

NF VALIDATION
Validation of alternative analytical methods
Application in food microbiology

Summary report

Validation study according to the ISO 16140-2

BACSpec Listeria - ELISA Test Kit

(Certificate number: EGS 38/04 - 01/17)

for qualitative detection of *Listeria* spp in all human food products
and production environmental samples

Qualitative method

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This report consists of 90 pages, including 8 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
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
FPR	False Positive Ratio
LOD	Limit of Detection
NA	Negative agreement
ND _{FN (alt)}	Negative Deviation due to false negative alternative-method results
PA	Positive Agreement
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 DNA extract in case of inhibition according to the alternative protocol (1/10)
1/2	50% level of target analyte
d	Doubtful result
H-	Characteristic <i>Listeria</i> without halo
H+	Characteristic <i>Listeria</i> colonies with halo
i	Inhibition
<i>L. mono</i>	<i>L. monocytogenes</i>
<i>L. innoc</i>	<i>L. innocua</i>
<i>L. welsh</i>	<i>L. welshimeri</i>
<i>L. seeli</i>	<i>L. seeligeri</i>
<i>L. iva</i>	<i>L. ivanovii</i>
m	Minority level of target analyte
M	Majority level of target analyte
NC	Non-characteristic colony
N	No identification
n	Not isolated colony
No amp	Non characteristic PCR curve
p	Pure culture level of target analyte
st	Plate without any colony
Bold typing	artificially inoculated samples

Quality Assurance documents related to this study can be consulted upon request from **Gold Standard Diagnostics Freiburg GmbH**.

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

Validation protocols	<ul style="list-style-type: none"> ▪ 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	BACSpec Listeria - ELISA Test
Scope	<ul style="list-style-type: none"> > All human food products > Production 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 BACSpec Listeria ELISA Test Kit for qualitative detection of Listeria was validated in January 2017 (Certificate number: EGS 38/04 - 01/17) according to the ISO 16140-2:2016 and the AFNOR Certification Technical Rules for the detection of *Listeria* spp in broad range of food, and production environmental samples.

A summary of the different studies is given in the table below.

Table 1 - Summary of the different studies

Date	Study	Reference method	Validation standard	Conducted by
January 2017	Initial validation for: <ul style="list-style-type: none"> • A broad range of foods • Production environmental samples 	ISO 11290-1 (2017)	ISO 16140-2 (2016)	ADRIA
December 2020	Renewal study	ISO 11290-1 (2017)	ISO 16140-2 (2016)	ADRIA
December 2024	Renewal study	ISO 11290-1 (2017)	ISO 16140-2 (2016) & ISO 16140-2/A1 (2024)	ADRIA

2 METHOD PROTOCOLS

2.1 Reference method ♦

The reference method used for the initial validation study corresponds to the ISO 11290-1/A1 (February 2005) standard: Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of *Listeria monocytogenes* – Part 1: detection method.

Since the renewal in 2020, 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 1**.

The modifications which occur in the version published in 2017 are considered as major but have no impact on the previous data.

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

2.2 Alternative method

2.2.1 Principle

The method is based on an enrichment step in a selective pre-enrichment buffer followed by a second selective enrichment. An aliquot of enrichment is boiled and after cooling, the samples are investigated for the presence of *Listeria* antigens with a sandwich ELISA method.

2.2.2 Protocol

The flow diagram is provided in **Appendix 2**. The protocol is the following:

- Pre-enrichment step: 24 h \pm 2 h at 30°C \pm 1°C in Half Fraser broth (d 1/10),
- Enrichment: Transfer 0.2 ml of Half Fraser broth in 10 ml Eurofins Listeria Enrichment Broth (ELEB), incubated for 24 h \pm 2 at 30°C \pm 1°C,
- ELISA test on 0.5 - 1 ml aliquots, which are heat-treated for 15-20 min at 85-100°C,
- Confirmation by streaking 10 μ l of non-heat-treated Eurofins Listeria Enrichment Broth (ELEB) onto O&A and PALCAM plates.

The typical colonies are confirmed by:

- The tests described in the reference method (gram, catalase, Camp test and biochemical galleries),
- The MALDI Biotyper of Bruker (Software versions: Flex control 3.4, Flex analysis 3.4, MBT Compass explorer 4.1): colonies isolated from O&A, PALCAM or TSYEA plates. The protocols used for *Listeria* genus confirmation are described in **Appendix 3**. This method is dedicated to the confirmation of *Listeria* spp. The identification of colonies is not part of the NF VALIDATION scope.

It is possible to store the Eurofins Listeria Enrichment Broth for 72 h at 5°C \pm 3°C to offer sufficient practicability to the users.

2.2.3 Restrictions

There is no restriction for use.

2.3 Study design

The study is a **paired data study design**, as the reference and the alternative methods have common primary enrichment procedures.

The reference method and the alternative method used in this validation study were tested using a 25 g test portion and a 1:10 dilution ratio.

3 INITIAL VALIDATION STUDY: RESULTS

3.1 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/>.

3.1.1 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

480 samples were analysed. The distribution per tested category and type is given in Table 2.

Table 2 – Distribution per tested category and type

Category		Type	Positive samples	Negative samples	Total
1	Composite foods / Ready-to-eat and ready-to-reheat	a Ready-to-eat	12	19	31
		b Ready-to-reheat	11	14	25
		c Confectionaries, pastries and egg products	11	13	24
		Total	34	46	80
2	Meat products	a Raw products (frozen or fresh)	19	8	27
		b Meat based products ready to reheat	12	16	28
		c Raw and cooked delicatessen	10	17	27
		Total	41	41	82
3	Milk & dairy products	a Raw milk cheeses	8	22	30
		b Other products based on raw milk	16	9	25
		c Heat treated products	11	13	24
		Total	35	44	79
4	Vegetables	a Raw products (fresh and frozen)	12	20	32
		b Pre-cooked vegetables, vegetables under modified atmosphere	11	24	35
		c Ready-to-eat	11	9	20
		Total	34	53	87
5	Seafood and fishery products	a Raw products (fresh and frozen)	13	16	29
		b Cured & smoked	15	9	24
		c Ready-to-eat, Ready to reheat	21	11	32
		Total	49	36	85
6	Production environmental samples	a Dusts and Residues	7	14	21
		b Cleaning and Process Waters	10	11	21
		c Surface samples	13	12	25
		Total	30	37	67
All categories			223	257	480

The distribution per target analytes is given in Table 3.

Table 3 – Distribution per target analytes

Category	<i>Listeria spp</i> (A)		<i>Listeria spp + Listeria monocytogenes</i> (B)		Total (A+B)		<i>Listeria monocytogenes</i> (C)		Total positive samples
	Number of samples	%	Number of samples	%	Number of samples	%	Number of samples	%	
1 Composite foods / Ready-to-eat and ready-to-reheat	8	23.5	7	20.6	15	44.1	19	55.9	34
2 Meat products	12	29.3	10	24.4	22	53.7	19	46.3	41
3 Milk & dairy products	8	22.9	3	8.6	11	31.4	24	68.6	35
4 Vegetables	10	29.4	8	23.5	18	52.9	16	47.1	34
5 Seafood and fishery products	9	18.4	6	12.2	15	30.6	34	69.4	49
6 Production environmental samples	16	53.3	4	13.3	20	66.7	10	33.3	30
Total	63	28.3	38	17.0	101	45.3	122	54.7	223

According to the AFNOR technical rules, the number of samples contaminated with *Listeria spp.* and *Listeria monocytogenes* per category has to be comprised between 15 and 25 samples; it was the case for all the categories, except for milk and dairy products category. This was accepted by the AFNOR Technical Committee.

3.1.1.2 Artificial contamination of samples

Artificial contaminations were done using the seeding protocol (storage for 48 h at 5°C ± 3°C). A same strain was not used to inoculate more than 6 samples.

The artificial contaminations are presented in **Appendix 4**. The repartition of the positive samples per contamination level and type (natural and artificial) is provided in Table 4.

Table 4 - Repartition of the positive samples per contamination level (natural and artificial)

	Naturally contaminated	Artificially contaminated using seeding protocol		Total
		≤3 CFU/sample	3<X<10 CFU/sample	
All categories	114	102	7	223
%	51%	46%	3%	100%

168 samples were artificially contaminated, using 55 different strains. 109 gave a positive result. 102 samples were inoculated at level ≤ 3 CFU and 7 samples were inoculated between 3.4 and 4.8 CFU.

51% of the samples were naturally contaminated.

3.1.1.3 Confirmation protocols

During the validation study (sensitivity and RLOD), all the samples (positive and negative) were confirmed by streaking 10 µl of ELEB onto O&A and PALCAM plates. The samples which gave a negative ELISA test and a negative confirmation test using the protocol of the alternative method were confirmed as negative using the ISO 11290-1/A1 protocol: the ELEB was incubated for 48 h at 30°C before streaking onto O&A and PALCAM plates.

3.1.1.4 Protocols applied during the validation study

> **Incubation time**

The minimum incubation time was applied:

- Half Fraser broth: 22 h at 30°C
- ELEB: 22h at 30°C

> **Confirmation protocol:**

All the samples, with positive or negative ELISA tests, were confirmed by streaking 10 µL of the ELEB broth onto O&A and PALCAM plates.

The typical colonies were confirmed by:

- The tests described in the reference method,
- Using the MALDI Biotyper of Bruker on isolated colonies from O&A, PALCAM and TSYEA plates.

All the negative samples were confirmed by proceeding to a subculture in ELEB incubated for 48 h at 30°C prior streaking onto O&A and PALCAM plates in order to have the total duration of incubation time of the reference method (ISO 11290-1/A1 (February 2005)).

3.1.1.5 Test results

Raw data per category is given in **Appendix 5**. The results are given in Table 5.

Table 5 – Summary of results obtained with the reference and alternative methods (after confirmation) of all samples for each category

Category		PA	PD	TND	TNA	Total
1	Composite foods / Ready to eat and ready to reheat	34	0	0	46	80
2	Meat products	39	2	0	41	82
3	Milk and dairy products	34	0	1	44	79
4	Vegetable	33	1	0	53	87
5	Seafood and fishery products	47	1	1	36	85
6	Production environmental samples	26	3	1	37	67
All categories		213	7	3	257	480

With: $TND = ND_{FN(alt)}$ $TNA = NA + PD_{FP(alt)}$

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

The calculations are presented in Table 6.

Table 6 – Calculation of relative trueness (RT), sensitivity (SE), false positive ratio (FPR) and false negative ratio (FNR) for the alternative method

Category		Type	PA	NA	ND _{FN(alt)}	PD	PD _{FP(alt)}	TND	TNA	SE alt %	SE ref %	RT %	FPR %	FNR
1	Composite foods / Ready-to-eat and ready-to-reheat	a Ready-to-eat	12	18	0	0	1	0	19	100.0%	100.0%	100.0%	5.3%	0.000
		b Ready-to-reheat	11	14	0	0	0	0	14	100.0%	100.0%	100.0%	0.0%	0.000
		c Confectionaries, pastries and egg products	11	13	0	0	0	0	13	100.0%	100.0%	100.0%	0.0%	0.000
		Total	34	45	0	0	1	0	46	100.0%	100.0%	100.0%	2.2%	0.000
2	Meat Products	a Raw products (frozen or fresh)	18	8	0	1	0	0	8	100.0%	94.7%	96.3%	0.0%	0.000
		b Meat based products ready to reheat	12	16	0	0	0	0	16	100.0%	100.0%	100.0%	0.0%	0.000
		c Raw and cooked delicatessen	9	17	0	1	0	0	17	100.0%	90.0%	96.3%	0.0%	0.000
		Total	39	41	0	2	0	0	41	100.0%	95.1%	97.6%	0.0%	0.000
3	Milk & Dairy products	a Raw milk cheeses	7	22	1	0	0	1	22	87.5%	100.0%	96.7%	0.0%	0.125
		b Other products based on raw milk	16	9	0	0	0	0	9	100.0%	100.0%	100.0%	0.0%	0.000
		c Heat treated products	11	12	0	0	1	0	13	100.0%	100.0%	100.0%	7.7%	0.000
		Total	34	43	1	0	1	1	44	97.1%	100.0%	98.7%	2.3%	0.029
4	Vegetables	a Raw products (fresh and frozen)	12	20	0	0	0	0	20	100.0%	100.0%	100.0%	0.0%	0.000
		b Pre-cooked vegetables, vegetables under modified atmosphere	10	24	0	1	0	0	24	100.0%	90.9%	97.1%	0.0%	0.000
		c RTE	11	9	0	0	0	0	9	100.0%	100.0%	100.0%	0.0%	0.000
		Total	33	53	0	1	0	0	53	100.0%	97.1%	98.9%	0.0%	0.000
5	Seafood and fishery products	A Raw products (fresh and frozen)	13	16	0	0	0	0	16	100.0%	100.0%	100.0%	0.0%	0.000
		b Cured & smoked	13	9	1	1	0	1	9	93.3%	93.3%	91.7%	0.0%	0.067
		c RTE, ready to reheat	21	11	0	0	0	0	11	100.0%	100.0%	100.0%	0.0%	0.000
		Total	47	36	1	1	0	1	36	98.0%	98.0%	97.6%	0.0%	0.020
6	Production environmental Samples	a Dusts and residues	6	14	1	0	0	1	14	85.7%	100.0%	95.2%	0.0%	0.143
		b Cleaning and process waters	9	11	0	1	0	0	11	100.0%	90.0%	95.2%	0.0%	0.000
		c Surface samples	11	12	0	2	0	0	12	100.0%	84.6%	92.0%	0.0%	0.000
		Total	26	37	1	3	0	1	37	96.7%	90.0%	94.0%	0.0%	0.033
All categories			213	255	3	7	2	3	257	98.7%	96.9%	97.9%	0.8%	0.013

The following results are observed:

Table 7 - Summary of results

Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} \times 100 \%$	98.7 %
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} \times 100 \%$	96.9 %
Relative trueness	$RT = \frac{(PA + TNA)}{N} \times 100 \%$	97.9 %
False positive ratio for the alternative method (paired evaluation)	$FPR = \frac{PD_{FP(alt)}}{TNA} \times 100 \%$	0.8 %
False negative ratio for the alternative method (paired evaluation)	$FNR = \frac{ND_{FN(alt)}}{PA + TND + PD}$	0.013

3.1.1.7 Analysis of discordant results

The negative deviations are given in Table 8 and the positive deviations in Table 9.

> Negative deviations

Three negative deviations ($ND_{FN(alt)}$) were observed for the overall categories:

- For two samples (4527 and 4965), the confirmatory tests concluded to the presence of *Listeria* spp. in ELEB; for these two samples, the detection level of the alternative method was probably not reached.
- For sample 4527, the ELISA tests were repeated three times and positive results were observed twice. For sample 4965, the ELISA tests were repeated two times; the ELISA tests were all negative.
- For sample 5447, the additional confirmatory tests (incubation of ELEB for 48 h at 30°C before streaking onto selective agar plates) did not confirm the presence of *Listeria* spp. in the enrichment. Note that for this sample the presence of typical colonies was noticed only on selective agar plates from Fraser broth in the ISO 11290-1 method.

> Positive deviations

Seven positive deviations were obtained: 5 on naturally contaminated samples and 2 on artificially contaminated samples. For these 7 samples, ELEB allowed a better growth than Fraser broth.

When using the alternative method, 5 more positive samples could be detected. These results show the better performances of the alternative method.

Table 8 - Negative deviations

Sample N°	Product	Inoculated strain	Inoculation level	Optical density (O.D.)	Result	Confirmation	Final result	Agreement	ELEB (48h 30°C)	Category	Type
4527	Raw milk cheese	<i>L. monocytogenes</i> Ad613	1,0	0.126/0.505/ 0.977/0.082*	-	+ (<i>L. monocytogenes</i>)	-	ND _{FN(alt)}	+	3	a
4965	Smoked trout	/	/	0.092/0.081/ 0.105*	-	+ (<i>L. welshimeri</i>)	-	ND _{FN(alt)}	/	5	b
5447	Residues (Fish industry)	/	/	0.068	-	-	-	ND _{FN(alt)}	-	6	a

* Different testing was done at different days.

Table 9 - Positive deviations

Sample N°	Product	Inoculated strain	Inoculation level	Optical density (O.D.)	Result	Confirmation	Final result	Agreement	Category	Type
3002	Cooked onions	/		3.556	+	+	+	PD	4	b
3725	Delicatessen	/		0.796	+	+	+	PD	2	c
6676	Lamb meat	/		0.411	+	+	+	PD	2	a
6685	Process water (fish industry)	/		3.481	+	+	+	PD	6	b
6780	Wipe (Meat industry)	<i>L. monocytogenes</i> Ad614	2-2-2-1-1 (1.6)	3.549	+	+	+	PD	6	c
6830	Smoked herrings	/		3.665	+	+	+	PD	5	b
6941	Wipe (Fish industry)	<i>L. welshimeri</i> Ad1269	0-3-2-2-1 (1.6)	3.652	+	+	+	PD	6	c

The analyses of discordant results according to the ISO 16140-2/A1:2024 is the following (See Table 10):

Table 10 - Analyses of discordant results

Category	Type	N+	TND	PD	Paired			
					TND - PD	AL	TND + PD	AL
1 Composite foods / Ready-to-eat and ready-to-reheat	a Ready-to-eat	12	0	0	0		0	
	b Ready-to-reheat	11	0	0	0		0	
	c Confectionaries, pastries and egg products	11	0	0	0		0	
	Total	34	0	0	0	3	0	6
2 Meat products	a Raw products (frozen or fresh)	19	0	1	-1		1	
	b Meat based products ready to reheat	12	0	0	0		0	
	c Raw and cooked delicatessen	10	0	1	-1		1	
	Total	41	0	2	-2	3	2	6
3 Milk & dairy products	a Raw milk cheeses	8	1	0	1		1	
	b Other products based on raw milk	16	0	0	0		0	
	c Heat treated products	11	0	0	0		0	
	Total	35	1	0	1	3	1	6
4 Vegetables	a Raw products (fresh and frozen)	12	0	0	0		0	
	b Pre-cooked vegetables, vegetables under modified atmosphere	11	0	1	-1		1	
	c RTE	11	0	0	0		0	
	Total	34	0	1	-1	3	1	6
5 Seafood and fishery products	a Raw products (fresh and frozen)	13	0	0	0		0	
	b Cured & smoked	15	1	1	0		2	
	c RTE, ready to reheat	21	0	0	0		0	
	Total	49	1	1	0	3	2	6
6 Production environmental Samples	a Dusts and residues	7	1	0	1		1	
	b Cleaning and process waters	10	0	1	-1		1	
	c Surface samples	13	0	2	-2		2	
	Total	30	1	3	-2	3	4	6
All categories		223	3	7	-4	6	10	16

The observed values for (TND - PD) and (TND + PD) meet the acceptability limit for each category and for all the categories.

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

244 samples were tested again after storage of the ELEB broth for 72 h at 5°C ± 3°C. The following changes were observed (See Table 11).

Table 11 - Changes after storage for 72 h at 5°C ± 3°C

Sample No	Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)		Category	Type
	22h	Storage 72h at 5°C ± 3°C		
4527	ND _{FN(alt)}	PA	3	a
4965	ND _{FN(alt)}	PA	5	b

The analysis of discordant becomes (See Table 12).

Table 12 - Analysis of discordant results after storage 72 h at 5 ± 3°C

Category	Type	N+	TND	PD	Paired			
					TND - PD	AL	TND + PD	AL
1 Composite foods / Ready-to-eat and ready-to-reheat	a Ready-to-eat	12	0	0	0		0	
	b Ready-to-reheat	11	0	0	0		0	
	c Confectionaries, pastries and egg products	11	0	0	0		0	
	Total	34	0	0	0	3	0	6
2 Meat products	a Raw products (frozen or fresh)	19	0	1	-1		1	
	b Meat based products ready to reheat	12	0	0	0		0	
	c Raw and cooked delicatessen	10	0	1	-1		1	
	Total	41	0	2	-2	3	2	6
3 Milk & dairy products	a Raw milk cheeses	8	0	0	0		0	
	b Other products based on raw milk	16	0	0	0		0	
	c Heat treated products	11	0	0	0		0	
	Total	35	0	0	0	3	0	6
4 Vegetables	a Raw products (fresh and frozen)	12	0	0	0		0	
	b Pre-cooked vegetables, vegetables under modified atmosphere	11	0	1	-1		1	
	c RTE	11	0	0	0		0	
	Total	34	0	1	-1	3	1	6
5 Seafood and fishery products	a Raw products (fresh and frozen)	13	0	0	0		0	
	b Cured & smoked	15	0	1	-1		1	
	c RTE, ready to reheat	21	0	0	0		0	
	Total	49	0	1	-1	3	1	6
6 Production environmental Samples	a Dusts and residues	7	1	0	1		1	
	b Cleaning and process waters	10	0	1	-1		1	
	c Surface samples	13	0	2	-2		2	
	Total	30	1	3	-2	3	4	6
All categories		223	1	7	-6	6	8	16

The observed values for (TND - PD) and (TND + PD) meet the acceptability limit for each category and for all the categories combined.

3.1.1.9 Confirmation

> Streiking onto selective agar plates

The positive BACSpec results were confirmed by streaking the ELEB (10 µl) onto O&A and PALCAM plates. The typical colonies were then confirmed by the tests described in the standard method and MALDI-TOF tests from O&A, PALCAM and TSYEA plates.

A summary of the differences observed (for positive samples) between streaking onto O&A and PALCAM plates is given in Table 13.

Table 13 - Differences observed between streaking onto O&A and PALCAM plates

Sample No	O&A	PALCAM	Identification
4118	H+	-	<i>Listeria monocytogenes</i>
4203	H- d	-	<i>Listeria welshimeri</i>
4205	H- d	-	<i>Listeria welshimeri</i>
4207	H- d	-	<i>Listeria welshimeri</i>
6685	H- after subculture	-	<i>Listeria innocua</i>
6721	H+ d	-	<i>Listeria monocytogenes</i>
6780	H+	-	<i>Listeria monocytogenes</i>

In seven cases, typical colonies were observed on O&A plates while no typical colonies were observed on PALCAM plates.

For sample 6685, it was necessary to run a subculture in Fraser broth for 48 h at 30°C to confirm the presence of *Listeria* spp.

For two samples (PD_{FP(alt)}) (3987: Sandwich; 4328: Pasteurized milk cheese), it was impossible to confirm the presence of *Listeria* spp. in the ELEB broth.

> Confirmation of the typical colonies

252 colonies were tested from O&A, 215 from PALCAM and 250 from TSYEA using the tests described in the reference method and MALDI-TOF tests. A summary of the observed results is provided in Table 14.

Table 14 - Confirmation of the typical colonies

		Total colonies tested	Tests of the reference method		MALDI-TOF	
			<i>Listeria</i> spp +	NI or NC	<i>Listeria</i> spp +	NI
Typical colonies H+/H-	O&A	252	250	2	252	0
	PALCAM	215	213	2	215	0
	TSYEA	250	249	1	250	0
Total		717	712	5	717	0

NI: no identification

NC: non-characteristic colony

The Biotyper of Bruker allowed confirming the colonies tested from the two selective agar plates and from TSYEA plates as *Listeria* spp.

Note that in 14 cases, it was necessary to test the colonies again as no peaks were observed during the test. This was due to a lack of biological material on the slide.

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:

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

3.1.2.1 Experimental design

Six (matrix/strain) pairs were analysed by the reference method and by the alternative method (See Table 15).

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 each matrix was performed to estimate the total microbial load on the day of analysis.

Table 15 - Defined (matrix/strain) pairs for the RLOD determination

Matrix and related category number	Inoculated strain	Origin	Inoculation protocol
1- Deli-salad (Piémontaise)	<i>Listeria monocytogenes</i> Ad494	Deli salad	Seeding protocol Storage 48h at 3 ± 2°C
2 - Frankfurters	<i>Listeria monocytogenes</i> Ad669	Rillettes	
3 - Soft white cheese	<i>Listeria ivanovii</i> Ad1337	Cheese	
4 - Cantaloupe (frozen balls)	<i>Listeria seeligeri</i> Ad1754	Zucchini	Seeding protocol Storage for 2 weeks at - 20°C
5 - Frozen shrimps	<i>Listeria innocua</i> Ad1200	Pollock	Seeding protocol Storage for 2 weeks at - 20°C
6 - Process water	<i>Listeria monocytogenes</i> Ad551	Environmental sample	Seeding protocol Storage 48h at 3 ± 2°C

3.1.2.2 Calculation and interpretation of the RLOD

The raw data is given in **Appendix 6**.

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 values are given in Table 16.

Table 16 – Presentation of RLOD before and after confirmation of the alternative method results

Category	(Matrix / strain) pair	RLOD	AL
1	Deli salad / <i>Listeria monocytogenes</i> Ad494	1.000 [0.488;2.049]	1.5
2	Frankfurter / <i>Listeria monocytogenes</i> Ad669	1.000 [0.497;2.012]	
3	Cantaloupe / <i>Listeria seeligeri</i> Ad1754	0.538 [0.266;1.085]	
4	Shrimp / <i>Listeria innocua</i> Ad1200	1.107 [0.565;2.157]	
5	Soft white cheese / <i>L. ivanovii</i> Ad1337	1.000 [0.488;2.049]	
6	Process water / <i>Listeria monocytogenes</i> Ad551	1.000 [0.442;2.262]	
Combined results		0.918 [0.693;1.216]	

The RLOD meet the AL fixed at 1.5 for paired study design for all the tested matrix/strain pairs and for the alternative method.

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 results are given in Table 17.

Table 17 - LOD₅₀ results

Category	(Matrix / strain) pair	Level of detection at 50% (CFU / test portion)	
		Reference method	Alternative method
1	Deli salad/ <i>Listeria monocytogenes</i> Ad494	0.607 [0.359; 1.028]	0.607 [0.359; 1.028]
2	Frankfurter/ <i>Listeria monocytogenes</i> Ad669	0.509 [0.306; 0.849]	0.509 [0.306; 0.849]
3	Cantaloupe/ <i>Listeria seeligeri</i> Ad1754	0.770 [0.441; 1.345]	0.340 [0.198; 0.581]
4	Shrimp/ <i>Listeria innocua</i> Ad1200	0.509 [0.30; 0.849]	0.509 [0.306; 0.849]
5	Soft white cheese/ <i>L. ivanovii</i> Ad1337	0.550 [0.325; 0.928]	0.550 [0.325; 0.928]
6	Process water/ <i>Listeria monocytogenes</i> Ad551	0.601 [0.342; 1.054]	0.601 [0.342; 1.054]
Combined results		0.584 [0.471; 0.725]	0.514 (0.414; 0.637)

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.

The LOD₅₀ varies from 0.5 to 0.8 CFU/test portion for the reference method and from 0.3 to 0.6 CFU/ test portion for the alternative method.

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.

3.1.3.1 Test protocols

> Inclusivity

52 *Listeria monocytogenes* and 33 *Listeria* spp. strains, different from *Listeria monocytogenes*, were tested. *Listeria* spp. strain cultures were performed in BHI medium at 37°C. Dilutions were done in order to inoculate 10 to 100 cells/225 ml Half Fraser broth. The protocol of the alternative method was then applied (subculture in Eurofins *Listeria* Enrichment Broth, ELISA test and confirmatory tests).

> Exclusivity

31 negative strains were tested. Cultures were performed in BHI at 37°C. Dilutions were carried out in order to inoculate around 10⁵ cells/ml BPW. BPW was incubated for 24 h at 37°C. The alternative protocol was then performed.

3.1.3.2 Results

Raw data is given in **Appendix 7**.

> Inclusivity

All the strains were detected by the BACSpec method and typical colonies were observed on O&A and PALCAM plates.

The MALDI-TOF tests performed on the typical colonies from O&A, PALCAM and TSYEA also gave positive results.

> Exclusivity

No cross reaction was observed among the 31 negative strains tested.

3.1.4 Practicability

The alternative method practicability was evaluated according to the AFNOR criteria relative to method comparison study.

Storage conditions, shelf-life and modalities of utilisation after first use	The storage temperature is 2 - 8°C. The shelf-life is given on the package. All the reagents shall be stored at the temperature mentioned on the package.		
Time to result	Steps	Reference method ISO 11290-1 (2017)	Alternative method
	Negative samples		
	Sampling enrichment	Day 0	Day 0
	Subculture in Fraser 1 or ELEB	Day 1	Day 1
	ELISA test	/	Day 2
	Streaking onto plates (O1/P1)	Day 1	/
	Second streaking (O2/P2)	Day 2	/
	Reading plates (O1/P1)	Day 2 - Day 3	/
	Reading plates (O2/P2)	Day 3 - Day 4	/
	Results	Day 4	/
	Presumptive positive or positive results		
	Subculture of typical colonies	Day 3 - Day 4	/
	Streaking onto plates	/	Day 2
	Reading plates	/	Day 3 - Day 4
	Confirmatory tests	Day 3 - Day 5	Day 3 - Day 4
	Results	Day 4 - Day 6 Day 7 - Day 10 ⁽¹⁾	Day 3 - Day 4
⁽¹⁾ In the case of rhamnose and xylose tests are realised in tubes.			
Common step with the reference method	Sampling enrichment		

The negative results are available in 2 days and the positive results in 3 or 4 days.

3.2 Inter-laboratory study

The inter-laboratory study is a study performed by multiple laboratories testing identical samples at the same time, the results of which are used to estimate alternative-method performance parameters.

3.2.1 Study organisation

> Collaborators number

Samples were sent to 14 laboratories.

> Matrix and strain used

Pasteurised cheese samples (31 % fat, 1.4 % NaCl) were contaminated by *Listeria monocytogenes* 153 isolated from raw milk cheese.

> Samples

Samples were prepared and inoculated on Monday 5th December 2016, as described below:

- 24 blind coded samples for detection of *Listeria monocytogenes* by the ISO 11290-1/A1 reference method which includes the detection of *Listeria spp.* and for *Listeria spp.* detection by the BACSpec *Listeria* method.
- 1 sample for aerobic mesophilic flora enumeration by ISO 4833-1 method,
- 1 water flask labelled "Temperature Control" with a temperature probe.

> Inoculation

The targeted inoculation levels were the following:

- 0 CFU/25 g,
- 1 CFU/25 g (level providing fractional positive results);
- 5 CFU/25 g.

> Labelling and shipping

Blind coded samples were placed in isothermal boxes, which contained cooling blocks, and express-shipped to the different laboratories.

A temperature control flask containing a sensor was added to the package in order to register the temperature profile during the transport, the package delivery and storage until analyses.

Samples were shipped in 24 h to 48 h to the involved laboratories. The temperature conditions had to stay lower or equal to 8°C during transport, and between 0°C – 8°C in the labs.

> Analyses

Collaborative study laboratories and the expert laboratory carried out the analyses on Tuesday the 6th of December 2016 or Wednesday the 7th of December 2016 with the alternative and reference methods. **The analyses by the reference method and the alternative method were performed on the same day.**

3.2.2 Experimental parameters control

3.2.2.1 Strain stability and background microflora stability

Strain stability was checked by inoculating the matrix at 100 CFU/g and 1 CFU/g. Enumerations were performed for the high contamination level and detection analyses were performed for the low contamination level after 24 h and 48 h storage at 5°C ± 3°C. *Triplicata* were analysed. The aerobic mesophilic flora was also enumerated; the results are given in Table 18.

Table 18 - Sample stability

Day	Reference method (research)			CFU/g (XLD)			Aerobic mesophilic flora (CFU/g)
	Sample 1	Sample 2	Sample 3	Sample 1	Sample 2	Sample 3	
Day 0	-	+	+	115.4	100.9	103.6	5.1 10 ⁸
Day 1	+	-	+	89.1	95.5	88.2	5.7 10 ⁸
Day 2	+	+	-	95.5	100.9	106.4	5.5 10 ⁸

No evolution was observed during storage at 5°C ± 3°C.

3.2.2.2 Contamination levels

The contamination levels and the sample codification were the following (see Table 19).

Table 19 - Contamination levels

Level	Samples	Theoretical target level (b/25 g)	True level (b/25 g sample)	Low limit / 25 g sample	High limit / 25 g sample
Level 0	3 - 5 - 10 - 13 - 17 - 18 - 21 - 24	0	/	/	/
Low level	1 - 4 - 7 - 9 - 11 - 16 - 20 - 23	1	0.9	0.6	1.2
High level	2 - 6 - 8 - 12 - 14 - 15 - 19 - 22	5	3.7	2.6	5.1

3.2.2.3 Logistic conditions

Temperature conditions are given in Table 20.

Table 20 - Sample temperatures at receipt

Laboratories	Temperature measured by the probed (°C)	Temperature measured at receipt (°C)	Receipt date and time	
A	1.8	3.5	06/12/2016	10:00 AM
B	3.5	4.1	06/12/2016	12:00 AM
H	1.8	3.6	06/12/2016	09:30 AM
I	4.5	4.9	06/12/2016	01:00 PM
L	3.2	3.6	06/12/2016	01:00 PM
Q	1.5	3.9	06/12/2016	01:25 PM
R	2.0	3.6	06/12/2016	10:45 AM
S	3.0	6.0	07/12/2016	01:00 PM
T	2.5	2.9	06/12/2016	11:00 AM
U	Not received	4.6	06/12/2016	12:00 AM
V	1.5	0.5	06/12/2016	12:00 AM
W	0.5	2.0	07/12/2016	2:00 PM
X	1.5	6.0	06/12/2016	01:00 PM
Y	0.5	2.6	06/12/2016	02:45 PM

No problem was encountered during the transport or at receipt for 14 labs. All the samples were delivered on time and in appropriate conditions. Temperatures during shipment and at receipt were all correct.

3.2.3 Result analysis

The raw data are provided in **Appendix 8**.

3.2.3.1 Expert laboratory results

The results obtained by the expert laboratory are given in Table 21.

Table 21 – Results obtained by the expert Lab.

Level	Reference method	Alternative method
L0	0/8	0/8
L1	5/8	5/8
L2	8/8	8/8

Fractional recovery was observed at Level 1 for both methods.

3.2.3.2 Results observed by the collaborative laboratories

> **Aerobic mesophilic flora enumeration**

Depending on the Lab results, the enumeration levels varied from $1.0 \cdot 10^7$ to $> 10^8$ CFU/g.

> **Listeria spp. detection**

14 labs participated to the study. The results obtained for the reference and the alternative methods are provided in Table 22 (reference method) and Table 23 (alternative method).

Table 22 - Positive results by the reference method (ALL the collaborators)

Collaborators	Contamination level		
	L0	L1	L2
A	0	4	8
B	0	4	8
H	0	5	8
I	0	8	8
L	0	5	7
Q	0	6	8
R	4	7	8
S	0	7	8
T	0	2	8
U	0	7	8
V	0	5	7
W	0	5	8
X	0	6	8
Y	0	4	8
Total	P₀ = 4	P₁ = 75	P₂ = 110

Table 23 - Positive results (before and after confirmation) by the alternative method (ALL the collaborators)

Collaborators	Contamination level					
	L0		L1		L2	
	<i>before confirmation</i>	<i>after confirmation</i>	<i>before confirmation</i>	<i>after confirmation</i>	<i>before confirmation</i>	<i>after confirmation</i>
A	0	0	4	4	8	8
B	0	0	4	4	8	8
H	0	0	5	5	8	8
I	0	0	8	8	8	8
L	0	0	5	5	7	7
Q	0	0	6	6	8	8
R	0	0	6	6	8	8
S	0	0	7	7	8	8
T	0	0	2	2	8	8
U	0	0	6	6	8	8
V	0	0	5	5	7	7
W	0	0	5	5	8	8
X	0	0	6	6	8	8
Y	0	0	4	4	8	8
Total	P₀ = 0	CP₀ = 0	P₁ = 73	CP₁ = 73	P₂ = 110	CP₂ = 110

According to the AFNOR technical rules, it is possible to include the results from a collaborator with maximum one cross contamination at Level 0. For this study, this rule was applied and results from one collaborator (Lab R) were not kept.

Lab R obtained 4 positive results on control samples with the reference method. It was asked to this Lab to send the plates with typical colonies to ADRIA Développement, but we did not receive them yet.

3.2.3.3 Results of the collaborators retained for interpretation

The results of the 13 collaborators retained for interpretation are presented in Table 24 (reference method) and Table 25 (alternative method).

Table 24 - Positive results by the reference method (Without Lab R)

Collaborators	Contamination level		
	L0	L1	L2
A	0	4	8
B	0	4	8
H	0	5	8
I	0	8	8
L	0	5	7
Q	0	6	8
S	0	7	8
T	0	2	8
U	0	7	8
V	0	5	7
W	0	5	8
X	0	6	8
Y	0	4	8
Total	P₀ = 0	P₁ = 68	P₂ = 102

Table 25 - Positive results (before and after confirmation) by the alternative method (Without Lab R)

Collaborators	Contamination level					
	L0		L1		L2	
	<i>before confirmation</i>	<i>after confirmation</i>	<i>before confirmation</i>	<i>after confirmation</i>	<i>before confirmation</i>	<i>after confirmation</i>
A	0	0	4	4	8	8
B	0	0	4	4	8	8
H	0	0	5	5	8	8
I	0	0	8	8	8	8
L	0	0	5	5	7	7
Q	0	0	6	6	8	8
S	0	0	7	7	8	8
T	0	0	2	2	8	8
U	0	0	6	6	8	8
V	0	0	5	5	7	7
W	0	0	5	5	8	8
X	0	0	6	6	8	8
Y	0	0	4	4	8	8
Total	P₀ = 0	CP₀ = 0	P₁ = 67	CP₁ = 67	P₂ = 102	CP₂ = 102

3.2.4 Calculation and interpretation

3.2.4.1 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 26).

Table 26 - Percentage specificity

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

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

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

Fractional positive results were obtained for the level L1 and the Level L2.

A summary of the results of the collaborators retained for interpretation and obtained with the reference and the alternative methods for both levels is provided in Table 27.

Table 27 - Summary of results for all collaborators obtained with the reference alternative methods for Level L1 and Level L2 (without Lab R)

Response	Level L1		Level L2	
	Reference method positive (R+)	Reference method negative (R-)	Reference method positive (R+)	Reference method negative (R-)
Alternative method positive (A+)	Positive agreement (A+/R+) PA = 67	Positive deviation (R-/A+) PD = 0	Positive agreement (A+/R+) PA = 102	Positive deviation (R-/A+) PD = 0
Alternative method negative (A-)	Total Negative Deviation (A-/R+) TND = 1 (ND_{FN(alt)})	Total Negative Agreement (A-/R-) TNA = 36 (0 PD_{FP(alt)})	Total Negative Deviation (A-/R+) TND = 0	Total Negative Agreement (A-/R-) TNA = 2 (0 PD_{FP(alt)})

Based on the data summarized in Table 27, the values of sensitivity of the alternative and reference methods, as well as the relative trueness, false positive ratio and false negative ratio for the alternative method taking account the confirmations, are the following (See Table 28):

Table 28 - Sensitivity, relative trueness, false positive and false negative ratio percentages

		Level L1	Level L2
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} \times 100 \%$	98.5 %	100.0 %
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} \times 100 \%$	100.0 %	100.0 %
Relative trueness	$RT = \frac{(PA + TNA)}{N} \times 100 \%$	99.0 %	100.0 %
False positive ratio for the alternative method (paired evaluation)	$FPR = \frac{PD_{FP(alt)}}{TNA} \times 100 \%$	0.0 %	0.0 %
False negative ratio for the alternative method (paired evaluation)	$FNR = \frac{ND_{FN(alt)}}{PA + TND + PD}$	0.015	0.000

3.2.4.3 Interpretation of trueness data

For Level 1, one negative deviation was observed (see Table 29). The presence of *Listeria* spp. was not confirmed in the enrichment broth (ELEB) for this sample. The confirmation was positive from the Fraser broth for the ISO 11290-1 method.

Table 29 - Negative deviation for Level L1

Lab.	Sample No	ELISA test result	Confirmation	Final result
U	16	0.034	-	-

For a **paired study design**, the difference between (TND – PD) and the sum of (TND + PD) is calculated for the level(s) where fractional recovery is obtained (so L_1 and possibly L_2). The values found for (TND – PD) and (TND + PD) shall not be higher than the Acceptability Limits (ALs) with respect to the number of participating laboratories.

The AL is not met when the observed value is higher than the AL. When the AL is not met, investigations should be made (e.g. root cause analysis) in order to provide an explanation of the observed results. Based on the AL and the additional information, it is decided whether the alternative method is regarded as not fit for purpose. The

reasons for acceptance of the alternative method in case the AL is not met shall be stated in the study report.

In this study, fractional recovery was observed at Level 1 and Level 2. The calculations are the following, according to the ISO 16140-2/A1 (2024) (See Table 30).

Table 30 - Acceptability limits for a paired study design in relation to the number of collaborating laboratories

	Level L1	Level L 2	AL	Conclusion
TND - PD	1	0	4	TND - PD < AL
TND + PD	1	0	5	TND + PD < AL

The calculated values for TND-PD and TND + PD meet the acceptability limits defined in the ISO 16140-2:2016 and ISO 16140-2/A1:2024 for both inoculation levels.

3.2.4.4 Evaluation of the LOD₅₀ and RLOD between laboratories

The LOD₅₀, 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 the ratio of LODs of the alternative method and of the reference method calculated as follows: $RLOD = LOD_{p;alt} / LOD_{p;ref}$.

The results are given in Table 31.

Table 31 - LOD_{50%} and RLOD

Method	LOD 50%	RLOD
Reference	0.608 [0.482;0.766]	0.982
Alternative	0.619 [0.491;0.779]	

3.3 Conclusion

The **method comparison study conclusions** are:

- > The method comparison study scheme corresponds to a paired study design as the reference and the alternative methods have common primary enrichment procedures.

- > In the Sensitivity Study, 6 categories were tested: 5 human food products categories and environmental samples. The protocol of the alternative method shows 7 positive deviations (PD) and 3 total negative deviations (TND) for the overall categories. The (TND - PD) and (TND + PD) meet the acceptability limits (AL) in each category and for the 6 tested categories overall.
- > It is possible to use the MALDI Biotyper from Bruker to confirm the typical colonies from selective and non-selective agar plates.
- > The Relative Levels of Detection (RLOD) meet the AL fixed at 1.5 for the paired data study design for all matrix/strain pairs.
- > The inclusivity and exclusivity testing gave the expected results for the 85 target strains and the 31 non target strains.
- > It is possible to store the ELEB enrichment broth for 72 h at $5^{\circ}\text{C} \pm 3^{\circ}\text{C}$.
- > The alternative method allows a two-day screening of negative samples.
- > The alternative method fulfils all the ISO 16140-2:2016, ISO 16140-2/A1:2024 and AFNOR technical rules.

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

- > The data and interpretations comply with the ISO 16140-2:2016 and ISO 16140-2/A1:2024 requirements. **The BACSpec Listeria - ELISA is considered equivalent to the ISO standard.**

Quimper, 13 January 2025

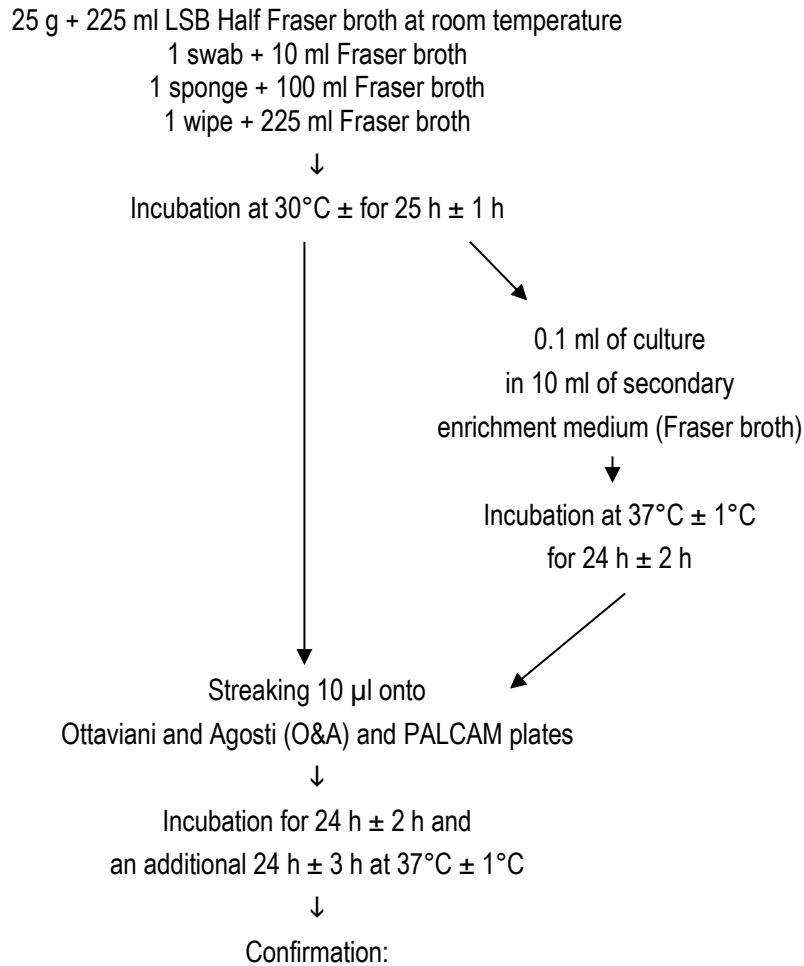
Astrid CARIOU

Manager

Method performance in food microbiology

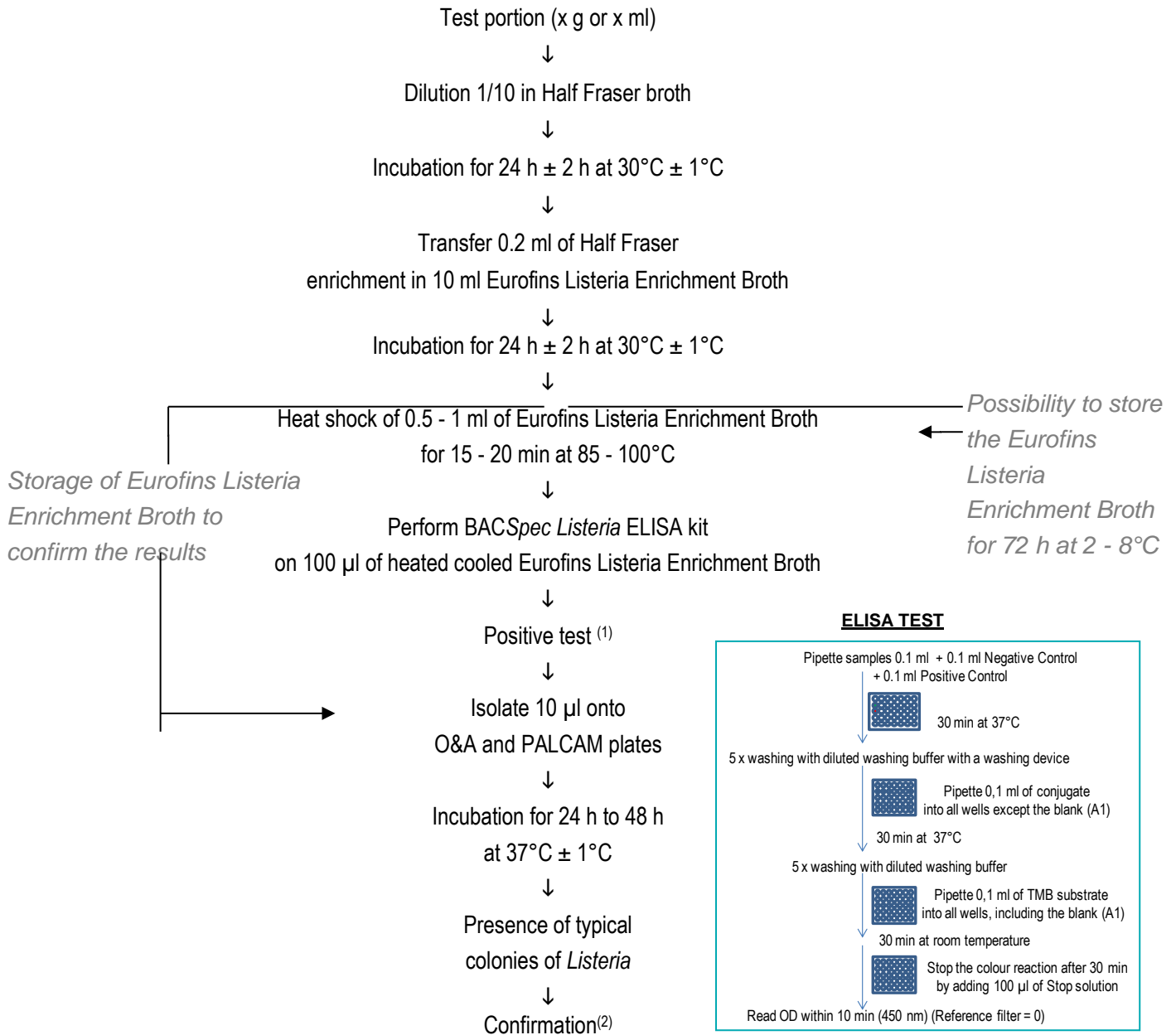
I hereby attest to the validation of the verification of the conformity of the report (opinion and interpretation).

Appendix 1 – Flow diagram of the reference method
ISO 11290-1 (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</i> spp	x	x	/	/	/
<i>Listeria monocytogenes</i>	x	Optional	x	Optional	x

During the validation study, one colony (*Listeria* spp) and one colony (*Listeria monocytogenes*)
 were identified using mini-biochemical galleries.

Appendix 2– Flow diagram of the BACSpec Listeria ELISA test

(1) During the validation study all the enrichment broths were submitted to confirmatory tests.

(2) During the validation study the typical colonies were confirmed by:

- The tests described in the reference method;
- Using the MALDI Biotyper of Bruker on isolated colonies on O&A, PALCAM and TSYEA plates (See **Appendix 3**).

During the validation study, all the negative results were confirmed by proceeding to a subculture in Eurofins Listeria Enrichment Broth incubated for 48 h at 30°C prior to streaking onto O&A and PALCAM plates in order to have the total duration of incubation of the reference method (Half Fraser: 24 h ± 2 h + Fraser: 48 h ± 2 h).

**Appendix 3 - Protocols used for *Listeria* genus
and *Listeria monocytogenes* confirmation (MALDI-TOF)**

Extraction procedure

(confirmation of the *Listeria monocytogenes* species)



300 µl deionized water into an Eppendorf tube



Add 1 colony to test, mix thoroughly



Add 900 µl EtOH, mix thoroughly



Centrifuge at maximum speed (1300 to 1500 rpm) for 2 min.

Decant supernatant, centrifuge again and remove EtOH



Allow EtOH pellet to dry at room temperature for at least 5 min



Add 70 % formic acid (1 to 80 µl depending on the size of the pellet)
to the pellet and mix



Add pure acetonitrile (1 to 80 µl depending on the size of the pellet)
and mix carefully

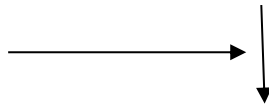


Centrifuge 2 min. at maximum speed



Pipette 1 µl of supernatant onto a Maldi target plate
and allow it to dry at room temperature

**Direct transfer
procedure**
(Confirmation
of *Listeria* genus)
1 colony



Overlay the entire spot
with 1 µl HCCA solution
within 1 hour and allow it to dry
at room temperature



MALDI-TOF

MALDI-TOF

Results interpretation

Extraction procedure	Confirmation to <i>Listeria</i> spp.	Confirmation to <i>Listeria monocytogenes</i>
No	Yes	No
Yes	Yes	Yes

Value	Description	Symbols	Color
2.00 – 3.00	High confidence identification	(+++)	Green
1.70 – 1.99	Low confidence identification	(+)	Yellow
0.00 – 1.69	No possible identification	(-)	Red

Examples of results and interpretation

Extraction procedure	First choice	Second choice	<i>Listeria</i> spp.	<i>Listeria monocytogenes</i>
No	<i>L. monocytogenes</i> 2.02	<i>L. monocytogenes</i> 1.92	+	/
No	<i>L. monocytogenes</i> 1.97	<i>L. monocytogenes</i> 1.78	+	/
No	No peak or no possible identification 0.00	No peak or no possible identification 0.00	Test again	Test again
No	<i>L. Seeligeri</i> 2.28	<i>L. Seeligeri</i> 2.24	+	/
Yes	<i>L. monocytogenes</i> 2.20	<i>L. monocytogenes</i> 2.16	+	+
No	<i>L. welshimeri</i> 1.80	<i>L. welshimeri</i> 1.72	+	/
No	<i>L. innocua</i> 1.71	No possible identification 1.66	+	/
Yes	<i>L. monocytogenes</i> 2.02	<i>L. monocytogenes</i> 1.92	+	+

Appendix 4 – Artificial contamination of samples

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
3339	Abondance lait cru	Raw milk cheese	<i>L. monocytogenes</i> Ad664	Raw milk cheese	Seeding 48h 4°C	0-1-0-1-0 (0.4)	-
3340	Comte lait cru	Raw milk cheese	<i>L. monocytogenes</i> Ad664	Raw milk cheese	Seeding 48h 4°C	0-1-0-1-0 (0.4)	-
3341	Bethmale lait cru	Raw milk cheese	<i>L. monocytogenes</i> Ad664	Raw milk cheese	Seeding 48h 4°C	0-1-0-1-0 (0.4)	-
3342	Grana padano lait cru	Raw milk cheese	<i>L. monocytogenes</i> Ad664	Raw milk cheese	Seeding 48h 4°C	0-1-0-1-0 (0.4)	+
3343	Rocamadour lait cru	Raw goat milk cheese	<i>L. monocytogenes</i> Ad1236	Raw milk cheese	Seeding 48h 4°C	2-1-1-3-0 (1.4)	-
3344	Roquefort lait cru	Raw ewe milk cheese	<i>L. monocytogenes</i> Ad1236	Raw milk cheese	Seeding 48h 4°C	2-1-1-3-0 (1.4)	-
3345	Morbier lait cru	Raw milk cheese	<i>L. monocytogenes</i> Ad1236	Raw milk cheese	Seeding 48h 4°C	2-1-1-3-0 (1.4)	-
3346	Crème au lait cru 1	Raw milk cream	<i>L. monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	0-0-0-1-1 (0.4)	+
3347	Crème au lait cru 2	Raw milk cream	<i>L. ivanovii</i> L41	Raw milk	Seeding 48h 4°C	0-0-1-1-0 (0.4)	+
3348	Crème au lait cru 6	Raw milk cream	<i>L. ivanovii</i> L41	Raw milk	Seeding 48h 4°C	0-0-1-1-0 (0.4)	+
3349	Bleu des causses lait pasteurisé	Pasteurised milk cheese	<i>L. innocua</i> Ad657	Pasteurised cheeses	Seeding 48h 4°C	0-1-0-0-0 (0.2)	-
3350	Lait pasteurisé	Pasteurised milk	<i>L. innocua</i> Ad657	Pasteurised cheeses	Seeding 48h 4°C	0-1-0-0-0 (0.2)	-
3351	Camembert lait pasteurisé	Pasteurised milk cheese	<i>L. innocua</i> Ad657	Pasteurised cheeses	Seeding 48h 4°C	0-1-0-0-0 (0.2)	-
3352	Déchet poudre de lait	Dust (milk powder)	<i>L. monocytogenes</i> Ad627	Environmental samples (milk industry)	Seeding 48h 4°C	0-1-1-0-1 (0.6)	-
3353	Déchet poissons	Dust (fish)	<i>L. seeligeri</i> Ad1267	Environmental samples (fish industry)	Seeding 48h 4°C	1-0-0-1-0 (0.4)	-
3354	Eau rinçage pousoir (production saucisson poisson)	Process water (Pork and fish production)	<i>L. monocytogenes</i> Ad548	Environmental samples (fish industry)	Seeding 48h 4°C	0-1-0-0-1 (0.4)	-
3355	Eau rinçage cutter (production thon assaisonné)	Process water (fish production)	<i>L. monocytogenes</i> Ad548	Environmental samples (fish industry)	Seeding 48h 4°C	0-1-0-0-1 (0.4)	+
3356	Eau rinçage cutter (production chair saumon)	Process water (fish production)	<i>L. monocytogenes</i> Ad548	Environmental samples (fish industry)	Seeding 48h 4°C	0-1-0-0-1 (0.4)	+

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
3357	Lingette planche découpe poisson (thon saumon)	Wipe (fish production)	<i>L. monocytogenes</i> Ad1272	Environmental samples	Seeding 48h 4°C	2.8	+
3358	Lingette lave botte	Wipe (fish production)	<i>L. monocytogenes</i> Ad1272	Environmental samples	Seeding 48h 4°C	2.8	-
3359	Lingette bac stockage poisson	Wipe (fish production)	<i>L. monocytogenes</i> Ad1272	Environmental samples	Seeding 48h 4°C	2.8	+
3360	Lingette bac stockage épices (production poisson)	Wipe (fish production)	<i>L. innocua</i> Ad1266	Environmental samples	Seeding 48h 4°C	0.5	+
3361	Lingette Multivac conditionneuse	Wipe (fish production)	<i>L. innocua</i> Ad1266	Environmental samples	Seeding 48h 4°C	0.5	-
3362	Lingette Hall techno table production	Wipe (fish production)	<i>L. innocua</i> Ad1266	Environmental samples	Seeding 48h 4°C	0.5	-
4188	Eclair vanille	Pastry	<i>L. innocua</i> Ad644	Pastries	Seeding 48h 4°C	1-1-2-1-0 (1.0)	+
4189	Eclair vanille	Pastry	<i>L. monocytogenes</i> Ad551	Pastries	Seeding 48h 4°C	1-1-0-1-1 (0.8)	+
4190	Mille-feuilles	Pastry	<i>L. innocua</i> Ad644	Pastries	Seeding 48h 4°C	1-1-2-1-0 (1.0)	+
4191	Mille-feuilles	Pastry	<i>L. monocytogenes</i> Ad551	Pastries	Seeding 48h 4°C	1-1-0-1-1 (0.8)	+
4192	Omelette Tortilla nature	Omelette	<i>L. monocytogenes</i> Ad1195	Omelette	Seeding 48h 4°C	1-1-0-1-1 (0.8)	+
4193	Omelette Tortilla nature	Omelette	<i>L. monocytogenes</i> Ad1757	Omelette	Seeding 48h 4°C	3-3-0-0-1 (1.4)	+
4194	Omelette tortilla oignons	Omelette	<i>L. monocytogenes</i> Ad1195	Omelette	Seeding 48h 4°C	1-1-0-1-1 (0.8)	-
4195	Coq au vin	RTRH poultry meat	<i>L. monocytogenes</i> Ad666	Poultry product	Seeding 48h 4°C	1-1-0-1-1 (0.8)	+
4196	Porc sauce aigre douce	RTRH pork meat	<i>L. welshimeri</i> Ad1221	Pork product	Seeding 48h 4°C	5-2-6-4-7 (4.8)	+
4197	Porc sauce aigre douce	RTRH pork meat	<i>L. innocua</i> 17765	Pork product	Seeding 48h 4°C	1-1-0-1-0 (0.6)	-
4198	Fricadelles sauce tomate	RTRH pork meat	<i>L. welshimeri</i> Ad1221	Pork product	Seeding 48h 4°C	5-2-6-4-7 (4.8)	-
4199	Fricadelles sauce tomate	RTRH pork meat	<i>L. innocua</i> 17765	Pork product	Seeding 48h 4°C	1-1-0-1-0 (0.6)	+
4200	Bœuf aux oignons	RTRH beef meat	<i>L. monocytogenes</i> Ad1206	Beef product	Seeding 48h 4°C	5-2-1-1-3 (2.4)	+
4201	Bœuf aux oignons	RTRH beef meat	<i>L. welshimeri</i> Ad1235	Beef product	Seeding 48h 4°C	1-2-0-3-6 (1.2)	+
4202	Carottes rappées assaisonnées	Carrots with dressing	<i>L. monocytogenes</i> Ad1719	Vegetables	Seeding 48h 4°C	2-1-2-1-0 (1.2)	-

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
4203	Carottes râpées assaisonnées	Carrots with dressing	<i>L. welshimeri</i> Ad1668	Vegetables	Seeding 48h 4°C	1-0-0-1-1 (0.6)	+
4204	Concombre au fromage blanc et ciboulette	Cucumber with dressing	<i>L. monocytogenes</i> Ad1719	Vegetables	Seeding 48h 4°C	2-1-2-1-0 (1.2)	+
4205	Concombre au fromage blanc et ciboulette	Cucumber with dressing	<i>L. welshimeri</i> Ad1668	Vegetables	Seeding 48h 4°C	1-0-0-1-1 (0.6)	+
4206	Macédoine de légumes avec mayonnaise	Deli salad (vegetables with mayonnaise)	<i>L. monocytogenes</i> Ad1719	Vegetables	Seeding 48h 4°C	2-1-2-1-0 (1.2)	+
4207	Macédoine de légumes avec mayonnaise	Deli salad (vegetables with mayonnaise)	<i>L. welshimeri</i> Ad1668	Vegetables	Seeding 48h 4°C	1-0-0-1-1 (0.6)	+
4208	Céleri rémoulade	Grated celery with dressing	<i>L. welshimeri</i> Ad1668	Vegetables	Seeding 48h 4°C	1-0-0-1-1 (0.6)	-
4306	Brique brebis au lait pasteurisé	Pasteurised ewe milk cheese	<i>L. monocytogenes</i> 153	Cheese	Seeding 48h 4°C	2-5-1-3-4 (3.0)	+
4307	Fromage au lait pasteurisé	Pasteurised milk cheese	<i>L. monocytogenes</i> 153	Cheese	Seeding 48h 4°C	2-5-1-3-4 (3.0)	+
4308	Tomme des Pyrénées au lait pasteurisé	Pasteurised milk cheese	<i>L. monocytogenes</i> 153	Cheese	Seeding 48h 4°C	2-5-1-3-4 (3.0)	+
4309	Bleu d'auvergne au lait pasteurisé	Pasteurised milk cheese	<i>L. innocua</i> Ad657	Cheese	Seeding 48h 4°C	2-2-2-0-1 (1.4)	+
4310	Emmental français au lait pasteurisé	Pasteurised milk cheese	<i>L. innocua</i> Ad657	Cheese	Seeding 48h 4°C	2-2-2-0-1 (1.4)	+
4311	Saint Paulin au lait pasteurisé	Pasteurised milk cheese	<i>L. innocua</i> Ad657	Cheese	Seeding 48h 4°C	2-2-2-0-1 (1.4)	+
4312	Camembert au lait pasteurisé	Pasteurised milk cheese	<i>L. innocua</i> Ad657	Cheese	Seeding 48h 4°C	2-2-2-0-1 (1.4)	+
4313	Bâtonnets crabe	Surimi	<i>L. monocytogenes</i> Ad888	Surimi	Seeding 48h 4°C	4-1-3-1-4 (2.6)	+
4314	Terrine de saumon aneth	Salmon terrine	<i>L. monocytogenes</i> Ad888	Surimi	Seeding 48h 4°C	4-1-3-1-4 (2.6)	+
4315	Rillettes saumon	Salmon rillettes	<i>L. monocytogenes</i> Ad888	Surimi	Seeding 48h 4°C	4-1-3-1-4 (2.6)	-
4316	Rillettes crabe tourteau	Crab rillettes	<i>L. monocytogenes</i> Ad888	Surimi	Seeding 48h 4°C	4-1-3-1-4 (2.6)	+
4317	Rillettes crabe tourteau	Crab rillettes	<i>L. innocua</i> Ad1675	Fish product	Seeding 48h 4°C	0-3-1-2-3 (1.8)	+

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
4318	Bâtonnets crabe	Surimi	<i>L. innocua</i> Ad1675	Fish product	Seeding 48h 4°C	0-3-1-2-3 (1.8)	+
4319	Rillettes saumon	Salmon rillettes	<i>L. innocua</i> Ad1675	Fish product	Seeding 48h 4°C	0-3-1-2-3 (1.8)	+
4323	Déchet saucisse 2	Wastes (pork)	<i>L. monocytogenes</i> Ad1255	Environmental sample (pork)	Seeding 48h 4°C	2-1-1-1-1 (1.2)	-
4324	Déchet porc	Wastes (pork)	<i>L. innocua</i> Ad1251	Environmental sample (pork)	Seeding 48h 4°C	1-1-2-2-2 (1.6)	+
4325	Déchet porc	Wastes (pork)	<i>L. monocytogenes</i> Ad1255	Environmental sample (pork)	Seeding 48h 4°C	2-1-1-1-1 (1.2)	+
4326	Déchet saucisson	Wastes (pork)	<i>L. innocua</i> Ad1251	Environmental sample (pork)	Seeding 48h 4°C	1-1-2-2-2 (1.6)	-
4327	Déchet saucisson	Wastes (pork)	<i>L. monocytogenes</i> Ad1255	Environmental sample (pork)	Seeding 48h 4°C	2-1-1-1-1 (1.2)	-
4526	Rocamadour au lait cru	Raw milk cheese	<i>L. monocytogenes</i> Ad613	Cheese	Seeding 48h 4°C	1-0-0-4-0 (1.0)	+
4527	Roquefort au lait cru de brebis	Raw milk cheese	<i>L. monocytogenes</i> Ad613	Cheese	Seeding 48h 4°C	1-0-0-4-0 (1.0)	+
4528	Tomme des bauges au lait cru	Raw milk cheese	<i>L. monocytogenes</i> Ad613	Cheese	Seeding 48h 4°C	1-0-0-4-0 (1.0)	+
4529	Saint Nectaire fermier au lait cru	Raw milk cheese	<i>L. monocytogenes</i> Ad613 / <i>L. welshimeri</i> Ad1667	Cheese / Raw milk cheese	Seeding 48h 4°C	1-0-0-4-0 (1.0) / 0-3-2-2-0 (1.4)	-
4530	Comte 12 mois au lait cru	Raw milk cheese	<i>L. monocytogenes</i> Ad613 / <i>L. welshimeri</i> Ad1668	Cheese / Raw milk cheese	Seeding 48h 4°C	1-0-0-4-0 (1.0) / 0-3-2-2-0 (1.4)	+
4531	Beaufort au lait cru	Raw milk cheese	<i>L. monocytogenes</i> Ad613 / <i>L. welshimeri</i> Ad1669	Cheese / Raw milk cheese	Seeding 48h 4°C	1-0-0-4-0 (1.0) / 0-3-2-2-0 (1.4)	-
4532	Lait fermenté	Fermented milk	<i>L. innocua</i> Ad1786	Cheese / Raw milk cheese	Seeding 48h 4°C	2-3-2-2-1 (2.0)	+
4533	Lait fermenté	Fermented milk	<i>L. monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	0-1-1-0-1 (0.6)	+
4534	Lait ribot lait fermenté maigre	Fermented milk	<i>L. innocua</i> Ad1786	Cheese / Raw milk cheese	Seeding 48h 4°C	2-3-2-2-1 (2.0)	+
4535	Lait ribot lait fermenté maigre	Fermented milk	<i>L. monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	0-1-1-0-1 (0.6)	+
4536	Lait cru de vache	Raw milk	<i>L. monocytogenes</i> Ad1781 / <i>L. innocua</i> Ad1786	Raw milk	Seeding 48h 4°C	3-1-3-3-2 (2.4) / 2-3-2-2-1 (2.0)	+
4537	Lait ribot	Fermented milk	<i>L. monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	0-1-1-0-1 (0.6)	+
4538	Lait fermenté	Fermented milk	<i>L. monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	0-1-1-0-1 (0.6)	+

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
4539	Lait fermenté	Fermented milk	<i>L. monocytogenes</i> Ad1781 / <i>L. innocua</i> Ad1786	Raw milk	Seeding 48h 4°C	3-1-3-3-2 (2.4) / 2-3-2-2-1 (2.0)	+
4540	Lait ribot	Fermented milk	<i>L. monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	0-1-1-0-1 (0.6)	+
4541	Salami	Salami	<i>L. monocytogenes</i> Ad267	Pork meat	Seeding 48h 4°C	4-3-2-0-0 (1.8)	-
4542	Jambon de Paris	Ham	<i>L. monocytogenes</i> Ad267	Pork meat	Seeding 48h 4°C	4-3-2-0-0 (1.8)	+
4543	Pâté de campagne	Pâté	<i>L. monocytogenes</i> Ad267	Pork meat	Seeding 48h 4°C	4-3-2-0-0 (1.8)	-
4544	Bacon fumé	Smoked bacon	<i>L. welshimeri</i> Ad1204 / <i>L. monocytogenes</i> Ad267	Pork meat	Seeding 48h 4°C	0-3-2-2-3 (2.0) / 4-3-2-0-0 (1.8)	+
4545	Jambon serrano	Low moisture ham	<i>L. welshimeri</i> Ad1204 / <i>L. monocytogenes</i> Ad267	Pork meat	Seeding 48h 4°C	0-3-2-2-3 (2.0) / 4-3-2-0-0 (1.8)	-
4546	Saucisson sec tranches fines	Low moisture sausage	<i>L. welshimeri</i> Ad1204 / <i>L. monocytogenes</i> Ad267	Pork meat	Seeding 48h 4°C	0-3-2-2-3 (2.0) / 4-3-2-0-0 (1.8)	-
4739	Céleri rémoulade	Celery with dressing	<i>L. monocytogenes</i> Ad1719	Vegetables	Seeding 48h 4°C	1-1-2-0-5 (1.8)	-
4740	Champignons à la grecque	Mushrooms with dressing	<i>L. monocytogenes</i> Ad1719	Vegetables	Seeding 48h 4°C	1-1-2-0-5 (1.8)	+
4741	Tri choux jambon comte	Deli salad	<i>L. monocytogenes</i> Ad1498/ <i>L. innocua</i> Ad1176	Macedoine/Vegetables	Seeding 48h 4°C	1-0-0-0-2 (0.6)/ 1-3-0-0-2 (1.2)	+
4742	Piémontaise	Deli salad	<i>L. monocytogenes</i> Ad1498/ <i>L. innocua</i> Ad1176	Macedoine/Vegetables	Seeding 48h 4°C	1-0-0-0-2 (0.6)/ 1-3-0-0-2 (1.2)	+
4743	Jardinière de légumes et mayonnaise	Deli salad	<i>L. monocytogenes</i> Ad1498/ <i>L. innocua</i> Ad1176	Macedoine/Vegetables	Seeding 48h 4°C	1-0-0-0-2 (0.6)/ 1-3-0-0-2 (1.2)	+
4744	Tartare de tomates	Tomatoes tartar	<i>L. monocytogenes</i> Ad1498/ <i>L. innocua</i> Ad1176	Macedoine/Vegetables	Seeding 48h 4°C	1-0-0-0-2 (0.6)/ 1-3-0-0-2 (1.2)	+
4745	Carottes râpées assaisonnées	Carrots with dressing	<i>L. monocytogenes</i> Ad1498/ <i>L. innocua</i> Ad1176	Macedoine/Vegetables	Seeding 48h 4°C	1-0-0-0-2 (0.6)/ 1-3-0-0-2 (1.2)	+
4746	Religieuse café	Pastry	<i>L. monocytogenes</i> JL2862/ <i>L. innocua</i> Ad644	Ovoproducts/Pastries	Seeding 48h 4°C	1-0-2-3-0 (1.2)/ 1-1-0-2-0 (0.8)	+
4747	Pêche melba	Dessert	<i>L. monocytogenes</i> JL2862/ <i>L. innocua</i> Ad644	Ovoproducts/Pastries	Seeding 48h 4°C	1-0-2-3-0 (1.2)/ 1-1-0-2-0 (0.8)	+
4748	Tutti frutti	Pastry	<i>L. monocytogenes</i> JL2862/ <i>L. innocua</i> Ad644	Ovoproducts/Pastries	Seeding 48h 4°C	1-0-2-3-0 (1.2)/ 1-1-0-2-0 (0.8)	-

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
4749	Eclair chocolat	Pastry	<i>L. monocytogenes</i> JL2862/ <i>L. innocua</i> Ad644	Ovoproducts/Pastries	Seeding 48h 4°C	1-0-2-3-0 (1.2)/ 1-1-0-2-0 (0.8)	+
4750	Choux caramel	Pastry	<i>L. monocytogenes</i> JL2862	Ovoproducts	Seeding 48h 4°C	1-0-2-3-0 (1.2)	-
4751	Mille-feuilles	Pastry	<i>L. monocytogenes</i> JL2862	Ovoproducts	Seeding 48h 4°C	1-0-2-3-0 (1.2)	-
4752	Croissant au jambon	RTRH meal	<i>L. monocytogenes</i> Ad1197	Pizza	Seeding 48h 4°C	2-0-0-5-3 (2.0)	-
4753	Tarte aux tomates	RTRH meal (tomatoes pie)	<i>L. monocytogenes</i> Ad1197	Pizza	Seeding 48h 4°C	2-0-0-5-3 (2.0)	-
4754	Feuilleté au jambon champignons	RTRH meal	<i>L. monocytogenes</i> 1973/2400 / <i>L. innocua</i> Ad1676	RTR	Seeding 48h 4°C	3-4-1-0-0 (1.6)/ 2-3-1-0-1 (1.40)	+
4755	Friands à la viande	RTRH meal	<i>L. monocytogenes</i> 1973/2400 / <i>L. innocua</i> Ad1676	RTR	Seeding 48h 4°C	3-4-1-0-0 (1.6)/ 2-3-1-0-1 (1.40)	+
4756	Quiche lorraine	RTRH meal	<i>L. monocytogenes</i> 1973/2400 / <i>L. innocua</i> Ad1676	RTR	Seeding 48h 4°C	3-4-1-0-0 (1.6)/ 2-3-1-0-1 (1.40)	+
4757	Flammekueche d'Alsace	RTRH meal	<i>L. monocytogenes</i> 1973/2400 / <i>L. innocua</i> Ad1676	RTR	Seeding 48h 4°C	3-4-1-0-0 (1.6)/ 2-3-1-0-1 (1.40)	-
4758	Tarte aux tomates	RTRH meal	<i>L. monocytogenes</i> 1973/2400 / <i>L. innocua</i> Ad1676	RTR	Seeding 48h 4°C	3-4-1-0-0 (1.6)/ 2-3-1-0-1 (1.40)	+
5023	Minis jambon emmental	Sandwich (ham, cheese)	<i>L. monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	1-2-0-0-0 (0.6)	+
5024	Simple et bon jambon emmental	Sandwich (ham, cheese)	<i>L. monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	1-2-0-0-0 (0.6)	-
5026	Club jambon beurre	Sandwich (ham, butter)	<i>L. monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	1-2-0-0-0 (0.6)	-
5028	Sandwich poulet à l'ancienne	Sandwich (chicken)	<i>L. monocytogenes</i> Ad266	Chicken meat	Seeding 48h 4°C	1-0-0-0-0 (0.2)	-
5029	Sandwich thon crudités	Sandwich (tuna, vegetables)	<i>L. welshimeri</i> Ad1668	Vegetables	Seeding 48h 4°C	1-1-0-0-0 (0.4)	-
5030	Sandwich poulet rôti	Sandwich (chicken)	<i>L. monocytogenes</i> Ad266	Chicken meat	Seeding 48h 4°C	1-0-0-0-0 (0.2)	+
5031	Club poulet rôti sauce salsa	Sandwich (chicken)	<i>L. monocytogenes</i> Ad266	Chicken meat	Seeding 48h 4°C	1-0-0-0-0 (0.2)	-
5032	Moelleux pain viennois poulet rôti crudités	Sandwich (chicken, vegetables)	<i>L. welshimeri</i> Ad1668	Vegetables	Seeding 48h 4°C	1-1-0-0-0 (0.4)	-

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
5033	Pizza pate fine jambon fromage	Pizza	<i>L. welshimeri</i> Ad1175/ <i>L. monocytogenes</i> Ad279	Ready to reheat	Seeding 48h 4°C	1-0-0-0-0 (0.2)/ 2-2-1-0-0 (1.0)	-
5035	Pizza pâte fine jambon chèvre	Pizza	<i>L. welshimeri</i> Ad1175/ <i>L. monocytogenes</i> Ad279	Ready to reheat	Seeding 48h 4°C	1-0-0-0-0 (0.2)/ 2-2-1-0-0 (1.0)	+
5037	Pizza pâte fine trois fromages	Pizza	<i>L. welshimeri</i> Ad1175/ <i>L. monocytogenes</i> Ad279	Ready to reheat	Seeding 48h 4°C	1-0-0-0-0 (0.2)/ 2-2-1-0-0 (1.0)	+
5224	Encornet sauvage	Squid	<i>L. monocytogenes</i> Ad229	Seafood	Seeding 48h 4°C	2-2-1-4-4 (2.6)	+
5225	Filet de Merlan	Fish fillet	<i>L. monocytogenes</i> Ad229	Seafood	Seeding 48h 4°C	2-2-1-4-4 (2.6)	+
5229	Crème pâtissière	Custard	<i>L. monocytogenes</i> Ad551	Pastry	Seeding 48h 4°C	0-1-1-2-0 (0.8)	+
5230	Tortilla nature	Tortilla	<i>L. monocytogenes</i> Ad551	Pastry	Seeding 48h 4°C	0-1-1-2-0 (0.8)	+
5231	Sandwich jambon beurre	Sandwich ham butter	<i>L. monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	2-2-2-1-1 (1.6)	+
5232	Sandwich jambon beurre	Sandwich ham butter	<i>L. monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	2-2-2-1-1 (1.6)	+
5233	Sandwich jambon emmental	Sandwich ham cheese	<i>L. monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	2-2-2-1-1 (1.6)	-
5234	Sandwich jambon beurre	Sandwich ham butter	<i>L. monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	2-2-2-1-1 (1.6)	+
5235	Sandwich pain polaire poulet à l'indienne	Sandwich chicken	<i>L. monocytogenes</i> Ad266	Chicken meat	Seeding 48h 4°C	2-1-2-1-1 (1.4)	+
5236	Sandwich poulet rôti	Sandwich chicken	<i>L. monocytogenes</i> Ad266	Chicken meat	Seeding 48h 4°C	2-1-2-1-1 (1.4)	+
5237	Sandwich poulet rôti	Sandwich chicken	<i>L. monocytogenes</i> Ad266	Chicken meat	Seeding 48h 4°C	2-1-2-1-1 (1.4)	+
5953	Lait cru fermier	Raw milk	<i>L. monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	3-0-2-0-2 (1.4)	+
5954	Lait cru de vache	Raw milk	<i>L. monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	3-0-2-0-2 (1.4)	-
5955	Lait cru fermier	Raw milk	<i>L. monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	3-0-2-0-2 (1.4)	+
5956	Lait cru	Raw milk	<i>L. monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	3-0-2-0-2 (1.4)	-
5957	Lait cru fermier	Raw milk	<i>L. monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	3-0-2-0-2 (1.4)	+
5958	Petit suisse lait pasteurisé	Pasteurised fermented milk	<i>L. monocytogenes</i> Ad610	Milk	Seeding 48h 4°C	4-5-2-4-2 (3.4)	+
5959	Yaourt nature lait pasteurisé	Pasteurised fermented milk	<i>L. monocytogenes</i> Ad610	Milk	Seeding 48h 4°C	4-5-2-4-2 (3.4)	+

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
5960	Yaourt au lait entier lait pasteurisé	Pasteurised fermented milk	<i>L. monocytogenes</i> Ad610	Milk	Seeding 48h 4°C	4-5-2-4-2 (3.4)	-
5961	Fromage frais lait pasteurisé	Pasteurised fermented milk	<i>L. monocytogenes</i> Ad611	Milk	Seeding 48h 4°C	4-1-2-0-1 (1.6)	-
5962	Crème dessert saveur chocolat lait pasteurisé	Dairy based dessert	<i>L. monocytogenes</i> Ad611	Milk	Seeding 48h 4°C	4-1-2-0-1 (1.6)	+
5963	Yaourt nature lait pasteurisé	Pasteurised fermented milk	<i>L. monocytogenes</i> Ad611	Milk	Seeding 48h 4°C	4-1-2-0-1 (1.6)	-
5964	Crevettes décortiquées crues	Raw peeled shrimps	<i>L. monocytogenes</i> Ad299	Seafood	Seeding 48h 4°C	1-1-1-0-0 (0.6)	-
5965	Blanc de calmar	Calmar	<i>L. monocytogenes</i> Ad299	Seafood	Seeding 48h 4°C	1-1-1-0-0 (0.6)	+
5966	Lardons saumon fumé	Smoked salmon	<i>L. monocytogenes</i> Ad1279	Smoked fish	Seeding 48h 4°C	1-1-3-3-2 (2.0)	+
5967	Filets de harengs fumés	Smoked herring	<i>L. monocytogenes</i> Ad1279	Smoked fish	Seeding 48h 4°C	1-1-3-3-2 (2.0)	+
5968	Mini tranche de truite fumée	Smoked trout	<i>L. monocytogenes</i> Ad1279	Smoked fish	Seeding 48h 4°C	1-1-3-3-2 (2.0)	+
5969	Bâtonnets saveur crabe	Surimi	<i>L. monocytogenes</i> Ad2522	Fish	Seeding 48h 4°C	2-3-3-3-4 (3.0)	-
5970	Terrine de saumon aneth	Salmon terrine	<i>L. monocytogenes</i> Ad2522	Fish	Seeding 48h 4°C	2-3-3-3-4 (3.0)	+
5971	Terrine aux saint jacques	Scallops terrine	<i>L. monocytogenes</i> Ad2522	Fish	Seeding 48h 4°C	2-3-3-3-4 (3.0)	+
6756	Saucisse végétale déchet 1	Wastes (vegetables)	<i>L. monocytogenes</i> Ad1238	Vegetables	Seeding 48h 4°C	0-3-4-0-2 (1.8)	+
6762	Saucisse végétale déchet 1	Wastes (vegetables)	<i>L. welshimeri</i> Ad1668	Vegetables	Seeding 48h 4°C	2-0-1-2-5 (2.0)	-
6763	Saucisse végétale déchet 2	Wastes (vegetables)	<i>L. welshimeri</i> Ad1668	Vegetables	Seeding 48h 4°C	2-0-1-2-5 (2.0)	-
6765	Eau process lavage carcasse poulet	Process water	<i>L. innocua</i> Ad1253	Environmental sample	Seeding 48h 4°C	5-2-1-0-4 (2.4)	+
6767	Eau rinçage mélangeur ferments	Rinsing water	<i>L. welshimeri</i> Ad1668	Vegetables	Seeding 48h 4°C	2-0-1-2-5 (2.0)	+
6769	Eau rinçage robot coupe fabrication appâts	Rinsing water	<i>L. welshimeri</i> Ad642	Fish	Seeding 48h 4°C	3-2-1-3-3 (2.4)	+
6771	Eau rinçage fabrication biscuits	Rinsing water	<i>L. innocua</i> Ad1253	Environmental sample	Seeding 48h 4°C	5-2-1-0-4 (2.4)	+

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
6773	Eau rinçage fabrication riz cuit	Rinsing water	<i>L. welshimeri</i> Ad1668	Vegetables	Seeding 48h 4°C	2-0-1-2-5 (2.0)	-
6775	Eau rinçage riz au lait	Rinsing water	<i>L. welshimeri</i> Ad1668	Vegetables	Seeding 48h 4°C	2-0-1-2-5 (2.0)	+
6777	Eau process fabrication chipolatas	Process water	<i>L. innocua</i> Ad1253	Environmental sample	Seeding 48h 4°C	5-2-1-0-4 (2.4)	+
6778	Chiffonnette table à nerfs (Industrie porc/bœuf)	Wipe (Meat industry)	<i>L. monocytogenes</i> Ad614	Environmental sample (Milk industry)	Seeding 48h 4°C	2-2-2-1-1 (1.6)	+
6779	Chiffonnette cutter vertical production saucisse végétale	Wipe (vegetables industry)	<i>L. monocytogenes</i> Ad614	Environmental sample (Milk industry)	Seeding 48h 4°C	2-2-2-1-1 (1.6)	-
6780	Chiffonnette cuve pousoir vertical production saucisse végétale	Wipe (Meat industry)	<i>L. monocytogenes</i> Ad614	Environmental sample (Milk industry)	Seeding 48h 4°C	2-2-2-1-1 (1.6)	+
6930	Déchets chinchard	Wastes (fish)	<i>L. innocua</i> 1	Fish product	Seeding 48h 4°C	5-1-3-2-3 (2.8)	-
6931	Déchets sardine	Wastes (fish)	<i>L. innocua</i> 1	Fish product	Seeding 48h 4°C	5-1-3-2-3 (2.8)	+
6932	Déchets saumon	Wastes (fish)	<i>L. innocua</i> 1	Fish product	Seeding 48h 4°C	5-1-3-2-3 (2.8)	-
6933	Déchets harengs	Wastes (fish)	<i>L. monocytogenes</i> A00E08	Fish product	Seeding 48h 4°C	0-3-4-3-2 (2.4)	-
6937	Déchets porc salage	Wastes (pork)	<i>L. monocytogenes</i> Ad243	Environmental samples (pork)	Seeding 48h 4°C	4-4-5-7-1 (4.2)	+
6938	Chiffonnette paillasse atelier	Wipe	<i>L. monocytogenes</i> Ad2519	Environmental samples	Seeding 48h 4°C	0-2-4-4-1 (2.2)	+
6939	Chiffonnette épices	Wipe (spices)	<i>L. monocytogenes</i> Ad2519	Environmental samples	Seeding 48h 4°C	0-2-4-4-1 (2.2)	+
6940	Chiffonnette lavabo atelier	Wipe	<i>L. monocytogenes</i> Ad2519	Environmental samples	Seeding 48h 4°C	0-2-4-4-1 (2.2)	+
6941	Chiffonnette cutter production poisson	Wipe (Fish industry)	<i>L. welshimeri</i> Ad1269	Environmental samples (fish product)	Seeding 48h 4°C	0-3-2-2-1 (1.6)	+

Appendix 5 – Sensitivity study: raw data

COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT																							
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria													Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)														
			O&A	PALCAM	O&A	PALCAM			BACSpec Listeria test		Confirmations				All confirmatory tests	Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C					
							O.D.	Result	Result 24h	MALDI-TOF (genus)	Result 48h	MALDI-TOF (genus)	TSYEA After purification step (from O&A or PALCAM)										
								Reference tests	MALDI-TOF (genus)														
3739	Pain surprise Marin	Sandwich	-	-	-	-	/	-	0.083	-	-	/	-	/	/	/	-	-	NA	-	1	a	
3985	Saucisson bœuf volaille	Delicatessen	st	st	st	st	/	-	0.028	-	st	/	st	/	/	/	-	-	NA	-	1	a	
3987	Sandwich thon tomates œufs	Sandwich	-	-	-	-	/	-	0.300/ 0.274/ 0.255	+/-	-	/	-	/	/	/	-	-	PDFP(alt)	-	1	a	
3989	Brin surimi	RTE surimi	H+/H-	+	H+/H-	+	L.mono/ L.innoc	+	3.855	+	H+/H-	+/+	+	+	L.mono/ L.innoc	+/+	+	+	PA	-	1	a	
3995	Rillettes de poulet rôti	Chicken rillettes	st	st	st	st	/	-	0.034	-	st	/	st	/	/	/	-	-	NA	-	1	a	
4111	Taboulé poisson fumé	RTE tabbouleh	st	-	st	st	/	-	0.129	-	st	/	-	/	/	/	-	-	NA	-	1	a	
4112	Sandwich poulet tomate œuf	Sandwich	H+	+	-	-	L.mono	+	2.985	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	a	
4120	Emincés de poulet rôti	RTE chicken meat	st	st	st	st	/	-	0.031	-	st	/	st	/	/	/	-	-	NA	-	1	a	
4121	Sandwich jambon salami emmental	Sandwich	-	st	-	-	/	-	0.045	-	st	/	st	/	/	/	-	-	NA	-	1	a	
4125	Salade du pêcheur	Deli salad	H-d (1)	-	-	-	NC	-	0.028	-	st	/	-	/	/	/	-	-	NA	-	1	a	
4288	Guacamole	Guacamole	st	-	H+	+	L.mono	+	3.707	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	a	
4293	Salade camarguaise	Deli salad	H-	+	H-	+	L.innoc	+	3.88	+	H-	+	+	+	L.innoc	+	+	+	PA	-	1	a	
4671	Duo saumon sandwich	Sandwich	-	-	-	-	/	-	0.127	-	-	/	-	/	/	/	-	-	NA	-	1	a	
5022	Mini jambon emmental	Sandwich (ham, cheese)	-	-	-	-	/	-	0.139	-	-	/	-	/	/	/	-	-	NA	-	1	a	
5023	Mini jambon emmental	Sandwich (ham, cheese)	H+	+	H+	+	L.mono	+	3.763	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	a	
5024	Simple et bon jambon emmental	Sandwich (ham, cheese)	-	-	st	-	/	-	0.031	-	-	/	st	/	/	/	-	-	NA	-	1	a	
5025	Simple et bon jambon emmental	Sandwich (ham, cheese)	-	st	st	st	/	-	0.04	-	-	/	st	/	/	/	-	-	NA	-	1	a	
5026	Club jambon beurre	Sandwich (ham, butter)	st	st	st	st	/	-	0.086	-	st	/	st	/	/	/	-	-	NA	-	1	a	
5027	Club jambon beurre	Sandwich (ham, butter)	st	st	st	st	/	-	0.039	-	st	/	st	/	/	/	-	-	NA	-	1	a	
5028	Sandwich poulet à l'ancienne	Sandwich (chicken)	H-d	-	-	-	/	-	0.061	-	H-d	+	-	/	L.seeli	+	+	-	NA	-	1	a	
5029	Sandwich thon crudités	Sandwich (tuna, vegetables)	H-d	-	-	-	/	-	0.141	-	-	/	-	/	/	/	-	-	NA	-	1	a	
5030	Sandwich poulet rôti	Sandwich (chicken)	H-	+	H-	+	L.welsh	+	3.677	+	H-	+	+	+	L.welsh	+	+	+	PA	-	1	a	
5031	Club poulet rôti sauce salsa	Sandwich (chicken)	-	-	-	-	/	-	0.076	-	-	/	-	/	/	/	-	-	NA	-	1	a	
5032	Moelleux pain viennois poulet rôti crudités	Sandwich (chicken, vegetables)	st	-	st	st	/	-	0.04	-	st	/	st	/	/	/	-	-	NA	-	1	a	
5231	Sandwich jambon beurre	Sandwich ham butter	H+	+	H+	+	L.mono	+	3.604	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	a	
5232	Sandwich jambon beurre	Sandwich ham butter	H+	+	H+	+	L.mono	+	3.598	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	a	
5233	Sandwich jambon emmental	Sandwich ham cheese	st	-	st	st	/	-	0.032	-	st	/	-	/	/	/	-	-	NA	-	1	a	
5234	Sandwich jambon beurre	Sandwich ham butter	H+	+	H+	+	L.mono	+	3.598	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	a	
5235	Sandwich pain polaire poulet à l'indienne	Sandwich chicken	H+/H-	+	H+/H-	+	L.mono/ L.welsh	+	3.575	+	H+/H-	+/ No result, +	+	+/+	L.mono/ L.welsh	+/+	+	+	PA	-	1	a	
5236	Sandwich poulet rôti	Sandwich chicken	H+	+	H+	+	L.mono	+	3.549	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	a	
5237	Sandwich poulet rôti	Sandwich chicken	H+	+	H+	+	L.mono	+	3.603	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	a	
3012	Escalope milanaise	Cooked veal meat	H+	+	H+	+d	L.mono	+	3.501	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	b	
3014	Bol de soupe moulinée	RTRH soup	-	st	-	-	/	-	0.042	-	-	/	-	/	/	/	-	-	NA	-	1	b	
3015	Mélange poulet fresh, tomates cubes, tomates marinées	RTRH chicken	st	st	st	st	/	-	0.13	-	st	/	st	/	/	/	-	-	NA	-	1	b	
3978	Sauce	Sauce	st	st	st	st	/	-	0.041	-	-	/	st	/	/	/	-	-	NA	-	1	b	
3980	Cordon bleu de dinde	RTRH poultry meat	H+	+	H+	+	L.mono	+	3.892	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	b	
3983	Cordon bleu de dinde	RTRH turkey meat	-	-	H+	+	L.mono	+	0.765	+	H+/H-	+	+	+	L.mono	+	+	+	PA	-	1	b	
3986	Pâte feuilleté beurre	Puff pastry	-	-	-	-	/	-	0.268	-	-	/	-	/	/	/	-	-	NA	-	1	b	
4115	Sauce	Dressing	st	st	st	st	/	-	0.044	-	-	/	-	/	/	/	-	-	NA	-	1	b	
4116	Plaque à croissant	RTR croissant	H+	-	H+/H-	+	L.mono/ L.welsh	+	3.583	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	b	

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

COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT																							
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria													Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	BACSpec Listeria test		Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)						Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C				
			Confirmations			O&A			PALCAM	Reference tests	MALDI-TOF (genus)	All confirmatory tests											
			O&A	PALCAM	O&A		PALCAM	O&A					PALCAM	Result 24h	MALDI-TOF (genus)	Result 48h	MALDI-TOF (genus)	After purification step (from O&A or PALCAM)					
O.D.	Result	Result 24h	MALDI-TOF (genus)	Result 48h	MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)								
4127	Paëlla	Paella	-	-	-	-	/	-	0.169	-	-	/	-	/	/	/	-	-	NA	-	1	b	
4286	Pâte Brisée au beurre	Short pastry	-	-	-	-	/	-	0.177	-	-	/	-	/	/	/	-	-	NA	-	1	b	
4289	Poêlée Pommes de terre	Pre-cooked potatoes	st	st	-	-	/	-	0.135	-	-	/	-	/	/	/	-	-	NA	-	1	b	
4294	Raviolis	Raviolis	H-	+	H-	+d	L.welsh	+	3.62	+	H-	+	+	+	L.innoc	+	+	+	PA	-	1	b	
4752	Croissant au jambon	RTRH meal	st	-	-	-	/	-	0.056	-	-	/	-	/	/	/	-	-	NA	-	1	b	
4753	Tarte aux tomates	RTRH meal (tomatoes pie)	-	-	-	-	/	-	0.048	-	st	/	-	/	/	/	-	-	NA	-	1	b	
4754	Feuilleté au jambon champignons	RTRH meal	H-	+	H-	+	L.innoc	+	3.643	+	H-	+	+	+	L.innoc	+	+	+	PA	-	1	b	
4755	Friands à la viande	RTRH meal	H+	+	H+/H-	+	L.mono/L.innoc	+	3.724	+	H+/H-	+/+	+	+	L.mono/L.innoc	+/+	+	+	PA	-	1	b	
4756	Quiche lorraine	RTRH meal	H+	+	H+/H-	+	L.mono/L.innoc	+	3.584	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	b	
4757	Flammekueche d'Alsace	RTRH meal	-	-	-	-	/	-	0.046	-	st	/	-	/	/	/	-	-	NA	-	1	b	
4758	Tarte au tomates	RTRH meal	H-	+	H-	+	L.innoc	+	3.628	+	H-	+	+	+	L.innoc	No result;+	+	+	PA	-	1	b	
5033	Pizza pate fine jambon fromage	Pizza	st	-	-	-	/	-	0.142	-	-	/	-	/	/	/	-	-	NA	-	1	b	
5034	Pizza pate fine jambon fromage	Pizza	st	-	-	-	/	-	0.09	-	-	/	-	/	/	/	-	-	NA	-	1	b	
5035	Pizza pâte fine jambon chèvre	Pizza	H+	+	H+	+	L.mono	+	3.516	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	b	
5036	Pizza pâte fine jambon chèvre	Pizza	-	-	-	-	/	-	0.151	-	-	/	-	/	/	/	-	-	NA	-	1	b	
5037	Pizza pâte fine trois fromages	Pizza	H+	-	H+	+d	L.mono	+	3.541	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	b	
3013	Mille-feuilles	Pastry	st	st	st	st	/	-	0.053	-	st	/	st	/	/	/	-	-	NA	-	1	c	
4188	Eclair vanille	Pastry	H-	+	H-	+	L.innoc	+	3.574	+	H-	+	+	+	L.innoc	+	+	+	PA	-	1	c	
4189	Eclair vanille	Pastry	H+	+	H+	+	L.mono	+	3.543	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	c	
4190	Mille-feuilles	Pastry	H-	+	H-	+	L.innoc	+	3.539	+	H-	+	+	+	L.innoc	+	+	+	PA	-	1	c	
4191	Mille-feuilles	Pastry	H+	+	H+	+	L.mono	+	3.569	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	c	
4192	Omelette Tortilla nature	Omelette	H+	+	H+	+	L.mono	+	3.579	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	c	
4193	Omelette Tortilla nature	Omelette	H+	+	H+	+	L.mono	+	3.423	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	c	
4194	Omelette tortilla oignons	Omelette	st	-	-	-	/	-	0.07	-	st	/	-	/	/	/	-	-	NA	-	1	c	
4746	Religieuse café	Pastry	H+/H-	+	H+/H-	+	L.innoc/L.mono	+	3.504	+	H+/H-	+/+	+	+	L.mono/L.innoc	+/+	+	+	PA	-	1	c	
4747	Pêche melba	Dessert	H-	+	H-	+	L.innoc	+	3.536	+	H-	+	+	+	L.innoc	+	+	+	PA	-	1	c	
4748	Tutti frutti	Pastry	st	st	-	-	/	-	0.057	-	st	/	-	/	/	/	-	-	NA	-	1	c	
4749	Eclair chocolat	Pastry	H+	+	H+/H-	+	L.mono/L.innoc	+	3.577	+	H+/H-	+/+	+	+	L.innoc/L.mono	+/+	+	+	PA	-	1	c	
4750	Choux caramel	Pastry	st	st	st	st	/	-	0.098	-	st	/	-	/	/	/	-	-	NA	-	1	c	
4751	Millefeuilles	Pastry	st	st	st	-	/	-	0.105	-	-	/	-	/	/	/	-	-	NA	-	1	c	
5038	Eclair vanille	Pastry	st	-	st	-	/	-	0.034	-	st	/	-	/	/	/	-	-	NA	-	1	c	
5039	Eclair chocolat	Pastry	-	-	-	-	/	-	0.063	-	-	/	-	/	/	/	-	-	NA	-	1	c	
5040	Tortilla omelette oignons	Tortilla onions	st	st	st	-	/	-	0.027	-	st	/	-	/	/	/	-	-	NA	-	1	c	
5041	Tortilla omelette nature	Tortilla	st	-	-	-	/	-	0.041	-	-	/	-	/	/	/	-	-	NA	-	1	c	
5042	Crème pâtissière	Custard	st	st	st	st	/	-	0.038	-	st	/	st	/	/	/	-	-	NA	-	1	c	
5043	Coupe profiterole	Dessert (pastry, ice cream)	-	-	-	-	/	-	0.08	-	-	/	-	/	/	/	-	-	NA	-	1	c	
5044	Tartelette fraise avec crème pâtissière	Pastry	st	st	-	st	/	-	0.077	-	-	/	-	/	/	/	-	-	NA	-	1	c	
5045	Coupe bavaroise	Dessert	st	-	st	-	/	-	0.048	-	-	/	-	/	/	/	-	-	NA	-	1	c	
5229	Crème pâtissière	Custard	H+	+	H+	+	L.mono	+	3.506	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	c	
5230	Tortilla nature	Tortilla	H+	+	H+	+	L.mono	+	3.596	+	H+	+	+	+	L.mono	+	+	+	PA	-	1	c	

MEAT PRODUCTS																							
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria													Category	type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	BACSpec Listeria test		Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)							Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C			
			Confirmations						O&A	PALCAM		TSYEA After purification step (from O&A or PALCAM)		All confirmatory tests									
			O&A	PALCAM	O&A	PALCAM	O.D.	Result		Result 24h	MALDI-TOF (genus)	Result 48h	MALDI-TOF (genus)		Reference tests	MALDI-TOF (genus)							
3007	Trime abime silver skinne	Meat product	st	st	st	st	/	-	0.036	-	st	/	st	/	/	/	-	-	NA	-	2	a	
3009	Lardons fumés	Smoked bacon	H-d (1)	+(2)	H-	+	L.welsh	+	3.349	+	H-	No result;+	+	+	L.welsh	+	+	+	PA	-	2	a	
3010	Gésiers	Gizzards	H+	+	H+	+	L.mono	+	2.133	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	a	
3011	Paupiette	Veal meat preparation	-	-	-	-	/	-	0.042	-	-	/	-	-	/	/	-	-	NA	-	2	a	
3722	VSM Poulet	Chicken meat	H-	-	H-	+	L.innoc	+	3.619	+	H-	+	+	+	L.innoc	+	+	+	PA	-	2	a	
3723	Escalope dinde crue	Turkey meat	-	-	-	-	/	-	0.178	-	st	/	-	-	/	/	-	-	NA	-	2	a	
3724	Filet de poulet	Chicken meat	st	-	-	-	/	-	0.215	-	-	/	-	-	/	/	-	-	NA	-	2	a	
3726	Filet dinde	Turkey meat	-	-	-	-	/	-	0.123	-	-	/	-	-	/	/	-	-	NA	-	2	a	
3735	Viande hachée	Ground beef	-	-	H-d	+d	NC	-	0.041	-	-	/	-	-	/	/	-	-	NA	-	2	a	
3736	Viande poulet	Chicken meat	H+/H-	+	H+/H-	+	L.mono/L.welsh	+	3.517	+	H+/H-	+/+	+	+	L.mono/L.welsh	+/+	+	+	PA	-	2	a	
4109	Escalope de dinde	Turkey meat	H-	+	H-	+	L.welsh	+	3.667	+	H-	+	+	+	L.welsh	+	+	+	PA	-	2	a	
4117	Suprême poulet	Chicken meat	H+	-	H+	+	L.mono	+	3.611	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	a	
4118	Cuisse de poule	Chicken leg	H+	-	H+	+	L.mono	+	3.585	+	H+	+	-	/	L.mono	+	+	+	PA	-	2	a	
4128	Haché d'agneau	Ground lamb meat	H+	-	H+/H-	+	L.mono/L.welsh	+	3.497	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	a	
6616	Aiguillettes de poulet crues	Raw chicken meat	st	-	st	-	/	-	0.037	-	-	/	-	-	/	/	-	-	NA	-	2	a	
6617	Cuisses de poulet crues	Raw chicken legs	H+/H-	+(1)	H+/H-	+	L.mono/L.welsh	+	3.516	+	H+/H-	+/+	+	+	L.mono/L.innoc	+/+	+	+	PA	-	2	a	
6619	Dinde	Turkey meat	H+	+	H+	+	L.mono	+	3.421	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	a	
6659	Escalope dinde nature	Turkey meat	H-	+	H-	+	L.welsh	+	3.695	+	H-	+	+	+	L.welsh	+	+	+	PA	-	2	a	
6660	Cuisse de poulet sans os	Chicken leg	H+/H-	+	H+	+	L.mono/L.welsh	+	3.600	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	a	
6662	Cuisse dinde	Turkey leg	H+/H-	+	H+/H-	+	L.mono/L.innoc	+	3.647	+	H+/H-	+/+	+	+	L.mono/L.innoc	+/+	+	+	PA	-	2	a	
6675	Filet de dinde congelé	Frozen turkey meat	H+/H-	+	H-	+	L.mono/L.innoc	+	3.487	+	H+/H-	+/+	+	+	L.mono/L.innoc	+/+	+	+	PA	-	2	a	
6676	Gigot d'agneau	Lamb meat	st	-	st	-	/	-	0.411	+	H-	+	+d	+	L.innoc	+	+	+	PD	-	2	a	
6677	Steak haché surgelé	Frozen ground beef	H+/H-	+	H+/H-	+	L.mono/L.welsh	+	3.456	+	H+/H-	+/+	+	+	L.mono/L.welsh	+/+	+	+	PA	-	2	a	
6679	Steak haché	Ground beef	H+(1)/H-	+	H+/H-	+	L.mono/L.welsh	+	2.069	+	H-	+	+	+	L.welsh	+	+	+	PA	-	2	a	
6680	Minerai de bœuf	Beef meat	H+	+	H+	+	L.mono	+	3.511	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	a	
6681	Fourchette de dinde	Turkey meat	H+/H-d	+	H+	+	L.mono	+	3.127	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	a	
7046	Steak haché 15%MG	Ground beef	-	-	-	-	/	-	0.036	-	-	/	-	-	/	/	-	-	NA	-	2	a	
3737	Côte de porc Miel moutarde	Seasoned pork meat	st	st	-	st	/	-	0.094	-	st	/	st	/	/	/	-	-	NA	-	2	b	
3994	Blanquette	RTRH Blanquette	H-	+	H-	+	L.innoc	+	3.593	+	H+/H-	+/+	+	+	L.mono/L.innoc	+/+	+	+	PA	-	2	b	
4114	Côte de porc thym romarin	Seasoned pork meat	H+	+	H+	+	L.mono	+	3.567	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	b	
4124	Côte de porc thym romarin	Seasoned pork meat	-	-	-	-	/	-	0.041	-	-	/	-	-	/	/	-	-	NA	-	2	b	
4195	Coq au vin	RTRH poultry meat	H+	+	H+	+	L.mono	+	3.521	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	b	
4196	Porc sauce aigre douce	RTRH pork meat	H-	+	H-	+	L.welsh	+	3.442	+	H-	+	+	+	L.welsh	+	+	+	PA	-	2	b	
4197	Porc sauce aigre douce	RTRH pork meat	st	st	st	st	/	-	0.086	-	st	/	st	/	/	/	-	-	NA	-	2	b	
4198	Fricadelles sauce tomate	RTRH pork meat	st	st	st	st	/	-	0.099	-	st	/	st	/	/	/	-	-	NA	-	2	b	
4199	Fricadelles sauce tomate	RTRH pork meat	H-	+	H-	+	L.innoc	+	3.46	+	H-	+	+	+	L.innoc	+	+	+	PA	-	2	b	
4200	Bœuf aux oignons	RTRH beef meat	H+	+	H+	+	L.mono	+	3.52	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	b	
4201	Bœuf aux oignons	RTRH beef meat	H-	+	H-	+	L.welsh	+	3.434	+	H-	+	+	+	L.welsh	+	+	+	PA	-	2	b	
6661	Cordon bleu	RTRH poultry	-	-	-	-	/	-	0.150	-	-	/	-	-	/	/	-	-	NA	-	2	b	
6664	Tajine poulet olives	RTRH chicken	-	-	-	-	/	-	0.048	-	-	/	-	-	/	/	-	-	NA	-	2	b	
6665	Côte de porc Miel moutarde	RTRH pork meat	H+	+	H+	+	L.mono	+	3.464	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	b	
6666	Cordon bleu de dinde	RTRH poultry	H+	+	H+	+	L.mono	+	3.536	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	b	
6667	Langue porc cuite	Cooked pork tongue	H+	+	H+	+	L.mono	+	3.326	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	b	
6668	Cordon bleu de dinde	RTRH poultry	H+	+	H+	+	L.mono	+	3.584	+	H+	+	+	+	L.mono	+	+	+	PA	-	2	b	

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

MEAT PRODUCTS																						
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria												Category	type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	BACSpec Listeria test		Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)						Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C			
			Confirmations			O&A			PALCAM		TSYEA After purification step (from O&A or PALCAM)		All confirmatory tests									
			O&A	PALCAM	O&A				PALCAM	Result 24h	MALDI-TOF (genus)	Result 48h		MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)						
O&A	PALCAM	O&A	PALCAM	O.D.	Result	Result 24h	MALDI-TOF (genus)	Result 48h	MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)									
6669	Filet poulet rôti	Cooked poultry	H-	+	H-	+	<i>L.welsh</i>	+	2.756	+	H-	+	+	+	<i>L.welsh</i>	+	+	+	PA	-	2	b
7032	Tomates farcies au bœuf	RTRH (tomatoes, beef)	st	st	st	st	/	-	0.025	-	st	/	st	/	/	/	-	-	NA	-	2	b
7033	Escalope de dinde milanaise	RTRH (turkey)	st	st	st	st	/	-	0.025	-	st	/	st	/	/	/	-	-	NA	-	2	b
7034	Gratin d'endives au jambon	RTRH (Ham, endives)	st	st	st	st	/	-	0.046	-	st	/	st	/	/	/	-	-	NA	-	2	b
7035	Poulet à la moutarde et au riz	RTRH (Chicken)	st	st	st	st	/	-	0.034	-	st	/	st	/	/	/	-	-	NA	-	2	b
7036	Bœuf à la bolognaise et pâtes	RTRH (Beef, pasta)	st	st	st	-	/	-	0.024	-	st	/	st	/	/	/	-	-	NA	-	2	b
7037	Poulet à la crème	RTRH (Chicken)	-	-	-	-	/	-	0.023	-	st	/	st	/	/	/	-	-	NA	-	2	b
7038	Poulet à la tomate et purée de courgettes	RTRH (chicken)	st	st	st	st	/	-	0.03	-	st	/	st	/	/	/	-	-	NA	-	2	b
7039	Porc grillé purée	RTRH (pork)	st	st	st	-	/	-	0.023	-	st	/	st	/	/	/	-	-	NA	-	2	b
7040	Hachis Parmentier	RTHR (Purée, meat)	st	st	-	-	/	-	0.021	-	-	/	-	/	/	/	-	-	NA	-	2	b
7041	Petit salé aux lentilles	RTRH (pork)	st	st	st	st	/	-	0.052	-	st	/	st	/	/	/	-	-	NA	-	2	b
3008	Merguez volaille	Poultry Merguez	-	-	-	-	/	-	0.251	-	-	/	-	/	/	/	-	-	NA	-	2	c
3725	Saucisse sèche volaille bœuf	Delicatessen	H-d	+d	H-d	+d	NC	-	0.796	+	H+	+	+(3)	+	<i>L.mono</i>	+	+	+	PD	-	2	c
3727	Saucisson à l'oignon de Roscoff	Delicatessen	st	-	H-	+	<i>L.innoc</i>	+	3.637	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA	-	2	c
3992	Rosette	Low moisture delicatessen	st	st	st	st	/	-	0.034	-	st	/	st	/	/	/	-	-	NA	-	2	c
3996	Jambon	Ham	st	st	st	st	/	-	0.031	-	st	/	st	/	/	/	-	-	NA	-	2	c
4113	Jambon à l'ancienne	Ham	st	st	st	st	/	-	0.069	-	st	/	st	/	/	/	-	-	NA	-	2	c
4541	Salami	Salami	-	st	-	-	/	-	0.066	-	st	/	st	/	/	/	-	-	NA	-	2	c
4542	Jambon de Paris	Ham	st	+(1)	H+	+	<i>L.mono</i>	+	0.276	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	-	2	c
4543	Pâté de campagne	Pâté	st	-	-	-	/	-	0.046	-	st	/	-	/	/	/	-	-	NA	-	2	c
4544	Bacon fumé	Smoked bacon	H+	+	H+/H-	-	<i>L.mono/L.welsh</i>	+	3.515	+	H+/H-	+/+	+	+	<i>L.mono/L.welsh</i>	+/+	+	+	PA	-	2	c
4545	Jambon serrano	Low moisture ham	st	st	st	-	/	-	0.067	-	st	/	-	/	/	/	-	-	NA	-	2	c
4546	Saucisson sec tranches fines	Low moisture sausage	st	st	st	st	/	-	0.107	-	st	/	st	/	/	/	-	-	NA	-	2	c
4679	Fromage de tête aux herbes	Delicatessen	st	st	st	-	/	-	0.041	-	st	/	-	/	/	/	-	-	NA	-	2	c
4684	Jambon à l'ancienne	Ham	H-d(1)	+(1)	H-	+	<i>L.innoc</i>	+	2.995	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA	-	2	c
6663	Saucisson sec	Low moisture sausage	H+	+	H+	+	<i>L.mono</i>	+	3.533	+	H+	+	+	No result;+	<i>L.mono</i>	+	+	+	PA	-	2	c
6670	Saucisse sèche volaille bœuf	Low moisture beef sausage	H+	+	H+	+	<i>L.mono</i>	+	3.530	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	-	2	c
6672	Saucisse sèche volaille bœuf	Low moisture beef sausage	H-	+	H-	+	<i>L.welsh</i>	+	0.563	+	H-	No result;+	+	+	<i>L.welsh</i>	+	+	+	PA	-	2	c
6673	Chorizo	Chorizo	H+	+	H+	+	<i>L.mono</i>	+	3.326	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	-	2	c
6678	Saucisson sec	Low moisture sausage	H+(3)	+(2)	H+	+	<i>L.mono</i>	+	1.095	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	-	2	c
7048	Bacon fumé	Smoked bacon	-	st	-	st	/	-	0.02	-	-	/	st	/	/	/	-	-	NA	-	2	c
7049	Terrine de campagne	Pâté	-	st	-	st	/	-	0.039	-	-	/	st	/	/	/	-	-	NA	-	2	c
7050	Salami fumé	Smoked salami	-	st	-	st	/	-	0.035	-	-	/	st	/	/	/	-	-	NA	-	2	c
7051	Jambon cru	Low moisture ham	st	-	-	-	/	-	0.045	-	-	/	-	/	/	/	-	-	NA	-	2	c
7052	Rillettes	Rillettes	st	st	st	st	/	-	0.027	-	st	/	st	/	/	/	-	-	NA	-	2	c
7053	Mortadelle	Delicatessen	st	st	-	-	/	-	0.031	-	-	/	st	/	/	/	-	-	NA	-	2	c
7054	Rosette	Mow moisture sausage	st	st	st	-	/	-	0.032	-	st	/	st	/	/	/	-	-	NA	-	2	c
7055	Jambon de paris	Ham	st	st	-	st	/	-	0.051	-	-	/	st	/	/	/	-	-	NA	-	2	c

MILK AND DAIRY PRODUCTS																							
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria													Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)														
			O&A	PALCAM	O&A	PALCAM			BACSpec Listeria test	Confirmations				All confirmatory tests	Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C						
							Result	O&A		PALCAM	TSYEA After purification step (from O&A or PALCAM)												
O.D.	Result	Result 24h	MALDI-TOF (genus)	Result 48h	MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)																
3016	Petit reblochon au lait cru	Raw milk cheese	-	-	st	-	/	-	0.072	-	st	/	-	/	/	/	-	-	NA	-	3	a	
3017	Rocamadour AOP lait cru	Raw goat milk cheese	st	-	-	st	/	-	0.171	-	-	/	-	/	/	/	-	-	NA	-	3	a	
3339	Abondance lait cru	Raw milk cheese	st	st	-	-	/	-	0.034	-	st	/	-	/	/	/	-	-	NA	-	3	a	
3340	Comte lait cru	Raw milk cheese	st	st	-	-	/	-	0.048	-	st	/	-	/	/	/	-	-	NA	-	3	a	
3341	Bethmale lait cru	Raw milk cheese	-	-	-	-	/	-	0.057	-	st	/	-	/	/	/	-	-	NA	-	3	a	
3342	Grana padano lait cru	Raw milk cheese	-	-	H+	+	L.mono	+	3.592	+	H+	+	+d	+	L.mono	+	+	+	PA	-	3	a	
3343	Rocamadour lait cru	Raw goat milk cheese	st	st	-	st	/	-	0.043	-	st	/	st	/	/	/	-	-	NA	-	3	a	
3344	Roquefort lait cru	Raw ewe milk cheese	st	-	-	-	/	-	0.091	-	st	/	-	/	/	/	-	-	NA	-	3	a	
3345	Morbier lait cru	Raw milk cheese	-	-	-	-	/	-	0.076	-	-	/	-	/	/	/	-	-	NA	-	3	a	
3990	Maroilles	Raw milk cheese	st	st	st	st	/	-	0.038	-	st	/	st	/	/	/	-	-	NA	-	3	a	
3991	Fromage affiné brebis	Raw ewe milk cheese	st	st	st	st	/	-	0.046	-	st	/	st	/	/	/	-	-	NA	-	3	a	
3993	Morbier lait cru	Raw milk cheese	-	-	-	-	/	-	0.033	-	-	/	-	/	/	/	-	-	NA	-	3	a	
4526	Rocamadour au lait cru	Raw milk cheese	st	st	H+	+	L.mono	+	3.659	+	H+	+	+	+	L.mono	+	+	+	PA	-	3	a	
4527	Roquefort au lait cru de brebis	Raw milk cheese	H+	+	H+	+	L.mono	+	0.126/ 0.505/ 0.977/ 0.082	-	H+	+	+	+	L.mono	+	+	-	ND _{FN(alt)}	+	3	a	
4528	Tomme des bauges au lait cru	Raw milk cheese	H+(1)	+(1)	H+	+	L.mono	+	3.659	+	H+	+	+	+	L.mono	+	+	+	PA	-	3	a	
4529	Saint Nectaire fermier au lait cru	Raw milk cheese	-	-	-	-	/	-	0.056	-	-	/	-	/	/	/	-	-	NA	-	3	a	
4530	Comte 12 mois au lait cru	Raw milk cheese	H-(2)	+(1)	H-	+	L.welsh	+	3.643	+	H-	+	+	+	L.welsh	+	+	+	PA	-	3	a	
4531	Beaufort au lait cru	Raw milk cheese	-	-	st	-	/	-	0.068	-	st	/	-	/	/	/	-	-	NA	-	3	a	
5945	Brie de Meaux lait cru	Raw milk cheese	st	-	-	-	/	-	0.046	-	st	/	-	/	/	/	-	-	NA	-	3	a	
5946	Comté lait cru	Raw milk cheese	-	-	-	-	/	-	0.056	-	-	/	-	/	/	/	-	-	NA	-	3	a	
5947	Saint Nectaire lait cru	Raw milk cheese	-	-	st	st	/	-	0.030	-	-	/	-	/	/	/	-	-	NA	-	3	a	
5948	Roquefort lait cru	Raw ewe milk cheese	st	-	st	-	/	-	0.048	-	-	/	-	/	/	/	-	-	NA	-	3	a	
5949	Crottin chavignol lait cru	Raw goat milk cheese	-	st	st	st	/	-	0.070	-	-	/	-	/	/	/	-	-	NA	-	3	a	
5950	Picodon lait cru	Raw goat milk cheese	st	st	-	st	/	-	0.140	-	-	/	-	/	/	/	-	-	NA	-	3	a	
5951	Salers lait cru	Raw milk cheese	-	-	st	-	/	-	0.046	-	-	/	-	/	/	/	-	-	NA	-	3	a	
5952	Munster lait cru	Raw milk cheese	H-	+	H-	+	L.innoc	+	3.630	+	H-	+	+	+	L.innoc	+	+	+	PA	-	3	a	
6951	Fromage au lait cru 01	Raw milk cheese	H+	+	H+	+	L.mono	+	3.431	+	H+	+	+	+	L.mono	+	+	+	PA	-	3	a	
6952	Formage au lait cru 06	Raw milk cheese	-	-	-	st	/	-	0.065	-	st	/	-	/	/	/	-	-	NA	-	3	a	
6953	Formage au lait cru 07	Raw milk cheese	-	-	-	-	/	-	0.082	-	-	/	-	/	/	/	-	-	NA	-	3	a	
6954	Formage au lait cru 14	Raw milk cheese	H+	+(2)	H+	+	L.mono	+	2.044	+	H+	+	+	+	L.mono	+	+	+	PA	-	3	a	
3018	Lait cru	Raw milk	st	st	st	st	/	-	0.045	-	st	/	-	/	/	/	-	-	NA	-	3	b	
3019	Lait cru fermier	Raw milk	st	-	-	-	/	-	0.03	-	-	/	-	/	/	/	-	-	NA	-	3	b	
3346	Crème au lait cru 1	Raw milk cream	H+	+	H+	+	L.mono	+	3.554	+	H+	+	+	+	L.mono	+	+	+	PA	-	3	b	
3347	Crème au lait cru 2	Raw milk cream	H+	+	H+	+	L.mono	+	3.514	+	H+	+	+	+	L.mono	+	+	+	PA	-	3	b	
3348	Crème au lait cru 6	Raw milk cream	H+(4)	+	H+/H-	+	L.mono/ L.innoc	+	3.371	+	H+/H-	+	+	+	L.mono/ L.innoc	+	+	+	PA	-	3	b	
3745	Lait brebis	Raw ewe milk	H+	-	H+	+	L.mono	+	3.531	+	H+	+	+d	+	L.mono	+	+	+	PA	-	3	b	
3997	Lait brebis	Raw ewe milk	st	-	st	-	/	-	0.028	-	-	/	-	/	/	/	-	-	NA	-	3	b	
4532	Lait fermenté	Fermented milk	H-	+	H-	+	L.innoc	+	3.618	+	H-	+	+	+	L.innoc	+	+	+	PA	-	3	b	
4533	Lait fermenté	Fermented milk	H+	+	H+	+	L.mono	+	3.606	+	H+	+	+	+	L.mono	+	+	+	PA	-	3	b	
4534	Lait ribot lait fermenté maigre	Fermented milk	H-	+	H-	+	L.innoc	+	3.617	+	H-	+	+	+	L.innoc	+	+	+	PA	-	3	b	
4535	Lait ribot lait fermenté maigre	Fermented milk	H+	+	H+	+	L.mono	+	3.542	+	H+	+	+	+	L.mono	+	+	+	PA	-	3	b	
4536	Lait cru de vache	Raw milk	H+	+	H+	+	L.mono	+	3.478	+	H+/H-	+/+	+	+	L.mono/ L.innoc	+/+	+	+	PA	-	3	b	
4537	Lait ribot	Fermented milk	H+	+	H+	+	L.mono	+	3.531	+	H+	+	+	+	L.mono	+	+	+	PA	-	3	b	
4538	Lait fermenté	Fermented milk	H+	+	H+	+	L.mono	+	3.565	+	H+	+	+	+	L.mono	+	+	+	PA	-	3	b	
4539	Lait fermenté	Fermented milk	H+/H-	+	H+/H-	+	L.mono/ L.innoc	+	3.557	+	H-	+	+	+	L.innoc	+	+	+	PA	-	3	b	

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

MILK AND DAIRY PRODUCTS																					
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria											Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	BACSpec Listeria test		Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)						Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C		
			Confirmations			O&A			PALCAM		TSYEA After purification step (from O&A or PALCAM)		All confirmatory tests								
			O&A	PALCAM	O&A		PALCAM	O.D.	Result	Result 24h	MALDI-TOF (genus)	Result 48h		MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)					
4540	Lait ribot	Fermented milk	H+	+	H+	+	L.mono	+	3.557	+	H+	+	+	+	L.mono	+	+	+	PA	3	b
5953	Lait cru fermier	Raw milk	H+	+	H+	+	L.mono	+	3.120	+	H+	+	+	+	L.mono	+	+	+	PA	3	b
5954	Lait cru de vache	Raw milk	-	-	-	-	/	-	0.031	-	-	/	-	/	/	/	-	-	NA	3	b
5955	Lait cru fermier	Raw milk	H+	+	H+	+	L.mono	+	3.520	+	H+	+	+	+	L.mono	+	+	+	PA	3	b
5956	Lait cru	Raw milk	-	st	-	st	/	-	0.022	-	-	/	-	/	/	/	-	-	NA	3	b
5957	Lait cru fermier	Raw milk	H+	+	H+	+	L.mono	+	3.430	+	H+	+	+	+	L.mono	+	+	+	PA	3	b
6836	Lait cru	Raw milk	-	-	-	st	/	-	0.023	-	-	/	-	/	/	/	-	-	NA	3	b
6837	Lait cru fermier	Raw milk	st	-	st	st	/	-	0.029	-	-	/	-	/	/	/	-	-	NA	3	b
6838	Beurre de baratte au lait cru	Raw milk butter	st	st	st	st	/	-	0.046	-	-	/	-	/	/	/	-	-	NA	3	b
6839	Beurre de baratte cru demi-sel	Raw milk butter	st	st	st	st	/	-	0.044	-	-	/	-	/	/	/	-	-	NA	3	b
3006	Beurre	Butter	H-d	-	-	-	NC	-	0.091	-	-	/	-	/	/	/	-	-	NA	3	c
3349	Bleu des causses lait pasteurisé	Pasteurised milk cheese	st	-	st	-	/	-	0.036	-	st	/	-	/	/	/	-	-	NA	3	c
3350	Lait pasteurisé	Pasteurised milk	-	-	-	-	/	-	0.078	-	-	/	-	/	/	/	-	-	NA	3	c
3351	Camembert lait pasteurisé	Pasteurised milk cheese	st	-	-	-	/	-	0.036	-	st	/	-	/	/	/	-	-	NA	3	c
4306	Brique brebis au lait pasteurisé	Pasteurised ewe milk cheese	H+	+	H+	+	L.mono	+	3.734	+	H+	+	+	+	L.mono	+	+	+	PA	3	c
4307	Fromage au lait pasteurisé	Pasteurised milk cheese	H+	+	H+	+	L.mono	+	3.757	+	H+	+	+	+	L.mono	+	+	+	PA	3	c
4308	Tomme des Pyrénées au lait pasteurisé	Pasteurised milk cheese	H+	+	H+	+	L.mono	+	3.729	+	H+	+	+	+	L.mono	+	+	+	PA	3	c
4309	Bleu d'auvergne au lait pasteurisé	Pasteurised milk cheese	H-(4)	+(2)	H-	+	L.innoc	+	3.737	+	H-	+	+	+	L.innoc	+	+	+	PA	3	c
4310	Emmental français au lait pasteurisé	Pasteurised milk cheese	H-	+	H-	+	L.innoc	+	3.748	+	H-	+	+	+	L.innoc	+	+	+	PA	3	c
4311	Saint Paulin au lait pasteurisé	Pasteurised milk cheese	H-	+	H-	+	L.innoc	+	3.641	+	H-	+	+	+	L.innoc	+	+	+	PA	3	c
4312	Camembert au lait pasteurisé	Pasteurised milk cheese	H-	+	H-	+	L.innoc	+	3.718	+	H-	+	+	+	L.innoc	+	+	+	PA	3	c
4328	Fromage au lait pasteurisé	Pasteurised milk cheese	st	st	st	-	/	-	0.299/ 0.238/ 0.272	+/-	-	/	-	/	/	/	-	-	PDFP(alt)	3	c
4329	Tomme des Pyrénées au lait pasteurisé	Pasteurised milk cheese	-	-	-	-	/	-	0.045	-	-	/	st	/	/	/	-	-	NA	3	c
4330	Brique brebis au lait pasteurisé	Pasteurised ewe milk cheese	st	st	st	st	/	-	0.045	-	st	/	st	/	/	/	-	-	NA	3	c
4331	Camembert au lait pasteurisé	Pasteurised milk cheese	st	st	st	st	/	-	0.133	-	st	/	-	/	/	/	-	-	NA	3	c
4332	Saint Paulin au lait pasteurisé	Pasteurised milk cheese	st	st	st	st	/	-	0.05	-	st	/	st	/	/	/	-	-	NA	3	c
5958	Petit suisse lait pasteurisé	Pasteurised fermented milk	H+	+	H+	+	L.mono	+	3.640	+	H+	+	+	+	L.mono	+	+	+	PA	3	c
5959	Yaourt nature lait pasteurisé	Pasteurised fermented milk	H+(4)	+(2)	H+	+	L.mono	+	3.400	+	H+	+	+	+	L.mono	+	+	+	PA	3	c
5960	Yaourt au lait entier lait pasteurisé	Pasteurised fermented milk	-	-	-	-	/	-	0.029	-	-	/	-	/	/	/	-	-	NA	3	c
5961	Fromage frais lait pasteurisé	Pasteurised fermented milk	-	-	-	-	/	-	0.029	-	-	/	-	/	/	/	-	-	NA	3	c
5962	Crème dessert saveur chocolat lait pasteurisé	Dairy based dessert	H+	+	H+	+	L.mono	+	3.610	+	H+	+	+	+	L.mono	+	+	+	PA	3	c
5963	Yaourt nature lait pasteurisé	Pasteurised fermented milk	st	st	st	st	/	-	0.028	-	-	/	-	/	/	/	-	-	NA	3	c
6671	Fromage trois laits	Pasteurised three milk cheese	-	-	-	-	/	-	0.046	-	-	/	-	/	/	/	-	-	NA	3	c
6674	Forêt noire	Pastry	H+	+	H+	+	L.mono	+	3.534	+	H+	+	+	+	L.mono	+	+	+	PA	3	c

VEGETABLES																							
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria													Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)														
			O&A	PALCAM	O&A	PALCAM			BACSpec Listeria test	Confirmations				All confirmatory tests	Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C						
							Result 24h	MALDI-TOF (genus)		Result 48h	MALDI-TOF (genus)	TSYEA After purification step (from O&A or PALCAM)											
O.D.	Result	Result 24h	MALDI-TOF (genus)	Result 48h	MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)																
3003	Jeunes carottes surgelées	Frozen carrots	-	-	-	-	/	-	0.041	-	-	/	-	/	/	/	-	-	NA	-	4	a	
3004	Courgettes émincées	Zucchini	-	-	-	-	/	-	0.239	-	-	/	-	/	/	/	-	-	NA	-	4	a	
3005	Ciboulette	Chive	st	-	-	-	/	-	0.037	-	st	/	-	/	/	/	-	-	NA	-	4	a	
3734	Pousses haricot mungo	Sprouts	H+	+	H+/H-d (NC)	+	L.mono	+	3.674	+	H+	+	+	+	L.mono	+	+	+	PA	-	4	a	
3742	Courgettes bio	Zucchini	-	-	-	-	/	-	0.172	-	-	/	-	/	/	/	-	-	NA	-	4	a	
3743	Mais	Corn	H+	+	H+	+	L.mono	+	3.432	+	H+	+	+	+	L.mono	+	+	+	PA	-	4	a	
3744	Aubergines	Eggplant	-	-	-	-	/	-	0.052	-	-	/	-	/	/	/	-	-	NA	-	4	a	
3979	Petits pois	Peas	H-	+	H-	+	L.innoc	+	3.93	+	H-	+	+	+	L.innoc	+	+	+	PA	-	4	a	
4296	Persil plat	Parsley	st	st	st	st	/	-	0.061	-	-	/	-	/	/	/	-	-	NA	-	4	a	
4298	Ciboulette	Chive	st	-	st	st	/	-	0.083	-	-	/	-	/	/	/	-	-	NA	-	4	a	
4300	Pommes	Apples	st	st	st	st	/	-	0.083	-	st	/	st	/	/	/	-	-	NA	-	4	a	
4302	Grain de maïs	Corn	H+/H-	+	H+/H-	+	L.mono/L.innoc	+	3.669	+	H+/H-	+/+	+	+	L.innoc/L.mono	+/+	+	+	PA	-	4	a	
4305	Pousses de haricots mungo	Sprouts	H-d	-	H+/H-	+	L.mono/L.innoc	+	3.683	+	H+/H-	+	+	+	L.mono/L.innoc	+	+	+	PA	-	4	a	
4669	Poivrons jaunes crus	Yellow peppers	st	st	st	st	/	-	0.04	-	st	/	st	/	/	/	-	-	NA	-	4	a	
4672	Persil plat	Parsley	st	st	st	st	/	-	0.038	-	st	/	st	/	/	/	-	-	NA	-	4	a	
4674	Ciboulette	Chive	st	-	H-d(1)	-	NC	-	0.046	-	st	/	-	/	/	/	-	-	NA	-	4	a	
4676	Brocolis	Brocolis	-	st	-	-	/	-	0.043	-	st	/	-	/	/	/	-	-	NA	-	4	a	
4677	Brocolis	Brocolis	-	-	-	-	/	-	0.031	-	st	/	-	/	/	/	-	-	NA	-	4	a	
5788	Poivrons rouges	Red peppers	st	st	-	-	/	-	0.045	-	-	/	-	/	/	/	-	-	NA	-	4	a	
5795	Poivrons jaunes	Yellow peppers	st	st	-	-	/	-	0.044	-	-	/	-	/	/	/	-	-	NA	-	4	a	
5797	Champignons	Mushrooms	H-(3)	+(2)	H-	+	L.innoc	+	3.570	+	H-	+	+	+	L.innoc	+	+	+	PA	-	4	a	
5799	Ciboulette	Chive	-	-	-	-	/	-	0.049	-	-	/	-	/	/	/	-	-	NA	-	4	a	
6607	Haricots verts	Beans	H-d	+	H-	+	L.innoc	+	3.655	+	H-	+	+	+	L.innoc	+	+	+	PA	-	4	a	
6608	Choux fleurs	Cauliflower	st	-	-	-	/	-	0.035	-	-	/	-	/	/	/	-	-	NA	-	4	a	
6610	Haricots verts	Beans	-	-	-	-	/	-	0.052	-	-	/	-	/	/	/	-	-	NA	-	4	a	
6611	Carottes crues émincées	Sliced carrots	H+	+	H+	+	L.mono	+	3.72	+	H+	+	+	+	L.mono	+	+	+	PA	-	4	a	
6614	Courgettes	Zucchini	H+/H-	+	H+/H-	+	L.mono/L.innoc	+	3.577	+	H+/H-	+/+	+	+	L.mono	No result ;+	+	+	PA	-	4	a	
6713	Persil	Parsley	-	st	H+d	+	L.mono	+	3.77	+	H+	+	+	+	L.mono	+	+	+	PA	-	4	a	
6714	Ciboulette	Chive	-	-	H-	+	L.innoc	+	1.861	+	H-	+	+	+	L.innoc	+	+	+	PA	-	4	a	
6715	Courgettes en rondelles	Zucchini	-	-	-	-	/	-	0.108	-	-	/	-	/	/	/	-	-	NA	-	4	a	
6716	Courgettes en rondelles	Zucchini	H+(2)	+	H+	+	L.mono	+	3.843	+	H+	+	+	+	L.mono	+	+	+	PA	-	4	a	
6717	Persil	Parsley	-	-	-	-	/	-	0.095	-	-	/	-	/	/	/	-	-	NA	-	4	a	
3001	Poêlée Pommes de terre	Cooked potatoes	st	st	st	st	/	-	0.032	-	st	/	st	/	/	/	-	-	NA	-	4	b	
3002	Oignons pré-frits	Cooked onions	st	st	st	st	/	-	3.556	+	H+	+	+	+	L.mono	+	+	+	PD	-	4	b	
3733	Carottes pré-cuites	Pre-cooked carrots	st	-	-	-	/	-	0.079	-	st	/	-	/	/	/	-	-	NA	-	4	b	
3740	Tajine de légumes	Pre-cooked vegetables	st	-	-	-	/	-	0.048	-	st	/	-	/	/	/	-	-	NA	-	4	b	
3741	Champignons émincés	Pre-cooked mushrooms	st	-	-	-	/	-	0.166	-	-	/	-	/	/	/	-	-	NA	-	4	b	
4119	Pomme de terre lamelles	Pre-cooked potatoes	st	st	st	-	/	-	0.034	-	st	/	st	/	/	/	-	-	NA	-	4	b	
4123	Oignons pré-frits	Pre-cooked onions	st	st	st	st	/	-	0.037	-	st	/	st	/	/	/	-	-	NA	-	4	b	
4287	Matières premières saupoudreur tomates	Vegetables	-	-	-	-	/	-	0.059	-	-	/	-	/	/	/	-	-	NA	-	4	b	
4297	Purée de carottes	Carrot purée	H+	+	H+	+	L.mono	+	3.611	+	H+	+	+	+	L.mono	+	+	+	PA	-	4	b	
4299	Tajine	Tajine	H+	+	H+	+	L.mono	+	3.604	+	H+	+	+	+	L.mono	+	+	+	PA	-	4	b	
4301	Courgettes bio	Zucchini	-	st	H-	+	L.innoc	+	3.686	+	H-	+	+	+	L.innoc	+	+	+	PA	-	4	b	
4304	Oignons pré-frits	Pre-cooked onions	st	st	-	-	/	-	0.05	-	st	/	st	/	/	/	-	-	NA	-	4	b	
4673	Tomates quartier	Tomatoes	-	-	-	-	/	-	0.045	-	-	/	-	/	/	/	-	-	NA	-	4	b	
4675	Courgettes rondes lisses	Zucchini	st	-	-	-	/	-	0.089	-	-	/	-	/	/	/	-	-	NA	-	4	b	

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

VEGETABLES																							
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria													Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	BACSpec Listeria test		Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)							Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C			
			O&A	PALCAM	O&A	PALCAM			O.D.	Result	Confirmations			All confirmatory tests									
							Result 24h	MALDI-TOF (genus)			Result 48h	MALDI-TOF (genus)	TSYEA After purification step (from O&A or PALCAM)										
								Reference tests	MALDI-TOF (genus)														
4678	Jeunes carottes surgelées	Frozen carrots	-	-	-	-	/	-	0.038	-	-	/	-	/	/	/	-	-	NA	-	4	b	
4680	Oignons pré-frits	Pre-cooked onions	H+/H-	+(2)	H+	+	<i>L.mono/L.innoc</i>	+	3.414	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	-	4	b	
4681	Courgettes	Zucchini	-	-	-	-	/	-	0.045	-	-	/	st	/	/	/	-	-	NA	-	4	b	
4682	Poêlée de pommes de terre précuites	Precooked potatoes	st	st	st	st	/	-	0.022	-	st	/	st	/	/	/	-	-	NA	-	4	b	
4683	Champignons émincés surgelés	Frozen sliced mushrooms	st	st	st	-	/	-	0.025	-	st	/	st	/	/	/	-	-	NA	-	4	b	
5789	Farce pour wrap	Stuffing for wrap	-	-	H+	+	<i>L.mono</i>	+	3.590	+	H+	+	+d(1)	+	<i>L.mono</i>	+	+	+	PA	-	4	b	
5793	Julienne de légumes	Sliced vegetables	-	-	H+	+	<i>L.mono</i>	+	3.540	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	-	4	b	
5794	Purée d'artichaut	Artichoke purée	-	-	-	-	/	-	0.073	-	-	/	-	/	/	/	-	-	NA	-	4	b	
5796	Préparation provençale	Vegetables based preparation	-	-	-	-	/	-	0.044	-	-	/	-	/	/	/	-	-	NA	-	4	b	
5798	Petits pois	Beans	H+	+	H+	+	<i>L.mono</i>	+	0.571	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	-	4	b	
6609	Riz tomates oignons pommes de terre poivrons	Rice based preparation	st	-	-	-	/	-	0.066	-	-	/	-	/	/	/	-	-	NA	-	4	b	
6612	Légumes pour potager	Vegetables	st	st	st	st	/	-	0.034	-	-	/	-	/	/	/	-	-	NA	-	4	b	
6613	Julienne de légumes	Sliced vegetables	st	-	-	-	/	-	0.028	-	-	/	-	/	/	/	-	-	NA	-	4	b	
6615	Légumes parisienne	Vegetables preparation	st	st	-	-	/	-	0.04	-	-	/	-	/	/	/	-	-	NA	-	4	b	
6718	Courgettes farcies	RTRH zucchini	H-d	+	H-	+	<i>L.innoc</i>	+	3.622	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA	-	4	b	
6719	Galettes soja tomates	Vegetables RTRH preparation	-	-	-	-	/	-	0.122	-	-	/	-	/	/	/	-	-	NA	-	4	b	
6720	Galettes quinoa provençale	Vegetables RTRH preparation	-	-	-	-	/	-	0.207	-	-	/	-	/	/	/	-	-	NA	-	4	b	
6721	Galettes soja tomates	Vegetables RTRH preparation	H-d	+d	H+d	-	<i>L.mono</i>	+	0.311	+	H+d	+	-	/	<i>L.mono</i>	+	+	+	PA	-	4	b	
6722	Galettes boulgour lentilles	Vegetables RTRH preparation	H-d	-	H-	+	<i>L.innoc</i>	+	3.599	+	H-	+	+	+	<i>L.seeli</i>	+	+	+	PA	-	4	b	
6723	Brunoise méridionale	Vegetables preparation	-	-	-	-	/	-	0.074	-	-	/	-	/	/	/	-	-	NA	-	4	b	
6725	Brunoise méridionale	Vegetables preparation	-	-	-	-	/	-	0.103	-	-	/	-	/	/	/	-	-	NA	-	4	b	
3746	Piémontaise	Deli salad (Piémontaise)	st	st	st	st	/	-	0.051	-	st	/	-	/	/	/	-	-	NA	-	4	c	
4202	Carottes râpées assaisonnées	Carrots with dressing	st	st	st	st	/	-	0.018	-	-	/	st	/	/	/	-	-	NA	-	4	c	
4203	Carottes râpées assaisonnées	Carrots with dressing	H-d	+(5)	H-	+	<i>L.welsh</i>	+	3.475	+	H-d	No result;+	-	/	<i>L.welsh</i>	+	+	+	PA	-	4	c	
4204	Concombre au fromage blanc et ciboulette	Cucumber with dressing	H+	+	H+	+	<i>L.mono</i>	+	3.464	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	-	4	c	
4205	Concombre au fromage blanc et ciboulette	Cucumber with dressing	H-d	+d	H-	+	<i>L.welsh</i>	+	3.448	+	H-d	No result;+	-	/	<i>L.welsh</i>	+	+	+	PA	-	4	c	
4206	Macédoine de légumes avec mayonnaise	Deli salad (vegetables with mayonnaise)	H+	+	H+	+	<i>L.mono</i>	+	3.443	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	-	4	c	
4207	Macédoine de légumes avec mayonnaise	Deli salad (vegetables with mayonnaise)	H-d	+d	H-	+	<i>L.welsh</i>	+	3.538	+	H-d	No result;+	-	/	<i>L.welsh</i>	+	+	+	PA	-	4	c	
4208	Céleri rémoulade	Grated celery with dressing	st	st	st	st	/	-	0.071	-	st	/	st	/	/	/	-	-	NA	-	4	c	
4303	Macédoine	Macedoine	st	st	-	-	/	-	0.088	-	-	/	-	/	/	/	-	-	NA	-	4	c	
4739	Céleri rémoulade	Celery with dressing	-	st	-	-	/	-	0.038	-	-	/	st	/	/	/	-	-	NA	-	4	c	
4740	Champignons à la grecque	Mushrooms with dressing	H+	+(5)	H+	+	<i>L.mono</i>	+	3.671	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	-	4	c	
4741	Tri choux jambon comte	Deli salad	st	-	H+	+	<i>L.mono</i>	+	3.622	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	-	4	c	
4742	Piémontaise	Deli salad	H-	+	H+/H-	+	<i>L.innoc/L.mono</i>	+	3.635	+	H+/H-	+/+	+	+	<i>L.mono/L.innoc</i>	+/+	+	+	PA	-	4	c	
4743	Jardinière de légumes et mayonnaise	Deli salad	H+/H-	+	H-	+	<i>L.mono/L.innoc</i>	+	3.56	+	H+/H-	+/+	+	+	<i>L.mono/L.innoc</i>	+/+	+	+	PA	-	4	c	
4744	Tartare de tomates	Tomatoes tartar	H+/H-	+	H-	+	<i>L.innoc/L.mono</i>	+	3.533	+	H+/H-	+/+	+	+	<i>L.mono/L.innoc</i>	+/+	+	+	PA	-	4	c	
4745	Carottes râpées assaisonnées	Carrots with dressing	H-	+(1)	H-	+	<i>L.innoc</i>	+	3.553	+	H+/H-	+/+	+	+	<i>L.mono/L.innoc</i>	+/+	+	+	PA	-	4	c	
6822	Macédoine de légumes	Vegetables mix	-	st	-	-	/	-	0.039	-	-	/	-	/	/	/	-	-	NA	-	4	c	
6823	Piémontaise jambon	Deli salad	-	-	st	st	/	-	0.098	-	-	/	-	/	/	/	-	-	NA	-	4	c	
6824	Piémontaise jambon	Deli salad	st	st	st	st	/	-	0.029	-	-	/	-	/	/	/	-	-	NA	-	4	c	
6825	Macédoine de légumes	Vegetables mix	st	-	-	-	/	-	0.055	-	-	/	-	/	/	/	-	-	NA	-	4	c	

SEAFOOD AND FISHERY PRODUCTS																							
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria													Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)														
			BACSpec Listeria test		O&A				PALCAM		TSYEA After purification step (from O&A or PALCAM)		All confirmatory tests	Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C							
			O&A	PALCAM	O&A	PALCAM	O.D.	Result	Result 24h	MALDI-TOF (genus)	Result 48h	MALDI-TOF (genus)					Reference tests	MALDI-TOF (genus)					
2996	Filet de Hoki meunière	Fish filet	st	-	-	-	/	-	0.05	-	st	/	st	/	/	/	-	-	NA	-	5	a	
2999	Crevettes grises	Shrimps	-	-	st	-	/	-	0.041	-	-	/	-	/	/	/	-	-	NA	-	5	a	
3000	Noix de Saint Jacques	Scallops	H+	+	H+	+	L.mono	+	3.529	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	a	
3729	Filet de Hoki meunière	RTRH Fish filet	H-	-	H-	+	L.welsh	+	3.44	+	H-	+	+	+	L.welsh	+	+	+	PA	-	5	a	
3730	Meunière poisson blanc	RTRH Fish filet	st	-	-	-	/	-	0.141	-	-	/	-	/	/	/	-	-	NA	-	5	a	
3981	Tranche pané merlu blanc	RTRH fish	-	-	-	-	/	-	0.110	-	-	/	-	/	/	/	-	-	NA	-	5	a	
3982	Filet de Panga	Fish filet	H+	+	H+	+	L.mono	+	3.957	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	a	
3984	Moules déco cuites	Cooked mussels	H-	st	H-d	st	NC	-	0.081	-	H-d	/	-	/	NC	/	-	-	NA	-	5	a	
4110	Pavé merlu	Fish product	st	st	-	st	/	-	0.056	-	st	/	-	/	/	/	-	-	NA	-	5	a	
4130	Cœur de filet de Merlu blanc du cap	Fish fillet	H+	+	H+	+1	L.mono	+	3.546	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	a	
4131	Aile de raie	Fish	H+	+	H+	+	L.mono	+	3.597	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	a	
4685	Ailes de raie	Fish	st	st	st	st	/	-	0.046	-	st	/	st	/	/	/	-	-	NA	-	5	a	
4967	Saumon	Salmon	st	st	st	st	/	-	0.046	-	st	/	st	/	/	/	-	-	NA	-	5	a	
4968	Colin Alaska	Fish	st	-	-	-	/	-	0.052	-	-	/	-	/	/	/	-	-	NA	-	5	a	
4969	Noix de Saint Jacques	Scallops	st	-	st	st	/	-	0.044	-	st	/	st	/	/	/	-	-	NA	-	5	a	
4970	Pavé poisson blanc	Fish	st	-	-	-	/	-	0.052	-	st	/	-	/	/	/	-	-	NA	-	5	a	
4971	Duo saumon	Salmon	-	st	-	-	/	-	0.057	-	-	/	-	/	/	/	-	-	NA	-	5	a	
4972	Filet de Hoki meunière	RTRH fish	-	-	-	-	/	-	0.087	-	-	/	-	/	/	/	-	-	NA	-	5	a	
4973	Nacette de saumon cru	Salmon	H+	+	H+	+	L.mono	+	3.497	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	a	
5224	Encornet sauvage	Squid	H+	+	H+	+	L.mono	+	3.648	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	a	
5225	Filet de Merlan	Fish fillet	H+	+	H+	+	L.mono	+	3.473	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	a	
5790	Chair de saumon	Salmon	-	st	st	-	/	-	0.039	-	-	/	-	/	/	/	-	-	NA	-	5	a	
5791	Poisson Panga	Fish fillet	H+	+	H+/H-	+	L.mono/L.innoc	+	3.627	+	H+/H-	+/+	+	+	L.mono	+	+	+	PA	-	5	a	
5801	Poisson blanc tranché nature	White piece of fish	H+	+	H+	+	L.mono	+	3.463	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	a	
5802	Filet de cabillaud	Cod fillet	-	-	-	-	/	-	0.038	-	-	/	-	/	/	/	-	-	NA	-	5	a	
5964	Crevettes décortiquées crues	Raw peeled shrimps	-	-	-	-	/	-	0.042	-	-	/	-	/	/	/	-	-	NA	-	5	a	
5965	Blanc de calmar	Calmar	H+	+	H+	+	L.mono	+	3.550	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	a	
6618	Poisson blanc	White fish	H+	+	H+	+	L.mono	+	3.598	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	a	
6729	Saumon atlantique	Salmon	H+	-	H+	+	L.mono	+	1.039	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	a	
2998	Filet de bar sauce iodée	Seasoned fish	H+	+	H+	+	L.mono	+	3.58	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	b	
3728	Pulpe saumon fumé	Smoked salmon	H+	+	H+	+	L.mono	+	2.981	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	b	
3998	Saumon fumé	Smoked salmon	H+(2)	+(3)	H+	+	L.mono	+	3.583	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	b	
3999	Saumon fumé	Smoked salmon	st	st	st	st	/	-	0.054	-	st	/	-	/	/	/	-	-	NA	-	5	b	
4000	Truite fumée Norvège	Smoked trout	H-	+	H-	+	L.welsh	+	3.712	+	H+/H-	+/+	+	+	L.mono/L.welsh	+/No result;+	+	+	PA	-	5	b	
4001	Truite fumée Norvège	Smoked trout	H+/H-	+	H+/H-	+	L.welsh/L.mono	+	3.643	+	H+d/H-	+/+	+	+	L.mono/L.welsh	+/No result;+	+	+	PA	-	5	b	
4002	Saumon fumé	Smoked salmon	H-	+	H-	+	L.welsh	+	3.744	+	H-	+	+	+	L.welsh	No result;+	+	+	PA	-	5	b	
4670	Saumon fumé	Smoked salmon	st	st	st	st	/	-	0.042	-	st	/	st	/	/	/	-	-	NA	-	5	b	
4960	Saumon atlantique fumé	Smoked salmon	st	st	st	st	/	-	0.063	-	st	/	st	/	/	/	-	-	NA	-	5	b	
4961	Saumon fumé	Smoked salmon	st	st	st	-	/	-	0.078	-	st	/	st	/	/	/	-	-	NA	-	5	b	
4962	Saumon atlantique fumé	Smoked salmon	st	st	st	st	/	-	0.076	-	st	/	st	/	/	/	-	-	NA	-	5	b	
4963	Truite fumée Norvège	Smoked trout	1H+	st	H+	+	L.mono	+	3.531	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	b	
4964	Saumon atlantique fumé	Smoked salmon	st	st	H+	+	L.mono	+	3.561	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	b	
4965	Truite fumée	Smoked trout	H-	+	H-	+	L.welsh	+	0.092/0.081/0.105	-	H-	+	+	+	L.welsh	+	+	-	ND _{FN(alt)}	-	5	b	
4966	Saumon atlantique fumé	Smoked trout	3H+	1+	H+	+	L.mono	+	3.492	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	b	
5966	Lardons saumon fumé	Smoked salmon	H+	+	H+	+	L.mono	+	3.810	+	H+	+	+	+	L.mono	+	+	+	PA	-	5	b	

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SEAFOOD AND FISHERY PRODUCTS																							
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria													Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)														
			BACSpec Listeria test		O&A				PALCAM		TSYEA After purification step (from O&A or PALCAM)		All confirmatory tests	Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C							
			O&A	PALCAM	O&A	PALCAM	O.D.	Result	Result 24h	MALDI-TOF (genus)	Result 48h	MALDI-TOF (genus)					Reference tests	MALDI-TOF (genus)					
5967	Filets de harengs fumés	Smoked herring	H+	+	H+	+	<i>L.mono</i>	+	3.810	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	b	
6727	Chair de saumon fumé	Smoked salmon	H+	+	H+	+	<i>L.mono</i>	+	3.399	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	b	
6731	Bloc saumon fumé	Smoked salmon	H+/H-	+	H+/H-	+	<i>L.mono</i> / <i>L.innoc</i>	+	3.594	+	H+/H-	+/+	+	+	<i>L.mono</i> / <i>L.innoc</i>	+/+	+	+	PA		5	b	
6826	Lardons saumon atlantique	Smoked salmon	-	-	-	-	/	-	0.035	-	-	/	-	/	/	/	-	-	NA	-	5	b	
6827	Tranches de truite fumée	Smoked trout	st	-	st	st	/	-	0.045	-	-	/	-	/	/	/	-	-	NA	-	5	b	
6828	Petites tranches de saumon fumé	Smoked salmon	st	-	st	st	/	-	0.025	-	-	/	-	/	/	/	-	-	NA	-	5	b	
6829	Harengs fumés	Smoked herrings	st	st	st	st	/	-	0.051	-	-	/	-	/	/	/	-	-	NA	-	5	b	
6830	Harengs fumés	Smoked herrings	H-	+	H-	+	<i>L.innoc</i>	-	3.665	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PD		5	b	
2997	Pané poisson blanc cuit	Breaded fish	st	-	-	-	/	-	0.05	-	st	/	-	/	/	/	-	-	NA	-	5	c	
3731	Portion Merlu pané	RTRH Fish filet	H-d/H+d	-	H-d	-	NC	-	0.092	-	-	/	-	/	/	/	-	-	NA	-	5	c	
3732	Filet de colin Fish and chips	RTRH Fish	-	-	-	-	/	-	0.063	-	-	/	-	/	/	/	-	-	NA	-	5	c	
3738	Salade du pêcheur	Seafood deli salad	-	st	st	st	/	-	0.043	-	st	/	-	/	/	/	-	-	NA	-	5	c	
3988	Poisson pané	RTRH fish	H+d/H-	+	H+d/H-	+	NC (H+)/ <i>L.welsh</i>	+	3.778	+	H+d/H-	+/+	+	+	<i>L.welsh</i>	+	+	+	PA		5	c	
4122	Pané de poisson blanc cuit	RTRH fish product	st	-	-	-	/	-	0.078	-	st	/	-	/	/	/	-	-	NA	-	5	c	
4126	Nacette de saumon	RTRH Salmon	H+	+	H+	-	<i>L.mono</i>	+	3.548	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
4129	Pané Hoki	RTRH Fish product	st	-	-	-	/	-	0.263	-	-	/	-	/	/	/	-	-	NA	-	5	c	
4290	Cœur cabillaud sauce provençale	RTRH fish product	st	-	-	-	/	-	0.092	-	st	/	-	/	/	/	-	-	NA	-	5	c	
4291	Filet merlu sauce vierge	RTRH fish product	H+d	-	H+	+	<i>L.mono</i>	+	2.827	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
4292	Dos de cabillaud sauce provençale	RTRH fish product	st	-	-	-	/	-	0.07	-	st	/	-	/	/	/	-	-	NA	-	5	c	
4295	Hoki pané	RTRH fish product	H+	-	H+	+	<i>L.mono</i>	+	3.639	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
4313	Bâtonnets crabe	Surimi	H+	+	H+	+	<i>L.mono</i>	+	3.726	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
4314	Terrine de saumon aneth	Salmon terrine	H+	+	H+	+	<i>L.mono</i>	+	3.744	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
4315	Rillettes saumon	Salmon rillettes	-	-	st	st	/	-	0.055	-	-	/	-	/	/	/	-	-	NA	-	5	c	
4316	Rillettes crabe tourteau	Crab rillettes	H+	+	H+	+	<i>L.mono</i>	+	3.704	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
4317	Rillettes crabe tourteau	Crab rillettes	H-	+	H-	+	<i>L.innoc</i>	+	3.718	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA		5	c	
4318	Bâtonnets crabe	Surimi	H-	+	H-	+	<i>L.innoc</i>	+	3.645	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA		5	c	
4319	Rillettes saumon	Salmon rillettes	H-	+	H-	+	<i>L.innoc</i>	+	3.512	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA		5	c	
5792	Farce de tartare de saumon	Salmon tartar	H-	+	H+/H-	+	<i>L.mono</i> / <i>L.welsh</i>	+	3.390	+	H+/H-	+ /+	+	+	<i>L.welsh</i>	+	+	+	PA		5	c	
5800	Filet de hoki pané	Breaded fish	H+	+	H+	+	<i>L.mono</i>	+	3.563	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
5803	Américain thon	Sandwich (tuna)	H+	+	H+	+	<i>L.mono</i>	+	3.516	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
5804	Hoki pané	Breaded fish	-	-	-	-	/	-	0.244	-	-	/	-	/	/	/	-	-	NA	-	5	c	
5968	Mini tranche de truite fumée	Smoked trout	H+	+	H+	+	<i>L.mono</i>	+	3.810	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
5969	Bâtonnets saveur crabe	Surimi	-	-	-	-	/	-	0.056	-	-	/	-	/	/	/	-	-	NA	-	5	c	
5970	Terrine de saumon aneth	Salmon terrine	H+	+	H+	+	<i>L.mono</i>	+	3.700	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
5971	Terrine aux saint jacques	Scallops terrine	H+	+	H+	+	<i>L.mono</i>	+	3.740	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
6724	Pommes de terre au thon	Deli salad (tuna, potatoes)	H+	+	H+	+	<i>L.mono</i>	+	3.569	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
6726	Filet de cabillaud au beurre	RTRH fish	H+	+	H+	+	<i>L.mono</i>	+	3.572	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
6728	Pavé poisson blanc provençale	RTRH fish	H+/H-	+	H+/H-	+	<i>L.mono</i> / <i>L.innoc</i>	+	3.613	+	H+/H-	+ /+	+	+	<i>L.mono</i> / No identif.	+ /+	+	+	PA		5	c	
6730	Filet cabillaud au beurre	RTRH fish	H+	+	H+	-	<i>L.mono</i>	+	3.623	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA		5	c	
6732	Salade de riz au crabe	Deli salad	H-	+	H-	+	<i>L.welsh</i>	+	3.608	+	H-	+	+	+	<i>L.welsh</i>	+	+	+	PA		5	c	

ENVIRONMENTAL SAMPLES																						
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria												Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	BACSpec Listeria test		Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)						Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C			
			Confirmations			O&A			PALCAM		TSYEA (after purification step (from O&A or PALCAM))		All confirmatory tests									
			O&A	PALCAM	O&A		PALCAM	O.D.	Result	Result 24h	MALDI-TOF (genus)	Result 48h		MALDI-TOF (genus)	Reference tests	MALDI-TOF (genus)						
3352	Déchet poudre de lait	Dust (milk powder)	st	-	-	-	/	-	0.089	-	st	/	-	/	/	/	-	-	NA	-	6	a
3353	Déchet poissons	Dust (fish)	st	st	st	-	/	-	0.039	-	st	/	st	/	/	/	-	-	NA	-	6	a
4323	Déchet saucisse 2	Wastes (pork)	st	st	-	-	/	-	0.064	-	st	/	-	/	/	/	-	-	NA	-	6	a
4324	Déchet porc	Wastes (pork)	H-	+	H-	+	L.innoc	+	3.535	+	H-	+	+	+	L.innoc	No result;+	+	+	PA	-	6	a
4325	Déchet porc	Wastes (pork)	H+/H-	+	H+/H-	+	L.mono/L.welsh	+	3.508	+	H+/H-	+/+	+	+	L.mono/L.innoc	+/+	+	+	PA	-	6	a
4326	Déchet saucisson	Wastes (pork)	st	st	st	st	/	-	0.046	-	st	/	st	/	/	/	-	-	NA	-	6	a
4327	Déchet saucisson	Wastes (pork)	st	st	st	st	/	-	0.08	-	st	/	st	/	/	/	-	-	NA	-	6	a
5437	Matières premières à réception	Residues (Fish industry)	st	st	st	st	/	-	0.170	-	st	/	st	/	/	/	-	-	NA	-	6	a
5438	Déchets de sol	Residues (Fish industry)	H-d	-	-	-	NC	-	0.045	-	-	/	-	/	/	/	-	-	NA	-	6	a
5439	Déchets de sol ététeuse	Residues (Fish industry)	H+	+	H+/H-	+	L.mono/L.innoc	+	3.682	+	H+/H-	+/+	+	+	L.mono/L.innoc	+/+	+	+	PA	-	6	a
5440	Déchets de sol	Residues (Fish industry)	-	-	-	-	/	-	0.054	-	st	/	-	/	/	/	-	-	NA	-	6	a
5441	Déchets parage	Residues (Fish industry)	-	-	-	-	/	-	0.078	-	-	/	-	/	/	/	-	-	NA	-	6	a
5447	Déchets de sol	Residues (Fish industry)	st	st	H-	+	L.innoc	+	0.068	-	st	/	st	/	/	/	-	-	ND _{FN(alt)}	-	6	a
6756	Saucisse végétale déchet 1	Wastes (vegetables)	H+	-	H+	-	L.mono	+	3.154	+	H+	+	+	+	L.mono	+	+	+	PA	-	6	a
6762	Saucisse végétale déchet 1	Wastes (vegetables)	-	-	-	-	/	-	0.130	-	-	/	-	/	/	/	-	-	NA	-	6	a
6763	Saucisse végétale déchet 2	Wastes (vegetables)	st	-	-	-	/	-	0.273	-	-	/	-	/	/	/	-	-	NA	-	6	a
6930	Déchets chinchard	Wastes (fish)	st	st	st	-	/	-	0.130	-	-	/	-	/	/	/	-	-	NA	-	6	a
6931	Déchets sardine	Wastes (fish)	H-	+	H-	+	L.innoc	+	3.629	+	H-	+	+	+	L.innoc	+	+	+	PA	-	6	a
6932	Déchets saumon	Wastes (fish)	st	st	st	st	/	-	0.029	-	-	/	-	/	/	/	-	-	NA	-	6	a
6933	Déchets harengs	Wastes (fish)	st	st	st	st	/	-	0.033	-	-	/	-	/	/	/	-	-	NA	-	6	a
6937	Déchets porc salage	Wastes (pork)	H+	+	H+	+	L.mono	+	3.579	+	H+	+	+	+	L.mono	+	+	+	PA	-	6	a
3354	Eau rinçage pousoir (production saucisson poisson)	Process water (Pork and fish production)	st	st	st	st	/	-	0.194	-	st	/	st	/	/	/	-	-	NA	-	6	b
3355	Eau rinçage cutter (production thon assaisonné)	Process water (fish production)	H+/H-	+	H+/H-	+	L.mono/L.welsh	+	3.556	+	H+/H-	+/+	+	+	L.mono/L.welsh	+/+	+	+	PA	-	6	b
3356	Eau rinçage cutter (production chair saumon)	Process water (fish production)	H-	+	H-	+	L.welsh	+	3.49	+	H-	+	+	+	L.welsh	+	+	+	PA	-	6	b
4686	Eau de process fabrication chipolatas	Process water (sausages)	st	st	st	st	/	-	0.041	-	st	/	st	/	/	/	-	-	NA	-	6	b
5431	Eau rinçage filets peleuse	Cleaning water (Fish industry)	H+/H-	+	H+/H-	+	L.mono/L.innoc	+	3.804	+	H+	+	+	+	L.mono	+	+	+	PA	-	6	b
5432	Eau rampe de dessalage	Process water (Fish industry)	st	st	st	st	/	-	0.035	-	st	/	st	/	/	/	-	-	NA	-	6	b
5433	Eau lave-main	Cleaning water (Fish industry)	st	st	st	st	/	-	0.040	-	st	/	st	/	/	/	-	-	NA	-	6	b
5434	Eau rinçage après décaissage	Cleaning water (Fish industry)	st	st	st	st	/	-	0.051	-	st	/	st	/	/	/	-	-	NA	-	6	b
5435	Eau rinçage bac inox	Cleaning water (Fish industry)	st	st	st	st	/	-	0.035	-	st	/	st	/	/	/	-	-	NA	-	6	b
5436	Eau local taux de sel	Process water (Fish industry)	st	st	st	st	/	-	0.040	-	st	/	st	/	/	/	-	-	NA	-	6	b
6682	Eau parage n°1 (industrie de poissons)	Process water (fish industry)	st	st	st	st	/	-	0.044	-	-	/	-	/	/	/	-	-	NA	-	6	b
6683	Eau sortie épineuse (industrie de poissons)	Process water (fish industry)	st	st	st	st	/	-	0.038	-	-	/	-	/	/	/	-	-	NA	-	6	b
6684	Eau égout maturation salage (industrie de poissons)	Sewer water (fish industry)	st	-	-	-	/	-	0.044	-	-	/	-	/	/	/	-	-	NA	-	6	b
6685	Eau peleuse (industrie de poissons)	Process water (fish industry)	st	st	st	st	/	-	3.481	+	-/H-	+	-	/	L.innoc	+	+	+	PD	H-	6	b
6765	Eau process lavage carcasse poulet	Process water	H-	+	H-	+	L.innoc	+	3.628	+	H-	+	+	+	L.innoc	+	+	+	PA	-	6	b
6767	Eau rinçage mélangeur ferments	Rinsing water	H-	+	H-	+	L.welsh	+	3.658	+	H-	+	+	+	L.welsh	+	+	+	PA	-	6	b
6769	Eau rinçage robot coupe fabrication appâts	Rinsing water	H-	+	H-	+	L.welsh	+	3.643	+	H-	+	+	+	L.innoc	+	+	+	PA	-	6	b
6771	Eau rinçage fabrication biscuits	Rinsing water	H-	+	H-	+	L.innoc	+	3.651	+	H-	+	+	+	L.innoc	+	+	+	PA	-	6	b
6773	Eau rinçage fabrication riz cuit	Rinsing water	-	st	st	st	/	-	0.131	-	-	/	-	/	/	/	-	-	NA	-	6	b

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

ENVIRONMENTAL SAMPLES																						
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1*						Alternative method: BACSpec Listeria												Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp final result	Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)													
			O&A	PALCAM	O&A	PALCAM			BACSpec Listeria test	Confirmations				Final result	Agreement Ref/Alt 24h	ELEB + 24h at 30°C						
							Result 24h	MALDI-TOF (genus)		Result 48h	MALDI-TOF (genus)	TSYEA After purification step (from O&A or PALCAM)					All confirmatory tests					
O.D.	Result	Reference tests	MALDI-TOF (genus)																			
6775	Eau rinçage riz au lait	Rinsing water	H-	+	H-	+	<i>L.welsh</i>	+	3.635	+	H-	+	+	+	<i>L.welsh</i>	+	+	+	PA	6	b	
6777	Eau process fabrication chipolatas	Process water	H-	+	H-	+	<i>L.innoc</i>	+	3.654	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA	6	b	
3357	Lingette planche découpe poisson (thon saumon)	Wipe (fish production)	H+	+	H+	+	<i>L.mono</i>	+	3.406	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	6	c	
3358	Lingette lave botte	Wipe (fish production)	st	st	st	st	/	-	0.118	-	st	/	st	/	/	/	-	-	NA	6	c	
3359	Lingette bac stockage poisson	Wipe (fish production)	H+	+	H+	+	<i>L.mono</i>	+	3.557	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	6	c	
3360	Lingette bac stockage épices (production poisson)	Wipe (fish production)	H-	+	H-	+	<i>L.innoc</i>	+	3.575	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA	6	c	
3361	Lingette Multivac conditionneuse	Wipe (fish production)	st	st	st	st	/	-	0.036	-	st	/	st	/	/	/	-	-	NA	6	c	
3362	Lingette Hall techno table production	Wipe (fish production)	st	st	st	st	/	-	0.078	-	st	/	st	/	/	/	-	-	NA	6	c	
5442	Lingette roue chariot	Wipe (Fish industry)	H-(2)	-	H-	+	<i>L.innoc</i>	+	3.699	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA	6	c	
5443	Lingette tapis sortie Boader	Wipe (Fish industry)	H-	+	H-	+	<i>L.innoc</i>	+	3.671	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA	6	c	
5444	Lingette sol frigo	Wipe (Fish industry)	st	st	st	-	/	-	0.033	-	st	/	st	/	/	/	-	-	NA	6	c	
5445	Lingette peau de saumon	Wipe (Fish industry)	H-(4)	5+	H-	+	<i>L.innoc</i>	+	0.584	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA	6	c	
5446	Lingette paroi surgélation	Wipe (Fish industry)	st	st	st	st	/	-	0.074	-	st	/	st	/	/	/	-	-	NA	6	c	
5448	Lingette tapis parage après nettoyage	Wipe after cleaning (Fish industry)	H-	+	H-	+	<i>L.innoc</i>	+	4.835	+	H-	+	+	+	<i>L.innoc</i>	+	+	+	PA	6	c	
5449	Lingette tapis ététeuse après nettoyage	Wipe after cleaning (Fish industry)	st	st	st	-	/	-	0.031	-	st	/	st	/	/	/	-	-	NA	6	c	
5450	Lingette balance après nettoyage	Wipe after cleaning (Fish industry)	st	st	st	st	/	-	0.035	-	st	/	st	/	/	/	-	-	NA	6	c	
5451	Lingette égout yakitori après nettoyage	Wipe after cleaning (Fish industry)	st	st	st	st	/	-	0.034	-	st	/	st	/	/	/	-	-	NA	6	c	
5452	Lingette darfresh après nettoyage	Wipe after cleaning (Fish industry)	st	st	-	-	/	-	0.042	-	-	/	-	/	/	/	-	-	NA	6	c	
6686	Chiffonnette sol dessale (industrie de poissons)	Wipe (Fish industry)	st	st	st	st	/	-	0.055	-	-	/	-	/	/	/	-	-	NA	6	c	
6687	Chiffonnette fin tapis parage (industrie de poissons)	Wipe (Fish industry)	-	-	-	-	/	-	0.044	-	-	/	-	/	/	/	-	-	NA	6	c	
6778	Chiffonnette table à nerfs (Industrie porc/bœuf)	Wipe (Meat industry)	H+	+	H+	+	<i>L.mono</i>	+	3.643	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	6	c	
6779	Chiffonnette cutter vertical production saucisse végétale	Wipe (vegetables industry)	st	-	st	-	/	-	0.124	-	-	/	-	/	/	/	-	-	NA	6	c	
6780	Chiffonnette cuve pousoir vertical production saucisse végétale	Wipe (Meat industry)	st	st	-	st	/	-	3.549	+	H+	No result;+	-	/	<i>L.mono</i>	+	+	+	PD	6	c	
6938	Chiffonnette pailasse atelier	Wipe	H+	+	H+	+	<i>L.mono</i>	+	3.602	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	6	c	
6939	Chiffonnette épices	Wipe (spices)	H+	+	H+	+	<i>L.mono</i>	+	3.588	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	6	c	
6940	Chiffonnette lavabo atelier	Wipe	H+	+	H+	+	<i>L.mono</i>	+	3.552	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PA	6	c	
6941	Chiffonnette cutter production poisson	Wipe (Fish industry)	st	st	-	-	/	-	3.652	+	H+	+	+	+	<i>L.mono</i>	+	+	+	PD	6	c	

RESULTS AFTER STORAGE OF ELEB for 72 h at 5°C ± 3°C)													
COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT													
N° Sample	Product (french name)	Product	Reference method: ISO 11290-1*	Alternative method: BACSpec Listeria						Category	Type		
			Listeria spp final result	Half Fraser both (22h at 30°C) + ELEB (22h at 30°C+ 72h at 5°C ± 3°C)									
				BACSpec Listeria test		Confirmation		Final result 72H	Agreement Ref/Alt 24h +72h				
O.D.	Result	O&A	PALCAM										
3987	Sandwich thon tomates œufs	Sandwich	-	0.234	-	-	-	-	NA	1	a		
3989	Brin surimi	RTE surimi	+	3.687	+	H+/H-	+	+	PA	1	a		
4112	Sandwich poulet tomate œuf	Sandwich	+	3.508	+	H+	+	+	PA	1	a		
4125	Salade du pêcheur	Deli salad	-	0.069	-	st	st	-	NA	1	a		
4288	Guacamole	Guacamole	+	3.592	+	H+	+	+	PA	1	a		
4293	Salade camarguaise	Deli salad	+	3.569	+	H-	+	+	PA	1	a		
5023	Minis jambon emmental	Sandwich (ham, cheese)	+	3.657	+	H+	+	+	PA	1	a		
5028	Sandwich poulet à l'ancienne	Sandwich (chicken)	-	0.082	-	-	-	-	NA	1	a		
5030	Sandwich poulet rôti	Sandwich (chicken)	+	3.701	+	H-	+	+	PA	1	a		
5231	Sandwich jambon beurre	Sandwich ham butter	+	3.519	+	H+	+	+	PA	1	a		
5232	Sandwich jambon beurre	Sandwich ham butter	+	3.559	+	H+	+	+	PA	1	a		
5234	Sandwich jambon beurre	Sandwich ham butter	+	3.612	+	H+	+	+	PA	1	a		
5235	Sandwich pain polaire poulet à l'indienne	Sandwich chicken	+	3.09	+	H+/H-	+	+	PA	1	a		
5236	Sandwich poulet rôti	Sandwich chicken	+	3.521	+	H+	+	+	PA	1	a		
5237	Sandwich poulet rôti	Sandwich chicken	+	3.526	+	H+	+	+	PA	1	a		
3012	Escalope milanaise	Cooked veal meat	+	3.66	+	H+	+	+	PA	1	b		
3980	Cordon bleu de dinde	RTRH poultry meat	+	3.668	+	H+	+	+	PA	1	b		
3983	Cordon bleu de dinde	RTRH turkey meat	+	1.449	+	H+	+	+	PA	1	b		
3986	Pâte feuilleté beurre	Puff pastry	-	0.233	-	-	-	-	NA	1	b		
4116	Plaque à croissant	RTR croissant	+	3.626	+	H+	+	+	PA	1	b		
4294	Raviolis	Raviolis	+	3.649	+	H-	+	+	PA	1	b		
4754	Feuilleté au jambon champignons	RTRH meal	+	3.48	+	H-	+	+	PA	1	b		
4755	Friands à la viande	RTRH meal	+	3.556	+	H+/H-	+	+	PA	1	b		
4756	Quiche lorraine	RTRH meal	+	3.515	+	H+	+	+	PA	1	b		
4758	Tarte aux tomates	RTRH meal	+	3.52	+	H-	+	+	PA	1	b		
5035	Pizza pâte fine jambon chèvre	Pizza	+	3.564	+	H+	+	+	PA	1	b		
5037	Pizza pâte fine trois fromages	Pizza	+	3.671	+	H+	+	+	PA	1	b		
4188	Eclair vanille	Pastry	+	4.447	+	H-	+	+	PA	1	c		
4189	Eclair vanille	Pastry	+	5.924	+	H-	+	+	PA	1	c		
4190	Mille-feuilles	Pastry	+	5.924	+	H-	+	+	PA	1	c		
4191	Mille-feuilles	Pastry	+	5.924	+	H+	+	+	PA	1	c		
4192	Omelette Tortilla nature	Omelette	+	5.924	+	H+	+	+	PA	1	c		
4193	Omelette Tortilla nature	Omelette	+	4.302	+	H+	+	+	PA	1	c		
4746	Religieuse café	Pastry	+	3.645	+	H+	+	+	PA	1	c		
4747	Pêche melba	Dessert	+	3.509	+	H-	+	+	PA	1	c		
4749	Eclair chocolat	Pastry	+	3.475	+	H+/H-	+	+	PA	1	c		
5229	Crème pâtissière	Custard	+	3.512	+	H+	+	+	PA	1	c		
5230	Tortilla nature	Tortilla	+	3.538	+	H+	+	+	PA	1	c		

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

RESULTS AFTER STORAGE OF ELEB for 72 h at 5°C ± 3°C

MEAT PRODUCTS

N° Sample	Product (french name)	Product	Reference method: ISO 11290-1*	Alternative method: BACSpec Listeria						Category	Type		
			Listeria spp final result	Half Fraser both (22h at 30°C) + ELEB (22h at 30°C+ 72h at 5°C ± 3°C)									
				BACSpec Listeria test		Confirmation		Final result 72H	Agreement Ref/Alt 24h +72h				
				O.D.	Result	O&A	PALCAM						
3009	Lardons fumés	Smoked bacon	+	3.357	+	H-	+	+	PA	2	a		
3010	Gésiers	Gizzards	+	2.772	+	H+	+	+	PA	2	a		
3722	VSM Poulet	Chicken meat	+	3.565	+	H-	+	+	PA	2	a		
3724	Filet de poulet	Chicken meat	-	0.154	-	-	-	-	NA	2	a		
3735	Viande hachée	Ground beef	-	0.123	-	-	-	-	NA	2	a		
3736	Viande poulet	Chicken meat	+	3.437	+	H+/H-	+	+	PA	2	a		
4109	Escalope de dinde	Turkey meat	+	3.667	+	H-	+	+	PA	2	a		
4117	Suprême poulet	Chicken meat	+	3.768	+	H+	+	+	PA	2	a		
4118	Cuisse de poule	Chicken leg	+	3.66	+	H+	+	+	PA	2	a		
4128	Haché d'agneau	Ground lamb meat	+	3.789	+	H+	+	+	PA	2	a		
6617	Cuisses de poulet crues	Raw chicken legs	+	3.56	+	H+/H-	+	+	PA	2	a		
6619	Dinde	Turkey meat	+	3.57	+	H+	+	+	PA	2	a		
6659	Escalope dinde nature	Turkey meat	+	3.506	+	H-	+	+	PA	2	a		
6660	Cuisse de poulet sans os	Chicken leg	+	3.451	+	H+	+	+	PA	2	a		
6662	Cuisse dinde	Turkey leg	+	3.727	+	H+/H-	+	+	PA	2	a		
6675	Filet de dinde congelé	Frozen turkey meat	+	3.44	+	H+/H-	+	+	PA	2	a		
6676	Gigot d'agneau	Lamb meat	-	3.007	+	H-	+	+	PD	2	a		
6677	Steak haché surgelé	Frozen ground beef	+	3.524	+	H+/H-	+	+	PA	2	a		
6679	Steak haché	Ground beef	+	3.842	+	H-	+	+	PA	2	a		
6680	Minerai de bœuf	Beef meat	+	3.504	+	H+	+	+	PA	2	a		
6681	Fourchette de dinde	Turkey meat	+	3.077	+	H+	+	+	PA	2	a		
3994	Blanquette	RTRH Blanquette	+	3.708	+	H+/H-	+	+	PA	2	b		
4114	Côte de porc thym romarin	Seasoned pork meat	+	3.753	+	H+	+	+	PA	2	b		
4195	Coq au vin	RTRH poultry meat	+	5.904	+	H+	+	+	PA	2	b		
4196	Porc sauce aigre douce	RTRH pork meat	+	5.904	+	H-	+	+	PA	2	b		
4199	Fricadelles sauce tomate	RTRH pork meat	+	5.904	+	H-	+	+	PA	2	b		
4200	Bœuf aux oignons	RTRH beef meat	+	5.904	+	H+	+	+	PA	2	b		
4201	Bœuf aux oignons	RTRH beef meat	+	5.904	+	H-	+	+	PA	2	b		
6665	Côte de porc Miel moutarde	RTRH pork meat	+	3.63	+	H+	+	+	PA	2	b		
6666	Cordon bleu de dinde	RTRH poultry	+	3.6	+	H+	+	+	PA	2	b		
6667	Langue porc cuite	Cooked pork tongue	+	3.569	+	H+	+	+	PA	2	b		
6668	Cordon bleu de dinde	RTRH poultry	+	3.684	+	H+	+	+	PA	2	b		
6669	Filet poulet rôti	Cooked poultry	+	1.282	+	H-	+	+	PA	2	b		
3008	Merguez volaille	Poultry Merguez	-	0.170	-	-	-	-	NA	2	c		
3725	Saucisse sèche volaille bœuf	Delicatessen	-	0.853	+	H+	+	+	PD	2	c		
3727	Saucisson à l'oignon de Roscoff	Delicatessen	+	3.594	+	H-	+	+	PA	2	c		
4542	Jambon de Paris	Ham	+	2.099	+	H+	+	+	PA	2	c		
4544	Bacon fumé	Smoked bacon	+	3.603	+	H+/H-	+	+	PA	2	c		
4684	Jambon à l'ancienne	Ham	+	3.459	+	H-	+	+	PA	2	c		
6663	Saucisson sec	Low moisture sausage	+	3.536	+	H+/H-	+	+	PA	2	c		
6670	Saucisse sèche volaille bœuf	Low moisture beef sausage	+	3.592	+	H+	+	+	PA	2	c		
6672	Saucisse sèche volaille bœuf	Low moisture beef sausage	+	1.178	+	H-	+	+	PA	2	c		
6673	Chorizo	Chorizo	+	3.615	+	H+	+	+	PA	2	c		
6678	Saucisson sec	Low moisture sausage	+	2.694	+	H+	+	+	PA	2	c		

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

RESULTS AFTER STORAGE OF ELEB for 72 h at 5°C ± 3°C													
MILK AND DAIRY PRODUCTS													
N° Sample	Product (french name)	Product	Reference method: ISO 11290-1*	Alternative method: BACSpec Listeria						Category	Type		
			Listeria spp final result	Half Fraser both (22h at 30°C) + ELEB (22h at 30°C+ 72h at 5°C ± 3°C)									
				BACSpec Listeria test		Confirmation		Final result 72H	Agreement Ref/Alt 24h +72h				
				O.D.	Result	O&A	PALCAM						
3341	Bethmale lait cru	Raw milk cheese	-	0.131	-	st	-	-	NA	3	a		
3342	Grana padano lait cru	Raw milk cheese	+	3.625	+	H+	+	+	PA	3	a		
3345	Morbier lait cru	Raw milk cheese	-	0.06	-	st	-	-	NA	3	a		
4526	Rocamadour au lait cru	Raw milk cheese	+	3.64	+	H+	+	+	PA	3	a		
4527	Roquefort au lait cru de brebis	Raw milk cheese	+	0.527	+	H+	+	+	PA	3	a		
4528	Tomme des bauges au lait cru	Raw milk cheese	+	3.582	+	H+	-	+	PA	3	a		
4530	Comte 12 mois au lait cru	Raw milk cheese	+	3.718	+	H-	+	+	PA	3	a		
5952	Munster lait cru	Raw milk cheese	+	3.642	+	H-	+	+	PA	3	a		
6951	Fromage au lait cru 01	Raw milk cheese	+	3.6	+	H+	+	+	PA	3	a		
6954	Formage au lait cru 14	Raw milk cheese	+	3.051	+	H+	+	+	PA	3	a		
3346	Crème au lait cru 1	Raw milk cream	+	3.702	+	H+	+	+	PA	3	b		
3347	Crème au lait cru 2	Raw milk cream	+	3.587	+	H+	+	+	PA	3	b		
3348	Crème au lait cru 6	Raw milk cream	+	2.978	+	H+/H-	+	+	PA	3	b		
3745	Lait brebis	Raw ewe milk	+	3.534	+	H+	2+	+	PA	3	b		
4532	Lait fermenté	Fermented milk	+	3.697	+	H-	+	+	PA	3	b		
4533	Lait fermenté	Fermented milk	+	3.53	+	H+	+	+	PA	3	b		
4534	Lait ribot lait fermenté maigre	Fermented milk	+	3.663	+	H-	+	+	PA	3	b		
4535	Lait ribot lait fermenté maigre	Fermented milk	+	3.642	+	H+	+	+	PA	3	b		
4536	Lait cru de vache	Raw milk	+	3.63	+	H+/H-	+	+	PA	3	b		
4537	Lait ribot	Fermented milk	+	3.642	+	H+	+	+	PA	3	b		
4538	Lait fermenté	Fermented milk	+	3.623	+	H+	+	+	PA	3	b		
4539	Lait fermenté	Fermented milk	+	3.617	+	H-	+	+	PA	3	b		
4540	Lait ribot	Fermented milk	+	3.663	+	H+	-	+	PA	3	b		
5953	Lait cru fermier	Raw milk	+	3.508	+	H+	+	+	PA	3	b		
5955	Lait cru fermier	Raw milk	+	3.597	+	H+	+	+	PA	3	b		
5957	Lait cru fermier	Raw milk	+	3.605	+	H+	+	+	PA	3	b		
3006	Beurre	Butter	-	0.091	-	H-d (NC on TSYEA)	-	-	NA	3	c		
4306	Brique brebis au lait pasteurisé	Pasteurised ewe milk cheese	+	3.669	+	H+	+	+	PA	3	c		
4307	Fromage au lait pasteurisé	Pasteurised milk cheese	+	3.699	+	H+	+	+	PA	3	c		
4308	Tomme des Pyrénées au lait pasteurisé	Pasteurised milk cheese	+	3.699	+	H+	+	+	PA	3	c		
4309	Bleu d'auvergne au lait pasteurisé	Pasteurised milk cheese	+	3.684	+	H-	+	+	PA	3	c		
4310	Emmental français au lait pasteurisé	Pasteurised milk cheese	+	3.763	+	H-	+	+	PA	3	c		
4311	Saint Paulin au lait pasteurisé	Pasteurised milk cheese	+	3.643	+	H-	+	+	PA	3	c		
4312	Camembert au lait pasteurisé	Pasteurised milk cheese	+	3.622	+	H-	+	+	PA	3	c		
5958	Petit suisse lait pasteurisé	Pasteurised fermented milk	+	3.552	+	H+	+	+	PA	3	c		
5959	Yaourt nature lait pasteurisé	Pasteurised fermented milk	+	3.49	+	H+	+	+	PA	3	c		
5962	Crème dessert saveur chocolat lait pasteurisé	Dairy based dessert	+	3.542	+	H+	+	+	PA	3	c		
6674	Forêt noire	Pastry	+	3.585	+	H+	+	+	PA	3	c		

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

RESULTS AFTER STORAGE OF ELEB for 72 h at 5°C ± 3°C													
VEGETABLES													
N° Sample	Product (french name)	Product	Reference method: ISO 11290-1*	Alternative method: BACSpec Listeria						Category	Type		
			Listeria spp final result	Half Fraser both (22h at 30°C) + ELEB (22h at 30°C+ 72h at 5°C ± 3°C)									
				BACSpec Listeria test		Confirmation		Final result 72H	Agreement Ref/Alt 24h +72h				
				O.D.	Result	O&A	PALCAM						
3004	Courgettes émincées	Zucchini	-	0.187	-	-	-	-	NA	4	a		
3734	Pousses haricot mungo	Sprouts	+	3.534	+	H+	+	+	PA	4	a		
3743	Maïs	Corn	+	3.523	+	H+	+	+	PA	4	a		
3979	Petits pois	Peas	+	3.627	+	H-	+	+	PA	4	a		
4302	Grain de maïs	Corn	+	3.553	+	H+/H-	+	+	PA	4	a		
4305	Pousses de haricots mungo	Sprouts	+	3.549	+	H+/H-	+	+	PA	4	a		
4674	Ciboulette	Chive	-	0.033	-	-	-	-	NA	4	a		
5797	Champignons	Mushrooms	+	3.481	+	H-	+	+	PA	4	a		
6607	Haricots verts	Beans	+	3.587	+	H-	+	+	PA	4	a		
6611	Carottes crues émincées	Sliced carrots	+	3.62	+	H+	+	+	PA	4	a		
6614	Courgettes	Zucchini	+	3.64	+	H+	+	+	PA	4	a		
6713	Persil	Parsley	+	0.317	+	H+	+	+	PA	4	a		
6714	Ciboulette	Chive	+	3.434	+	H-	+	+	PA	4	a		
6715	Courgettes en rondelles	Zucchini	-	0.043	-	-	-	-	NA	4	a		
6716	Courgettes en rondelles	Zucchini	+	3.481	+	H+	+	+	PA	4	a		
3002	Oignons pré-frits	Cooked onions	-	3.486	+	H+	+	+	PD	4	b		
4297	Purée de carottes	Carrot purée	+	3.613	+	H+	+	+	PA	4	b		
4299	Tajine	Tajine	+	3.572	+	H+	+	+	PA	4	b		
4301	Courgettes bio	Zucchini	+	3.564	+	H-	+	+	PA	4	b		
4680	Oignons pré-frits	Pre-cooked onions	+	3.565	+	H+	+	+	PA	4	b		
5789	Farce pour wrap	Stuffing for wrap	+	3.542	+	H+	+	+	PA	4	b		
5793	Julienne de légumes	Sliced vegetables	+	3.524	+	H-	+	+	PA	4	b		
5798	Petits pois	Beans	+	2.612	+	H+	+	+	PA	4	b		
6718	Courgettes farcies	RTRH zucchini	+	3.49	+	H-	+	+	PA	4	b		
6721	Galettes soja tomates	Vegetables RTRH preparation	+	0.458	+	H+	+	+	PA	4	b		
6722	Galettes boulgour lentilles	Vegetables RTRH preparation	+	3.766	+	H-	+	+	PA	4	b		
6723	Brunoise méridionale	Vegetables preparation	-	0.043	-	-	-	-	NA	4	b		
4203	Carottes râpées assaisonnées	Carrots with dressing	+	5.904	+	H-d	-	+	PA	4	c		
4204	Concombre au fromage blanc et ciboulette	Cucumber with dressing	+	5.904	+	H+	+	+	PA	4	c		
4205	Concombre au fromage blanc et ciboulette	Cucumber with dressing	+	3.732	+	H-d	+d	+	PA	4	c		
4206	Macédoine de légumes avec mayonnaise	Deli salad (vegetables with mayonnaise)	+	3.951	+	H+	+	+	PA	4	c		
4207	Macédoine de légumes avec mayonnaise	Deli salad (vegetables with mayonnaise)	+	3.961	+	H-d	+d	+	PA	4	c		
4740	Champignons à la grecque	Mushrooms with dressing	+	3.585	+	H+	+	+	PA	4	c		
4741	Tri choux jambon comte	Deli salad	+	3.604	+	H+	+	+	PA	4	c		
4742	Piémontaise	Deli salad	+	3.647	+	H+/H-	+	+	PA	4	c		
4743	Jardinière de légumes et mayonnaise	Deli salad	+	3.622	+	H+/H-	+	+	PA	4	c		
4744	Tartare de tomates	Tomatoes tartar	+	3.589	+	H+/H-	+	+	PA	4	c		
4745	Carottes râpées assaisonnées	Carrots with dressing	+	3.631	+	H+/H-	+	+	PA	4	c		

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

RESULTS AFTER STORAGE OF ELEB for 72 h at 5°C ± 3°C													
SEAFOOD AND FISHERY PRODUCTS													
N° Sample	Product (french name)	Product	Reference method: ISO 11290-1*	Alternative method: BACSpec Listeria						Category	Type		
			Listeria spp final result	Half Fraser both (22h at 30°C) + ELEB (22h at 30°C+ 72h at 5°C ± 3°C)									
				BACSpec Listeria test		Confirmation		Final result 72H	Agreement Ref/Alt 24h +72h				
				O.D.	Result	O&A	PALCAM						
3000	Noix de Saint Jacques	Scallops	+	3.388	+	H+	+	+	PA	5	a		
3729	Filet de Hoki meunière	RTRH Fish filet	+	3.565	+	H-	+	+	PA	5	a		
3982	Filet de Panga	Fish filet	+	3.608	+	H+	+	+	PA	5	a		
3984	Moules déco cuites	Cooked mussels	-	0.176	-	st	-	-	NA	5	a		
4130	Cœur de filet de Merlu blanc du cap	Fish fillet	+	3.704	+	H+	+	+	PA	5	a		
4131	Aile de raie	Fish	+	3.897	+	H+	+	+	PA	5	a		
4973	Nacette de saumon cru	Salmon	+	3.613	+	H+	+	+	PA	5	a		
5224	Encornet sauvage	Squid	+	3.586	+	H+	+	+	PA	5	a		
5225	Filet de Merlan	Fish fillet	+	3.434	+	H+	+	+	PA	5	a		
5791	Poisson Panga	Fish fillet	+	3.497	+	H+/H-	+	+	PA	5	a		
5801	Poisson blanc tranché nature	White piece of fish	+	3.586	+	H+	+	+	PA	5	a		
5965	Blanc de calmar	Calmar	+	3.523	+	H+	+	+	PA	5	a		
6618	Poisson blanc	White fish	+	3.58	+	H+	+	+	PA	5	a		
6729	Saumon atlantique	Salmon	+	0.739	+	H+	+	+	PA	5	a		
2998	Filet de bar sauce iodée	Seasoned fish	+	3.491	+	H+	+	+	PA	5	b		
3728	Pulpe saumon fumé	Smoked salmon	+	2.741	+	H+	+	+	PA	5	b		
3998	Saumon fumé	Smoked salmon	+	3.651	+	H+	+	+	PA	5	b		
3999	Saumon fumé	Smoked salmon	-	0.055	-	st	-	-	NA	5	b		
4000	Truite fumée Norvège	Smoked trout	+	3.642	+	H-	+	+	PA	5	b		
4001	Truite fumée Norvège	Smoked trout	+	6.566	+	H+/H-	+	+	PA	5	b		
4002	Saumon fumé	Smoked salmon	+	3.667	+	H-	+	+	PA	5	b		
4963	Truite fumée Norvège	Smoked trout	+	3.609	+	H+	+	+	PA	5	b		
4964	Saumon atlantique fumé	Smoked salmon	+	3.611	+	H+	+	+	PA	5	b		
4965	Truite fumée	Smoked trout	+	0.620	+	H-	+	+	PA	5	b		
4966	Saumon atlantique fumé	Smoked trout	+	3.630	+	H+	+	+	PA	5	b		
5966	Lardons saumon fumé	Smoked salmon	+	3.514	+	H+	+	+	PA	5	b		
5967	Filets de harengs fumés	Smoked herring	+	3.52	+	H+	+	+	PA	5	b		
6727	Chair de saumon fumé	Smoked salmon	+	3.296	+	H+	+	+	PA	5	b		
6731	Bloc saumon fumé	Smoked salmon	+	3.663	+	H+/H-	+	+	PA	5	b		
6830	Harengs fumés	Smoked herrings	-	3.69	+	H-	+	+	PD	5	b		
3731	Portion Merlu pané	RTRH Fish filet	-	0.147	-	-	-	-	NA	5	c		
3988	Poisson pané	RTRH fish	+	3.616	+	H+	-	+	PA	5	c		
4126	Nacette de saumon	RTRH Salmon	+	3.738	+	H+	+	+	PA	5	c		
4129	Pané Hoki	RTRH Fish product	-	0.352/0.268/0.320	+/-/+	st	-	-	PDFP(alt)	5	c		
4291	Filet merlu sauce vierge	RTRH fish product	+	3.501	+	H+	+	+	PA	5	c		
4295	Hoki pané	RTRH fish product	+	3.514	+	H+	+	+	PA	5	c		
4313	Bâtonnets crabe	Surimi	+	3.624	+	H+	+	+	PA	5	c		
4314	Terrine de saumon aneth	Salmon terrine	+	3.611	+	H+	+	+	PA	5	c		
4316	Rillettes crabe tourteau	Crab rillettes	+	3.566	+	H+	+	+	PA	5	c		
4317	Rillettes crabe tourteau	Crab rillettes	+	3.626	+	H-	+	+	PA	5	c		
4318	Bâtonnets crabe	Surimi	+	3.57	+	H-	+	+	PA	5	c		
4319	Rillettes saumon	Salmon rillettes	+	3.619	+	H-	+	+	PA	5	c		
5792	Farce de tartare de saumon	Salmon tartar	+	3.548	+	H-	+	+	PA	5	c		
5800	Filet de hoki pané	Breaded fish	+	3.535	+	H+	+	+	PA	5	c		
5803	Américain thon	Sandwich (tuna)	+	3.555		H+	+	+	PA	5	c		
5804	Hoki pané	Breaded fish	-	0.261	-			-	NA	5	c		
5968	Mini tranche de truite fumée	Smoked trout	+	3.497	+	H+	+	+	PA	5	c		
5970	Terrine de saumon aneth	Salmon terrine	+	3.546	+	H+	+	+	PA	5	c		
5971	Terrine aux saint jacques	Scallops terrine	+	3.509	+	H+	+	+	PA	5	c		
6724	Pommes de terre au thon	Deli salad (tuna, potatoes)	+	3.724	+	H+	+	+	PA	5	c		

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

RESULTS AFTER STORAGE OF ELEB for 72 h at 5°C ± 3°C													
SEAFOOD AND FISHERY PRODUCTS													
N° Sample	Product (french name)	Product	Reference method: ISO 11290-1*	Alternative method: BACSpec <i>Listeria</i>						Category	Type		
			<i>Listeria</i> spp final result	Half Fraser both (22h at 30°C) + ELEB (22h at 30°C+ 72h at 5°C ± 3°C)									
				BACSpec <i>Listeria</i> test		Confirmation		Final result 72H	Agreement Ref/Alt 24h +72h				
				O.D.	Result	O&A	PALCAM						
6726	Filet de cabillaud au beurre	RTRH fish	+	0.696	+	H+	+	+	PA	5	c		
6728	Pavé poisson blanc provençale	RTRH fish	+	3.589	+	H+/H-	+	+	PA	5	c		
6730	Filet cabillaud au beurre	RTRH fish	+	3.689	+	H+	+	+	PA	5	c		
6732	Salade de riz au crabe	Deli salad	+	3.507	+	H-	+	+	PA	5	c		

RESULTS AFTER STORAGE OF ELEB for 72 h at 5°C ± 3°C													
ENVIRONMENTAL SAMPLES													
N° Sample	Product (french name)	Product	Reference method: ISO 11290-1*	Alternative method: BACSpec Listeria						Category	Type		
			Listeria spp final result	Half Fraser both (22h at 30°C) + ELEB (22h at 30°C+ 72h at 5°C ± 3°C)									
				BACSpec Listeria test		Confirmation		Final result 72H	Agreement Ref/Alt 24h +72h				
				O.D.	Result	O&A	PALCAM						
4324	Déchet porc	Wastes (pork)	+	3.554	+	H-	+	+	PA	6	a		
4325	Déchet porc	Wastes (pork)	+	3.634	+	H+/H-	+	+	PA	6	a		
5439	Déchets de sol étêteuse	Residues (Fish industry)	+	3.682	+	H+/H-	+	+	PA	6	a		
5447	Déchets de sol	Residues (Fish industry)	+	0.052	-	st	st	-	ND _{FN(alt)}	6	a		
6756	Saucisse végétale déchet 1	Wastes (vegetables)	+	3.72	+	H+	+	+	PA	6	a		
6931	Déchets sardine	Wastes (fish)	+	3.677	+	H-	+	+	PA	6	a		
6937	Déchets porc salage	Wastes (pork)	+	3.623	+	H+	+	+	PA	6	a		
3355	Eau rinçage cutter (production thon assaisonné)	Process water (fish production)	+	3.450	+	H+	+	+	PA	6	b		
3356	Eau rinçage cutter (production chair saumon)	Process water (fish production)	+	3.493	+	H+	+	+	PA	6	b		
5431	Eau rinçage filets peleuse	Cleaning water (Fish industry)	+	3.638	+	H+	+	+	PA	6	b		
6685	Eau peleuse (industrie de poissons)	Process water (fish industry)	-	3.48	+	H-	-	+	PD	6	b		
6765	Eau process lavage carcasse poulet	Process water	+	3.762	+	H-	+	+	PA	6	b		
6767	Eau rinçage mélangeur ferments	Rinsing water	+	3.742	+	H-	+	+	PA	6	b		
6769	Eau rinçage robot coupe fabrication appâts	Rinsing water	+	3.68	+	H-	+	+	PA	6	b		
6771	Eau rinçage fabrication biscuits	Rinsing water	+	3.739	+	H-	+	+	PA	6	b		
6775	Eau rinçage riz au lait	Rinsing water	+	3.776	+	H-	+	+	PA	6	b		
6777	Eau process fabrication chipolatas	Process water	+	3.714	+	H-	+	+	PA	6	b		
3357	Lingette planche découpe poisson (thon saumon)	Wipe (fish production)	+	3.21	+	H+	+	+	PA	6	c		
3359	Lingette bac stockage poisson	Wipe (fish production)	+	3.466	+	H+	+	+	PA	6	c		
3360	Lingette bac stockage épices (production poisson)	Wipe (fish production)	+	3.442	+	H-	+	+	PA	6	c		
3362	Lingette Hall techno table production	Wipe (fish production)	-	0.045	-	st	st	-	NA	6	c		
5442	Lingette roue chariot	Wipe (Fish industry)	+	3.697	+	H-	+	+	PA	6	c		
5443	Lingette tapis sortie Boader	Wipe (Fish industry)	+	3.654	+	H-	+	+	PA	6	c		
5445	Lingette peau de saumon	Wipe (Fish industry)	+	1.059	+	H+/H-	+	+	PA	6	c		
5448	Lingette tapis parage après nettoyage	Wipe after cleaning (Fish industry)	+	2.628	+	H-	+	+	PA	6	c		
6778	Chiffonette table à nerfs (Industrie porc/bœuf)	Wipe (Meat industry)	+	3.806	+	H+	+	+	PA	6	c		
6780	Chiffonette cuve pousoir vertical production saucisse végétale	Wipe (Meat industry)	-	3.796	+	H+	+	+	PD	6	c		
6938	Chiffonette paillasse atelier	Wipe	+	3.647	+	H+	+	+	PA	6	c		
6939	Chiffonette épices	Wipe (spices)	+	3.653	+	H+	+	+	PA	6	c		
6940	Chiffonette lavabo atelier	Wipe	+	3.614	+	H+	+	+	PA	6	c		
6941	Chiffonette cutter production poisson	Wipe (Fish industry)	-	3.628	+	H+	+d	+	PD	6	c		

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

Appendix 6 – Relative level of detection study: raw data

Matrix : Deli-salad
Strain : *Listeria monocytogenes* Ad494

Aerobic mesophilic flora: 8.0 10² CFU/g

N° sample	Level	Inoculation level (cfu/sample)	Reference method: ISO 11290-1*					Number positive samples/Total	Alternative method: BACSpec <i>Listeria</i>						
			Half Fraser		Fraser		Final Result		ELISA OD	ELISA result	Confirmation		Final result	LEE +24h ISO11290-1 requirements	Number positive samples/Total
			O&A	PALCAM	O&A	PALCAM					Tests of the reference method	MALDI-TOF tests (genus)			
5381	0	/	-	-	-	-	-	0/5	0.054	-	-	/	-	-	0/5
5382			-	-	-	-	-		0.105	-	-	/	-	-	
5383			-	-	-	-	-		0.041	-	-	/	-	-	
5384			-	-	-	-	-		0.04	-	-	/	-	-	
5385			st	-	-	-	-		0.052	-	-	/	-	-	
5386	Low	1.1	H+	+	H+	+	+	14/20	3.561	+	+	+	+	14/20	
5387			H+	+	H+	+	+		3.514	+	+	+	+		
5388			H+	+	H+	+	+		3.521	+	+	+	+		
5389			H+	+	H+	+	+		3.533	+	+	+	+		
5390			-	-	-	-	-		0.04	-	-	/	-		-
5391			-	-	-	-	-		0.04	-	-	/	-		-
5392			H+	+	H+	+	+		3.521	+	+	+	+		
5393			H+	+	H+	+	+		3.515	+	+	+	+		
5394			-	st	-	-	-		0.050	-	-	/	-		-
5395			H+	+	H+	+	+		3.637	+	+	+	+		
5396			-	-	-	-	-		0.025	-	-	/	-		-
5397			H+	+	H+	+	+		3.632	+	+	+	+		
5398			H+	+	H+	+	+		3.603	+	+	+	+		
5399			H+	+	H+	+	+		3.676	+	+	+	+		
5400			-	-	-	-	-		0.036	-	-	/	-		-
5401			H+	+	H+	+	+		3.682	+	+	+	+		
5402			-	-	-	-	-		0.175	-	-	/	-		-
5403			H+	+	H+	+	+		3.629	+	+	+	+		
5404			H+	+	H+	+	+		3.615	+	+	+	+		
5405			H+	+	H+	+	+		3.622	+	+	+	+		
5406	High	3.1	H+	+	H+	+	+	5/5	3.629	+	+	+	+	5/5	
5407			H+	+	H+	+	+		3.68	+	+	+	+		
5408			H+	+	H+	+	+		3.556	+	+	+	+		
5409			H+	+	H+	+	+		3.633	+	+	+	+		
5410			H+	+	H+	+	+		3.801	+	+	+	+		

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

Matrix : Frankfurters
 Strain : *Listeria monocytogenes* Ad 669

Aerobic mesophilic flora: 8.1 10⁶ CFU/g

N° sample	Level	Inoculation level (cfu/sample)	Reference method: ISO 11290-1*					Alternative method: BACSpec Listeria							
			Half Fraser		Fraser		Final Result	Number positive samples/Total	Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)						
			O&A	PALCAM	O&A	PALCAM			ELISA OD	ELISA result	Confirmation		Final result	LEE +24h ISO11290-1 requirements	Number positive samples/Total
				Tests of the reference method	MALDI-TOF tests										
5497	0	/	st	st	st	st	-	0/5	0.086	-	-	/	-	-	0/5
5498			st	st	st	st	-		0.080	-	-	/	-	-	
5499			st	st	st	st	-		0.103	-	-	/	-	-	
5500			-	st	st	st	-		0.095	-	-	/	-	-	
5501			st	st	st	st	-		0.094	-	-	/	-	-	
5905	Low	0.9	st	st	st	st	-	15/20	0.034	-	-	/	-	-	15/20
5906			H+	+	H+	+	+		3.825	+	+	+	+		
5907			st	st	st	st	-		0.096	-	-	/	-	-	
5908			H+	+	H+	+	+		3.847	+	+	+	+		
5909			H+	+	H+	+	+		3.482	+	+	+	+		
5910			H+	+	H+	+	+		3.792	+	+	+	+		
5911			H+	+	H+	+	+		3.797	+	+	+	+		
5912			-	st	-	-	-		0.140	-	-	/	-	-	
5913			H+	+	H+	+	+		3.696	+	+	+	+		
5914			st	-	st	st	-		0.074	-	-	/	-	-	
5915			st	st	st	st	-		0.051	-	-	/	-	-	
5916			H+	+	H+	+	+		3.645	+	+	+	+		
5917			H+	+	H+	+	+		3.641	+	+	+	+		
5918			H+	+	H+	+	+		3.67	+	+	+	+		
5919			H+	+	H+	+	+		3.747	+	+	+	+		
5920			H+	+	H+	+	+		3.717	+	+	+	+		
5921			H+	+	H+	+	+		3.729	+	+	+	+		
5922			H+	+	H+	+	+		3.727	+	+	+	+		
5923			H+	+	H+	+	+		3.69	+	+	+	+		
5924			H+	+	H+	+	+		3.668	+	+	+	+		
5522	High	1.8	st	st	st	st	-	4/5	0.102	-	-	/	-	-	4/5
5523			H+	+	H+	+	+		3.542	+	+	+	+		
5524			H+	+	H+	+	+		3.533	+	+	+	+		
5525			H+	+	H+	+	+		3.574	+	+	+	+		
5526			H+	+	H+	+	+		3.842	+	+	+	+		

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

Matrix: Frozen cantaloupe balls
 Strain : *Listeria seeligeri* Ad1754

Aerobic mesophilic flora: 2.0 10⁵ CFU/g

N° sample	Level	Inoculation level (cfu/sample)	Reference method: ISO 11290-1*					Number positive samples/Total	Alternative method: BACSpec <i>Listeria</i> Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)						
			Half Fraser		Fraser		Final Result		ELISA OD	ELISA result	Confirmation		Final result	LEE 48h	Number positive samples/Total
			O&A	PALCAM	O&A	PALCAM					Tests of the reference method	MALDI-TOF tests (genus)			
5330	0	/	st	st	st	-	-	0.101	-	-	/	-	-	0/5	
5331			st	st	st	-	-	0.045	-	-	/	-	-		
5332			st	-	st	-	-	0.075	-	-	/	-	-		
5333			st	-	-	-	-	0.042	-	-	/	-	-		
5334			st	-	st	-	-	0.048	-	-	/	-	-		
5860	Low	0.8	H-	+	H-	+	+	3.419	+	+	+	+	16/20		
5861			st	st	H-	+	+	3.473	+	+	+	+			
5862			st	st	st	st	-	3.491	+	+	+	+			
5863			1H-	+	H-	+	+	3.437	+	+	+	+			
5864			H-	+	H-	+	+	3.476	+	+	+	+			
5865			st	st	st	-	-	0.084	-	-	/	-		-	
5866			st	st	st	st	-	0.077	-	-	/	-		-	
5867			st	st	st	st	-	3.449	+	+	+	+		+	
5868			H-	+	H-	+	+	3.335	+	+	+	+		+	
5869			H-	+	H-	+	+	3.406	+	+	+	+		+	
5870			H-	+	H-	+	+	3.363	+	+	+	+		+	
5871			st	-	st	-	-	0.104	-	-	/	-		-	
5872			H-	+	H-	+	+	3.379	+	+	+	+		+	
5873			H-	+	H-	+	+	3.319	+	+	+	+		+	
5874			-	-	-	-	-	3.356	+	+	+	+		+	
5875			st	-	st	-	-	3.351	+	+	+	+		+	
5876			st	st	st	st	-	0.089	-	-	/	-		-	
5877			st	-	-	-	-	3.622	+	+	+	+		+	
5878			st	+	H-	+	+	3.607	+	+	+	+		+	
5879			1H-	+	H-	+	+	3.53	+	+	+	+		+	
5880	High	2.4	H-	+	H-	+	+	3.596	+	+	+	+	5/5		
5881			-	-	-	-	-	3.47	+	+	+	+			
5882			H-	+	H-	+	+	3.49	+	+	+	+			
5883			H-	+	H-	+	+	3.47	+	+	+	+			
5884			1H-	+	H-	+	+	3.756	+	+	+	+			

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

Matrix : Frozen cooked shrimps
 Strain : *Listeria innocua* Ad 1200

Aerobic mesophilic flora: 1.6 10³CFU/g

N° sample	Level	Inoculation level (cfu/sample)	Reference method: ISO 11290-1*					Number positive samples/Total	Alternative method: BACSpec <i>Listeria</i>					
			Half Fraser		Fraser		Final Result		Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)					
			O&A	PALCAM	O&A	PALCAM			ELISA OD	ELISA result	Confirmation		Final result	LEE +24h ISO11290-1 requirements
				Tests of the reference method	MALDI-TOF tests (genus)									
5940	0	0	st	-	-	-	-	0.092	-	/	/	-	-	0/5
5941			-	-	-	-	-	0.155	-	/	/	-	-	
5942			st	-	-	-	-	0.08	-	/	/	-	-	
5943			st	st	-	-	-	0.035	-	/	/	-	-	
5944			st	st	-	-	-	0.02	-	/	/	-	-	
6306	Low	0.9	H-	+	H-	+	+	3.662	+	+	+	+	14/20	
6307			H-	+	H-	+	+	3.689	+	+	+	+		
6308			-	-	-	-	-	0.047	-	-	/	-		-
6309			-	-	-	-	-	0.043	-	-	/	-		-
6310			H-	+	H-	+	+	3.657	+	+	+	+		
6311			H-	+	H-	+	+	3.573	+	+	+	+		
6312			H-	+	H-	+	+	3.608	+	+	+	+		
6313			H-	+	H-	+	+	3.615	+	+	+	+		
6314			H-	+	H-	+	+	3.638	+	+	+	+		
6315			H-	+	-	-	+	0.037	-	-	/	-		-
6316			H-	+	H-	+	+	3.626	+	+	+	+		
6317			H-	+	H-	+	+	3.604	+	+	+	+		
6318			-	-	st	st	-	0.063	-	-	/	-		-
6319			-	-	st	-	-	0.047	-	-	/	-		-
6320			H-	+	H-	+	+	3.67	+	+	+	+		
6321			st	-	st	-	-	0.064	-	-	/	-		-
6322			H-	+	H-	+	+	3.582	+	+	+	+		
6323			H-	+	H-	+	+	3.612	+	+	+	+		
6324			H-	+	H-	+	+	3.598	+	+	+	+		
6325			H-	+	H-	+	+	3.586	+	+	+	+		
6326	H-	+	H-	+	+	3.591	+	+	+	+				
6327	H-	+	H-	+	+	3.637	+	+	+	+				
6328	H-	+	H-	+	+	3.664	+	+	+	+				
6329	H-	+	H-	+	+	3.647	+	+	+	+				
6330	H-	+	H-	+	+	3.61	+	+	+	+				

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

Matrix : Soft white cheese
 Strain : *Listeria ivanovii* Ad 1337

Aerobic mesophilic flora: 9.2 10⁵ CFU/g

N° sample	Level	Inoculation level (cfu/sample)	Reference method: ISO 11290-1*					Number positive samples/Total	Alternative method: BACSpec <i>Listeria</i>					
			Half Fraser		Fraser		Final Result		Half Fraser broth (22h at 30°C) + ELEB (22h at 30°C)					
			O&A	PALCAM	O&A	PALCAM			ELISA OD	ELISA result	Confirmation		Final result	LEE +24h ISO11290-1 requirements
		Tests of the reference method		MALDI-TOF tests (genus)										
6144	0	0	st	st	st	-	-	0.058	-	/	/	-	-	0/5
6145			st	st	st	-	-	0.06	-	/	/	-	-	
6146			st	st	-	-	-	0.074	-	/	/	-	-	
6147			st	st	-	-	-	0.109	-	/	/	-	-	
6148			st	st	-	-	-	0.054	-	/	/	-	-	
6149	Low	1.0	H+	+	H+	+	+	3.478	+	+	+	+	14/20	
6150			H+	+	H+	+	+	3.461	+	+	+	+		
6151			H+	+	H+	+	+	3.453	+	+	+	+		
6152			st	-	st	-	-	0.04	-	/	/	-		-
6153			H+	+	H+	+	+	3.44	+	+	+	+		
6154			H+	+	H+	+	+	3.358	+	+	+	+		
6155			H+	+	H+	+	+	3.399	+	+	+	+		
6156			H+	+	H+	+	+	3.438	+	+	+	+		
6157			H+	+	H+	+	+	3.409	+	+	+	+		
6158			st	st	st	st	-	0.074	-	/	/	-		-
6159			st	st	st	st	-	0.06	-	/	/	-		-
6160			st	st	st	-	-	0.074	-	/	/	-		-
6161			H+	+	H+	+	+	3.368	+	+	+	+		
6162			H+	+	H+	+	+	3.399	+	+	+	+		
6163			st	st	-	-	-	0.079	-	/	/	-		-
6164			H+	+	H+	+	+	3.342	+	+	+	+		
6165			st	st	st	-	-	0.048	-	/	/	-		-
6166			H+	+	H+	+	+	3.48	+	+	+	+		
6167			H+	+	H+	+	+	3.495	+	+	+	+		
6168			H+	+	H+	+	+	3.493	+	+	+	+		
6169	High	2.7	H+	+	H+	+	+	3.47	+	+	+	+	5/5	
6170			H+	+	H+	+	+	3.478	+	+	+	+		
6171			H+	+	H+	+	+	3.522	+	+	+	+		
6172			H+	+	H+	+	+	3.487	+	+	+	+		
6173			H+	+	H+	+	+	3.626	+	+	+	+		

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

Matrix : Process water
 Strain : *Listeria monocytogenes* Ad 551

Aerobic mesophilic flora: 1.2 10³ CFU/ml

N° sample	Level	Inoculation level (cfu/sample)	Reference method: ISO 11290-1*					Alternative method: BACSpec <i>Listeria</i>							
			Half Fraser		Fraser		Final Result	Number positive samples/Total	ELISA OD	ELISA result	Confirmation		Final result	LEE +24h ISO11290-1 requirements	Number positive samples/Total
			O&A	PALCAM	O&A	PALCAM					Tests of the reference method	MALDI-TOF tests (genus)			
6907	0	0	st	-	st	-	-	0/5	0.125	-	/	/	-	-	0/5
6908			st	-	-	-	-		0.064	-	/	/	-	-	
6909			st	-	st	-	-		0.118	-	/	/	-	-	
6910			st	-	-	-	-		0.044	-	/	/	-	-	
6911			st	-	-	-	-		0.094	-	/	/	-	-	
6976	Low	0.6	st	-	-	-	-	9/20	0.048	-	/	/	-	-	9/20
6977			st	st	st	st	-		0.034	-	/	/	-	-	
6978			st	st	st	st	-		0.037	-	/	/	-	-	
6979			H+	+	H+	+	+		3.817	+	+	+	+		
6980			H+	+	H+	+	+		3.777	+	+	+	+		
6981			H+	+	H+	+	+		3.770	+	+	+	+		
6982			st	st	st	st	-		0.022	-	/	/	-	-	
6983			H+	+	H+	+	+		3.696	+	+	+	+		
6984			H+	+	H+	+	+		3.752	+	+	+	+		
6985			st	st	st	st	-		0.049	-	/	/	-	-	
6986			st	st	st	st	-		0.046	-	/	/	-	-	
6987			H+	+	H+	+	+		3.645	+	+	+	+		
6988			st	-	-	-	-		0.076	-	/	/	-	-	
6989			H+	+	H+	+	+		3.630	+	+	+	+		
6990			st	-	-	-	-		0.059	-	/	/	-	-	
6991			H+	+	H+	+	+		3.602	+	+	+	+		
6992			H+	+	H+	+	+		3.595	+	+	+	+		
6993			st	st	st	st	-		0.032	-	/	/	-	-	
6994			st	-	-	st	-		0.071	-	/	/	-	-	
6995			st	st	-	-	-		0.059	-	/	/	-	-	
6996	High	1.9	H+	+	H+	+	+	5/5	4.006	+	+	+	+		5/5
6997			H+	+	H+	+	+		4.010	+	+	+	+		
6998			H+	+	H+	+	+		3.883	+	+	+	+		
6999			H+	+	H+	+	+		3.991	+	+	+	+		
7000			H+	+	H+	+	+		3.913	+	+	+	+		

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

Appendix 7 – Inclusivity and exclusivity study: raw data

Additional strains tested (not required)

INCLUSIVITY - Half Fraser broth for 18h at 30°C + ELEB for 22h at 30°C													
Strains						Inoculation level/225 ml Half Fraser broth	Alternative method: BACSpec Listeria						
No	Genus	Species	Reference	Molecular serotypes	Origin		ELISA		Confirmation		MALDI-TOF		
							O.D.	Result	O&A	PALCAM	O&A	PALCAM	TSYEA
1	Listeria	monocytogenes	Adria 153	VI b	Soft cheese (Munster)	28	3.756	+	H+	+	+	+	+
2	Listeria	monocytogenes	1011/1410	II a	Frozen broccoli	37	3.628	+	H+	+	+	+	+
3	Listeria	monocytogenes	1972/2399	VI b	Puff pastry with mushrooms	17	3.715	+	H+	+	+	+	+
4	Listeria	monocytogenes	1973/2400	VI b	Puff pastry egg and ham (Quiche-lorraine)	21	3.604	+	H+	+	+	+	+
5	Listeria	monocytogenes	2407/3139	IV b	Tripes with tomatoes	24	3.606	+	H+	+	+	+	+
6	Listeria	monocytogenes	2760/3145	II a	Raw bacon	19	3.432	+	H+	+	+	+	+
7	Listeria	monocytogenes	32.183	II b	Croque-Monsieur	19	3.445	+	H+	+	+	+	+
8	Listeria	monocytogenes	38/181	II a	Toulouse sausages	20	3.483	+	H+	+	+	+	+
9	Listeria	monocytogenes	5721/6179	IV b	Smoked bacon	40	3.510	+	H+	+	+	+	+
10	Listeria	monocytogenes	7111/7516	IV b	Pâté (Rillettes)	16	3.507	+	H+	+	+	+	+
11	Listeria	monocytogenes	850/109	II a	RTE food (deli salad with seafood)	11	3.447	+	H+	+	+	+	+
12	Listeria	monocytogenes	877/113	II a	Environmental sample (pastry)	10	3.509	+	H+	+	+	+	+
13	Listeria	monocytogenes	913/1048	IV b	Black pudding	32	3.428	+	H+	+	+	+	+
14	Listeria	monocytogenes	A00C014	II a	Sausage	24	3.426	+	H+	+	+	+	+
15	Listeria	monocytogenes	A00C022	II a	Merguez	27	3.479	+	H+	+	+	+	+
16	Listeria	monocytogenes	A00C024	II a	Sausage	34	3.453	+	H+	+	+	+	+
17	Listeria	monocytogenes	A00C036	II a	Poultry (guinea)	20	3.427	+	H+	+	+	+	+
18	Listeria	monocytogenes	A00C039	II a	Sausages	14	3.443	+	H+	+	+	+	+
19	Listeria	monocytogenes	A00C040	IV b	Cooked delicatessen (Museau)	57	3.537	+	H+	+	+	+	+
20	Listeria	monocytogenes	A00C041	La	Sausage	14	3.455	+	H+	+	+	+	+
21	Listeria	monocytogenes	A00C042	IV b	Raw sausage	49	3.443	+	H+	+	+	+	+
22	Listeria	monocytogenes	A00C043	II a	Smoked Bacon	30	3.479	+	H+	+	+	+	+

INCLUSIVITY - Half Fraser broth for 18h at 30°C + ELEB for 22h at 30°C													
Strains						Inoculation level/225 ml Half Fraser broth	Alternative method: BACSpec Listeria						
							ELISA		Confirmation		MALDI-TOF		
No	Genus	Species	Reference	Molecular serotypes	Origin		O.D.	Result	O&A	PALCAM	O&A	PALCAM	TSYEA
23	Listeria	monocytogenes	A00C044	II b	Poultry (duck)	32	3.464	+	H+	+	+	+	+
24	Listeria	monocytogenes	A00C052	II b	RTE food (Osso bucco with turkey)	34	3.492	+	H+	+	+	+	+
25	Listeria	monocytogenes	A00C053	II a	Gizzards	68	3.467	+	H+	+	+	+	+
26	Listeria	monocytogenes	A00C054	IV b	Beef hart	43	3.496	+	H+	+	+	+	+
27	Listeria	monocytogenes	A00C055	II a	Raw sausages	45	3.530	+	H+	+	+	+	+
28	Listeria	monocytogenes	A00E008	II a	Environmental sample	43	3.504	+	H+	+	+	+	+
29	Listeria	monocytogenes	A00E049	II a	Environmental sample (smoked salmon)	27	3.496	+	H+	+	+	+	+
30	Listeria	monocytogenes	A00E082	II a	Environmental sample (smoked salmon)	44	3.671	+	H+	+	+	+	+
31	Listeria	monocytogenes	A00L097	II a	Milk	71	3.747	+	H+	+	+	+	+
32	Listeria	monocytogenes	A00M009	II a	Smoked salmon	37	3.700	+	H+	+	+	+	+
33	Listeria	monocytogenes	A00M032	IV b	Smoked salmon	56	3.679	+	H+	+	+	+	+
34	Listeria	monocytogenes	A00M045	II a	Smoked salmon	32	3.717	+	H+	+	+	+	+
35	Listeria	monocytogenes	A00M088	II a	Smoked salmon	33	3.727	+	H+	+	+	+	+
36	Listeria	monocytogenes	Ad235	II b	Poultry	46	3.623	+	H+	+	+	+	+
37	Listeria	monocytogenes	Ad253	II b	Hard cheese	69	3.640	+	H+	+	+	+	+
38	Listeria	monocytogenes	Ad260	II a	Semi hard cheese	33	3.683	+	H+	+	+	+	+
39	Listeria	monocytogenes	Ad265	II b	Tong	26	3.716	+	H+	+	+	+	+
40	Listeria	monocytogenes	Ad266	II a	Poultry	35	3.649	+	H+	+	+	+	+
41	Listeria	monocytogenes	Ad267	II b	Dry sausage	23	3.540	+	H+	+	+	+	+
42	Listeria	monocytogenes	Ad268	IV b	Cured ham	75	3.744	+	H+	+	+	+	+
43	Listeria	monocytogenes	Ad270	IV b	Fermented sausage	73	3.851	+	H+	+	+	+	+
44	Listeria	monocytogenes	Ad272	IV b	Fermented sausage	47	3.780	+	H+	+	+	+	+
45	Listeria	monocytogenes	Ad273	II b	Cured delicatessen	64	3.815	+	H+	+	+	+	+
46	Listeria	monocytogenes	Ad274	II a	Ready-to-eat food (Asiatic meal)	49	3.873	+	H+	+	+	+	+
47	Listeria	monocytogenes	Ad534	II b	Fruits	69	3.560	+	H+	+	+	+	+
48	Listeria	monocytogenes	Ad544	II a	Onion	52	3.556	+	H+	+	+	+	+
49	Listeria	monocytogenes	Ad548	II a	Environment (seafood)	48	3.634	+	H+	+	+	+	+
50	Listeria	monocytogenes	Ad546	II a	Flour	43	3.590	+	H+	+	+	+	+

INCLUSIVITY - Half Fraser broth for 18h at 30°C + ELEB for 22h at 30°C													
Strains						Inoculation level/225 ml Half Fraser broth	Alternative method: BACSpec Listeria						
No	Genus	Species	Reference	Molecular serotypes	Origin		ELISA		Confirmation		MALDI-TOF		
							O.D.	Result	O&A	PALCAM	O&A	PALCAM	TSYEA
51	Listeria	monocytogenes	Ad623	II b	Breadcrumbs	52	3.637	+	H+	+	+	+	+
52	Listeria	monocytogenes	Ad665	II a	Raw milk	50	3.574	+	H+	+	+	+	+
53	Listeria	grayi	Ad1198	/	Smoked salmon	17	1.457	+	H-	st	+	+	+
54	Listeria	grayi	Ad1443	/	Pork meat sausages	24	3.590	+	H-	st	+	No result/+	+
83	Listeria	grayi	Ad1295	/	Spinach	29	1.178	+	H-	st	+	+	+
84	Listeria	grayi	Ad1490	/	Salmon terrine	31	0.976	+	H-	st	+	+	+
85	Listeria	grayi	Ad2148	/	Pork rillettes	11	1.256	+	H-	st	+	+	+
55	Listeria	innocua	Adria 1	/	Smoked salmon	18	3.556	+	H-	+	+	No result/+	+
56	Listeria	innocua	Ad658	/	Gorgonzola	61	3.618	+	H-	+	+	+	+
57	Listeria	innocua	Ad655	/	Brine	21	3.581	+	H-	+	+	+	+
58	Listeria	innocua	Ad660	/	Breadcrumbs	48	3.595	+	H-	+	+	+	+
59	Listeria	innocua	Ad663		Environment (dairy industry)	33	3.717	+	H-	+	+	+	+
60	Listeria	innocua	Ad671		Smoked bacon	36	3.656	+	H-	+	+	+	+
61	Listeria	innocua	Ad661		Soft cheese (Pont L'Evêque)	29	3.581	+	H-	+	+		
62	Listeria	innocua	Ad659		Environment (dairy industry)	69	3.545	+	H-	+	+		+
63	Listeria	ivanovii	Ad466		Raw veal meat	32	3.583	+	H+	+	+	No result/+	+
64	Listeria	ivanovii	Ad662		Environment (dairy industry)	17	3.548	+	H+	+	+	No result/+	+
65	Listeria	ivanovii	BR11		Environment (fish)	35	1.595	+	H+	+	+	No result/+	+
66	Listeria	ivanovii	Ad1289		Raw milk cheese	30	3.507	+	H+	+	+	+	+
67	Listeria	ivanovii	Ad1290		Milk powder	19	3.581	+	H+	+	+	+	+
68	Listeria	ivanovii	Ad1291		Poultry	38	3.557	+	H+	+	+	+	+
69	Listeria	ivanovii	Ad1288		Sheep milk	84	3.527	+	H+	+	+	+	+
70	Listeria	ivanovii londoniensis	CIP103466		/	11	3.556	+	H+	+	+	+	+
71	Listeria	seeligeri	Ad649		Cheese	47	3.569	+	H-	+	+	+	+
72	Listeria	seeligeri	Ad651		Environment	43	3.784	+	H-	+	+	+	+
73	Listeria	seeligeri	Ad652		Environment (dairy industry)	34	3.698	+	H-	+	+	+	+
74	Listeria	seeligeri	Ad674		Soft cheese (Munster)	23	3.404	+	H-	+	+	+	+
75	Listeria	seeligeri	BR1		Trout	41	3.715	+	H-	+	+	+	+
76	Listeria	seeligeri	BR18		Environment (fish)	42	3.437	+	H-	+	+	+	+
77	Listeria	seeligeri	CIP100100		/	8	1.327	+	H-	+	+	+	+
78	Listeria	welshimeri	Ad1276		Environment (Slaughterhouse)	63	3.700	+	H-	+	+	+	+

INCLUSIVITY - Half Fraser broth for 18h at 30°C + ELEB for 22h at 30°C													
Strains						Inoculation level/225 ml Half Fraser broth	Alternative method: BACSpec Listeria						
No	Genus	Species	Reference	Molecular serotypes	Origin		ELISA		Confirmation		MALDI-TOF		
							O.D.	Result	O&A	PALCAM	O&A	PALCAM	TSYEA
79	Listeria	welshimeri	Ad1235		Beef meat	43	3.630	+	H-	+	+	+	+
80	Listeria	welshimeri	191424		Poultry	35	3.611	+	H-	+	+	+	+
81	Listeria	welshimeri	Ad1175		Ready-to-eat-food	34	3.668	+	H-	+	+	+	+
82	Listeria	welshimeri	A 650		Poultry	39	3.648	+	H-	+	+	+	+

EXCLUSIVITY - BPW for 24h at 37°C							
No	Strains				Inoculation level /ml	Alternative method: BACSpec Listeria - ELISA	
	Genus	Species	Reference	Origin		O.D.	Result
1	<i>Bacillus</i>	<i>cereus</i>	Ad465	Salmon Terrine	2.6 10 ⁵	0.051	-
2	<i>Bacillus</i>	<i>circulans</i>	Ad760	Vegetables	2.6 10 ⁴	0.135	-
3	<i>Bacillus</i>	<i>coagulans</i>	Ad731	Dairy product	2.0 10 ⁴	0.068	-
4	<i>Bacillus</i>	<i>licheniformis</i>	Ad978	Dairy product	1.0 10 ⁵	0.082	-
5	<i>Bacillus</i>	<i>mycoïdes</i>	Ad762	Milk	4.4 10 ⁵	0.065	-
6	<i>Bacillus</i>	<i>pseudomycoïdes</i>	Ad765	Vegetables	6.0 10 ⁴	0.064	-
7	<i>Bacillus</i>	<i>pumilus</i>	Ad284	Ready-to-eat	5.0 10 ⁵	0.076	-
8	<i>Bacillus</i>	<i>weihenstephanensis</i>	Ad726	Egg product	6.6 10 ⁴	0.104	-
9	<i>Brochothrix</i>	<i>thermosphacta</i>	EN 15129	Trout	2.6 10 ⁴	0.036	-
10	<i>Brochrotrix</i>	<i>campestris</i>	CIP 102920T	Environment	6.0 10 ⁴	0.033	-
11	<i>Carnobacterium</i>	<i>divergens</i>	CIP 101029T	/	3.0 10 ⁴	0.044	-
12	<i>Carnobacterium</i>	<i>piscicola</i>	Ad369	Raw milk	9.2 10 ⁴	0.043	-
13	<i>Enterococcus</i>	<i>durans</i>	Ad149	Ham	4.6 10 ⁴	0.035	-
14	<i>Enterococcus</i>	<i>faecalis</i>	Adria 89L326	Soft cheese (Vacherin)	3.4 10 ⁶	0.032	-
15	<i>Lactobacillus</i>	<i>brevis</i>	Adria 86L126	Ham	8.0 10 ⁵	0.037	-
16	<i>Lactobacillus</i>	<i>curvatus</i>	Ad380	Delicatessen	5.0 10 ⁵	0.044	-
17	<i>Lactobacillus</i>	<i>fermentum</i>	Ad482	Tomatoes juice	9.9 10 ⁶	0.030	-
18	<i>Lactobacillus</i>	<i>sakei</i>	Ad473	Ham	4.2 10 ⁴	0.040	-
19	<i>Lactococcus</i>	<i>lactis subsp cremoris</i>	Ad137	Dairy product	6.0 10 ⁵	0.048	-
20	<i>Leuconostoc</i>	<i>carosum</i>	Ad411	Ham	2.2 10 ⁵	0.047	-
21	<i>Leuconostoc</i>	<i>citreum</i>	Ad396	Ham	4.8 10 ⁴	0.039	-
22	<i>Micrococcus</i>	<i>luteus</i>	Ad432	Cocktail	5.0 10 ⁵	0.037	-
23	<i>Pediococcus</i>	<i>pentosaceus</i>	ATCC 33316	/	8.3 10 ⁵	0.059	-

EXCLUSIVITY - BPW for 24h at 37°C							
No	Strains				Inoculation level /ml	Alternative method: BACSpec Listeria - ELISA	
	Genus	Species	Reference	Origin		O.D.	Result
	24	<i>Propionibacterium</i>	<i>freundenreichii</i>	CNRZ 725	Dairy product	1.0 10 ⁴	0.031
25	<i>Staphylococcus</i>	<i>aureus</i>	Ad165	Smoked delicatessen	1.2 10 ⁵	0.084	-
26	<i>Staphylococcus</i>	<i>aureus</i>	Ad902	Nems	3.8 10 ⁵	0.075	-
27	<i>Staphylococcus</i>	<i>epidermidis</i>	Ad931	Fruits	2.0 10 ⁴	0.035	-
28	<i>Staphylococcus</i>	<i>haemoliticus</i>	Ad989	Dairy product	8.0 10 ⁴	0.050	-
29	<i>Streptococcus</i>	<i>bovis</i>	Adria 92L622	Dairy product	8.0 10 ⁵	0.036	-
30	<i>Streptococcus</i>	<i>salivarius sps thermophilus</i>	Ad441	Dairy product	4.8 10 ⁴	0.036	-
31	<i>Macrococcus</i>	<i>caseolyticus</i>	CIP100755	Milk	8.3 10 ⁵	0.033	-

**Appendix 8 - Results obtained by the collaborative laboratories
and the expert laboratory**

Laboratory A

Aerobic mesophilic flora: $4,4 \cdot 10^8$ CFU/g

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
A3	-	-	-	-	-	0.070	-	-	-	NA
A5	-	-	-	-	-	0.100	-	-	-	NA
A10	-	-	-	-	-	0.090	-	-	-	NA
A13	-	-	-	-	-	0.090	-	-	-	NA
A17	-	-	-	-	-	0.090	-	-	-	NA
A18	-	-	-	-	-	0.080	-	-	-	NA
A21	-	-	-	-	-	0.090	-	-	-	NA
A24	-	-	-	-	-	0.090	-	-	-	NA
A1	-	-	-	-	-	0.080	-	-	-	NA
A4	-	-	+	+	+	0.700	+	+	+	PA
A7	+	+	+	+	+	OVERFLOW	+	+	+	PA
A9	-	-	-	-	-	0.080	-	-	-	NA
A11	-	-	-	-	-	0.080	-	-	-	NA
A16	-	-	-	-	-	0.080	-	-	-	NA
A20	-	+	+	+	+	OVERFLOW	+	+	+	PA
A23	+	+	+	+	+	OVERFLOW	+	+	+	PA
A2	+	+	+	+	+	OVERFLOW	+	+	+	PA
A6	+	+	+	+	+	OVERFLOW	+	+	+	PA
A8	+	+	+	+	+	OVERFLOW	+	+	+	PA
A12	+	+	+	+	+	OVERFLOW	+	+	+	PA
A14	+	+	+	+	+	OVERFLOW	+	+	+	PA
A15	+	+	+	+	+	OVERFLOW	+	+	+	PA
A19	+	+	+	+	+	OVERFLOW	+	+	+	PA
A22	+	+	+	+	+	OVERFLOW	+	+	+	PA

Laboratory BAerobic mesophilic flora: >1.10⁷CFU/g

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
B3	-	-	-	-	-	0.005	-	-	-	NA
B5	-	-	-	-	-	0.009	-	-	-	NA
B10	-	-	-	-	-	0.011	-	-	-	NA
B13	-	-	-	-	-	0.015	-	-	-	NA
B17	-	-	-	-	-	0.015	-	-	-	NA
B18	-	-	-	-	-	0.006	-	-	-	NA
B21	-	-	-	-	-	0.018	-	-	-	NA
B24	-	-	-	-	-	0.006	-	-	-	NA
B1	+	+	+	+	+	3.453	+	+	+	PA
B4	-	-	-	-	-	0.008	-	-	-	NA
B7	-	-	-	-	-	0.014	-	-	-	NA
B9	-	-	-	-	-	0.011	-	-	-	NA
B11	-	-	+	+	+	3.521	+	+	+	PA
B16	-	-	-	-	-	0.026	-	-	-	NA
B20	-	-	+	+	+	3.494	+	+	+	PA
B23	+	+	+	+	+	3.656	+	+	+	PA
B2	+	+	+	+	+	3.543	+	+	+	PA
B6	+	+	+	+	+	3.455	+	+	+	PA
B8	+	+	+	+	+	3.487	+	+	+	PA
B12	+	+	+	+	+	3.366	+	+	+	PA
B14	-	-	+	+	+	3.444	+	+	+	PA
B15	+	+	+	+	+	3.508	+	+	+	PA
B19	+	+	+	+	+	3.506	+	+	+	PA
B22	-	-	+	+	+	3.470	+	+	+	PA

Laboratory H

Aerobic mesophilic flora: 7,5.10⁸CFU/g

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
H3	-	-	-	-	-	0.147	-	-	-	NA
H5	-	-	-	-	-	0.100	-	-	-	NA
H10	-	-	-	-	-	0.113	-	-	-	NA
H13	-	-	-	-	-	0.127	-	-	-	NA
H17	-	-	-	-	-	0.093	-	-	-	NA
H18	-	-	-	-	-	0.122	-	-	-	NA
H21	-	-	-	-	-	0.115	-	-	-	NA
H24	-	-	-	-	-	0.087	-	-	-	NA
H1	-	-	-	-	-	0.100	-	-	-	NA
H4	-	-	-	-	-	0.113	-	-	-	NA
H7	+	+	+	+	+	3.193	+	+	+	PA
H9	-	-	-	-	-	0.106	-	-	-	NA
H11	+	+	+	+	+	3.306	+	+	+	PA
H16	+	+	+	+	+	3.042	+	+	+	PA
H20	+	+	+	+	+	3.227	+	+	+	PA
H23	+	+	+	+	+	3.035	+	+	+	PA
H2	+	+	+	+	+	3.089	+	+	+	PA
H6	+	+	+	+	+	3.381	+	+	+	PA
H8	+	+	+	+	+	3.124	+	+	+	PA
H12	+	+	+	+	+	3.278	+	+	+	PA
H14	+	+	+	+	+	3.152	+	+	+	PA
H15	+	+	+	+	+	3.141	+	+	+	PA
H19	+	+	+	+	+	3.252	+	+	+	PA
H22	+	+	+	+	+	3.035	+	+	+	PA

Laboratory IAerobic mesophilic flora: $1,4 \cdot 10^7$ CFU/g

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
I3	-	-	-	-	-	0.088	-	-	-	NA
I5	-	-	-	-	-	0.104	-	-	-	NA
I10	-	-	-	-	-	0.106	-	-	-	NA
I13	-	-	-	-	-	0.158	-	-	-	NA
I17	-	-	-	-	-	0.140	-	-	-	NA
I18	-	-	-	-	-	0.140	-	-	-	NA
I21	-	-	-	-	-	0.111	-	-	-	NA
I24	-	-	-	-	-	0.181	-	-	-	NA
I1	+	+	+	+	+	3.432	+	+	+	PA
I4	+	+	+	+	+	3.432	+	+	+	PA
I7	+	+	+	+	+	3.432	+	+	+	PA
I9	+	+	+	+	+	3.432	+	+	+	PA
I11	-	+	+	+	+	3.432	+	+	+	PA
I16	+	+	+	+	+	3.432	+	+	+	PA
I20	+	+	+	+	+	3.367	+	+	+	PA
I23	+	+	+	+	+	3.251	+	+	+	PA
I2	+	+	+	+	+	3.404	+	+	+	PA
I6	+	+	+	+	+	3.432	+	+	+	PA
I8	+	+	+	+	+	3.432	+	+	+	PA
I12	+	+	+	+	+	3.432	+	+	+	PA
I14	+	+	+	+	+	3.432	+	+	+	PA
I15	+	+	+	+	+	3.432	+	+	+	PA
I19	+	+	+	+	+	3.379	+	+	+	PA
I22	+	+	+	+	+	3.242	+	+	+	PA

Laboratory L

Aerobic mesophilic flora: $8,7 \cdot 10^7$ CFU/g

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
L3	-	-	-	nd	-	0.036	-	-	-	NA
L5	-	-	-	nd	-	0.053	-	-	-	NA
L10	-	-	-	nd	-	0.034	-	-	-	NA
L13	-	-	-	nd	-	0.044	-	-	-	NA
L17	-	-	-	nd	-	0.034	-	-	-	NA
L18	-	-	-	nd	-	0.038	-	-	-	NA
L21	-	-	-	nd	-	0.042	-	-	-	NA
L24	-	-	-	nd	-	0.036	-	-	-	NA
L1	-	-	-	nd	-	0.030	-	-	-	NA
L4	-	-	+	nd	+	3.152	+	+	+	PA
L7	-	+	+	nd	+	3.440	+	+	+	PA
L9	-	-	-	nd	-	0.028	-	-	-	NA
L11	+	+	+	nd	+	3.440	+	+	+	PA
L16	-	-	-	nd	-	0.027	-	-	-	NA
L20	+	-	+	nd	+	3.242	+	+	+	PA
L23	-	-	+	nd	+	3.450	+	+	+	PA
L2	+	+	+	nd	+	3.233	+	+	+	PA
L6	-	-	+	nd	+	3.973	+	+	+	PA
L8	+	+	+	nd	+	3.220	+	+	+	PA
L12	+	+	+	nd	+	3.224	+	+	+	PA
L14	+	+	+	nd	+	4.044	+	+	+	PA
L15	-	-	-	nd	-	0.031	-	-	-	NA
L19	-	+	+	nd	+	3.547	+	+	+	PA
L22	+	+	+	nd	+	4.044	+	+	+	PA

nd: not done

Laboratory QAerobic mesophilic flora: >10⁸UFC/g (~5,20.10⁸CFU/g)

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
Q3	-	-	-	-	-	0.072	-	-	-	NA
Q5	-	-	-	-	-	0.040	-	-	-	NA
Q10	-	-	-	-	-	0.047	-	-	-	NA
Q13	-	-	-	-	-	0.056	-	-	-	NA
Q17	-	-	-	-	-	0.056	-	-	-	NA
Q18	-	-	-	-	-	0.052	-	-	-	NA
Q21	-	-	-	-	-	0.048	-	-	-	NA
Q24	-	-	-	-	-	0.054	-	-	-	NA
Q1	+	+	+	+	+	3.857	+	+	+	PA
Q4	-	-	-	-	-	0.064	-	-	-	NA
Q7	-	-	+	+	+	3.967	+	+	+	PA
Q9	+	+	+	+	+	3.934	+	+	+	PA
Q11	+	+	+	+	+	3.828	+	+	+	PA
Q16	+	+	+	+	+	4.019	+	+	+	PA
Q20	-	-	-	-	-	0.041	-	-	-	NA
Q23	+	+	+	+	+	4.067	+	+	+	PA
Q2	+	+	+	+	+	3.865	+	+	+	PA
Q6	+	+	+	+	+	3.889	+	+	+	PA
Q8	+	+	+	+	+	3.921	+	+	+	PA
Q12	+	+	+	+	+	3.907	+	+	+	PA
Q14	+	+	+	+	+	3.998	+	+	+	PA
Q15	+	+	+	+	+	3.992	+	+	+	PA
Q19	+	+	+	+	+	4.065	+	+	+	PA
Q22	+	+	+	+	+	4.184	+	+	+	PA

Laboratory R

Aerobic mesophilic flora:5.10⁸CFU/g

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
R3	-	-	-	-	-	-0.037	-	-	-	NA
R5	-	-	-	-	-	-0.042	-	-	-	NA
R10	-	-	+(Slightly)	+(Slightly)	+	-0.043	-	-	-	ND _{FN(alt)}
R13	-	-	+(Slightly)	+(Slightly)	+	-0.049	-	-	-	ND _{FN(alt)}
R17	-	-	-	-	-	-0.015	-	-	-	NA
R18	-	-	-	-	-	-0.055	-	-	-	NA
R21	-	-	+(Slightly)	+(Slightly)	+	-0.042	-	-	-	ND _{FN(alt)}
R24	-	-	+(Slightly)	+(Slightly)	+	-0.048	-	-	-	ND _{FN(alt)}
R1	+	+	+	+	+	2.323	+	+	+	PA
R4	-	-	-	-	-	-0.048	-	-	-	NA
R7	+	+	+	+	+	2.515	+	+	+	PA
R9	+	+	+	+	+	3.124	+	+	+	PA
R11	+	+	+	+	+	3.558	+	+	+	PA
R16	+	+	+	+	+	1.362	+	+	+	PA
R20	-	-	+(Slightly)	+(Slightly)	+	-0.079	-	-	-	ND _{FN(alt)}
R23	+	+	+	+	+	2.740	+	+	+	PA
R2	+	+	+	+	+	3.469	+	+	+	PA
R6	+	+	+	+	+	3.401	+	+	+	PA
R8	+	+	+	+	+	3.274	+	+	+	PA
R12	+	+	+	+	+	1.512	+	+	+	PA
R14	+	+	+	+	+	3.334	+	+	+	PA
R15	+	+	+	+	+	1.879	+	+	+	PA
R19	+	+	+	+	+	3.166	+	+	+	PA
R22	+	+	+	+	+	2.722	+	+	+	PA

Laboratory SAerobic mesophilic flora: >10⁸CFU/g (>3.10⁸CFU/g)

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
S3	-	-	-	-	-	0.077	-	-	-	NA
S5	-	-	-	-	-	0.080	-	-	-	NA
S10	-	-	-	-	-	0.082	-	-	-	NA
S13	-	-	-	-	-	0.082	-	-	-	NA
S17	-	-	-	-	-	0.087	-	-	-	NA
S18	-	-	-	-	-	0.075	-	-	-	NA
S21	-	-	-	-	-	0.072	-	-	-	NA
S24	-	-	-	-	-	0.083	-	-	-	NA
S1	+	+	+	+	+	4.000	+	+	+	PA
S4	-	-	-	-	-	0.080	-	-	-	NA
S7	+	-	+	+	+	4.000	+	+	+	PA
S9	-	-	+	+	+	4.000	+	+	+	PA
S11	+	+	+	+	+	4.000	+	+	+	PA
S16	+	-	+	+	+	4.000	+	+	+	PA
S20	-	-	+	+	+	4.000	+	+	+	PA
S23	+	-	+	+	+	4.000	+	+	+	PA
S2	+	+	+	+	+	4.000	+	+	+	PA
S6	-	-	+	+	+	4.000	+	+	+	PA
S8	+	+	+	+	+	4.000	+	+	+	PA
S12	+	+	+	+	+	4.000	+	+	+	PA
S14	+	-	+	+	+	4.000	+	+	+	PA
S15	+	+	+	+	+	4.000	+	+	+	PA
S19	+	+	+	+	+	4.000	+	+	+	PA
S22	+	+	+	+	+	4.000	+	+	+	PA

Laboratory T

Aerobic mesophilic flora: $9,4 \cdot 10^7$ CFU/g

N° Sample	Reference method: ISO 11290-1/A1				Alternative method: BACSpec <i>Listeria</i> spp.					Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
T3	-	-	-	-	-	0.060	-	-	-	NA
T5	-	-	-	-	-	0.042	-	-	-	NA
T10	-	-	-	-	-	0.025	-	-	-	NA
T13	-	-	-	-	-	0.028	-	-	-	NA
T17	-	-	-	-	-	0.034	-	-	-	NA
T18	-	-	-	-	-	0.033	-	-	-	NA
T21	-	-	-	-	-	0.028	-	-	-	NA
T24	-	-	-	-	-	0.040	-	-	-	NA
T1	-	-	-	-	-	0.042	-	-	-	NA
T4	+	+	+	+	+	4.028	+	+	+	PA
T7	-	-	-	-	-	0.033	-	-	-	NA
T9	-	+	+	+	+	4.785	+	+	+	PA
T11	-	-	-	-	-	0.027	-	-	-	NA
T16	-	-	-	-	-	0.032	-	-	-	NA
T20	-	-	-	-	-	0.027	-	-	-	NA
T23	-	-	-	-	-	0.031	-	-	-	NA
T2	+	+	+	+	+	4.005	+	+	+	PA
T6	+	+	+	+	+	OVERFLOW	+	+	+	PA
T8	+	+	+	+	+	4.565	+	+	+	PA
T12	+	-	+	+	+	4.666	+	+	+	PA
T14	+	+	+	+	+	4.182	+	+	+	PA
T15	+	+	+	+	+	4.298	+	+	+	PA
T19	-	+	+	+	+	4.222	+	+	+	PA
T22	+	+	+	+	+	4.107	+	+	+	PA

Laboratory **U**Aerobic mesophilic flora: >10⁸CFU/g (6.10⁸CFU/g)

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
U3	-	-	-	-	-	0.067	-	-	-	NA
U5	-	-	-	-	-	0.041	-	-	-	NA
U10	-	-	-	-	-	0.056	-	-	-	NA
U13	-	-	-	-	-	0.060	-	-	-	NA
U17	-	-	-	-	-	0.045	-	-	-	NA
U18	-	-	-	-	-	0.038	-	-	-	NA
U21	-	-	-	-	-	0.044	-	-	-	NA
U24	-	-	-	-	-	0.061	-	-	-	NA
U1	+	+	+	+	+	3.000	+	+	+	PA
U4	-	-	-	-	-	0.049	-	-	-	NA
U7	+	+	+	+	+	3.000	+	+	+	PA
U9	+	+	+	+	+	3.000	+	+	+	PA
U11	+	+	+	+	+	3.000	+	+	+	PA
U16	-	-	+	+	+	0.034	-	-	-	ND _{FN(alt)}
U20	-	-	+	+	+	3.000	+	+	+	PA
U23	+	+	+	+	+	3.000	+	+	+	PA
U2	+	+	+	+	+	3.000	+	+	+	PA
U6	+	+	+	+	+	3.000	+	+	+	PA
U8	+	+	+	+	+	3.000	+	+	+	PA
U12	+	+	+	+	+	3.000	+	+	+	PA
U14	+	+	+	+	+	3.000	+	+	+	PA
U15	+	+	+	+	+	3.000	+	+	+	PA
U19	+	+	+	+	+	3.000	+	+	+	PA
U22	+	+	+	+	+	3.000	+	+	+	PA

Laboratory VAerobic mesophilic flora: 1,7.10⁸CFU/g

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
V3	-	-	-	-	-	0.081	-	-	-	NA
V5	-	-	-	-	-	0.078	-	-	-	NA
V10	-	-	-	-	-	0.075	-	-	-	NA
V13	-	-	-	-	-	0.041	-	-	-	NA
V17	-	-	-	-	-	0.088	-	-	-	NA
V18	-	-	-	-	-	0.068	-	-	-	NA
V21	-	-	-	-	-	0.063	-	-	-	NA
V24	-	-	-	-	-	0.052	-	-	-	NA
V1	-	-	-	-	-	0.092	-	-	-	NA
V4	+	+	+	+	+	3.953	+	+	+	PA
V7	+	+	+	+	+	3.931	+	+	+	PA
V9	-	-	-	-	-	0.040	-	-	-	NA
V11	+	+	+	+	+	3.946	+	+	+	PA
V16	-	-	-	-	-	0.060	-	-	-	NA
V20	+	+	+	+	+	3.897	+	+	+	PA
V23	+	+	+	+	+	3.942	+	+	+	PA
V2	+	+	+	+	+	3.946	+	+	+	PA
V6	+	+	+	+	+	3.965	+	+	+	PA
V8	+	+	+	+	+	3.916	+	+	+	PA
V12	+	+	+	+	+	3.933	+	+	+	PA
V14	+	+	+	+	+	OVERFLOW	+	+	+	PA
V15	-	-	-	-	-	0.041	-	-	-	NA
V19	+	+	+	+	+	3.970	+	+	+	PA
V22	+	+	+	+	+	3.895	+	+	+	PA

Laboratory WAerobic mesophilic flora: >10⁸CFU/g (~40.10⁸CFU/g)

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
W3	-	-	-	-	-	0.094	-	-	-	NA
W5	-	-	-	-	-	0.069	-	-	-	NA
W10	-	-	-	-	-	0.066	-	-	-	NA
W13	-	-	-	-	-	0.067	-	-	-	NA
W17	-	-	-	-	-	0.069	-	-	-	NA
W18	-	-	-	-	-	0.079	-	-	-	NA
W21	-	-	-	-	-	0.072	-	-	-	NA
W24	-	-	-	-	-	0.065	-	-	-	NA
W1	+	+	+	+	+	2.914	+	+	+	PA
W4	-	-	-	-	-	0.083	-	-	-	NA
W7	-	-	-	-	-	0.093	-	-	-	NA
W9	+	+	+	+	+	2.914	+	+	+	PA
W11	-	-	-	-	-	0.059	-	-	-	NA
W16	+	+	+	+	+	2.914	+	+	+	PA
W20	+	+	+	+	+	2.914	+	+	+	PA
W23	+	+	+	+	+	2.914	+	+	+	PA
W2	+	+	+	+	+	2.914	+	+	+	PA
W6	+	+	+	+	+	2.914	+	+	+	PA
W8	+	+	+	+	+	2.914	+	+	+	PA
W12	+	+	+	+	+	2.914	+	+	+	PA
W14	+	+	+	+	+	2.914	+	+	+	PA
W15	+	+	+	+	+	2.914	+	+	+	PA
W19	+	+	+	+	+	2.914	+	+	+	PA
W22	+	+	+	+	+	2.914	+	+	+	PA

Laboratory **X**Aerobic mesophilic flora: $5,3 \cdot 10^8$ CFU/g

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
X3	-	-	-	-	-	0.049	-	-	-	NA
X5	-	-	-	-	-	0.067	-	-	-	NA
X10	-	-	-	-	-	0.056	-	-	-	NA
X13	-	-	-	-	-	0.086	-	-	-	NA
X17	-	-	-	-	-	0.078	-	-	-	NA
X18	-	-	-	-	-	0.041	-	-	-	NA
X21	-	-	-	-	-	0.058	-	-	-	NA
X24	-	-	-	-	-	0.055	-	-	-	NA
X1	+	+	+	+	+	2.814	+	+	+	PA
X4	+	+	+	+	+	2.952	+	+	+	PA
X7	+	+	+	+	+	2.957	+	+	+	PA
X9	+	+	+	+	+	2.957	+	+	+	PA
X11	-	-	-	-	-	0.055	-	-	-	NA
X16	-	-	-	-	-	0.053	-	-	-	NA
X20	+	+	+	+	+	2.957	+	+	+	PA
X23	+	+	+	+	+	2.957	+	+	+	PA
X2	+	+	+	+	+	2.908	+	+	+	PA
X6	+	+	+	+	+	2.957	+	+	+	PA
X8	+	+	+	+	+	2.957	+	+	+	PA
X12	+	+	+	+	+	2.957	+	+	+	PA
X14	+	+	+	+	+	2.957	+	+	+	PA
X15	+	+	+	+	+	2.957	+	+	+	PA
X19	+	+	+	+	+	2.957	+	+	+	PA
X22	+	+	+	+	+	2.957	+	+	+	PA

Laboratory Y

Aerobic mesophilic flora: >10⁸CFU/g (>3.10⁸CFU/g)

N° Sample	Reference method: ISO 11290-1/A1					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
Y3	-	-	-	-	-	0.047	-	-	-	NA
Y5	-	-	-	-	-	0.044	-	-	-	NA
Y10	-	-	-	-	-	0.052	-	-	-	NA
Y13	-	-	-	-	-	0.037	-	-	-	NA
Y17	-	-	-	-	-	0.029	-	-	-	NA
Y18	-	-	-	-	-	0.022	-	-	-	NA
Y21	-	-	-	-	-	0.031	-	-	-	NA
Y24	-	-	-	-	-	0.073	-	-	-	NA
Y1	+	+	+	+	+	OVERFLOW	+	+	+	PA
Y4	+	+	+	+	+	OVERFLOW	+	+	+	PA
Y7	+	+	+	+	+	OVERFLOW	+	+	+	PA
Y9	-	-	-	-	-	0.058	-	-	-	NA
Y11	+	+	+	+	+	OVERFLOW	+	+	+	PA
Y16	-	-	-	-	-	0.041	-	-	-	NA
Y20	-	-	-	-	-	0.036	-	-	-	NA
Y23	-	-	-	-	-	0.041	-	-	-	NA
Y2	+	+	+	+	+	OVERFLOW	+	+	+	PA
Y6	+	+	+	+	+	OVERFLOW	+	+	+	PA
Y8	+	+	+	+	+	OVERFLOW	+	+	+	PA
Y12	+	+	+	+	+	OVERFLOW	+	+	+	PA
Y14	+	+	+	+	+	OVERFLOW	+	+	+	PA
Y15	+	+	+	+	+	OVERFLOW	+	+	+	PA
Y19	+	+	+	+	+	OVERFLOW	+	+	+	PA
Y22	+	+	+	+	+	OVERFLOW	+	+	+	PA

Laboratory Z (ADRIA)Aerobic mesophilic flora: 5,5.10⁸CFU/g

N° Sample	Reference method: ISO 11290-1/A1♦					Alternative method: BACSpec <i>Listeria</i> spp.				Agreement
	Half Fraser		Fraser		Final result	Elisa test (Optical Density)	Result	Confirmations	Final result	
	O&A	PALCAM	O&A	PALCAM				O&A		
Z3	-	-	-	-	-	0.020	-	-	-	NA
Z5	-	-	-	-	-	0.014	-	-	-	NA
Z10	-	-	-	-	-	0.031	-	-	-	NA
Z13	-	-	-	-	-	0.033	-	-	-	NA
Z17	-	-	-	-	-	0.027	-	-	-	NA
Z18	-	-	-	-	-	0.031	-	-	-	NA
Z21	-	-	-	-	-	0.058	-	-	-	NA
Z24	-	-	-	-	-	0.077	-	-	-	NA
Z1	-	-	-	-	-	0.046	-	-	-	NA
Z4	+	+	+	+	+	3.598	+	+	+	PA
Z7	-	-	-	-	-	0.015	-	-	-	NA
Z9	+	+	+	+	+	3.511	+	+	+	PA
Z11	+	+	+	+	+	3.540	+	+	+	PA
Z16	+	+	+	+	+	3.575	+	+	+	PA
Z20	-	-	-	-	-	0.030	-	-	-	NA
Z23	+	+	+	+	+	3.707	+	+	+	PA
Z2	+	+	+	+	+	3.521	+	+	+	PA
Z6	+	+	+	+	+	3.504	+	+	+	PA
Z8	+	+	+	+	+	3.551	+	+	+	PA
Z12	+	+	+	+	+	3.553	+	+	+	PA
Z14	+	+	+	+	+	3.558	+	+	+	PA
Z15	+	+	+	+	+	3.573	+	+	+	PA
Z19	+	+	+	+	+	3.552	+	+	+	PA
Z22	+	+	+	+	+	3.615	+	+	+	PA2

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