71	31.84	+	28.33	31.98	+	27.35	31.94	+	28.12	31.89	+	+	+	H+	+	+	+	+	+	PA	PA	PA	PA	2	b
2023	729	Déchét poisson dessous épineux	Wastes (Fish)	+	30.59	32.40	+	31.34	32.34	+	31.63	32.72	+	32.45	33.09	+	+	+	H+	+	+	+	+	+	PA	PA	PA	PA	2	b
2023	759	Déchets truite	Wastes (Trout)	-	31.24	33.07	+	40.89	35.46	+	28.37	32.17	+	28.14	31.90	+	+	+	H+	+	+	+	+	+	PD	PD	PD	PD	2	b
2023	825	Déchets découpe viande	Wastes (Meat)	+	31.49	33.26	+	30.96	33.38	+	33.10	33.48	+	32.79	34.15	+	+/-spp	+	H+/H-	+	+	+	+	+	PA	PA	PA	PA	2	b
2023	826	Déchets caséinate production pâté	Wastes (Meat)	+	27.09	32.45	+	26.92	31.53	+	29.06	32.93	+	28.91	32.71	+	+	+	H+	+	+	+	+	+	PA	PA	PA	PA	2	b
2023	961	Déchets saumon	Wastes (Salmon)	+	N/A	33.35	-	N/A	34.70	-	N/A	33.69	-	N/A	41.45	-	st	st	st	-	-	-	-	-	ND	ND	ND	ND	2	b
2023	730	Eau de process sortie laveuse, environnement volaille	Process water	+	26.56	31.39	+	27.30	32.01	+	27.33	31.79	+	27.52	31.63	+	+	+	H+	+	+	+	+	+	PA	PA	PA	PA	2	c
2023	731	Eau de process environnement laitier	Process water	+	29.23	33.08	+	29.36	32.55	+	29.70	32.22	+	30.00	32.68	+	+	+	H+	+	+	+	+	+	PA	PA	PA	PA	2	c
2023	732	Eau de process environnement laitier	Process water	-	26.90	31.58	+	27.38	31.71	+	27.26	31.52	+	27.81	31.72	+	+	+	H+	+	+	+	+	+	PD	PD	PD	PD	2	c
2023	733	Eau de rinçage production galette végétale + algues	Rinsing water	+	N/A	33.10	-	N/A	32.74	-	N/A	32.60	-	N/A	33.30	-	st	st	st	-	-	-	-	-	ND	ND	ND	ND	2	c
2023	734	Eau de process production de steack végétal	Process water	+	24.75	31.28	+	25.24	31.55	+	25.26	31.68	+	25.26	30.97	+	+	+	H+	+	+	+	+	+	PA	PA	PA	PA	2	c
2023	828	Eau de process environnemnet laitier	Process water	+	29.08	32.76	+	28.82	32.12	+	29.31	32.64	+	30.10	33.07	+	+	+	H+	+	+	+	+	+	PA	PA	PA	PA	2	c
2023	829	Eau de process environnement végétal	Process water	+	N/A	33.23	-	N/A	33.20	-	N/A	33.21	-	N/A	33.39	-	+spp	+	H-	-	-	-	-	-	ND	ND	ND	ND	2	c
2023	830	Eau de rinçage environnement carné	Rinsing water	+	33.49	33.17	+	33.72	32.94	+	33.05	33.03	+	34.12	32.89	+	+/-spp	+	H+/H-	+	+	+	+	+	PA	PA	PA	PA	2	c

PRODUCTION ENVIRONMENTAL SAMPLES																															
Year of analysis	N° Sam ple	Product (French name)	Product	Reference method: ISO 11290-1♦	ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																								Category	Type	
					1:10 with LSB II Broth -18h at 37°C + 72 h at 5°C ± 3°C																										
					iQ-Check <i>Listeria monocytogenes</i> II												Confirmation				Final result				Agreement Ref/Alt						
				Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast																					
				CFX96 Deep Well			CFX OPUS Deep Well			CFX96 Deep Well			CFX OPUS Deep Well			w/o FDRS															w FDRS
				Result.	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final Results confir- mation	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW			
2023	964	Eau de process lait	Process water	+	30.13	34.05	+	30.20	N/A	+	30.55	33.30	+	36.99	N/A	+	+	H+	+	+	+	+	+	+	+	PA	PA	PA	PA	2	c
2023	966	Eau de process bache 2 (environnement carné)	Process water	-	27.19	32.31	+	27.29	34.33	+	26.62	32.50	+	27.07	34.70	+	+	+	H+	+	+	+	+	+	+	PD	PD	PD	PD	2	c

DAIRY PRODUCTS																																
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1♦	ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																								Category	Type		
				1:10 with Half Fraser – 24h at 30°C	1:10 with prewarmed LSB II Broth -20 h at 37°C + 72h at 5°C ± 3°C																											
				Result	Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast						Confirmation				Final result				Agreement Ref/Alt							
					CFX96 DW			CFX Opus DW			CFX96 DW			CFX opus DW							w/o FDRS	w FDRS		w/o FDRS	w FDRS							
					FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final results confirmation	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW			CFX 96 DW	CFX Opus DW
2023	1728	Fromage au lait cru de vache pâte cuite	Raw cow milk cheese	+	30.7	32.69	+	30.97	33.56	+	30.94	33.41	+	31.18	33.65	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	a			
2023	2742	Maroilles au lait cru de vache	Raw cow milk cheese	-	32.3	33.47	+	28.42	38.47	+	29.24	37.4	+	32.44	34.13	+	+	+	+	+	+	+	+	PD	PD	PD	PD	3	a			
2023	2752	Fromage au lait cru de chèvre 158	Raw goat milk cheese	+	39.69	32.83	+	37.48	32.86	+	38.62	32.7	+	40.08	32.49	+	+	+	- / +(x5)	+	+	+	+	PA	PA	PA	PA	3	a			
2023	2753	Fromage au lait cru de chèvre 252	Raw goat milk cheese	+	37.28	33.41	+	37.24	35.24	+	37.62	35.16	+	35.25	32.91	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	a			
2023	1730	Fromage au lait cru de vache Reblochon	Raw cow milk cheese	+	31.14	33.23	+	31.26	33.69	+	30.51	33.05	+	31.09	33.78	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	a			
2023	1731	Fromage au lait cru de vache Gorgonzola	Raw cow milk cheese	+	28.73	32.24	+	29	32.76	+	28.97	32.4	+	28.95	32.66	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	a			
2023	1732	Fromage au lait cru de brebis pâte persillée	Raw ewe milk cheese	+	41.03	33.15	+	41.41	33.53	+	N/A	33.04	-	N/A	33.18	-	- (+ x5)	-	-	+	+	+	-	-	PA	PA	ND _{FN(alt)}	ND _{FN(alt)}	3	a		
2023	1733	Fromage au lait cru de brebis	Raw ewe milk cheese	+	34.24	32.67	+	34.61	33.29	+	36.09	33.05	+	36.27	33.35	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	a			
2023	1733	Fromage au lait cru de chèvre Rocamadour	Raw goat milk cheese	+	39.38	34.27	+	37.98	33.25	+	41.02	33.01	+	39.13	37.16	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	a			
2023	1734	Fromage au lait cru de brebis fondant	Raw ewe milk cheese	+	27.29	32.27	+	27.28	32.34	+	27.7	31.74	+	27.81	32.62	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	a			
2023	1735	Fromage au lait cru de chèvre Picodon	Raw goat milk cheese	-	37.73	33.63	+	37.65	35.03	+	38.66	33.17	+	41.17	33.89	+	+	+	+	+	+	+	+	PD	PD	PD	PD	3	a			
2023	1723	Lait cru de brebis	Raw ewe milk	+	20.06	33.37	+	20.33	35.82	+	20.78	33.21	+	20.92	36.77	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	b			
2023	1725	Lait cru de brebis	Raw ewe milk	+	30.72	32.39	+	30.67	33.03	+	30.73	32.25	+	30.73	33.05	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	b			
2023	2934	Lait cru de vache	Raw cow milk	+	N/A	33.36	-	N/A	34.06	-	N/A	33.86	-	N/A	33.81	-	-	-	-	-	-	-	-	ND	ND	ND	ND	3	b			
2023	1720	Lait cru de vache	Raw cow milk	+	24.72	32.32	+	24.61	31.89	+	25.11	32.58	+	24.79	32.71	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	b			
2023	1721	Lait cru de vache	Raw cow milk	+	31.89	34.87	+	32.44	36.2	+	33.11	35.81	+	32.97	36.11	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	b			
2023	1722	Lait cru de vache	Raw cow milk	-	27.83	32.46	+	28.12	32.32	+	28.13	32.43	+	27.49	32.44	+	+	+	+	+	+	+	+	PD	PD	PD	PD	3	b			
2023	1726	Lait cru de chèvre	Raw goat milk	-	27.65	32.22	+	27.69	32.37	+	28.96	32.19	+	29.03	32.9	+	+	+	+	+	+	+	+	PD	PD	PD	PD	3	b			
2023	1727	Lait cru de chèvre	Raw goat milk	+	30.24	32.29	+	30.34	32.83	+	30.4	32.07	+	30.64	33.09	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	b			
2023	3701	Beurre de baratte non pasteurisé	Butter raw milk	-	30.51	33.78	+	30.48	34.06	+	30.95	33.55	+	31.02	34.1	+	+	+	+	+	+	+	+	PD	PD	PD	PD	3	b			
2023	3702	Beurre de baratte cru	Butter raw milk	-	26.12	32.26	+	26.15	32.13	+	26.42	33.13	+	26.53	32.46	+	+	+	+	+	+	+	+	PD	PD	PD	PD	3	b			

* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

DAIRY PRODUCTS																																
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 [♦]	ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i> II																								Category	Type		
				1:10 with Half Fraser – 24h at 30°C	1:10 with prewarmed LSB II Broth -20 h at 37°C + 72h at 5°C ± 3°C																											
				Result	Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast						Confirmation				Final result				Agreement Ref/Alt							
					CFX96 DW			CFX Opus DW			CFX96 DW			CFX opus DW							w/o FDRS		w FDRS		w/o FDRS		w FDRS					
					FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final results confirmation	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW	CFX 96 DW	CFX Opus DW				
2023	2825	Lait de vache 1/2 écrémé pasteurisé	Pasteurized cow milk	+	N/A	32.89	-	N/A	33.46	-	N/A	32.98	-	N/A	33.25	-	st	st	st	-	-	-	-	-	ND	ND	ND	ND	3	c		
2023	2826	Lait de vache 1/2 écrémé pasteurisé	Pasteurized cow milk	+	N/A	32.59	-	N/A	33.19	-	N/A	32.76	-	N/A	32.96	-	st	st	st	-	-	-	-	-	ND	ND	ND	ND	3	c		
2023	2827	Lait de vache 1/2 écrémé pasteurisé aromatisé mangue / fruit de la passion	Pasteurized cow milk flavoured	+	N/A	32.54	-	N/A	33.21	-	N/A	32.52	-	N/A	33.12	-	-	+	-	-	-	-	-	-	ND	ND	ND	ND	3	c		
2023	2828	Fromage à pâte molle au lait pasteurisé de vache	Pasteurized cow cheese	-	25.47	31.5	+	25.38	31.51	+	25.47	31.37	+	25.76	32.57	+	+	+	+	+	+	+	+	+	PD	PD	PD	PD	3	c		
2023	2829	Fromage au lait de brebis pasteurisé	Pasteurized ewe cheese	-	36.64	32.96	+	36.38	33.04	+	35.45	32.39	+	36.16	33.09	+	+	+	+	+	+	+	+	+	PD	PD	PD	PD	3	c		
2023	2831	Lait frais de chèvre pasteurisé	Pasteurized goat milk	+	N/A	32.54	-	N/A	33.06	-	N/A	32.57	-	N/A	32.73	-	st	-	-	-	-	-	-	-	ND	ND	ND	ND	3	c		
2023	2834	Lait frais de brebis pasteurisé	Pasteurized ewe milk	+	24.06	32.35	+	23.71	32.19	+	23.68	31.83	+	23.55	32.04	+	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	c		
2023	3071	Lait demi écrémé déshydraté	Powdered half-skimmed milk	+	N/A	33.05	-	N/A	32.46	-	N/A	33.49	-	N/A	32.59	-	-	-	-	-	-	-	-	-	ND	ND	ND	ND	3	c		
2023	3543	Brique pur brebis	Pasteurized ewe cheese	-	30.69	32.68	+	30.63	32.29	+	30.42	32.52	+	30.36	32.63	+	+	+	+	+	+	+	+	+	PD	PD	PD	PD	3	c		
2023	3545	Tomme des Pyrénées	Pasteurized cow cheese	+	29.32	32.99	+	29.06	32.69	+	29.68	33.2	+	29.09	32.96	+	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	c		
2023	2833	Lait frais de brebis pasteurisé	Pasteurized ewe milk	+	24.03	32.22	+	23.67	32.58	+	23.97	32.31	+	23.68	32.05	+	+	+	+	+	+	+	+	+	PA	PA	PA	PA	3	c		

MEAT AND POULTRY PRODUCTS																	
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 (2017) ♦	Alternative method : iQ-Check <i>Listeria monocytogenes</i> II									Category	Type		
				1/10 with Half Fraser - 24h at 30°C	1/10 with LSB II Broth pre warmed -18h at 37°C + 72h at 5°C ± 3°C												
					iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h			Confirmation				iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h					
					Easy II lysis protocol - Without FDRS APF Fast							Final result	Agreement Ref/Alt				
					CFX Opus Deepwell							w/o FDRS	w/o FDRS				
				Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final results confirmation	CFX Opus	CFX Opus				
2024	1699	Escalope de dinde	Turkey escalope	+	N/A/40.5/37.11	33.21/32.31/32.61	-/+/+	+	+	H+	+	-	ND _{FN(alt)}	4	a		
2024	1700	Steak haché 5%MG	Ground beef 5%fat	-	N/A	33.33	-	+spp	+	H-	-	-	NA	4	a		
2024	1701	Aiguillettes de poulet	Chicken	-	N/A	33.41	-	+spp	+	H+	- (L.ivanovii)	-	NA	4	a		
2024	2274	Cuisse de canard	Duck leg	+	21.23	32.25	+	+	+	H+	+	+	PA	4	a		
2024	1277	Merguez	Merguez	+	30.66	31.89	+	+	+	H+	+	+	PA	4	c		
2024	1278	Steak haché	Ground beef	+	30.94	32.15	+	+	+	H+	+	+	PA	4	a		
2024	1279	Steak haché de volaille	Ground poultry	+	33.05	32.27	+	+	+	H+	+	+	PA	4	a		
2024	1280	Jambon de porc	Pork meat	+	N/A	32.20	-	-	st	-	-	-	ND	4	a		
2024	1281	Steak haché de volaille	Ground poultry	+	33.48	32.35	+	+spp	+	H+/H-	+	+	PA	4	a		
2024	1283	Flanchet de porc 10%MG	Pork flank	-	34.39	32.27	+	+	+	H+	+	+	PD	4	a		
2024	1288	Saucisse fumée	Smoked sausage	+	N/A	32.43	-	+spp	+	H-	-	-	ND	4	c		
2024	1291	Jambon cuit supérieur - Dés	Cooked ham	+	N/A	32.24	-	st	st	st	-	-	ND	4	c		
2024	2275	Filet de bœuf	Cut of beef	+	30.73	32.78	+	+	+	H+	+	+	PA	4	a		
2024	2276	Côte d'agneau	Lamb chop	+	32.16	33.57	+	+/+spp	+	H+/H-	+	+	PA	4	a		
2024	1704	Viande de hachis parmentier	Shepherd's pie meat	+	N/A	33.31	-	+spp	+	H-	-	-	ND	4	b		
2024	1705	Bœuf charolais au médoc	Wine beef	+	N/A	32.98	-	-	-	st	-	-	ND	4	b		
2024	1706	Viande couscous	Couscous meat	+	20.68	31.85	+	+	+	H+	+	+	PA	4	b		
2024	2660	Emincés de bœuf sauce au poivre	Sliced beef with pepper sauce	-	39.49	33.40	+	+	+	H+	+	+	PD	4	b		
2024	2661	Paupiette de veau	Veal paupiette	+	N/A	33.45	-	st	st	st	-	-	ND	4	b		
2024	1923	Escalope de dinde	Turkey escalope	-	35.66	33.12	+	+	+	H+	+	+	PD	4	a		
2024	1924	Saucisse de volaille fumée	Smoked poultry sausage	+	29.78	32.40	+	+	+	H+	+	+	PA	4	c		
2024	1925	Steak haché de volaille	Ground poultry	-	N/A	33.39	-	-	st	-	-	-	NA	4	a		
2024	1926	Langue de bœuf en sauce	Beef tongue	-	N/A	33.21	-	-	st	-	-	-	NA	4	b		
2024	1927	Saucisse (kit charcuterie vrac)	Sausage	-	33.05	33.11	+	+	+	H+	+	+	PD	4	c		
2024	1928	Boudin noir	Black sausage	+	22.79	31.45	+	+/+spp	+	H+/H-	+	+	PA	4	c		
2024	1929	Pavé au poivre	Pepper steak	-	N/A	33.08	-	-	st	-	-	-	NA	4	c		
2024	1930	Poitrine fumée en tranches	Smoked bacon	+	29.15	32.50	+	+	+	H+	+	+	PA	4	c		
2024	2783	Fondant bœuf	Beef fondant	+	28.05	32.41	+	+	+	H+	+	+	PA	4	b		
2024	2784	Bœuf bourguignon	Bourguignon potatoes and carrot	+	23.68	32.48	+	+	+	H+	+	+	PA	4	b		
2024	2785	Emincé bœuf sauce au poivre	Sliced beef with pepper sauce	+	23.70	31.76	+	+	+	H+	+	+	PA	4	b		
2024	2786	Bœuf bourguignon	Bourguignon	-	24.68	31.91	+	+	+	H+	+	+	PD	4	b		
2024	2787	Aiguillette poulet en ratatouille	Chicken wings in ratatouille sauce	+	25.05	31.81	+	+	+	H+	+	+	PA	4	b		
2024	2788	Poulet au curry	Chicken in curry sauce	+	22.74	31.71	+	+	+	H+	+	+	PA	4	b		
2024	2789	Poulet tikka massala	Tikka massala chicken	+	28.25	32.33	+	+	+	H+	+	+	PA	4	b		
2024	2790	Joue de porc sauce provençale	Pork cheek in provencal sauce	+	22.98	31.38	+	+	+	H+	+	+	PA	4	b		
2024	2791	Porc au caramel	Caramel pork	+	20.72	32.77	+	+	+	H+	+	+	PA	4	b		

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

MEAT AND POULTRY PRODUCTS																	
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1 (2017) ♦	Alternative method : iQ-Check <i>Listeria monocytogenes</i> II								Category	Type			
				1/10 with Half Fraser - 24h at 30°C	1/10 with LSB II Broth pre warmed -18h at 37°C + 72h at 5°C ± 3°C												
					iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h			Confirmation				iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h					
					Easy II lysis protocol - Without FDRS APF Fast							Final result			Agreement Ref/Alt		
					Result	CFX Opus Deepwell						w/o FDRS			w/o FDRS		
				FAM Cq		I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final results confirmation	CFX Opus			CFX Opus		
2024	2792	Colombo de porc	Pork colombo	+	21.55	32.49	+	+	+	H+	+	+	PA	4	b		
2024	1707	Bacon	Bacon	-	N/A	33.26	-	+spp	+	H-	-	-	NA	4	c		
2024	1708	Rillettes de porc	Pork rillettes	-	22.22	32.11	+	+	+	H+	+	+	PD	4	c		
2024	1709	Lardons nature	Bacon	-	N/A	33.05	-	+spp	-	H-	-	-	NA	4	c		
2024	1710	Pancetta	Pancetta	-	N/A	33.69	-	+spp	-	H-	-	-	NA	4	c		
2024	2277	Rosette	Rosette	-	N/A	33.19	-	-	st	-	-	-	NA	4	c		
2024	2278	Cervelas	Cervelas	+	21.07	32.79	+	+	+	H+	+	+	PA	4	c		

VEGETABLES																
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1♦	Alternative method : iQ-Check <i>Listeria monocytogenes</i>									Category	Type	
					1:10 with LSB II Broth pre-warmed -18h at 37°C + 72h at 5°C ± 3°C											
				iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h			Confirmation				iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h					
											Final result	Agreement Ref/Alt				
				1:10 with Half Fraser – 24h at 30°C	CFX Opus Deep Well	w/o FDRS					w/o FDRS					
				Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final results confirmation	CFX Opus	CFX Opus			
2024	2181	Chou-fleur riz	Cauliflower	-	28.46	32.43	+	+	+	H+	+	+	PD	5	a	
2024	2184	Brocolis hachés	Ground broccoli	+	24.07	31.39	+	+/+spp	+	H+/H-	+	+	PA	5	a	
2024	2605	Chou	Cabbage	-	N/A	32.82	-	st	st	st	-	-	NA	5	a	
2024	2606	Brocoli	Broccoli	+	N/A	32.43	-	-	st	-	-	-	ND	5	a	
2024	2607	Haricots verts	Green beans	-	N/A	32.56	-	-	-	-	-	-	NA	5	a	
2024	2608	Chou-fleur	Cauliflower	-	N/A	32.54	-	+spp	+ (spp)	H-	-	-	NA	5	a	
2024	2611	Ciboulette	Chives	+	N/A	32.45	-	-	-	-	-	-	ND	5	a	
2024	3733	Tomate	Tomato	+	20.42	33.16	+	+	+	H+	+	+	PA	5	a	
2024	3734	Poireau	Leek	+	26.83	32.51	+	+	+	H+	+	+	PA	5	a	
2024	3735	Oignons	Onions	-	28.41	33.34	+	+	+	H+	+	+	PD	5	a	
2024	3736	Courgette	Zucchini	+	21.65	32.29	+	+	+	H+	+	+	PA	5	a	
2024	3737	Aubergine	Eggplant	+	23.75	32.75	+	+	+	H+	+	+	PA	5	a	
2024	3738	Salade	Salad	+	21.38	31.91	+	+	+	H+	+	+	PA	5	a	
2024	2860	Wok du soleil	Vegetables wok	-	26.33	31.64	+	+	+	H+	+	+	PD	5	a	
2024	3123	Courgettes en julienne	Julienne zucchini	+	26.21	32.33	+	+	+	H+/H-	+	+	PA	5	a	
2024	2188	Poêlée champêtre surgelée	Frozen fried vegetables	-	36.76	32.91	+	+spp	+ (spp)	H-	-	-	NA	5	b	
2024	2193	Courgettes grillées	Roasted zucchini	+	21.47	32.38	+	+	+	H+	+	+	PA	5	b	
2024	2616	Poêlée champêtre surgelée	Frozen stir-fried vegetables	+	23.37 N/A N/A	29.55 33.12 32.98	+/-/-	+spp	+ (spp)	H-	-	-	ND	5	b	
2024	2619	Carottes en rondelles surgelées	Frozen sliced carrots	+	22.77	29.42	+	+	+	H+	+	+	PA	5	b	
2024	3496	Frites fraîches	Fresh fries	+	23.57	31.52	+	+	+	H+	+	+	PA	5	b	
2024	3497	Galette soja, poivre, persil	Soy, pepper and parsley pancake	+	N/A	33.26	-	-	-	-	-	-	ND	5	b	
2024	3506	Trio de poivrons lanières surgelés	Trio of frozen pepper strips	+	24.97	32.22	+	+	+	H+	+	+	PA	5	b	
2024	3507	Epinards en branches surgelés	Frozen spinach	+	21.95	32.58	+	+	+	H+	+	+	PA	5	b	
2024	3508	Printanière de légumes surgelée	Frozen spring vegetables	+	21.18	31.86	+	+	+	H+	+	+	PA	5	b	
2024	3509	Risotto de légumes verts surgelé	Frozen green vegetables risotto	+	22.51	32.45	+	+	+	H+	+	+	PA	5	b	
2024	3510	Potage de légumes variés surgelé	Frozen mixed vegetable soup	+	N/A	33.42	-	-	-	-	-	-	ND	5	b	
2024	3511	Poêlée rustique surgelée	Frozen rustic stir-fry	+	21.95	32.26	+	+	+	H+	+	+	PA	5	b	
2024	3127	Poêlée parisienne	Parisian stir-fry	-	36.67	33.74	+	+	+	H+/H-	+	+	PD	5	b	
2024	3128	Galette de soja provençale	Provençal soy pancake	-	N/A	33.6	-	-	-	-	-	-	NA	5	b	
2024	3129	Palets chou/brocoli	Cabbage/broccoli patties	+	26.26	32.41	+	+/+spp	+	H+	+	+	PA	5	b	
2024	2190	Epinards hachés crème surgelés	Frozen ground spinach	+	25.52	31.51	+	+/+spp	+	H+/H-	+	+	PA	5	c	
2024	2191	Pommes de terres blanchies	Whitened potatoes	-	24.71	31.60	+	+/+spp	+	H+/H-	+	+	PD	5	c	
2024	2609	Gaspacho	Gaspacho	+	26.98	31.2	+	+	+	H+	+	+	PA	5	c	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

VEGETABLES															
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*	Alternative method : iQ-Check <i>Listeria monocytogenes</i>									Category	Type
					1:10 with LSB II Broth pre-warmed -18h at 37°C + 72h at 5°C ± 3°C										
					iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h			Confirmation				iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h			
				Final result								Agreement Ref/Alt			
				1:10 with Half Fraser – 24h at 30°C			CFX Opus Deep Well			w/o FDRS		w/o FDRS			
				Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final results confirmation	CFX Opus	CFX Opus		
2024	2612	Mélange de crudités chou blanc-céleri-carottes	Mix of raw vegetables	-	29.67	32.17	+	+	+	H+	+	+	PD	5	c
2024	3498	Falafels végétaux coriandre, menthe	Vegetable falafels with coriander and mint	+	32.83	33.2	+	-	-	-	-	-	ND	5	c
2024	3739	Galette végétale	Vegetable cake	+	22.25	32.11	+	-	+	H+	+	+	PA	5	c
2024	2934	Poivrons rouges grillés	Grilled red peppers	+	N/A	32.7	-	st	st	st	-	-	ND	5	c
2024	3126	Purée de courgettes	Zucchini puree	+	24.44	31.94	+	+	+	H+	+	+	PA	5	c
2024	3740	Vegetal balls	Vegetal balls	-	25.42	32.42	+	+	+	H+	+	+	PD	5	c
2024	3747	Betterave entière cuite	Whole cooked beetroot	-	38.26	33.08	+	+	+	H+	+	+	PD	5	c

FISHERY AND SEAFOOD PRODUCTS															
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1♦	Alternative method : iQ-Check <i>Listeria monocytogenes</i>									Category	Type
					1:10 with LSB II Broth pre-warmed -18h at 37°C + 72h at 5°C ± 3°C										
				1:10 with Half Fraser – 24h at 30°C	iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h			Confirmation				iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h			
												Final result	Agreement Ref/Alt		
					CFX Opus Deep Well							w/o FDRS	w/o FDRS		
					Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final results confirmation	CFX Opus		
2024	1934	Saumon chair crue	Raw salmon	+	31.60	32.39	+	+/+spp	+	H+/H- -	+	+	PA	6	a
2024	2937	Paupiettes de saumon	Salmon paupiettes	-	37.64	32.03	+	+	+	H+	+	+	PD	6	a
2024	3111	Sardine	Sardine	-	N/A	33.51	-	+spp	+ (spp)	H-	-	-	NA	6	a
2024	3479	Pavé de truite	Trout steak	-	30.98	32.87	+	+	+	H+	+	+	PD	6	a
2024	2737	Filet de dorade sebaste	Fillet of bream	+	33.66	33.56	+	+spp	+	H+/H- -	+	+	PA	6	a
2024	2738	Dos de cabillaud	Raw cod	+	28.59	32.82	+	+/+spp	+	H+/H- -	+	+	PA	6	a
2024	2739	Filet de merlan	Raw whiting fillet	+	24.7	31.73	+	+	+	H+	+	+	PA	6	a
2024	2741	Merlu petit	Small hake	+	N/A	33.25	-	+spp	+ (spp)	H-	-	-	ND	6	a
2024	2743	Filet d'Eglefin	Haddock fillet	+	29.47	32.55	+	+	+	H+	+	+	PA	6	a
2024	3499	Longe de thon rouge	Red tuna	+	30.53	33.07	+	+	+	H+	+	+	PA	6	a
2024	3500	Filet de lieu noir sans peau	Skinless pollack fillet	+	25.07	32.06	+	+	+	H+	+	+	PA	6	a
2024	3501	Dorade royale	Royal sea bream	+	N/A	34.6	-	+	+	H+	+	-	ND _{FN(alt)}	6	a
2024	3502	Encornet	Squid	+	37.42	33.92	+	+	+	H+	+	+	PA	6	a
2024	3112	Marinade de poulpe aux poivres	Octopus marinade with peppers	-	N/A	33.88	-	-	-	-	-	-	NA	6	b
2024	3115	Coquilles fine au champagne	Fine shells with champagne	+	24.56	31.52	+	+	+	H+	+	+	PA	6	b
2024	3116	Filets de saumon mariné à l'aneth	Salmon fillets marinated	-	35.32	33.47	+	st	st	-	-	-	NA	6	b
2024	3118	Poulpe ail et persil	Octopus with garlic and parsley	-	N/A	33.72	-	-	-	-	-	-	NA	6	b
2024	3119	Filet de merlu sauce vierge	Hake fillet with vierge sauce	-	N/A	33.51	-	-	st	-	-	-	NA	6	b
2024	3122	Dés saumon fumé	Diced smoked salmon	-	N/A	33.52	-	-	-	-	-	-	NA	6	b
2024	2744	Saumon fumé	Smoked salmon	+	26.72	31.96	+	+	+	H+	+	+	PA	6	b
2024	2748	Encornet au chorizo mariné	Squid with chorizo, marinated	-	27.25	32.39	+	+	+	H+	+	+	PD	6	b
2024	3189	Emincés de saumon fumé à l'aneth et aromatisé au citron	Sliced smoked salmon with dill and flavored with lemon	+	33.46	32.75	+	+	+	H+	+	+	PA	6	b
2024	3190	Saumon mariné gravlax aneth citron	Gravlax marinated salmon with dill and lemon	+	27.43	31.36	+	+	+	H+	+	+	PA	6	b
2024	3191	Carpaccio de saumon façon gravlax et sa marinade	Salmon carpaccio with marinade	+	34.27	32.53	+	+	+	H+	+	+	PA	6	b
2024	3192	Harengs fumés doux	Sweet smoked herring	+	34.6	32.43	+	+/+spp	+	H+/H- -	+	+	PA	6	b
2024	3193	Maquereaux fumés	Smoked mackerel fillet	+	30.96	32.4	+	+/+spp	+	H+/H- -	+	+	PA	6	b
2024	3194	Emincés de truite fumée	Sliced smoked trout	+	N/A	33.12	-	+spp	+ (spp)	H-	-	-	ND	6	b
2024	3504	Saumon façon sashimi	Sashimi-style salmon	+	25.31	31.73	+	+	+	H+	+	+	PA	6	b
2024	1936	Dos de colin d'Alaska cuit	Cooked hake	+	26.01	31.79	+	+	+	H+	+	+	PA	6	c
2024	1938	Portion de crumble de colin	Crumble of hake	+	32.08	32.85	+	+	+	H+	+	+	PA	6	c
2024	3114	Colin gratiné fromage	Hackey with cheese gratin	-	N/A	33.31	-	-	-	st	-	-	NA	6	c

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

FISHERY AND SEAFOOD PRODUCTS															
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 11290-1♦	Alternative method : iQ-Check <i>Listeria monocytogenes</i>									Category	Type
					1:10 with LSB II Broth pre-warmed -18h at 37°C + 72h at 5°C ± 3°C										
				iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h	Confirmation				iQ-Check <i>Listeria monocytogenes</i> II 18 h + 72 h						
									Final result	Agreement Ref/Alt					
									w/o FDRS	w/o FDRS					
Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' <i>Listeria</i>	AL	Final results confirmation	CFX Opus	CFX Opus						
2024	3117	Anchois frits	Fried anchovies	+	25.31	32.2	+	+	+	H+/H -	+	+	PA	6	c
2024	3120	Calamar rings	Squid rings	+	N/A	33.78	-	-	st	-	-	-	ND	6	c
2024	3121	Pané de cabillaud bio	Breaded organic cold	+	26.85	32.18	+	+	+	H+	+	+	PA	6	c
2024	3482	Rillettes de maquereau	Mackerel rillettes	-	39.62	33.35	+	-	-	-	-	-	PD _{FP(alt)}	6	c
2024	2750	Dos de cabillaud amande et pistache	Ready to eat cod	+	27.31	32.25	+	+	+	H+	+	+	PA	6	c
2024	2751	Panés au poisson	Breaded fish	+	27.29	32.32	+	+	+	H+	+	+	PA	6	c
2024	2753	Coquille St-Jacques	Ready to eat scallops	+	23.47	31.46	+	+	+	H+	+	+	PA	6	c
2024	2754	Navarin de St-Jacques	Ready to eat scallops	+	21.67	32.3	+	+	+	H+	+	+	PA	6	c

Appendix 9 – Relative level of detection study: raw data - Enrichment in LSB II broth (Extension studies, 2023 and 2024)

Matrix: Piemontaise

Strain: *Listeria monocytogenes* Ad1719

Seeding 48h at 3±2°C

Aerobic mesophilic flora: 3.3 x 10⁵ CFU/g

Sample N°	Inoculation level (cfu/test portion)	Reference method: ISO 11290-1*					Alternative method: iQ-Check <i>Listeria monocytogenes</i> II																				
		Half Fraser		Fraser		Final result	Number positive samples/Total	PCR results										Confirmations					Final result	Number positive samples/Total			
								Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast													
		CFX96 DW			CFX Opus DW			CFX96 DW			CFX Opus DW																
		O&A	Palcam		O&A			Palcam		FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID'L.mono (100µL)	RAPID'L.spp (100µL)	AL (100µL)	AL (10µL)	Palcam (10 µL)	
48	/	-	-	-	-	-	0/5	N/A	34.07	-	N/A	33.73	-	N/A	33.94	-	N/A	34.23	-	-	-	-	-	-	-	0/5	
49		st	-	-	-	-		N/A	34.08	-	N/A	33.68	-	N/A	34.36	-	N/A	34.10	-	-	-	-	-	-	-		
50		-	-	-	-	-		N/A	33.89	-	N/A	33.28	-	N/A	33.57	-	N/A	33.14	-	-	-	-	-	-	-		
51		-	-	-	-	-		N/A	34.29	-	N/A	33.54	-	N/A	34.54	-	N/A	34.11	-	-	-	-	-	-	-		
52		st	-	st	-	-		N/A	33.80	-	N/A	33.26	-	N/A	34.03	-	N/A	33.52	-	-	-	-	-	-	-		-
53	0.6	-	-	-	-	-	6/20	31.30	33.19	+	30.96	33.32	+	31.04	33.58	+	30.81	33.23	+	+	H+	H+	+	+	+	+	12/20
54		-	-	-	-	-		31.17	33.88	+	30.41	33.17	+	30.79	33.13	+	30.40	33.52	+	+	H+	H+	+	+	+	+	
55		-	-	-	-	-		30.26	33.85	+	29.52	32.79	+	30.08	34.03	+	29.44	33.54	+	+	H+	H+	+	+	+	+	
56		-	-	-	-	-		N/A	33.87	-	N/A	33.50	-	N/A	34.33	-	N/A	34.18	-	-	-	-	-	-	-	-	
57		-	-	-	-	-		28.64	32.96	+	27.91	32.48	+	28.81	33.09	+	28.08	32.46	+	+	H+	H+	+	+	+	+	
58		-	-	-	-	-		31.50	33.30	+	30.75	32.98	+	31.16	33.07	+	30.39	33.20	+	+	H+	H+	+	+	+	+	
59		-	-	-	-	-		N/A	34.47	-	N/A	33.80	-	N/A	34.16	-	N/A	34.06	-	-	-	-	-	-	-	-	
60		st	-	-	-	-		30.20	33.48	+	29.71	32.51	+	30.73	33.59	+	30.10	32.90	+	+	H+	H+	+	+	+	+	
61		H+	+	H+	+	+		N/A	34.12	-	N/A	34.31	-	N/A	34.16	-	N/A	34.43	-	-	-	-	-	-	-	-	
62		H+	+	H+	+	+		N/A	34.71	-	N/A	34.03	-	N/A	34.26	-	N/A	34.56	-	-	-	-	-	-	-	-	
63		-	-	-	-	-		32.51	32.12	+	29.55	32.63	+	30.84	33.95	+	30.29	33.53	+	+	H+	H+	+	+	+	+	
64		H+	+	H+	+	+		N/A	33.76	-	N/A	32.86	-	N/A	34.20	-	N/A	34.54	-	-	-	-	-	-	-	-	
65		-	-	-	-	-		N/A	32.62	-	N/A	33.56	-	N/A	34.21	-	N/A	34.02	-	-	-	-	-	-	-	-	
66		H+	+	H+	+	+		30.91	33.06	+	30.17	32.39	+	32.84	32.34	+	30.38	32.95	+	+	H+	H+	+	+	+	+	
67		-	-	-	-	-		31.34	33.51	+	30.42	32.80	+	31.21	33.13	+	30.79	33.42	+	+	H+	H+	+	+	+	+	
68		-	-	-	-	-		N/A	34.27	-	N/A	33.57	-	N/A	34.66	-	N/A	34.04	-	-	-	-	-	-	-	-	
69		-	-	-	-	-		31.28	34.37	+	30.52	33.76	+	31.18	34.05	+	30.89	33.83	+	+	H+	H+	+	+	+	+	
70		H+	+	H+	+	+		31.86	33.79	+	31.45	34.18	+	31.89	34.12	+	31.55	34.02	+	+	H+	H+	+	+	+	+	
71		H+	+	H+	+	+		31.14	32.74	+	30.43	33.11	+	32.08	33.57	+	31.38	33.70	+	+	H+	H+	+	+	+	+	
72		-	-	-	-	-		N/A	33.60	-	N/A	34.01	-	N/A	34.21	-	N/A	34.08	-	-	-	-	-	-	-	-	
73	2.4	H+	+	H+	+	+	5/5	30.20	32.89	+	29.34	32.50	+	30.25	33.49	+	29.63	32.57	+	+	H+	H+	+	+	+	+	5/5
74		H+	+	H+	+	+		30.29	33.41	+	29.63	32.71	+	31.22	33.79	+	30.52	33.27	+	+	H+	H+	+	+	+	+	
75		H+	+	H+	+	+		29.75	32.65	+	28.78	32.44	+	29.81	33.89	+	29.41	33.38	+	+	H+	H+	+	+	+	+	
76		H+	+	H+	+	+		29.47	33.05	+	28.88	32.41	+	29.70	33.70	+	29.21	33.10	+	+	H+	H+	+	+	+	+	
77		H+	+	H+	+	+		30.05	34.13	+	29.27	33.17	+	29.44	33.88	+	28.98	33.55	+	+	H+	H+	+	+	+	+	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Matrix: Process water
Strain: *Listeria monocytogenes* Ad2503
Seeding 48h at 3±2°C
Aerobic mesophilic flora: 1.38 x 10⁷ UFC/mL

Sample N°	Inoculation level (cfu/test portion)	Reference method: ISO 11290-1*					Alternative method : iQ-Check <i>Listeria monocytogenes</i> II																				
		Half Fraser		Fraser		Final result	Number positive samples/Total	PCR results												Confirmations					Final result	Number positive samples/Total	
								Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast												w/o FDRS	W FDRS
		O&A	Palcam	O&A	Palcam			CFX96 DW			CFX Opus DW			CFX96 DW			CFX Opus DW			RAPID'L.mono (100µL)	RAPID'L.spp (100µL)	AL (100µL)	AL (10µL)	Palcam (10 µL)			
		FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result											
997	/	st	st	st	st	-	0/5	N/A	32.97	-	N/A	32.79	-	N/A	32.95	-	N/A	32.75	-	st	st	st	st	st	-	0/5	0/5
998		st	st	st	st	-		N/A	32.92	-	N/A	32.58	-	N/A	33.27	-	N/A	32.71	-	st	st	st	st	st	-		
999		st	st	st	st	-		N/A	33.37	-	N/A	32.90	-	N/A	33.22	-	N/A	32.80	-	st	st	st	st	-	-		
1000		st	st	st	st	-		N/A	33.23	-	N/A	32.50	-	N/A	33.07	-	N/A	32.75	-	st	st	-	-	-	-		
1001		st	st	st	st	-		N/A	32.87	-	N/A	32.56	-	N/A	33.15	-	N/A	32.68	-	st	st	st	st	st	-		
1002	0.8	H+	+	H+	+	+	14/20	N/A	33.03	-	N/A	32.67	-	N/A	33.04	-	N/A	32.53	-	st	st	st	st	st	-	9/20	8/20
1003		H+	+	H+	+	+		38.07	33.05	+	36.40	32.56	+	38.36	32.88	+	36.86	32.56	+	+	st	H+	H+	+	+		
1004		st	st	st	st	-		37.90	33.03	+	36.50	32.75	+	40.33	33.42	+	39.15	32.54	+	+	st	H+	H+	+	+		
1005		st	st	st	st	-		N/A	33.25	-	N/A	32.49	-	N/A	33.06	-	N/A	32.17	-	st	st	st	st	st	-		
1006		H+	+	H+	+	+		36.93	32.97	+	37.10	32.50	+	38.39	32.60	+	39.26	32.61	+	+	st	H+	H+	+	+		
1007		H+	+	H+	+	+		37.08	33.36	+	36.63	32.47	+	37.27	33.08	+	37.32	32.32	+	+	st	H+	H+	+	+		
1008		H+	+	H+	+	+		37.12	32.72	+	35.46	32.45	+	37.61	33.05	+	36.66	32.46	+	+	st	H+	H+	+	+		
1009		H+	+	H+	+	+		N/A	33.02	-	N/A	32.15	-	N/A	33.60	-	N/A	32.71	-	st	st	st	st	st	-		
1010		H+	+	H+	+	+		36.43	32.85	+	36.05	32.52	+	37.41	32.89	+	36.17	32.36	+	+	st	H+	H+	+	+		
1011		H+	+	H+	+	+		N/A	32.88	-	N/A	32.78	-	N/A	33.08	-	N/A	32.64	-	st	st	st	st	st	-		
1012		st	st	st	st	-		N/A	33.76	-	N/A	32.51	-	N/A	33.37	-	N/A	32.59	-	st	st	st	st	st	-		
1013		st	st	st	st	-		N/A	32.93	-	N/A	32.86	-	N/A	33.27	-	N/A	32.89	-	st	st	st	st	st	-		
1014		H+	+	H+	+	+		39.18	33.03	+	41.28	32.72	+	37.47	33.32	+	37.05	32.81	+	+	st	H+	H+	+	+		
1015		H+	+	H+	+	+		N/A	33.39	-	N/A	32.47	-	N/A	33.02	-	N/A	32.28	-	-	st	-	-	st	-		
1016		H+	+	H+	+	+		N/A	32.92	-	N/A	32.36	-	N/A	32.74	-	N/A	32.67	-	st	st	-	-	st	-		
1017		H+	+	H+	+	+		N/A	33.01	-	N/A	32.19	-	N/A	33.00	-	N/A	32.48	-	st	st	st	st	st	-		
1018		H+	+	H+	+	+		N/A	32.80	-	N/A	32.78	-	N/A	33.07	-	N/A	32.39	-	st	st	st	st	st	-		
1019		st	st	st	st	-		41.80	33.31	+	38.07	32.36	+	40.38	33.06	+	40.57	33.01	+	+	st	H+	H+ (3)	+ (4)	+		
1020		H+	+	H+	+	+		38.69	32.95	+	37.76	32.69	+	40.03	33.42	+	N/A 36.13 37.72	32.92 33.32 33.09	- - -	+	st	H+	H+	+ (2)	+		
1021		st	st	st	st	-		N/A	33.28	-	N/A	32.89	-	N/A	33.05	-	N/A	32.44	-	st	st	st	st	st	-		
1022	3.6	H+	+	H+	+	+	5/5	N/A	33.14	-	N/A	32.74	-	N/A	32.75	-	N/A	32.53	-	st	st	st	st	st	-	4/5	4/5
1023		H+	+	H+	+	+		34.68	32.99	+	34.10	32.35	+	34.45	32.75	+	33.98	32.33	+	+	+	H+	H+	+	+		
1024		H+	+	H+	+	+		35.75	33.50	+	35.15	32.65	+	35.68	33.29	+	34.71	32.19	+	+	+	H+	H+	+	+		
1025		H+	+	H+	+	+		37.71	33.36	+	36.13	32.73	+	38.19	32.95	+	37.77	32.63	+	+	+	H+	H+	+	+		
1026		H+	+	H+	+	+		35.54	33.23	+	34.67	32.58	+	35.30	33.01	+	34.91	32.67	+	+	+	H+	H+	+	+		

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Matrix : Raw cow milk
Strain : *Listeria monocytogenes* Ad2858
Seeding 48h at 3±2°C
Aerobic mesophilic flora: 4.7 x 10⁷UFC/mL

N° sample	Inoculation level (cfu/sample)	Reference method: ISO 11290-1*					Alternative method : iQ-Check <i>Listeria monocytogenes</i> II																									
							1:10 with pre-warmed LSB II Broth -20 h at 37°C																									
		Half Fraser		Fraser		Final result	Number positive samples/Total	PCR iQ-Check <i>Listeria monocytogenes</i> II												Confirmation					Final result				Number positive samples/Total			
								Easy II lysis protocol - Without FDRS APF Fast						Easy II lysis protocol - With FDRS APF Fast																		
								CFX 96 DW			CFX Opus DW			CFX 96 DW			CFX Opus DW															
		O&A	Palcam	O&A	Palcam			FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i> (100µL)	RAPID' Lspp	AL (100µL)	AL (10µL)	Palcam (10 µL)	CFX 96	CFX Opus	CFX 96	CFX Opus	CFX 96	CFX Opus	CFX 96	CFX Opus
3090	/	st	st	-	-	-	0/5	N/A	33.79	-	N/A	33.9	-	N/A	34.14	-	N/A	34.26	-	-	-	-	-	-	-	-	-	-	-	-	-	
3091		-	-	st	-	-		N/A	33.11	-	N/A	33.5	-	N/A	33.28	-	N/A	33.37	-	-	-	-	-	-	-	-	-	-	-	-		
3092		-	-	st	-	-		N/A	33.21	-	N/A	35.34	-	N/A	33.12	-	N/A	33.39	-	-	-	-	-	-	-	-	-	-	-	-		
3093		-	-	-	-	-		N/A	33.36	-	N/A	34.18	-	N/A	33.38	-	N/A	33.21	-	-	-	-	-	-	-	-	-	-	-	-		
3094		-	-	-	-	-		N/A	33.11	-	N/A	34.18	-	N/A	33.31	-	N/A	33.12	-	-	-	-	-	-	-	-	-	-	-	-		
3100	1	H+	+	H+	+	+	13/20	38.19	32.85	+	37.32	33.12	+	36.68	33.1	+	36.13	33.43	+	+	+	H+	H+	+	+	+	+	+	+	+		
3101		H+	+	H+	+	+		34.39	32.77	+	33.6	32.78	+	33.94	33.26	+	33.84	32.92	+	+	+	H+	H+	+	+	+	+	+	+			
3102		st	-	st	st	-		38.06	33.64	+	36.49	32.94	+	37.89	33.21	+	36.98	33.41	+	+	+	H+	H+	+	+	+	+	+	+			
3103		-	st	st	st	-		N/A	33.24	-	N/A	32.76	-	N/A	33.13	-	N/A	34.18	-	-	st	-	st	-	-	-	-	-	-			
3104		-	-	st	st	-		36.98	33.09	+	37.34	33.09	+	37.73	33.22	+	38.32	33.45	+	+	+	H+	H+	+	+	+	+	+	+			
3105		st	-	st	st	-		N/A	33.04	-	N/A	32.98	-	N/A	33.43	-	N/A	33.56	-	-	st	st	-	-	-	-	-	-	-			
3106		-	st	st	st	-		N/A	32.78	-	N/A	33.38	-	N/A	33.41	-	N/A	33.75	-	st	st	-	-	-	-	-	-	-	-			
3107		H+	st	H+	+	+		38.19	32.84	+	38.36	33.68	+	35.39	32.76	+	36.83	33.45	+	+	+	H+	H+	+	+	+	+	+	+			
3108		H+ (5)	+	H+	+	+		N/A	33.25	-	N/A	33.04	-	N/A	33.67	-	N/A	33.14	-	-	st	st	-	-	-	-	-	-	-			
3109		H+ (9)	+(4)	H+	+	+		37.71	33.14	+	40.62	32.8	+	37.59	33.49	+	41.43	32.89	+	+	+	H+	H+	+	+	+	+	+	+			
3110		H+	+	H+	+	+		N/A	32.93	-	38.23	32.83	+	42.67	33.4	+	37.77	33.07	+	+	+	H+	-	+(2)	-	+	+	+	+			
3111		H+	+	H+	+	+		N/A	33.13	-	40.39	32.95	+	N/A	32.75	-	39.15	33.3	+	+	+	H+	H+	+	-	+	-	+	+			
3112		H+ (6)	+(2)	H+	+	+		35.88	32.65	+	35.71	32.93	+	35.7	32.8	+	35.62	33.58	+	+	+	H+	H+	+	+	+	+	+	+			
3113		-	-	st	st	-		35.95	32.52	+	37.85	33.06	+	38.61	33.45	+	37.23	33.35	+	+	+	H+	H+	+	+	+	+	+	+			
3114		-	-	st	st	-		N/A	33.63	-	N/A	32.75	-	N/A	33.04	-	N/A	33.53	-	st	st	-	-	-	-	-	-	-	-			
3115		H+ (1)	+	H+	+	+		N/A	32.81	-	N/A	33.05	-	N/A	33.25	-	N/A	33.79	-	st	st	-	-	-	-	-	-	-	-			
3116		H+	+	H+	+	+		N/A	33.52	-	N/A	33.2	-	N/A	33.27	-	N/A	33.03	-	st	st	-	st	-	-	-	-	-	-			
3117		H+ (5)	+	H+	+	+		36.83	33.42	+	35.33	32.72	+	36.16	33.37	+	36.21	33.55	+	+	+	H+	H+	+	+	+	+	+	+			
3118		H+	+	H+	+	+		34.16	32.53	+	33.65	32.97	+	34.61	33.24	+	35	33.21	+	+	+	H+	H+	+	+	+	+	+	+			
3119		H+	+	H+	+	+		34.48	33.2	+	33.79	32.7	+	34.26	33.47	+	34.4	32.66	+	+	+	H+	H+	+	+	+	+	+	+			
3120	4.4	H+	+	H+	+	+	5/5	33.77	32.8	+	33.52	32.56	+	33.97	32.68	+	34.21	33.12	+	+	+	H+	H+	+	+	+	+	+	+			
3121		H+	st	H+	+	+		32.45	32.94	+	32.04	32.52	+	32.92	33.03	+	33	33.05	+	+	+	H+	H+	+	+	+	+	+				
3122		H+	+	H+	+	+		31.16	32.63	+	31.43	32.88	+	31.36	32.45	+	31.65	32.75	+	+	+	H+	H+	+	+	+	+	+				
3123		H+	+	H+	+	+		32.44	33	+	32.6	33.68	+	32.21	32.96	+	32.52	33.21	+	+	+	H+	H+	+	+	+	+	+				
3124		H+	+	H+	+	+		38.19	34.41	+	N/A	34.76	-	43.02	34.48	+	N/A	34.94	-	+	+	H+	H+	+	+	-	+	-	-			

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Matrix : Rillettes
Strain : *Listeria monocytogenes* Ad669
Seeding 48h at 3±2°C

N° sample	Inoculation level (cfu/sample)	Reference method: ISO 11290-1 (2017) ♦					ALTERNATIVE METHOD : iQ-Check <i>Listeria monocytogenes</i>												
							1:10 with pre-warmed LSB II Broth -18 h at 37°C												
		Half Fraser		Fraser		Final result	Number positive samples/Total	PCR iQ-Check <i>Listeria monocytogenes</i>			Confirmations							Final result	Number positive samples/Total
								Easy II lysis protocol - Without FDRS			Direct streaking					Fraser			
		CFX OPUS																	
O&A	Palcam	O&A	Palcam	FAM Cq	I.C. Cq	Result	RAPID'L.mono	RAPID' Lspp	AL (100µL)	AL (10µL)	Palcam	AL	Palcam	CFX OPUS	CFX OPUS				
2072	0	st	st	st	st	-	0/5	N/A	33.12	-	st	st	st	st	st	st	-	0/5	
2073		st	st	st	st	-		N/A	33.08	-	st	st	st	st	st	st	-		
2074		st	st	st	st	-		N/A	32.88	-	st	st	st	st	st	st	-		
2075		st	st	st	st	-		N/A	32.76	-	st	st	st	st	st	st	-		
2076		st	st	st	st	-		N/A	33.45	-	st	st	st	st	st	st	-		
2077	0.8	H+	+	H+	+	+	13/20	N/A	32.87	-	st	st	st	st	st	st	st	-	12/20
2078		st	st	st	st	-		27.54	31.69	+	+	H+	H+	+	H+	+	+		
2079		H+	+	H+	+	+		27.12	31.77	+	+	H+	H+	+	H+	+	+		
2080		H+	+	H+	+	+		N/A	33.21	-	st	st	st	st	st	st	-		
2081		H+	+	H+	+	+		27.19	32.06	+	+	H+	H+	+	H+	+	+		
2082		H+	+	H+	+	+		29.59	32.34	+	+	H+	H+	+	H+	+	+		
2083		H+	+	H+	+	+		N/A	33.18	-	st	st	st	st	st	st	-		
2084		H+	+	H+	+	+		27.5	32	+	+	H+	H+	+	H+	+	+		
2085		st	st	st	st	-		N/A	33.29	-	st	st	st	st	st	st	-		
2086		H+	+	H+	+	+		N/A	32.73	-	st	st	st	st	st	st	-		
2087		st	st	st	st	-		28.48	32.12	+	+	H+	H+	+	H+	+	+		
2088		H+	+	H+	+	+		28.42	32.25	+	+	H+	H+	+	H+	+	+		
2089		st	st	st	st	-		N/A	32.78	-	st	st	st	st	st	st	-		
2090		st	st	st	st	-		27	31.77	+	+	H+	H+	+	H+	+	+		
2091		st	st	st	st	-		N/A	33.11	-	st	st	st	st	st	st	-		
2092		H+	+	H+	+	+		29.65	32.26	+	+	H+	H+	+	H+	+	+		
2093		st	st	st	st	-		N/A	33.11	-	st	st	st	st	st	st	-		
2094		H+	+	H+	+	+		35.79	32.77	+	+	H+	H+	+	H+	+	+		
2095		H+	+	H+	+	+		30.71	32.65	+	+	H+	H+	+	H+	+	+		
2096		H+	+	H+	+	+		29.02	32.18	+	+	H+	H+	+	H+	+	+		
2097	3.7	H+	+	H+	+	+	5/5	26.75	32.09	+	+	+	H+	H+	+	H+	+	+	5/5
2098		H+	+	H+	+	+		25.85	31.81	+	+	+	H+	H+	+	H+	+	+	
2099		H+	+	H+	+	+		28.62	32.34	+	+	+	H+	H+	+	H+	+	+	
2100		H+	+	H+	+	+		29.02	32.08	+	+	+	H+	H+	+	H+	+	+	
2101		H+	+	H+	+	+		28.33	31.94	+	+	+	H+	H+	+	H+	+	+	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Matrix : Fresh mixed vegetable salad
Strain : *Listeria monocytogenes* Ad532
Seeding 48h at 3±2°C
Aerobic mesophilic flora: 0 UFC/mL

N° sample	Inoculation level (cfu/sample)	Reference method: ISO 11290-1 ♦						Alternative method : iQ-Check <i>Listeria monocytogenes</i> II											
								1:10 with pre-warmed LSB II Broth -18 h at 37°C											
		Half Fraser		Fraser		<i>Final result</i>	Number positive samples/Total	PCR iQ-Check <i>Listeria monocytogenes</i> II			Confirmations							Final result	Number positive samples/Total
								Easy II lysis protocol - Without FDRS			Direct streaking					Fraser			
								CFX OPUS											
O&A	Palcam	O&A	Palcam	FAM Cq	I.C. Cq	Result	RAPID' <i>L.mono</i>	RAPID' Lspp	AL (100µL)	AL (10µL)	Palcam	AL	Palcam	CFX OPUS	CFX OPUS				
3131	0	st	st	st	-	-	0/5	N/A	33.38	-	-	-	-	-	st	-	-	0/5	
3132		-	-	-	-	-		N/A	33.7	-	-	-	-	-	-	-	-		
3133		st	st	st	st	-		N/A	33.4	-	-	st	-	-	-	-	-		
3134		st	st	st	st	-		N/A	33.52	-	-	st	-	-	-	-	-		
3135		st	st	st	st	-		N/A	35.33	-	-	st	-	-	-	-	-		
3136	0.5	st	st	st	st	-	8/20	N/A	33.3	-	-	-	-	-	-	-	-	-	7/20
3137		H+	+	H+	+	+		28.63	32.28	+	+(blue)	+	H+	H+	+	/	/	+	
3138		H+	+	H+	+	+		N/A	33.3	-	-	st	st	st	st	st	st	-	
3139		-	st	st	st	-		31.52	33.13	+	+	+	H+	H+	+	/	/	+	
3140		-	-	st	-	-		30.71	33.06	+	+	+	H+	H+	+	/	/	+	
3141		st	st	st	st	-		35.81	33.4	+	+	+	H+	H+	+	/	/	+	
3142		-	-	st	st	-		N/A	32.95	-	-	-	-	-	-	st	st	-	
3143		st	st	st	st	-		N/A	33.65	-	st	st	-	-	st	st	st	-	
3144		-	-	st	st	-		N/A	33.26	-	-	st	-	-	-	st	-	-	
3145		st	st	st	st	-		30.74	32.56	+	+	+	H+	H+	+	/	/	+	
3146		H+	+	H+	+	+		N/A	33.52	-	-	-	-	-	st	-	-	-	
3147		-	-	st	st	-		N/A	33.52	-	-	-	-	-	st	-	-	-	
3148		H+	+	H+	+	+		27.56	32.36	+	+	+	H+	H+	+	/	/	+	
3149		-	-	st	st	-		N/A	33.56	-	-	-	st	-	-	st	st	-	
3150		H+	+	H+	+	+		N/A	33.74	-	-	st	-	-	-	-	-	-	
3151		H+	+	H+	+	+		26.46	32.09	+	+	+	H+	H+	+	/	/	+	
3152		-	st	st	st	-		N/A	33.38	-	-	st	-	-	-	st	st	-	
3153		H+	+	H+	+	+		N/A	33.51	-	st	st	-	-	-	st	st	-	
3154		H+	+	H+	+	+		N/A	33.46	-	-	-	-	-	-	st	-	-	
3155		-	st	st	st	-		N/A	33.35	-	st	-	-	-	st	st	st	-	
3156	2.9	-	st	st	st	-	4/5	32.03	33.06	+	+	+	H+	H+	H+	/	/	+	4/5
3157		H+	+	H+	+	+		27.89	32.49	+	+	+	H+	H+	H+	/	/	+	
3158		H+	+	H+	+	+		N/A	33.36	-	-	-	-	-	-	-	-	-	
3159		H+	+	H+	+	+		27.09	32.2	+	+	+	H+	H+	H+	/	/	+	
3160		H+	+	H+	+	+		31.27	32.77	+	+	+	H+	H+	H+	/	/	+	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Matrix : Smoked salmon
Strain : *Listeria monocytogenes* Ad670
Seeding 48h at 3±2°C
Aerobic mesophilic flora: 0 UFC/mL

N° sample	Inoculation level (cfu/sample)	Reference method: ISO 11290-1 ♦					Alternative method : iQ-Check <i>Listeria monocytogenes</i> II													
							1:10 with pre-warmed LSB II Broth -18 h at 37°C													
		Half Fraser		Fraser		Final result	Number positive samples/Total	PCR iQ-Check <i>Listeria monocytogenes</i> II			Confirmations						Final result	Number positive samples/Total		
								Easy II lysis protocol – Without FDRS			Direct streaking				Fraser					
								CFX OPUS												
O&A	Palcam	O&A	Palcam	FAM Cq	I.C. Cq	Result <i>L.mono</i>	RAPID' <i>L.mono</i> (100µL)	RAPID' Lspp	AL (100µL)	AL (10µL)	Palcam (10 µL)	AL	Palcam	CFX OPUS	CFX OPUS					
2865	0	-	-	st	-	-	0	N/A	32.12	-	-	st	-	-	st	st	st	-	0	
2866		st	st	-	-	-		N/A	32.03	-	-	-	-	st	st	-				
2867		st	st	st	st	-		N/A	31.83	-	-	-	st	st	st	-				
2868		st	st	-	st	-		N/A	31.99	-	-	st	st	st	st	-				
2896		st	st	st	st	-		N/A	32.1	-	-	st	st	st	st	-				
2969	0.8	H+	+	H+	+	+	10	N/A	32.45	-	-	st	-	-	-	st	st	-	5	
2970		H+	+	H+	+	+		N/A	32.19	-	-	st	-	-	-	st	st	-		
2971		H+	+	H+	+	+		N/A	32	-	st	st	st	st	st	st	st	-		
2972		H+	+	H+	+	+		N/A	32.17	-	st	st	-	st	st	st	st	-		
2973		H+	+	H+	+	+		N/A	32.08	-	-	st	-	st	st	st	st	-		
2974		H+	+	H+	+	+		31.24	31.77	+	+	+	H+	H+	+	H+	+	+		
2975		st	st	st	st	-		N/A	32.08	-	-	st	-	st	st	st	st	-		
2976		H+	+	H+	+	+		31.14	32.01	+	+	+	H+	H+	+	H+	+	+		
2977		st	st	st	st	-		N/A	32.01	-	st	-	st	st	st	st	st	-		
2978		st	st	st	st	-		N/A	32.21	-	st	st	st	st	st	-	st	-		
2979		st	st	st	st	-		N/A	32.2	-	-	st	-	-	-	-	st	-		
2980		st	st	st	st	-		29.86	31.43	+	+	+	H+	H+	+	H+	+	+		
2981		-	st	st	st	-		N/A	32.19	-	-	st	-	-	st	st	st	-		
2982		H+	+	H+	+	+		N/A	32.13	-	st	st	st	st	st	st	st	st		-
2983		H+	+	H+	+	+		N/A	32.05	-	st	st	st	st	st	st	st	st		-
2984		st	st	st	st	-		30.02	31.49	+	+	+	H+	H+	+	H+	+	+		
2985		H+	+	H+	H+	+		N/A	32.34	-	-	st	-	-	-	-	-	-		
2986		st	st	st	st	-		29.74	31.59	+	+	+	H+	H+	+	H+	+	+		
2987		st	st	st	st	-		N/A	31.98	-	st	st	st	st	st	st	st	st		-
2988		st	st	st	st	-		N/A	32.02	-	-	st	-	-	-	st	-	-		
2989	3.4	H+	+	H+	+	+	5	31.29	31.78	+	+	+	H+	H+	+	H+	+	+	5	
2990		H+	+	H+	+	+		28.96	31.39	+	+	+	H+	H+	+	H+	+	+		
2991		H+	+	H+	+	+		29.18	31.33	+	+	+	H+	H+	+	H+	+	+		
2992		H+	+	H+	+	+		27.82	31.16	+	+	+	H+	H+	+	H+	+	+		
2993		H+	+	H+	+	+		26.73	31.24	+	+	+	H+	H+	+	H+	+	+		

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)