

NF VALIDATION
Validation of alternative analytical methods
Application in food microbiology

Summary report

Validation study according to the EN ISO 16140-2:2016

***Listeria monocytogenes* Detection**

- ☒ **BACGene Listeria Multiplex** - Test Kit for qualitative real-time PCR detection of *Listeria monocytogenes* and *Listeria* spp. -
(Certificate number: EGS 38/05 - 03/17)
- ☒ **BACGene Listeria monocytogenes** - Test Kit for qualitative real-time PCR detection of *Listeria monocytogenes*
(Certificate number: EGS 38/03 - 01/17)
in all human food products and environmental samples

Qualitative method

Expert Laboratory:	ADRIA Développement ZA Creac'h 29196 Quimper Cedex (France)
For:	Eurofins GeneScan Technologies GmbH Engesserstraße 4 D-79108 Freiburg im Breisgau (Germany)

This report consists of 121 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♦.

Version 0
08 January 2021

1	INTRODUCTION	4
2	METHOD PROTOCOLS	4
2.1	Reference method	4
2.2	Alternative methods	5
2.2.1	<i>Principle</i>	5
2.2.2	<i>Protocol</i>	5
2.2.3	<i>Restrictions</i>	6
2.3	Study design	6
3	INITIAL VALIDATION STUDY AND EXTENSION/RENEWAL STUDIES: RESULTS	7
3.1	Method comparison study	7
3.1.1	<i>Sensitivity study</i>	7
3.1.2	<i>Relative level of detection</i>	32
3.1.3	<i>Inclusivity / exclusivity</i>	35
3.1.4	<i>Practicability</i>	36
3.2	Inter-laboratory study	37
3.2.1	<i>Study organisation</i>	37
3.2.2	<i>Experimental parameters control</i>	38
3.2.3	<i>Result analysis</i>	40
3.2.4	<i>Calculation and interpretation</i>	44
3.3	General conclusion	51
	<i>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</i>	53
	<i>Appendix 2 – Flow diagram of the BACGene Listeria Multiplex and the BACGene Listeria monocytogenes Test Kits</i>	54
	<i>Appendix 3 - Protocols used for Listeria genus and Listeria monocytogenes confirmation (MALDI-TOF)</i>	55
	<i>Appendix 4 – Artificial contamination of samples</i>	57
	<i>Appendix 5 – Sensitivity study: raw data</i>	64
	<i>Appendix 6 – Relative level of detection study: raw data</i>	95
	<i>Appendix 7 – Inclusivity and exclusivity study: raw data</i>	101
	<i>Appendix 8 - Results obtained by the collaborative laboratories and the expert laboratory</i>	105

Quality Assurance documents related to this study can be consulted upon request from **Eurofins GeneScan Technologies GmbH**.

The technical protocol and the result interpretation were realised according to the EN ISO 16140-2:2016 and the AFNOR technical rules (PR Revision 7).

Validation protocols	- ISO 16140-1 (2016): Microbiology of the food chain - Method validation — <i>Part 1: Vocabulary</i> - ISO 16140-2 (2016): 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 (PR Revision 7)
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 methods	 BACGene <i>Listeria</i> Multiplex - Test Kit for qualitative real-time PCR detection of <i>Listeria monocytogenes</i> and <i>Listeria</i> spp.  BACGene <i>Listeria monocytogenes</i> - Test Kit for qualitative real-time PCR detection of <i>Listeria monocytogenes</i>
Scope	☒ All human food products ☒ Environmental samples (excluding primary production samples)
Certification organism	AFNOR Certification (http://nf-validation.afnor.org/)

[♦] Analyses performed according to the COFRAC accreditation

1 INTRODUCTION

The BACGene *Listeria* Multiplex - Test Kit for qualitative real-time PCR detection of *Listeria monocytogenes* and *Listeria spp.* and the BACGene *Listeria monocytogenes* - Test Kit for qualitative real-time PCR detection of *Listeria monocytogenes* was validated in January 2017 according to the EN ISO 16140-2:2016 and the AFNOR Certification Technical Rules (revision 6).

The certificate references for this study are the following:

- ☒ BACGene *Listeria monocytogenes*: EGS 38/03 - 01/17;
- ☒ BACGene *Listeria* Multiplex: EGS 38/05 - 03/17.

An extension was obtained on 30th January 2020 to extend the scope of the alternative method for the use of FastFinder software for interpretation of data generated by AriaMx from Agilent and CFX96 Touch™ Deep Well from Bio-Rad. The data corresponding to this study are available from the Eurofins GeneScan Technologies GmbH.

The method was renewed in December 2020.

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.

For the renewal study, the reference method will be 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.

2.2 Alternative methods

2.2.1 Principle



BACGene *Listeria* Multiplex

DNA amplification and detection methods take advantage of the nucleotide sequence conservation found in bacterial genomes that ensures the potential for high specificity and sensitivity in detection of food-borne, pathogenic bacteria.

After enrichment, the microbial DNA is extracted by a simple thermal/enzymatic lysis step and rapidly analysed by real time PCR.

Specific nucleotide sequences of the genus *Listeria* and of the species *Listeria monocytogenes* are amplified during PCR.



BACGene *Listeria monocytogenes*

After enrichment, the microbial DNA is extracted by a simple thermal/enzymatic lysis step and rapidly analysed by real time PCR.

Specific nucleotide sequence of the species *Listeria monocytogenes* is amplified during PCR.

2.2.2 Protocol

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

- Enrichment step: 21 ± 3 h at $37^{\circ}\text{C} \pm 1^{\circ}\text{C}$ in pre-warmed ($37^{\circ}\text{C} \pm 1^{\circ}\text{C}$) Actero™ *Listeria* Enrichment media.
- Lysis step: 70 µl lysis buffer + 30 µl enrichment broth, heat treatment for 20 min at $37^{\circ}\text{C} \pm 2^{\circ}\text{C}$, and 10 min at $95^{\circ}\text{C} \pm 2^{\circ}\text{C}$;
- PCR test using the CFX from Bio-Rad (deep-well) and the AriaMx from Agilent with 5 µl lysate + 20 µl MasterMix;
- Confirmation by streaking 10 µl of Actero™ *Listeria* Enrichment media onto O&A plates.

The typical colonies were confirmed:

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

It is possible to store the Actero™ *Listeria* Enrichment media for 72 h at 5°C ± 3°C to offer sufficient practicability to the users.

Note that for the inter-laboratory study, 8 collaborators used the AriaMx from Agilent and 8 collaborators used the CFX96 from Bio-Rad.

2.2.3 Restrictions

Neutralizing buffers containing arylsulfonate (sodium dodecylbenzene-sulfonate) are not recommended to be used for environmental samples with this kit.

2.3 Study design

The study is an unpaired data study design, as the reference and the alternative methods have different primary enrichment procedures.

3 INITIAL VALIDATION STUDY AND EXTENSION/RENEWAL STUDIES: RESULTS

3.1 Method comparison study

The study was carried out on a diversity of samples and strains representative of agri-food products. This does not constitute an exhaustive list of the different matrices included in the scope.

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

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

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

483 samples were analysed. The distribution per tested category and type is given in Table 1.

Table 1 – Distribution per tested category and type

Category		Type	BACGene <i>Listeria</i> Multiplex						BACGene <i>Listeria monocytogenes</i>					
			CFX96			AriaMx			CFX96			AriaMx		
			Positive	Negative	Total	Positive	Negative	Total	Positive	Negative	Total	Positive	Negative	Total
1	Composite foods / Ready-to-eat and ready-to-reheat	a: Ready-to-eat	12	18	30	12	18	30	12	18	30	12	18	30
		b: Ready-to-reheat	10	15	25	10	15	25	10	15	25	10	15	25
		c: Confectionaries, pastries and egg products	10	12	22	10	12	22	10	12	22	10	12	22
		Total	32	45	77	32	45	77	32	45	77	32	45	77
2	Meat products	a: Raw products (frozen or fresh)	19	11	30	20	10	30	19	11	30	20	10	30
		b: Meat based products ready to reheat	12	11	23	12	11	23	12	11	23	12	11	23
		c: Raw and cooked delicatessen	15	10	25	15	10	25	15	10	25	15	10	25
		Total	46	32	78	47	31	78	46	32	78	47	31	78
3	Milk & dairy products	a: Raw milk cheeses	9	20	29	9	20	29	9	20	29	9	20	29
		b: Other products based on raw milk	13	10	23	13	10	23	13	10	23	13	10	23
		c: Heat treated products	10	13	23	10	13	23	9	14	23	10	13	23
		Total	32	43	75	32	43	75	31	44	75	32	43	75
4	Vegetables	a: Raw products (fresh and frozen)	12	20	32	12	20	32	12	20	32	12	20	32
		b: Pre-cooked vegetables, vegetables under modified atmosphere	12	23	35	12	23	35	12	23	35	12	23	35
		c: Ready to eat	10	10	20	10	10	20	10	10	20	10	10	20
		Total	34	53	87	34	53	87	34	53	87	34	53	87
5	Seafood and fishery products	a: Raw products (fresh and frozen)	17	14	31	18	13	31	18	13	31	18	13	31
		b: Cured & smoked	14	11	25	14	11	25	14	11	25	14	11	25
		c: Ready to eat, Ready to reheat	19	11	30	19	11	30	19	11	30	19	11	30
		Total	50	36	86	51	35	86	51	35	86	51	35	86
6	Environmental Samples	a: Dusts and Residues	10	16	26	10	16	26	10	16	26	10	16	26
		b: Cleaning and Process Waters	11	13	24	11	13	24	11	13	24	11	13	24
		c: Surface samples	10	20	30	10	20	30	10	20	30	10	20	30
		Total	31	49	80	31	49	80	31	49	80	31	49	80
All categories			225	258	483	227	256	483	225	258	483	227	256	483

3.1.1.2 Artificial contamination of samples

Artificial contaminations were done using the seeding protocol (storage for 48 h at 2 - 8°C). The 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 (natural and artificial) is provided in Table 2.

**Table 2 - Repartition of the positive samples per contamination level
(natural and artificial)**

Thermo-cycler	Kit		Naturally contaminated	Artificially contaminated		Total
				< 3 CFU/ sample	3 < x ≤ 10 CFU/ sample	
CFX96	BACGene <i>Listeria</i> Multiplex	Number of samples	106	107	12	225
		%	47.1	47.6	5.3	100
	BACGene <i>Listeria</i> monocytogenes	Number of samples	106	107	12	225
		%	47.1	47.6	5.3	100
AriaMx	BACGene <i>Listeria</i> Multiplex	Number of samples	108	107	12	227
		%	47.6	47.1	5.3	100
	BACGene <i>Listeria</i> monocytogenes	Number of samples	108	107	12	227
		%	47.6	47.1	5.3	100

149 samples were artificially contaminated, using 48 different strains. 119 gave a positive result. 107 samples were inoculated at level ≤ 3 CFU and 12 samples were inoculated between 3.4 and 4.2 CFU.

47.6% of the samples were naturally contaminated when using the AriaMx and 47.1 % when using the CFX96.

3.1.1.3 *Protocols applied during the validation study*



Incubation time

The minimum incubation time was tested for the enrichment step: 18 h at 37°C.



Thermocyclers tested

All the lysates were tested using the two thermocyclers: CFX96 from Bio-Rad and AriaMx from Agilent



Confirmation protocols

During the validation study (sensitivity and RLOD), all the samples (positive and negative) were confirmed by streaking 10 µl of Actero™ Listeria Enrichment media onto O&A.

The typical colonies were confirmed by the tests described in the ISO method after purification step and by the Maldi-Biotyper from Bruker, directly from O&A plates and after subculture on TSYEA plates.

The samples which gave a negative PCR 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 Actero™ Listeria Enrichment media was subcultured in Fraser broth for 48 h at 37°C before streaking onto O&A and Palcam plates.

3.1.1.4 *Test results*

Raw data per category is given in **Appendix 5**. The results are given in the following table.

Table 3 – Summary of results obtained with the reference and the alternative methods

Category		Kit	Thermocycler	PA	NA*	PD	ND**	PPNA	PPND	Total
1	Composite foods / Ready-to-eat and ready-to-reheat	BACGene <i>Listeria</i> Multiplex	CFX96	18	45	7	7	0	0	77
			AriaMx	19	45	7	6	0	0	77
		BACGene <i>Listeria monocytogenes</i>	CFX96	18	45	7	7	0	0	77
			AriaMx	19	45	7	6	0	0	77
2	Meat products	BACGene <i>Listeria</i> Multiplex	CFX96	22	32	14	10	0	0	78
			AriaMx	23	31	15	8	0	1	78
		BACGene <i>Listeria monocytogenes</i>	CFX96	23	32	14	9	0	0	78
			AriaMx	23	31	15	9	0	0	78
3	Milks & dairy products	BACGene <i>Listeria</i> Multiplex	CFX96	19	43	8	5	0	0	75
			AriaMx	19	43	8	5	0	0	75
		BACGene <i>Listeria monocytogenes</i>	CFX96	19	44	7	5	0	0	75
			AriaMx	19	43	8	5	0	0	75
4	Vegetables	BACGene <i>Listeria</i> Multiplex	CFX96	11	53	12	11	0	0	87
			AriaMx	11	53	12	11	0	0	87
		BACGene <i>Listeria monocytogenes</i>	CFX96	11	53	12	11	0	0	87
			AriaMx	11	53	12	11	0	0	87
5	Seafood and fishery products	BACGene <i>Listeria</i> Multiplex	CFX96	33	36	8	9	0	0	86
			AriaMx	33	35	9	9	0	0	86
		BACGene <i>Listeria monocytogenes</i>	CFX96	33	35	9	9	0	0	86
			AriaMx	33	35	9	9	0	0	86
6	Environmental Samples	BACGene <i>Listeria</i> Multiplex	CFX96	22	49	6	3	0	0	80
			AriaMx	22	49	6	3	0	0	80
		BACGene <i>Listeria monocytogenes</i>	CFX96	22	49	6	3	0	0	80
			AriaMx	22	49	6	3	0	0	80
All categories		BACGene <i>Listeria</i> Multiplex	CFX96	125	258	55	45	0	0	483
			AriaMx	127	256	57	42	0	1	483
		BACGene <i>Listeria monocytogenes</i>	CFX96	126	258	55	44	0	0	483
			AriaMx	127	256	57	43	0	0	483

* PPNA not included

** PPND not included

PP: positive presumptive non confirmed samples

PD = positive deviation (R-/A+)

ND = negative deviation (R+/A-)

PA = positive agreement (R+/A+)

NA = negative agreement (R-/A-)

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

The calculations are presented in Table 4.

- 4.1: CFX96 - BACGene *Listeria* Multiplex (target: *Listeria monocytogenes*)
- 4.2: AriaMx - BACGene *Listeria* Multiplex (target: *Listeria monocytogenes*)
- 4.3: CFX96 - BACGene *Listeria monocytogenes*
- 4.4: AriaMx - BACGene *Listeria monocytogenes*

Table 4 – Calculation of the relative trueness (RT), the relative sensitivity (SE) and the false positive ratio (FPR)**Table 4.1: CFX96 - BACGene *Listeria* Multiplex (target: *Listeria monocytogenes*)**

Category			Type	PA	NA*	PD	ND**	PPND	PPNA	SE _{alt} %	SE _{ref} %	RT %	FPR %
1	Composite foods / Ready-to-eat and ready-to-reheat	a	Ready-to-eat	4	18	3	5	0	0	58.3	75.0	73.3	0
		b	Ready-to-reheat	7	15	2	1	0	0	90.0	80.0	88.0	0.0
		c	Confectionaries, pastries and egg products	7	12	2	1	0	0	90.0	80.0	86.4	0.0
		Total			18	45	7	7	0	0	78.1	78.1	81.8
2	Meat products	a	Raw products (frozen or fresh)	10	11	5	4	0	0	78.9	73.7	70.0	0.0
		b	Meat based products ready to reheat	4	11	5	3	0	0	75.0	58.3	65.2	0.0
		c	Raw and cooked delicatessen	8	10	4	3	0	0	80.0	73.3	72.0	0.0
		Total			22	32	14	10	0	0	78.3	69.6	69.2
3	Milk & dairy products	a	Raw milk cheeses	1	20	4	4	0	0	55.6	55.6	72.4	0.0
		b	Other products based on raw milk	11	10	1	1	0	0	92.3	92.3	91.3	0.0
		c	Heat treated products	7	13	3	0	0	0	100.0	70.0	87.0	0.0
		Total			19	43	8	5	0	0	84.4	75.0	82.7
4	Vegetables	a	Raw products (fresh and frozen)	3	20	4	5	0	0	58.3	66.7	71.9	0.0
		b	Pre-cooked vegetables, vegetables under modified atmosphere	4	23	5	3	0	0	75.0	58.3	77.1	0.0
		c	Ready to eat	4	10	3	3	0	0	70.0	70.0	70.0	0.0
		Total			11	53	12	11	0	0	67.6	64.7	73.6
5	Seafood and fishery products	a	Raw products (fresh and frozen)	11	14	3	3	0	0	82.4	82.4	80.6	0.0
		b	Cured & smoked	8	11	2	4	0	0	71.4	85.7	76.0	0.0
		c	Ready to eat, Ready to reheat	14	11	3	2	0	0	89.5	84.2	83.3	0.0
		Total			33	36	8	9	0	0	82.0	84.0	80.2
6	Environmental Samples	a	Dusts and Residues	6	16	3	1	0	0	90.0	70.0	84.6	0.0
		b	Cleaning and Process Waters	8	13	1	2	0	0	81.8	90.9	87.5	0.0
		c	Surface samples	8	20	2	0	0	0	100.0	80.0	93.3	0.0
		Total			20	49	6	3	0	0	90.3	80.6	88.8
All categories				125	258	55	45	0	0	80.0	75.6	79.3	0.0

* PPNA not included

** PPND not included

Table 4.2: AriaMx - BACGene *Listeria* Multiplex (target: *Listeria monocytogenes*)

Category		Type		PA	NA*	PD	ND**	PPND	PPNA	SE _{alt} %	SE _{ref} %	RT %	FPR %
1	Composite foods / Ready-to-eat and ready-to-reheat	a	Ready-to-eat	4	18	3	5	0	0	58.3	75.0	73.3	0
		b	Ready-to-reheat	8	15	2	0	0	0	100.0	80.0	92.0	0,0
		c	Confectionaries, pastries and egg products	7	12	2	1	0	0	90.0	80.0	86.4	0,0
		Total		19	45	7	6	0	0	81.3	78.1	83.1	0.0
2	Meat products	a	Raw products (frozen or fresh)	11	10	6	3	0	0	85.0	70.0	70.0	0,0
		b	Meat based products ready to reheat	4	11	5	3	0	0	75.0	58.3	65.2	0,0
		c	Raw and cooked delicatessen	8	10	4	2	1	0	80.0	73.3	72.0	10,0
		Total		23	31	15	8	1	0	80.9	68.1	69.2	3.2
3	Milk & dairy products	a	Raw milk cheeses	1	20	4	4	0	0	55.6	55.6	72.4	0,0
		b	Other products based on raw milk	11	10	1	1	0	0	92.3	92.3	91.3	0,0
		c	Heat treated products	7	13	3	0	0	0	100.0	70.0	87.0	0,0
		Total		19	43	8	5	0	0	84.4	75.0	82.7	0.0
4	Vegetables	a	Raw products (fresh and frozen)	3	20	4	5	0	0	58.3	66.7	71.9	0,0
		b	Pre-cooked vegetables, vegetables under modified atmosphere	4	23	5	3	0	0	75.0	58.3	77.1	0,0
		c	Ready to eat	4	10	3	3	0	0	70.0	70.0	70.0	0,0
		Total		11	53	12	11	0	0	67.6	64.7	73.6	0.0
5	Seafood and fishery products	a	Raw products (fresh and frozen)	11	13	4	3	0	0	83.3	77.8	77.4	0,0
		b	Cured & smoked	8	11	2	4	0	0	71.4	85.7	76.0	0,0
		c	Ready to eat, Ready to reheat	14	11	3	2	0	0	89.5	84.2	83.3	0,0
		Total		33	35	9	9	0	0	82.4	82.4	79.1	0.0
6	Environmental Samples	a	Dusts and Residues	6	16	3	1	0	0	90.0	70.0	84.6	0,0
		b	Cleaning and Process Waters	8	13	1	2	0	0	81.8	90.9	87.5	0,0
		c	Surface samples	8	20	2	0	0	0	100.0	80.0	93.3	0,0
		Total		22	49	6	3	0	0	90.3	80.6	88.8	0.0
All categories				127	256	57	42	1	0	81.1	74.9	79.3	0.4

* PPNA not included

** PPND not included

Table 4.3: CFX96 - BACGene *Listeria monocytogenes*

Category		Type		PA	NA*	PD	ND**	PPND	PPNA	SE _{alt} %	SE _{ref} %	RT %	FPR %
1	Composite foods / Ready-to-eat and ready-to-reheat	a	Ready-to-eat	4	18	3	5	0	0	58.3	75.0	73.3	0
		b	Ready-to-reheat	7	15	2	1	0	0	90.0	80.0	88.0	0.0
		c	Confectionaries, pastries and egg products	7	12	2	1	0	0	90.0	80.0	86.4	0.0
		Total		18	45	7	7	0	0	78.1	78.1	81.8	0.0
2	Meat products	a	Raw products (frozen or fresh)	11	11	5	3	0	0	84.2	73.7	73.3	0.0
		b	Meat based products ready to reheat	4	11	5	3	0	0	75.0	58.3	65.2	0.0
		c	Raw and cooked delicatessen	8	10	4	3	0	0	80.0	73.3	72.0	0.0
		Total		23	32	14	9	0	0	80.4	69.6	70.5	0.0
3	Milk & dairy products	a	Raw milk cheeses	1	20	4	4	0	0	55.6	55.6	72.4	0.0
		b	Other products based on raw milk	11	10	1	1	0	0	92.3	92.3	91.3	0.0
		c	Heat treated products	7	14	2	0	0	0	100.0	77.8	91.3	0.0
		Total		19	44	7	5	0	0	83.9	77.4	84.0	0.0
4	Vegetables	a	Raw products (fresh and frozen)	3	20	4	5	0	0	58.3	66.7	71.9	0.0
		b	Pre-cooked vegetables, vegetables under modified atmosphere	4	23	5	3	0	0	75.0	58.3	77.1	0.0
		c	Ready to eat	4	10	3	3	0	0	70.0	70.0	70.0	0.0
		Total		11	53	12	11	0	0	67.6	64.7	73.6	0.0
5	Seafood and fishery products	a	Raw products (fresh and frozen)	11	13	4	3	0	0	83.3	77.8	77.4	0.0
		b	Cured & smoked	8	11	2	4	0	0	71.4	85.7	76.0	0.0
		c	Ready to eat, Ready to reheat	14	11	3	2	0	0	89.5	84.2	83.3	0.0
		Total		33	35	9	9	0	0	82.4	82.4	79.1	0.0
6	Environmental Samples	a	Dusts and Residues	6	16	3	1	0	0	90.0	70.0	84.6	0.0
		b	Cleaning and Process Waters	8	13	1	2	0	0	81.8	90.9	87.5	0.0
		c	Surface samples	8	20	2	0	0	0	100.0	80.0	93.3	0.0
		Total		22	49	6	3	0	0	90.3	80.6	88.8	0.0
All categories				126	258	55	44	0	0	80.4	75.6	79.5	0.0

* PPNA not included

** PPND not included

Table 4.4: AriaMx - BACGene *Listeria monocytogenes*

Category		Type		PA	NA*	PD	ND**	PPND	PPNA	SE _{alt} %	SE _{ref} %	RT %	FPR %
1	Composite foods / Ready-to-eat and ready-to-reheat	a	Ready-to-eat	4	18	3	5	0	0	58.3	75.0	73.3	0
		b	Ready-to-reheat	8	15	2	0	0	0	100.0	80.0	92.0	0.0
		c	Confectionaries, pastries and egg products	7	12	2	1	0	0	90.0	80.0	86.4	0.0
		Total		19	45	7	6	0	0	81.3	78.1	83.1	0.0
2	Meat products	a	Raw products (frozen or fresh)	11	10	6	3	0	0	85.0	70.0	70.0	0.0
		b	Meat based products ready to reheat	4	11	5	3	0	0	75.0	58.3	65.2	0.0
		c	Raw and cooked delicatessen	8	10	4	3	0	0	80.0	73.3	72.0	0.0
		Total		23	31	15	9	0	0	80.9	68.1	69.2	0.0
3	Milk & dairy products	a	Raw milk cheeses	1	20	4	4	0	0	55.6	55.6	72.4	0.0
		b	Other products based on raw milk	11	10	1	1	0	0	92.3	92.3	91.3	0.0
		c	Heat treated products	7	13	3	0	0	0	100.0	70.0	87.0	0.0
		Total		19	43	8	5	0	0	84.4	75.0	82.7	0.0
4	Vegetables	a	Raw products (fresh and frozen)	3	20	4	5	0	0	58.3	66.7	71.9	0.0
		b	Pre-cooked vegetables, vegetables under modified atmosphere	4	23	5	3	0	0	75.0	58.3	77.1	0.0
		c	Ready to eat	4	10	3	3	0	0	70.0	70.0	70.0	0.0
		Total		11	53	12	11	0	0	67.6	64.7	73.6	0.0
5	Seafood and fishery products	a	Raw products (fresh and frozen)	11	13	4	3	0	0	83.3	77.8	77.4	0.0
		b	Cured & smoked	8	11	2	4	0	0	71.4	85.7	76.0	0.0
		c	Ready to eat, Ready to reheat	14	11	3	2	0	0	89.5	84.2	83.3	0.0
		Total		33	35	9	9	0	0	82.4	82.4	79.1	0.0
6	Environmental Samples	a	Dusts and Residues	6	16	3	1	0	0	90.0	70.0	84.6	0.0
		b	Cleaning and Process Waters	8	13	1	2	0	0	81.8	90.9	87.5	0.0
		c	Surface samples	8	20	2	0	0	0	100.0	80.0	93.3	0.0
		Total		22	49	6	3	0	0	90.3	80.6	88.8	0.0
All categories				127	256	57	43	0	0	81.1	74.9	79.3	0.0

* PPNA not included

** PPND not included

The following results are observed:

Table 5 - Summary of results

		BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>	
		CFX96	AriaMx	CFX96	AriaMx
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA+PD)}{(PA+ND+PD)} \times 100\%$	80.0 %	81.1 %	80.4 %	81.1 %
Sensitivity for the reference method	$SE_{ref} = \frac{(PA+ND)}{(PA+ND+PD)} \times 100\%$	75.6 %	74.9 %	75.6 %	74.9 %
Relative trueness	$RT = \frac{(PA+NA)}{N} \times 100\%$	79.3 %	79.3 %	79.5 %	79.3 %
False positive ratio for the alternative method* FP = PPNA + PPND	$FPR = \frac{(FP)}{NA} \times 100\%$	0.0 %	0.4 %	0.0 %	0.0 %

* With $ND = ND + PPND$
 $NA = NA + PPNA$

3.1.1.6 Analysis of discordant results

The negative deviations are given in Table 6 and the positive deviations in Table 7.

Negative deviations

45, 44 and 43 negative deviations were observed, respectively, depending on the kit and on the thermocycler used. 28 negative deviations concern naturally contaminated samples and 17 artificially contaminated samples.

For 3 samples (4116, 4128 and 3355), the presence of *Listeria monocytogenes* was confirmed in the Actero™ *Listeria* Enrichment media using the protocol of the alternative method. For these samples, the detection level of the alternative method was probably not reached. Note that only sample 3355 gave negative PCR results with the 2 kits and the 2 thermocyclers.

DNA extracts were tested again twice for the three samples and one positive PCR was observed.

Additional confirmatory tests run (subculture in Fraser for 48 h at 37°C) allow confirming one sample in negative agreement (4330: pasteurised milk cheese).

Positive deviations

55 positive deviations were obtained when using the CFX96 thermocycler and 57 when using the AriaMx.

33 positive deviations concern naturally contaminated samples when using the AriaMx, 31 when using the CFX96 and 24 artificially contaminated samples.

Table 6 - Negative deviations

N° Sample	Product	Artificial contamination		Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>														Category	Type
				Actero™ <i>Listeria</i> Enrichment media for 18h at 37°C															
		BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		All confirmatory tests	BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>				Fraser 48 h at 37°C				
		CFX96 PCR result	AriaMx- PCR result	CFX96 PCR result	AriaMx PCR result		Final result CFX96	Agreement CFX96 Ref/Alt 18h	Final result AriaMx	Agreement AriaMx Ref/Alt 18h	Final result CFX96	Agreement CFX96 Ref/Alt 18h	Final result AriaMx	Agreement AriaMx Ref/Alt 18h					
Strain	Inoculation level /sample	Result (Ct)	Result (Ct)	Result (Ct)	Result (Ct)														
3989	RTE surimi	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	1	a
4112	Sandwich	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	1	a
4288	Guacamole	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	1	a
5023	Ham and cheese sandwich	<i>L.monocytogenes</i> Ad273	0,6	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	1	a
5235	Chicken sandwich	<i>L.monocytogenes</i> Ad266	1,4	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	1	a
4116	RTR croissant	/	/	-/(40.85)/-	+(36.52)	-/(31.18)/ +(31.40)	+(37.03)	+	-	ND	+	PA	-	ND	+	PA		1	b
4192	Omelette	<i>L.monocytogenes</i> Ad1195	0,8	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	1	c
4118	Poultry meat	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	2	a
4128	Lamb meat	/	/	-/(36.09)/-	+(33.61)	+(37.53)	+(34.16)	+	-	ND	+	PA	+	PA	+	PA		2	a
6677	Frozen ground beef	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	2	a
6681	Turkey meat	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	2	a
4200	Meat based products ready to reheat	<i>L.monocytogenes</i> Ad1206	2,4	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	2	b
6666	RTRH poultry	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	2	b
6667	Cooked pork tongue	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	2	b
4544	Smoked bacon	<i>L.welshimeri</i> Ad1204 / <i>L.monocytogenes</i> Ad267	2,0/ 1,8	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	2	c
6678	Low moisture sausage	/	/	-	+(37.91)/ +(37.63)/-	-	-	-	-	ND	-	PPND	-	ND	-	ND	-	2	c
6948	Delicatessen	<i>L.monocytogenes</i> A00C022	2,4	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	2	c
3342	Raw milk cheese	<i>L.monocytogenes</i> Ad664	0,4	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	3	a
4526	Raw goat milk cheese	<i>L.monocytogenes</i> Ad613	1	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	3	a
4528	Raw milk cheese	<i>L.monocytogenes</i> Ad613	1	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	3	a
6954	Raw milk cheese	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	3	a
4537	Fermented milk	<i>L.monocytogenes</i> Ad665	0,6	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	3	b
3734	Raw ewe milk cheese	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	4	a
3743	Raw milk	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	4	a
4302	Corn	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	4	a
6614	Zucchini	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	4	a
6716	Zucchini	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	4	a
4299	Tajine	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	4	b
4680	Pre-fried onions			-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	4	b
6722	Vegetables RTRH preparation	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	4	b
4740	Deli salad	<i>L.monocytogenes</i> Ad1719	1,8	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	4	c
4742	Deli salad	<i>L.monocytogenes</i> Ad1498/ <i>L.innocua</i> Ad1176	0,6/1,2	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	H-	4	c
4744	Seasoned tomatoes	<i>L.monocytogenes</i> Ad1498/ <i>L.innocua</i> Ad1176	0,6/1,2	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	H-	4	c
3000	Scallops	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	5	a
4130	Fish filet	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	5	a
5801	White piece of fish	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	5	a
3728	Fermented milk	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	5	b
4963	Smoked trout	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	5	b

N° Sample	Product	Artificial contamination		Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>														Category	Type
				Actero™ <i>Listeria</i> Enrichment media for 18h at 37°C															
		BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		All confirmatory tests	BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>				Fraser 48 h at 37°C				
							CFX96 PCR result	AriaMx- PCR result	CFX96 PCR result	AriaMx PCR result	Final result CFX96	Agreement CFX96 Ref/Alt 18h	Final result AriaMx	Agreement AriaMx Ref/Alt 18h		Final result CFX96	Agreement CFX96 Ref/Alt 18h		
		Strain	Inoculation level /sample	Result (Ct)	Result (Ct)	Result (Ct)	Result (Ct)												
4964	Smoked salmon	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	5	b
4966	Smoked salmon	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	5	b
3988	RTR fish	/	/	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	5	c
5239	Salmon terrine	<i>L.monocytogenes</i> Ad1189	1,8	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	5	c
6756	Waste (vegetables)	<i>L.monocytogenes</i> Ad1238	1,8	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	6	a
3355	Pasteurised milk cheese	<i>L.monocytogenes</i> Ad548	0,4	-/-/(39.31)	-/-/(36.12)	-/-/(38.08)	-/(36.04)/-	+	-	ND	-	ND	-	ND	-	ND	+	6	b
6764	Process water	<i>L.monocytogenes</i> Ad2519	2,6	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	-	6	b
Total									45		43		44		43				

Table 7 - Positive deviations

N° Sample	Product	Artificial contaminations		Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>												Category	Type		
				Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C															
				BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		All confirmatory tests	BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>						
		Strain	Inoculation level /sample	CFX96 PCR result	AriaMx PCR result	CFX96-PCR result	AriaMx PCR result		Final result CFX96	Agreement CFX96 Ref/Alt 18h	Final result AriaMx	Agreement AriaMx Ref/Alt 18h	Final result CFX96	Agreement CFX96 Ref/Alt 18h	Final result AriaMx			Agreement AriaMx Ref/Alt 18h	
				Result (Ct)	Result (Ct)	Result (Ct)	Result (Ct)												
3985	Delicatessen	/	/	+(37.31)	+(33.60)	+(37.24)	+(33.72)	+	+	PD	+	PD	+	PD	+	PD	1	a	
4121	Sandwich	/	/	+(39.08)	+(35.56)	+(40.70)	+(36.37)	+	+	PD	+	PD	+	PD	+	PD	1	a	
5233	Ham and cheese sandwich	<i>L.monocytogenes</i> Ad273	1,6	+(23.90)	+(20.06)	+(24.21)	+(21.59)	+	+	PD	+	PD	+	PD	+	PD	1	a	
4758	Ready to reheat	<i>L.monocytogenes</i> 1973/2400 / <i>L.innocua</i> Ad1676	1,6/1,40	+(22.86)	+(20.97)	+(23.45)	+(20.91)	+	+	PD	+	PD	+	PD	+	PD	1	b	
5033	Ham and cheese pizza	<i>L.welshimeri</i> Ad1175/ <i>L.monocytogenes</i> Ad279	0,2/1,0	+(31.17)	+(28.70)	+(31.63)	+(29.90)	+	+	PD	+	PD	+	PD	+	PD	1	b	
4747	Pastry	<i>L.monocytogenes</i> JL2862/ <i>L.innocua</i> Ad644	1,2/0,8	+(28.48)	+(25.82)	+(28.80)	+(25.86)	+	+	PD	+	PD	+	PD	+	PD	1	c	
4750	Pastry	<i>L.monocytogenes</i> JL2862	1,2	+(31.91)	+(28.84)	+(32.22)	+(29.23)	+	+	PD	+	PD	+	PD	+	PD	1	c	
3007	Raw milk cheese	/	/	-/(39.20)/-	+(36.15)	-/-/-	+(36.02)		-	NA	+	PD	-	NA	+	PD	2	a	
3009	Raw milk	/	/	+(38.37)	+(34.87)	+(39.09)	+(35.18)	+	+	PD	+	PD	+	PD	+	PD	2	a	
6616	Raw chicken meat	/	/	+(25.58)	+(22.64)	+(25.15)	+(22.74)	+	+	PD	+	PD	+	PD	+	PD	2	a	
6659	Turkey meat	/	/	+(26.07)	+(23.52)	+(27.09)	+(24.38)	+	+	PD	+	PD	+	PD	+	PD	2	a	
6676	Lamb meat	/	/	+(26.40)	+(23.42)	+(26.91)	+(24.09)	+	+	PD	+	PD	+	PD	+	PD	2	a	
6841	Raw meat (veal)	/	/	+(28.65)	+(25.44)	+(28.68)	+(25.77)	+	+	PD	+	PD	+	PD	+	PD	2	a	
3737	Raw milk cheese	/	/	+(30.16)	+(28.70)	+(31.12)	+(28.33)	+	+	PD	+	PD	+	PD	+	PD	2	b	
3994	RTR Blanquette	/	/	+(25.11)	+(22.55)	+(25.22)	+(22.60)	+	+	PD	+	PD	+	PD	+	PD	2	b	
4124	Meat based products ready to reheat	/	/	+(39.41)	+(35.15)	+(39.49)	+(32.62)	+	+	PD	+	PD	+	PD	+	PD	2	b	
6661	RTRH poultry	/	/	+(31.38)	+(27.32)	+(30.88)	+(27.93)	+	+	PD	+	PD	+	PD	+	PD	2	b	
6669	Cooked poultry	/	/	+(26.22)	+(23.12)	+(26.68)	+(24.05)	+	+	PD	+	PD	+	PD	+	PD	2	b	
3725	Fermented milk	/	/	+(35.73)	+(33.87)	+(36.29)	+(34.03)	+	+	PD	+	PD	+	PD	+	PD	2	c	
4541	Salami	<i>L.monocytogenes</i> Ad267	1,8	+(33.61)	+(30.63)	+(35.41)	+(30.93)	+	+	PD	+	PD	+	PD	+	PD	2	c	
4546	Sausage	<i>L.welshimeri</i> Ad1204 / <i>L.monocytogenes</i> Ad267	2,0 / 1,8	+(34.01)	+(31.69)	+(34.93)	+(31.39)	+	+	PD	+	PD	+	PD	+	PD	2	c	
6950	Delicatessen (rillettes)	<i>L.monocytogenes</i> A00C022	2,4	+(23.70)	+(21.01)	+(24.47)	+(22.36)	+	+	PD	+	PD	+	PD	+	PD	2	c	
3340	Raw milk cheese	<i>L.monocytogenes</i> Ad664	0,4	+(36.66)	+(34.28)	+(37.33)	+(34.77)	+	+	PD	+	PD	+	PD	+	PD	3	a	
3341	Raw milk cheese	<i>L.monocytogenes</i> Ad664	0,4	+(38.99)	+(37.25)	+(36.61)	+(33.90)	+	+	PD	+	PD	+	PD	+	PD	3	a	
4529	Raw milk cheese	<i>L.monocytogenes</i> Ad613 / <i>L.welshimeri</i> Ad1667	1,0/1,4	+(33.57)	+(30.81)	+(34.19)	+(31.07)	+	+	PD	+	PD	+	PD	+	PD	3	a	
6953	Raw milk cheese	/	/	+(38.09)	+(35.42)	+(38.01)	+(34.65)	+	+	PD	+	PD	+	PD	+	PD	3	a	
5956	Raw milk	<i>L.monocytogenes</i> Ad665	1,4	+(29.13)	+(26.38)	+(29.01)	+(26.98)	+	+	PD	+	PD	+	PD	+	PD	3	b	
3006	Butter	/	/	+(41.45)	+(38.67)	-/-/-	+(39.11)	+	+	PD	+	PD	-	NA	+	PD	3	c	
5960	Pasteurised fermented milk	<i>L.monocytogenes</i> Ad610	3,4	+(26.27)	+(23.05)	+(25.78)	+(24.20)	+	+	PD	+	PD	+	PD	+	PD	3	c	
5961	Pasteurised fermented milk	<i>L.monocytogenes</i> Ad611	1,6	+(24.25)	+(21.12)	+(24.78)	+(22.50)	+	+	PD	+	PD	+	PD	+	PD	3	c	
3003	Carrots	/	/	+(29.70)	+(26.76)	+(30.28)	+(26.98)	+	+	PD	+	PD	+	PD	+	PD	4	a	
4676	Broccoli	/	/	+(25.43)	+(22.84)	+(26.26)	+(23.77)	+	+	PD	+	PD	+	PD	+	PD	4	a	
5797	Mushrooms	/	/	+(29.96)	+(27.33)	+(30.31)	+(28.46)	+	+	PD	+	PD	+	PD	+	PD	4	a	
6607	Beans	/	/	+(27.03)	+(24.36)	+(26.02)	+(24.24)	+	+	PD	+	PD	+	PD	+	PD	4	a	
3741	Raw milk	/	/	+(33.20)	+(31.04)	+(34.24)	+(31.03)	+	+	PD	+	PD	+	PD	+	PD	4	b	
4301	Zucchini	/	/	+(38.74)	+(35.99)	+(38.41)	+(37.09)	+	+	PD	+	PD	+	PD	+	PD	4	b	
5798	Beans	/	/	+(30.16)	+(26.74)	+(29.65)	+(27.96)	+	+	PD	+	PD	+	PD	+	PD	4	b	

N° Sample	Product	Artificial contaminations		Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>												Category	Type		
				Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C															
				BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		All confirmatory tests	BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monocytogenes</i>						
		Strain	Inoculation level /sample	CFX96 PCR result	AriaMx PCR result	CFX96-PCR result	AriaMx PCR result		Final result CFX96	Agreement CFX96 Ref/Alt 18h	Final result AriaMx	Agreement AriaMx Ref/Alt 18h	Final result CFX96	Agreement CFX96 Ref/Alt 18h	Final result AriaMx			Agreement AriaMx Ref/Alt 18h	
				Result (Ct)	Result (Ct)	Result (Ct)	Result (Ct)												
6615	Vegetables preparation	/	/	+(39.81)	+(35.80)	+(38.34)	+(37.64)	+	+	PD	+	PD	+	PD	+	PD	4	b	
6719	Vegetables RTRH preparation	/	/	+(32.94)	+(29.86)	+(33.93)	+(30.51)	+	+	PD	+	PD	+	PD	+	PD	4	b	
4202	Seasoned grated carrots	<i>L.monocytogenes</i> Ad1719	1,2	+(35.97)	+(31.55)	+(35.89)	+(33.24)	+	+	PD	+	PD	+	PD	+	PD	4	c	
4739	Deli salad	<i>L.monocytogenes</i> Ad1719	1,8	+(26.59)	+(23.96)	+(27.67)	+(24.49)	+	+	PD	+	PD	+	PD	+	PD	4	c	
4745	Seasoned grated carrots	<i>L.monocytogenes</i> Ad1498/ <i>L.innocua</i> Ad1176	0,6/1,2	+(27.64)	+(25.22)	+(27.93)	+(25.35)	+	+	PD	+	PD	+	PD	+	PD	4	c	
4110	Fish product	/	/	-/-+(40.77)	+(37.99)	+(39.64)	+(36.64)	+	-	NA	+	PD	+	PD	+	PD	5	a	
4685	Fish fillet	/	/	+(30.34)	+(27.74)	+(31.27)	+(28.17)	+	+	PD	+	PD	+	PD	+	PD	5	a	
4969	Scallops	/	/	+(35.32)	+(39.31)	+(39.91)	+(36.74)	+	+	PD	+	PD	+	PD	+	PD	5	a	
5964	Raw peeled shrimps	<i>L.monocytogenes</i> Ad299	0,6	+(25.15)	+(22.13)	+(24.91)	+(23.03)	+	+	PD	+	PD	+	PD	+	PD	5	a	
4000	Smoked trout	/	/	+(29.26)	+(25.99)	+(29.07)	+(26.02)	+	+	PD	+	PD	+	PD	+	PD	5	b	
4965	Smoked trout	/	/	+(30.81)	+(33.28)	+(33.40)	+(31.20)	+	+	PD	+	PD	+	PD	+	PD	5	b	
3732	Raw milk cheese	/	/	+(31.15)	+(29.53)	+(32.76)	+(29.47)	+	+	PD	+	PD	+	PD	+	PD	5	c	
4315	Salmon rillettes	<i>L.monocytogenes</i> Ad888	2,6	+(23.05)	+(19.58)	+(22.49)	+(20.08)	+	+	PD	+	PD	+	PD	+	PD	5	c	
5969	Surimi	<i>L.monocytogenes</i> Ad2522	3	+(19.02)	+(16.60)	+(19.72)	+(18.29)	+	+	PD	+	PD	+	PD	+	PD	5	c	
5447	Residues (Fish industry)	/	/	+(37.23)	+(34.54)	+(38.21)	+(34.49)	+	+	PD	+	PD	+	PD	+	PD	6	a	
6757	Wastes (vegetables)	<i>L.monocytogenes</i> Ad1238	1,8	+(28.22)	+(25.22)	+(28.05)	+(25.63)	+	+	PD	+	PD	+	PD	+	PD	6	a	
6933	Wastes (fish)	<i>L.monocytogenes</i> A00E08	2,4	+(31.94)	+(28.84)	+(32.36)	+(29.91)	+	+	PD	+	PD	+	PD	+	PD	6	a	
3354	Pasteurised milk cheese	<i>L.monocytogenes</i> Ad548	0,4	+(30.49)	+(27.77)	+(30.92)	+(27.83)	+	+	PD	+	PD	+	PD	+	PD	6	b	
5452	Wipe after cleaning (Fish industry)	/	/	+(34.38)	+(31.48)	+(34.52)	+(31.47)	+	+	PD	+	PD	+	PD	+	PD	6	c	
6781	Wipe (Vegetables)	<i>L.monocytogenes</i> Ad614	1,6	+(33.85)	+(31.11)	+(34.27)	+(31.60)	+	+	PD	+	PD	+	PD	+	PD	6	c	
Total									55		57		55		57				

The analyses of discordant results according to the EN ISO 16140-2:2016 is given in **Table 8**.

Table 8 - Analyses of discordant results

Table 8.1: CFX96 - BACGene Listeria Multiplex (target: *Listeria monocytogenes*)

Category		Type	PD	ND**	PPND	(ND+PPND)-PD	AL
1	Composite foods / Ready-to-eat and ready-to-reheat	a	3	5	0	2	3
		b	2	1	0	-1	
		c	2	1	0	-1	
		Total	7	7	0	0	
2	Meat products	a	5	4	0	-1	3
		b	5	3	0	-2	
		c	4	3	0	-1	
		Total	14	10	0	-4	
3	Milk & dairy products	a	4	4	0	0	3
		b	1	1	0	0	
		c	3	0	0	-3	
		Total	8	5	0	-3	
4	Vegetables	a	4	5	0	1	3
		b	5	3	0	-2	
		c	3	3	0	0	
		Total	12	11	0	-1	
5	Seafood and fishery products	a	3	3	0	0	3
		b	2	4	0	2	
		c	3	2	0	-1	
		Total	8	9	0	1	
6	Environmental Samples	a	3	1	0	-2	3
		b	1	2	0	1	
		c	2	0	0	-2	
		Total	6	3	0	-3	
All categories			55	45	0	-10	6

Table 8.2: AriaMx - BACGene Listeria Multiplex (target: *Listeria monocytogenes*)

Category		Type	PD	ND**	PPND	(ND+PPND)-PD	AL
1	Composite foods / Ready-to-eat and ready-to-reheat	a	3	5	0	2	3
		b	2	0	0	-2	
		c	2	1	0	-1	
		Total	7	6	0	-1	
2	Meat products	a	6	3	0	-3	3
		b	5	3	0	-2	
		c	4	2	1	-1	
		Total	15	8	1	-6	
3	Milk & dairy products	a	4	4	0	0	3
		b	1	1	0	0	
		c	3	0	0	-3	
		Total	8	5	0	-3	
4	Vegetables	a	4	5	0	1	3
		b	5	3	0	-2	
		c	3	3	0	0	
		Total	12	11	0	-1	
5	Seafood and fishery products	a	4	3	0	-1	3
		b	2	4	0	2	
		c	3	2	0	-1	
		Total	9	9	0	0	
6	Environmental Samples	a	3	1	0	-2	3
		b	1	2	0	1	
		c	2	0	0	-2	
		Total	6	3	0	-3	
All categories			57	42	1	-14	6

** PPND not included

Table 8.3: CFX96 - BACGene *Listeria monocytogenes*

Category		Type	PD	ND**	PPND	(ND+PPND)-PD	AL
1	Composite foods / Ready-to-eat and ready-to-reheat	a	3	5	0	2	3
		b	2	1	0	-1	
		c	2	1	0	-1	
		Total	7	7	0	0	
2	Meat products	a	5	3	0	-2	3
		b	5	3	0	-2	
		c	4	3	0	-1	
		Total	14	9	0	-5	
3	Milk & dairy products	a	4	4	0	0	3
		b	1	1	0	0	
		c	2	0	0	-2	
		Total	7	5	0	-2	
4	Vegetables	a	4	5	0	1	3
		b	5	3	0	-2	
		c	3	3	0	0	
		Total	12	11	0	-1	
5	Seafood and fishery products	a	4	3	0	-1	3
		b	2	4	0	2	
		c	3	2	0	-1	
		Total	9	9	0	0	
6	Environmental Samples	a	3	1	0	-2	3
		b	1	2	0	1	
		c	2	0	0	-2	
		Total	6	3	0	-3	
All categories			55	44	0	-11	6

Table 8.4: AriaMx - BACGene *Listeria monocytogenes*

Category		Type	PD	ND**	PPND	(ND+PPND)-PD	AL
1	Composite foods / Ready-to-eat and ready-to-reheat	a	3	5	0	2	3
		b	2	0	0	-2	
		c	2	1	0	-1	
		Total	7	6	0	-1	
2	Meat Products	a	6	3	0	-3	3
		b	5	3	0	-2	
		c	4	3	0	-1	
		Total	15	9	0	-6	
3	Milk & Dairy products	a	4	4	0	0	3
		b	1	1	0	0	
		c	3	0	0	-3	
		Total	8	5	0	-3	
4	Vegetables	a	4	5	0	1	3
		b	5	3	0	-2	
		c	3	3	0	0	
		Total	12	11	0	-1	
5	Seafood and fishery products	a	4	3	0	-1	3
		b	2	4	0	2	
		c	3	2	0	-1	
		Total	9	9	0	0	
6	Environmental Samples	a	3	1	0	-2	3
		b	1	2	0	1	
		c	2	0	0	-2	
		Total	6	3	0	-3	
All categories			57	43	0	-14	6

** PPND not included

The observed values for ND - PD meet the acceptability limit for each category and for all the categories for both thermocyclers and kits tested.

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

128 samples were tested again after storage of the Actero™ *Listeria* Enrichment media for 72 h at 5°C ± 3°C prior running the extraction and PCR. The following changes were observed (See Table 9).

Table 9 - Changes after storage for 72 h at 5°C ± 3°C

Sample	CFX96: BACGene <i>Listeria</i> Multiplex			
	Before storage	After storage 72h at 5°C ± 3°C	Category	Type
3007	NA	PD	2	a
3355	ND	PA	6	b
4110	NA	PD	5	a
4116	ND	PA	1	b
4128	ND	PA	2	a
4330	NA	PD	3	c
4535	PA	ND	3	b
4545	NA	PD	2	c
5790	NA	PD	5	a
5954	NA	PD	3	b
6607	PD	NA	4	a
6614	ND	PA	4	a
6615	PD	NA	4	b
6616	PD	NA	2	a

Sample	CFX96: BACGene <i>Listeria monocytogenes</i>			
	Before storage	After storage 72h at 5°C ± 3°C	Category	Type
3006	NA	PD	3	c
3007	NA	PD	2	a
3355	ND	PA	6	b
4116	ND	PA	1	b
4330	NA	PD	3	c
4535	PA	ND	3	b
4545	NA	PD	2	c
5790	NA	PD	5	a
5954	NA	PD	3	b
6607	PD	NA	4	a
6614	ND	PA	4	a
6615	PD	NA	4	b
6616	PD	NA	2	a

Sample	AriaMx: BACGene <i>Listeria</i> Multiplex			
	Before storage	After storage 72h at 5°C ± 3°C	Category	Type
3355	ND	PA	6	b
4330	NA	PD	3	c
4535	PA	ND	3	b
4545	NA	PD	2	c
4964	ND	PA	5	b
5790	NA	PD	5	a
5954	NA	PD	3	b
6607	PD	NA	4	a
6614	ND	PA	4	a
6615	PD	NA	4	b
6616	PD	NA	2	a

Sample	CFX96: BACGene <i>Listeria monocytogenes</i>			
	Before storage	After storage 72h at 5°C ± 3°C	Category	Type
3355	ND	PA	6	b
4330	NA	PD	3	c
4535	PA	ND	3	b
4545	NA	PD	2	c
5790	NA	PD	5	a
5954	NA	PD	3	b
6614	ND	PA	4	a
6615	PD	NA	4	b
6616	PD	PPNA	2	a

Taking into account the results observed after storage of Actero™ *Listeria* Enrichment media for 72 h at 2 - 8°C, the analysis of discordants become (See Table 10).

- Table 10.1: CFX96 - BACGene *Listeria monocytogenes* Multiplex;
- Table 10.2: AriaMx - BACGene *Listeria monocytogenes* Multiplex;
- Table 10.3: CFX96 – BACGene *Listeria monocytogenes*;
- Table 10.4: AriaMx - BACGene *Listeria monocytogenes*.

Table 10 - Analysis of discordant results**Table 10.1: CFX96 - BACGene *Listeria* Multiplex
(target: *Listeria monocytogenes*)**

Category	Type	PD	ND**	PPND	(ND+PPND)-PD	AL
1	a Ready-to-eat	3	5	0	2	
	b Ready-to-reheat	2	0	0	-2	
	c Confectionaries, pastries and egg products	2	1	0	-1	
	Total	7	6	0	-1	3
2	a Raw products (frozen or fresh)	5	3	0	-2	
	b Meat based products ready to reheat	5	3	0	-2	
	c Raw and cooked delicatessen	4	2	1	-2	
	Total	15	8	1	-6	3
3	a Raw milk cheeses	4	4	0	0	
	b Other products based on raw milk	1	1	0	0	
	c Heat treated products	4	0	0	-4	
	Total	10	6	0	-4	3
4	a Raw products (fresh and frozen)	3	4	0	1	
	b Pre-cooked vegetables, vegetables under modified atmosphere	4	3	0	-1	
	c Ready to eat	3	3	0	0	
	Total	10	10	0	0	3
5	a Raw products (fresh and frozen)	5	3	0	-2	
	b Cured & smoked	2	4	0	2	
	Ready to eat, Ready to reheat	3	2	0	-1	
	Total	10	9	0	-1	3
6	a Dusts and Residues	3	1	0	-2	
	b Cleaning and Process Waters	1	1	0	0	
	c Surface samples	2	0	0	-2	
	Total	6	2	0	-4	3
All categories		58	41	1	-16	6

** PPND not included

Table 10.2: AriaMx - BACGene *Listeria* Multiplex
(target: *Listeria monocytogenes*)

Category	Type	PD	ND**	PPND	(ND+PPND)-PD	AL
1	a Ready-to-eat	3	5	0	2	
	b Ready-to-reheat	2	0	0	-2	
	c Confectionaries, pastries and egg products	2	1	0	-1	
	Total	7	6	0	-1	3
2	a Raw products (frozen or fresh)	5	3	0	-2	
	b Meat based products ready to reheat	5	3	0	-2	
	c Raw and cooked delicatessen	5	2	1	-2	
	Total	15	8	1	-6	3
3	a Raw milk cheeses	4	4	0	0	
	b Other products based on raw milk	2	2	0	0	
	c Heat treated products	4	0	0	-4	
	Total	10	6	0	-4	3
4	a Raw products (fresh and frozen)	3	4	0	1	
	b Pre-cooked vegetables, vegetables under modified atmosphere	4	3	0	-1	
	c Ready to eat	3	3	0	0	
	Total	10	10	0	0	3
5	a Raw products (fresh and frozen)	5	3	0	-2	
	b Cured & smoked	2	3	0	1	
	c Ready to eat, Ready to reheat	3	2	0	-1	
	Total	10	8	0	-2	3
6	a Dusts and Residues	3	1	0	-2	
	b Cleaning and Process Waters	1	1	0	0	
	c Surface samples	2	0	0	-2	
	Total	6	2	0	-4	3
All categories		58	40	1	-17	6

** PPND not included

Table 10.3: CFX96 - BACGene *Listeria monocytogenes*

Category	Type	PD	ND**	PPND	(ND+PPND)-PD	AL
1	a Ready-to-eat	3	5	0	2	
	b Ready-to-reheat	2	0	0	-2	
	c Confectionaries, pastries and egg products	2	1	0	-1	
	Total	7	6	0	-1	3
2	a Raw products (frozen or fresh)	5	3	0	-2	
	b Meat based products ready to reheat	5	3	0	-2	
	c Raw and cooked delicatessen	5	3	0	-2	
	Total	15	9	0	-6	3
3	a Raw milk cheeses	4	4	0	0	
	b Other products based on raw milk	2	2	0	0	
	c Heat treated products	4	0	0	-4	
	Total	10	6	0	-4	3
4	a Raw products (fresh and frozen)	3	4	0	1	
	b Pre-cooked vegetables, vegetables under modified atmosphere	4	3	0	-1	
	c Ready to eat	3	3	0	0	
	Total	10	10	0	0	3
5	a Raw products (fresh and frozen)	5	3	0	-2	
	b Cured & smoked	2	4	0	2	
	c Ready to eat, Ready to reheat	3	2	0	-1	
	Total	10	9	0	-1	3
6	a Dusts and Residues	3	1	0	-2	
	b Cleaning and Process Waters	1	1	0	0	
	c Surface samples	2	0	0	-2	
	Total	6	2	0	-4	3
All categories		58	42	0	-16	6

** PPND not included

Table 10.4: AriaMx - BACGene *Listeria monocytogenes*

Category		Type	PD	ND**	PPND	(ND+PPND)-PD	AL
1	Composite foods / Ready-to-eat and ready-to-reheat	a Ready-to-eat	3	5	0	2	3
		b Ready-to-reheat	2	0	0	-2	
		c Confectionaries, pastries and egg products	2	1	0	-1	
		Total	7	6	0	-1	
2	Meat products	a Raw products (frozen or fresh)	5	3	0	-2	3
		b Meat based products ready to reheat	5	3	0	-2	
		c Raw and cooked delicatessen	5	3	0	-2	
		Total	15	9	0	-6	
3	Milk & dairy products	a Raw milk cheeses	4	4	0	0	3
		b Other products based on raw milk	2	2	0	0	
		c Heat treated products	4	0	0	-4	
		Total	10	6	0	-4	
4	Vegetables	a Raw products (fresh and frozen)	4	4	0	0	3
		b Pre-cooked vegetables, vegetables under modified atmosphere	4	3	0	-1	
		c Ready to eat	3	3	0	0	
		Total	11	10	0	-1	
5	Seafood and fishery products	a Raw products (fresh and frozen)	5	3	0	-2	3
		b Cured & smoked	2	4	0	2	
		c Ready to eat, Ready to reheat	3	2	0	-1	
		Total	10	9	0	-1	
6	Environmental Samples	a Dusts and Residues	3	1	0	-2	3
		b Cleaning and Process Waters	1	1	0	0	
		c Surface samples	2	0	0	-2	
		Total	6	2	0	-4	
All categories			59	42	0	-17	6

** PPND not included

The observed values for ND - PD meet the acceptability limit for each category and for all the categories for both thermocyclers and kits tested.

3.1.1.8 Confirmation

Streaking onto selective agar plates

The positive BACGene results were confirmed by streaking 10 µl of Actero™ *Listeria* Enrichment media onto O&A.

For sample 6721, the presence of *Listeria monocytogenes* was confirmed after storage of the enrichment broth for 72 h at 2-8°C. Additional testing was required for sample 4741, *Listeria monocytogenes* was recovered by streaking the Actero™ *Listeria* Enrichment media onto RAPID'*Listeria monocytogenes* plates as O&A plates did not allow isolation of *Listeria monocytogenes*.

Confirmation of typical colonies

The typical colonies isolated on O&A and TSYEA plates were confirmed using the tests described in the standard method and the MALDI Biotyper of Bruker.

269 colonies were tested from O&A and 283 from TSYEA.

A summary of the results observed is provided in **Table 11**.

Table 11 - Confirmation of colonies isolated from O&A

		Tests of the reference method				MALDI-TOF				
		Total colonies tested	<i>Listeria monocytogenes</i>	<i>Listeria spp + except Listeria monocytogenes</i>	NI or NC	Total colonies tested	<i>Listeria monocytogenes</i>	<i>Listeria spp + except Listeria monocytogenes</i>	NI or NC	Not tested ⁽¹⁾
O&A	Typical colonies H+	182	178	0	4	181	181	0	0	1
	Non typical colonies H-	87	0	77	10	79	0	79	0	8
TSYEA	Typical colonies (H+) isolated from O&A	184	179	0	5	184	184	0	0	1
	Non typical colonies (H-) isolated from O&A	99	0	91	8	86	0	86	0	13

NI: no identification

NC: non characteristic colony

⁽¹⁾ Some colonies were not tested as they were isolated from samples giving negative PCR tests.

All the typical colonies (181) isolated on O&A were confirmed using the Biotyper of Bruker. All the non-typical colonies were tested negative using MALDI-TOF analysis. Two typical colonies identified as *Listeria ivanovii* with the tests of the reference method also gave negative results in MALDI-TOF analysis.

3.1.1.9 PCR inhibitions

788 DNA extracts were tested with the CFX96 and the AriaMx using 2 different kits representing a total of 3152 PCR tests. Four inhibited PCR tests were observed for only 2 samples. The DNA extracts were tested again without applying any dilution and valid positive results were observed for sample 5962, and negative results for sample 5794 (See Table 12).

Table 12 - Samples with PCR inhibitions

Sample No	Product	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> spp.		72 h
		CFX96	AriaMx	CFX96	AriaMx	CFX96
5962	Dairy based product	i/+ (29.79)	+ (26.57)	+ (24.48)	+ (24.42)	i/+ (22.60)
5794	Artichoke puree	i/-	i/-	-	-	/

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 13).

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 13 - 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 for 48h at 2-8°C
② - Frankfurters	<i>Listeria monocytogenes</i> Ad669	Rillettes	
③ - Raw milk	<i>Listeria monocytogenes</i> Ad618	Cheese	
④ - Cantaloupe (frozen balls)	<i>Listeria monocytogenes</i> Ad532	Fruit based preparation	Seeding protocol Storage for 2 weeks at - 20°C
⑤ - Smoked salmon	<i>Listeria monocytogenes</i> Ad670	Smoked salmon	Seeding protocol Storage for 48h at 2-8°C
⑥ - Process water	<i>Listeria monocytogenes</i> Ad551	Environmental sample	Seeding protocol Storage for 48h at 2-8°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 of the international standard (ISO 16140), as described in the EN ISO 16140-2:2016 (<http://standards.iso.org/iso/16140>). The RLOD values are given in Table 14.

Table 14 – Presentation of RLOD before and after confirmation of the alternative method results

Results observed with the BACGene *Listeria* Multiplex (CFX96) and the BACGene *Listeria monocytogenes* (AriaMx)

Categories	Name	RLOD	RLODL	RLODU	b=ln(RLOD)	sd(b)	z-Test statistic	p-value
1	Ready to eat Deli salad/ <i>Listeria monocytogenes</i> Ad494	0.748	0.338	1.655	-0.290	0.397	0.731	1,535
2	Frankfurter/ <i>Listeria monocytogenes</i> Ad669	0.888	0.439	1.795	-0.119	0.352	0.339	1,265
3	Raw milk/ <i>Listeria monocytogenes</i> Ad618	0.463	0.196	1.091	-0.771	0.429	1.797	1,928
4	Cantaloupe/ <i>Listeria monocytogenes</i> Ad532	0.757	0.338	1.695	-0.278	0.403	0.690	1,510
5	Smoked salmon/ <i>Listeria monocytogenes</i> Ad670	0.748	0.338	1.655	-0.290	0.397	0.731	1,535
6	Process water/ <i>Listeria monocytogenes</i> Ad551	0.569	0.233	1.389	-0.563	0.446	1.263	1,793
Combined		0,735	0.542	0.997	-0.308	0.152	2.021	1.957

**Results observed with the BACGene *Listeria* Multiplex (AriaMx)
and the BACGene *Listeria monocytogenes* (CFX96)**

Categories	Name	RLOD	RLODL	RLODU	b=ln(RLOD)	sd(b)	z-Test statistic	p-value
1	Ready to eat Deli salad/ <i>Listeria monocytogenes</i> Ad494	0.748	0.338	1.655	-0.290	0.397	0.731	1,535
2	Frankfurter/ <i>Listeria monocytogenes</i> Ad669	0.888	0.439	1.795	-0.119	0.352	0.339	1,265
3	Raw milk/ <i>Listeria monocytogenes</i> Ad618	0.602	0.269	1.350	-0.507	0.404	1.257	1,791
4	Cantaloupe/ <i>Listeria monocytogenes</i> Ad532	0.757	0.338	1.695	-0.278	0.403	0.690	1,510
5	Smoked salmon/ <i>Listeria monocytogenes</i> Ad670	0.748	0.338	1.655	-0.290	0.397	0.731	1,535
6	Process water/ <i>Listeria monocytogenes</i> Ad551	0.569	0.233	1.389	-0.563	0.446	1.263	1,793
Combined		0,752	0.554	1.019	-0.286	0.152	1.877	1.939

The LOD₅₀ % calculations according to Wilrich & Wilrich POD-LOD calculation program - version 9, 2017-09-23 test are given in Table 15.

Table 15 - LOD₅₀ results

Category	(Strain / matrix) pair	Level of detection at 50% (CFU / sample size) according to Wilrich & Wilrich ¹	
		Reference method	Alternative method
1	Ready to eat Deli salad/ <i>Listeria monocytogenes</i> Ad494	0.607 [0.359;1.028]	0.465 [0.273;0.794]
2	Frankfurter/ <i>Listeria monocytogenes</i> Ad669	0.509 [0.306;0.849]	0.455 [0.273;0.758]
3	Raw milk/ <i>Listeria monocytogenes</i> Ad618	0.631 [0.372;1.069]	0.300 [0.157;0.575] (CFX96) 0.390 [0.219;0.692] (AriaMx)
4	Cantaloupe/ <i>Listeria monocytogenes</i> Ad532	0.622 [0.367;1.054]	0.486 [0.287 ;0.823]
5	Smoked salmon/ <i>Listeria monocytogenes</i> Ad670	0.774 [0.457;1.311]	0.593 [0.347;1.012]
6	Process water/ <i>Listeria monocytogenes</i> Ad551	0.601 [0.499;0.771]	0.378 [0.222;0.646]
Combined results		0.621 (0.499;0.771]	0.447 [0.359 ;0.557] (CFX96) 0.460 [0.369;0.573] (AriaMx)

¹ Wilrich, C., and P.-Th. Wilrich: Estimation of the POD function and the LOD of a qualitative microbiological measurement method. AOAC International **92** (2009) 1763 - 1772.

The RLOD values meet the AL fixed at 2.5 for an unpaired study design for all the tested matrix/strain pairs and for the alternative method for both thermocyclers and kits tested.

The LOD₅₀ varies from 0.5 to 0.8 CFU/sample size for the reference method and from 0.3 to 0.6 CFU/ sample size 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

50 *Listeria monocytogenes* strain cultures were performed in BHI medium at 37°C. Dilutions were done in order to inoculate 10 to 100 cells/225 ml. The broths were incubated for 18 h at 37°C. The alternative method protocol was then performed using the two kits (PCR and confirmatory tests).

☐ Exclusivity

41 negative strain cultures were performed in BHI at 37°C (10 *Listeria* different from *Listeria monocytogenes* and 31 strains not belonging to *Listeria* genus). 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 using the two kits (PCR).

3.1.3.2 Results

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

☐ Inclusivity

The 50 tested strains gave positive PCR results. The strains showed typical colonies on O&A plates. The colonies from O&A and TSYEA plates were confirmed using MALDI-TOF analysis.

❑ Exclusivity

No positive PCR results were observed with 31 non-*Listeria* strains tested and 10 *Listeria* spp. (different from *Listeria monocytogenes*) 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	Day 1	/
	Lysate	/	Day 1
	PCR test	/	Day 1
	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	Day 1
	Presumptive positive or positive results		
	Subculture of typical colonies	Day 3 - Day 4	/
	Streaking onto plates	/	Day1
	Reading plates	/	Day 2 - Day 3
	Confirmatory tests	Day 3 - Day 5	Day 2 - Day 3
	Results	Day 4 - Day 6 Day 7 - Day 10 ⁽¹⁾	Day 2 - Day 3
	⁽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 1 day and the positive results in 2 or 3 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 16 collaborators.

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 included the detection of *Listeria spp.*;
- 24 blind coded samples for *Listeria monocytogenes* detection by the BACGene *Listeria monocytogenes* and the BACGene *Listeria* Multiplex methods;
- 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 3°C ± 2°C. *Triplicates* were analysed. The aerobic mesophilic flora was also enumerated; the results are given in Table 16.

Table 16 - 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 3°C ± 2°C.

3.2.2.2 Contamination levels

The contamination levels and the sample codification were the following (see Table 17).

Table 17 - 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 18.

Table 18 - Sample temperatures at receipt

Laboratories	Temperature measured by the probe (°C)	Temperature measured at receipt (°C)	Receipt date and time	
A	2.0	3.5	06/12/2016	10:00 PM
B	1.5	4.1	06/12/2016	12:00 PM
C	2.0	3.8	06/12/2016	11:00 AM
D	5.0	2.4	06/12/2016	01:00 PM
E	3.5	4.5	06/12/2016	02:00 PM
F	3.0	2.7	06/12/2016	03:00 AM
G	2.0	3.9	06/12/2016	10:00 AM
H	2.0	3.6	06/12/2016	09:30 AM
I	2.0	5.9	06/12/2016	01:30 PM
J	3.0	4.7	06/12/2016	12:30 AM
K	1.5	3.4	06/12/2016	10:00 AM
L	3.5	3.6	06/12/2016	01:00 PM
M	<i>Not received</i>	2.5	06/12/2016	09:30 AM
N	3.0	2.7	06/12/2016	<i>Morning</i>
O	4.5	5.0	06/12/2016	12:00 AM
P	2.5	2.5	06/12/2016	10:00 AM

No problem was encountered during the transport or at receipt for the 16 collaborators. 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 19.

Table 19 – Results obtained by the expert Lab.

Level	Reference method	Alternative method
L0	0/8	0/8
L1	5/8	3/8
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 $1.4 \cdot 10^7$ to $> 10^8$ CFU/g.

Listeria monocytogenes detection

16 collaborators participated to the study. The results obtained for the reference method are provided in Table 20; the results obtained for the alternative methods (BACGene *Listeria* Multiplex and BACGene *Listeria monocytogenes*) are given in Table 21.

Table 20 - Positive results by the reference method (ALL the collaborators)

Collaborator	Contamination level		
	L0	L1	L2
A	0	4	8
B	0	4	8
C	0	6	8
D	0	3	7
E	0	6	8
F	0	7	8
G	0	5	8
H	0	5	8
I	0	8	8
J	0	4	8
K	0	5	8
L	0	5	7
M	2	7	8
N	0	7	8
O	0	6	8
P	0	8	8
TOTAL	P ₀ = 2	P ₁ = 90	P ₂ = 126

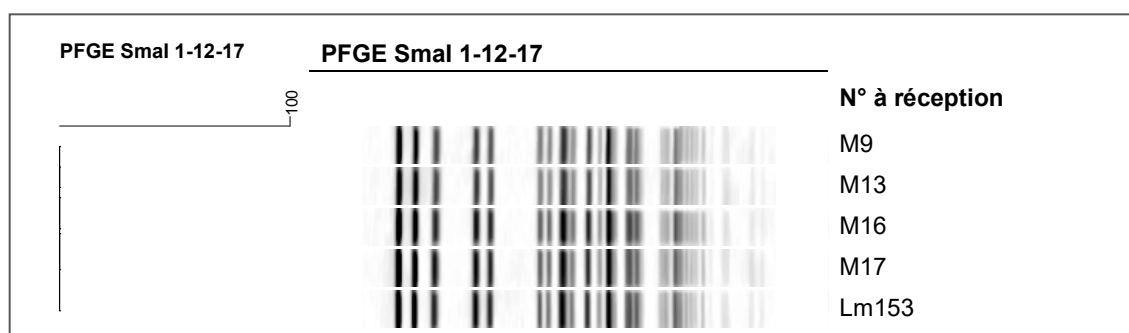
Table 21 - Positive results (before and after confirmation) by the alternative methods (ALL the collaborators)

Colla- borators	BACGene <i>Listeria</i> Multiplex						BACGene <i>Listeria monocytogenes</i>					
	Contamination level						Contamination level					
	L0		L1		L2		L0		L1		L2	
	Before confir- mation	After confir- mation	Before confir- mation	After confir- mation	Before confir- mation	After confir- mation	Before confir- mation	After confir- mation	Before confir- mation	After confir- mation	Before confir- mation	After confir- mation
A	0	0	3	3	8	8	0	0	3	3	8	8
B	0	0	4	4	7	7	0	0	4	4	7	7
C	0	0	5	5	5	5	0	0	6	6	8	8
D	0	0	5	5	8	8	0	0	5	5	8	8
E	0	0	6	6	8	8	0	0	6	6	8	8
F	0	0	7	7	8	8	0	0	7	7	8	8
G	0	0	6	6	7	7	0	0	6	6	6	6
H	0	0	2	2	8	8	0	0	2	2	8	8
I	1	0	5	5	8	8	1	0	5	5	8	8
J	0	0	5	5	8	8	0	0	5	5	8	8
K	0	0	5	5	8	8	0	0	5	5	8	8
L	0	0	5	5	8	8	0	0	5	5	8	8
M	0	0	5	5	8	8	1	0	6	5	7	7
N	0	0	6	6	8	8	0	0	6	6	8	8
O	0	0	4	4	8	8	0	0	4	4	8	8
P	0	0	4	4	8	8	0	0	4	4	8	8
TOTAL	P ₀ = 1	CP ₀ = 0	P ₁ = 77	CP ₁ = 77	P ₂ = 123	CP ₂ = 123	P ₀ = 2	CP ₀ = 0	P ₁ = 79	CP ₁ = 78	P ₂ = 124	CP ₂ = 124

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 were not kept: Lab M. This Lab obtained two positive results with the reference method on control samples and one was not confirmed with the alternative method on control samples).

It was asked to this Lab (M) to send the plates with typical colonies to ADRIA for the un-spiked samples (M13 - M17) as well as for samples M9 and M16 for which only one plate allowed to recover *Listeria* strains. A fingerprinting using *Sma*I restriction enzyme was run on the strains isolated from the unspiked samples in order to compare their profiles to the profile of the inoculated strain (*Listeria monocytogenes* 153). The following results were observed (See Figure 1).

Figure 1 - Fingerprinting



The strains isolated from the 4 samples were clearly the same as the inoculated one.

3.2.3.3 Results of the collaborators retained for interpretation

The results obtained with the 15 labs (Lab M excluded) kept for interpretation are presented in Table 22 (reference method) and Table 23 (alternative methods).

Table 22 - Positive results by the reference method (**Without Lab M**)

Collaborators	Contamination level		
	L0	L1	L2
A	0	4	8
B	0	4	8
C	0	6	8
D	0	3	7
E	0	6	8
F	0	7	8
G	0	5	8
H	0	5	8
I	0	8	8
J	0	4	8
K	0	5	8
L	0	5	7
N	0	7	8
O	0	6	8
P	0	8	8
TOTAL	P ₀ = 0	P ₁ = 83	P ₂ = 118

Table 23 - Positive results (before and after confirmation)
by the alternative methods (**Without Lab M**)

Collaborators	BACGene <i>Listeria</i> Multiplex						BACGene <i>Listeria monocytogenes</i>					
	Contamination level						Contamination level					
	L0		L1		L2		L0		L1		L2	
	Before confirmation	After confirmation	Before confirmation	After confirmation	Before confirmation	After confirmation	Before confirmation	After confirmation	Before confirmation	After confirmation	Before confirmation	After confirmation
A	0	0	3	3	8	8	0	0	3	3	8	8
B	0	0	4	4	7	7	0	0	4	4	7	7
C	0	0	5	5	5	5	0	0	6	6	8	8
D	0	0	5	5	8	8	0	0	5	5	8	8
E	0	0	6	6	8	8	0	0	6	6	8	8
F	0	0	7	7	8	8	0	0	7	7	8	8
G	0	0	6	6	7	7	0	0	6	6	6	6
H	0	0	2	2	8	8	0	0	2	2	8	8
I	1	0	5	5	8	8	1	0	5	5	8	8
J	0	0	5	5	8	8	0	0	5	5	8	8
K	0	0	5	5	8	8	0	0	5	5	8	8
L	0	0	5	5	8	8	0	0	5	5	8	8
N	0	0	6	6	8	8	0	0	6	6	8	8
O	0	0	4	4	8	8	0	0	4	4	8	8
P	0	0	4	4	8	8	0	0	4	4	8	8
TOTAL	P ₀ = 1	CP ₀ = 0	P ₁ = 72	CP ₁ = 72	P ₂ = 115	CP ₂ = 115	P ₀ = 1	CP ₀ = 0	P ₀ = 73	CP ₁ = 73	P ₂ = 117	CP ₂ = 117

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 24).

Table 24 - Percentage specificity

		BACGene <i>Listeria</i> Multiplex	BACGene <i>Listeria</i> <i>monocytogenes</i>
Specificity for the reference method	$SP_{ref} = \left(1 - \left(\frac{P_0}{N_-}\right)\right) \times 100 \% =$	100.0 %	100.0 %
Specificity for the alternative method	$SP_{alt} = \left(1 - \left(\frac{CP_0}{N_-}\right)\right) \times 100 \% =$	100.0 %	100.0 %

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

Fractional positive results were obtained for the low and the high inoculation levels (L1 + L2). The two inoculation levels were retained for calculation.

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 25.

**Table 25 - Summary of the obtained results with the reference method
and the alternative method for both levels**

Level	Response	BACGene <i>Listeria</i> Multiplex (target: <i>Listeria monocytogenes</i>)		BACGene <i>Listeria monocytogenes</i>	
		Reference method positive (R+)	Reference method negative (R-)	Reference method positive (R+)	Reference method negative (R-)
1	Alternative method positive (A+)	Positive agreement (A+/R+) PA = 49	Positive deviation (R-/A+) PD = 23	Positive agreement (A+/R+) PA = 50	Positive deviation (R-/A+) PD = 23
	Alternative method negative (A-)	Negative deviation (A-/R+) ND = 34 (PPND = 0)	Negative agreement (A-/R-) NA = 14 (PPNA = 0)	Negative deviation (A-/R+) ND = 33 (PPND = 0)	Negative agreement (A-/R-) NA = 14 (PPNA = 0)
2	Alternative method positive (A+)	Positive agreement (A+/R+) PA = 113	Positive deviation (R-/A+) PD = 2	Positive agreement (A+/R+) PA = 115	Positive deviation (R-/A+) PD = 2
	Alternative method negative (A-)	Negative deviation (A-/R+) ND = 5 (PPND = 0)	Negative agreement (A-/R-) NA = 0 (PPNA = 0)	Negative deviation (A-/R+) ND = 3 (PPND = 1)	Negative agreement (A-/R-) NA = 0 (PPNA = 1)

Based on the data summarized in Table 25, the values of sensitivity of the alternative and reference methods, as well as the relative trueness and false positive ratio for the alternative method taking account the confirmations, are the following (See Table 26).

Table 26 - Sensitivity, relative trueness and false positive ratio percentages

		Level 1		Level 2	
		BACGene <i>Listeria</i> Multiplex	BACGene <i>Listeria</i> <i>monocytogenes</i>	BACGene <i>Listeria</i> Multiplex	BACGene <i>Listeria</i> <i>monocytogenes</i>
Sensitivity for the alternative method:	$SE_{alt} = \frac{(PA+PD)}{(PA+PD+ND)} \times 100\% =$	67.9 %	68.9 %	95.8 %	97.5 %
Sensitivity for the reference method:	$SE_{ref} = \frac{(PA+ND)}{(PA+PD+ND)} \times 100\% =$	78.3 %	78.3 %	98.3 %	98.3 %
Relative trueness	$RT = \frac{(PA+NA)}{N} \times 100\% =$	52.5 %	53.3 %	94.2 %	95.8 %
False positive ratio for the alternative method	$FPR = \frac{FP}{NA} \times 100\% =$	0.0 %	0.0 %	/	/

3.2.4.3 Interpretation of data

The negative deviations are listed in Table 27 for Level 1 and in Table 28 for Level 2.

Among the 40 negative deviations obtained taking into account the two inoculation levels and both kits, the presence of *Listeria monocytogenes* was confirmed for 5 samples (C20, C15, C19, C22, G6). For these samples, negative deviations were observed for only one kit; note that 4 negative deviations are due to the same collaborator (Lab C) for which pipetting errors might be suspected.

The PCR tests were repeated for these samples on the same DNA extract. Positive results were then observed in all cases.

The positive deviations are listed in Table 29 for Level 1 and in Table 30 for Level 2.

Table 27 - Negative deviations for Level 1 with the two kits

Collaborator	Sample N°	BACGene <i>Listeria monocytogenes</i>						
		BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria</i> <i>monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria</i> <i>monocytogenes</i>	Agreement BACGene <i>Listeria</i> <i>monocytogenes</i>
		Ct	Ct	O&A				
A	A4	-	-	-	-	ND	-	ND
	A7	-	-	-	-	ND	-	ND
	A20	-	-	-	-	ND	-	ND
	A23	-	-	-	-	ND	-	ND
B	B1	-	-	-	-	ND	-	ND
	B11	-	-	-	-	ND	-	ND
C	C20	-/(28,44)/ +(28,18)/ +(27,82)	+(26,99)	+	-	ND	+	PA
	C23	-	-	-	-	ND	-	ND
D	D16	-	-	-	-	ND	-	ND
E	E16	-	-	-	-	ND	-	ND
	E23	-	-	-	-	ND	-	ND
F	F20	-	-	-	-	ND	-	ND
H	H7	-	-	-	-	ND	-	ND
	H11	-	-	-	-	ND	-	ND
	H16	-	-	-	-	ND	-	ND
	H23	-	-	-	-	ND	-	ND
I	I1	-	-	-	-	ND	-	ND
	I4	-	-	-	-	ND	-	ND
	I16	-	-	-	-	ND	-	ND
J	J16	-	-	-	-	ND	-	ND
K	K16	-	-	-	-	ND	-	ND
L	L4	-	-	-	-	ND	-	ND
	L7	-	-	-	-	ND	-	ND
	L23	-	-	-	-	ND	-	ND
N	N1	-	-	-	-	ND	-	ND
	N9	-	-	-	-	ND	-	ND
O	O1	-	-	-	-	ND	-	ND
	O7	-	-	-	-	ND	-	ND
	O9	-	-	-	-	ND	-	ND
	O23	-	-	-	-	ND	-	ND
P	P1	-	-	-	-	ND	-	ND
	P4	-	-	-	-	ND	-	ND
	P9	-	-	-	-	ND	-	ND
	P20	-	-	-	-	ND	-	ND

Table 28 - Negative deviations for Level 2 with the two kits

Collaborator	Sample N°	BACGene <i>Listeria monocytogenes</i>						
		BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria monocytogenes</i>	Agreement BACGene <i>Listeria monocytogenes</i>
		Ct	Ct	O&A				
B	B15	-	-	-	-	ND	-	ND
C	C15	-/(38,60)/ +(38,60)/ +(37,82)	+(35,86)	+	-	ND	+	PA
	C19	-/(22,41)/ +(22,95)/ +(23,16)	+(22,96)	+	-	ND	+	PA
	C22	-/(22,07)/ +(22,19)/ +(22,35)	+(22,07)	+	-	ND	+	PA
G	G2	-	-	-	-	ND	-	ND
	G6	+(24,69)	-/(27,54)/ +(27,52)/ +(27,32)	+	+	PA	-	ND

Table 29 - Positive deviations for Level 1 with the two kits

Collaborator	Sample N°	BACGene <i>Listeria monocytogenes</i>						
		BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria monocytogenes</i>	Agreement BACGene <i>Listeria monocytogenes</i>
		Ct	Ct	O&A				
A	A1	+(28,88)	+(29,25)	+	+	PD	+	PD
	A9	+(25,67)	+(26,30)	+	+	PD	+	PD
	A11	+(25,63)	+(26,30)	+	+	PD	+	PD
B	B7	+(30,55)	+(29,24)	+	+	PD	+	PD
	B16	+(26,89)	+(25,19)	+	+	PD	+	PD
C	C9	+(19,62)	+(20,97)	+	+	PD	+	PD
D	D1	+(32,47)	+(31,11)	+	+	PD	+	PD
	D7	+(30,16)	+(29,05)	+	+	PD	+	PD
	D20	+(40,19)	+(35,34)	+	+	PD	+	PD
E	E1	+(30,91)	+(30,90)	+	+	PD	+	PD
	E9	+(29,01)	+(28,91)	+	+	PD	+	PD
F	F11	+(28,5)	+(28,5)	+	+	PD	+	PD
G	G23	+(31,16)	+(31,44)	+	+	PD	+	PD
H	H1	+(26,98)	+(27,22)	+	+	PD	+	PD
J	J7	+(28,47)	+(28,70)	+	+	PD	+	PD
	J11	+(23,45)	+(23,92)	+	+	PD	+	PD
K	K11	+(24,29)	+(24,38)	+	+	PD	+	PD
L	L1	+(31,80)	+(32,02)	+	+	PD	+	PD
	L9	+(37,37)	+(36,53)	+	+	PD	+	PD
	L16	+(25,12)	+(24,75)	+	+	PD	+	PD
N	N11	+(29,14)	+(29,26)	+	+	PD	+	PD
O	O4	+(26,03)	+(26,39)	+	+	PD	+	PD
	O11	+(26,51)	+(29,27)	+	+	PD	+	PD

Table 30 - Positive deviation for Level 2 with the two kits

Collaborator	Sample N°	BACGene <i>Listeria monocytogenes</i>						
		BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria monocytogenes</i>	Agreement BACGene <i>Listeria monocytogenes</i>
		Ct	Ct	O&A				
D	D15	+(40,71)	+(36,82)	- (+ after subculture in Fraser)	+	PD	+	PD
L	L15	+(27,40)	+(27,06)	+	+	PD	+	PD

For an **unpaired study design**, the difference between (ND – PD) is calculated for the level(s) where fractional recovery is obtained (so L_1 and possibly L_2). The observed value found for (ND – PD) shall not be higher than the AL. The AL is defined as $[(ND - PD)_{\max}]$ and calculated per level where fractional recovery is obtained as described below using the following three parameters:

$$(p+)_{\text{ref}} = \frac{P_x}{N_x}$$

where

P_x = number of samples with a positive result obtained with the reference method at level x (L_1 or L_2) for all the collaborators

N_x = number of samples tested at level x (L_1 or L_2) with the reference method by all the collaborators

$$(p+)_{\text{alt}} = \frac{CP_x}{N_x}$$

where

CP_x = number of samples with a confirmed positive result obtained with the alternative method at level x (L_1 or L_2) for all the collaborators;

N_x = number of samples tested at level x (L_1 or L_2) with the alternative method by all the collaborators.

$$(ND-PD)_{\max} = \sqrt{3N_x \times ((p+)_{\text{ref}} + (p+)_{\text{alt}} - 2((p+)_{\text{ref}} \times (p+)_{\text{alt}}))}$$

where

N_x = number of samples tested for level x (L_1 or L_2) with the reference method by all the collaborators.

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 when 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 EN ISO 16140-2:2016 (See Table 31).

Table 31 - Calculations

	Level 1		Level 2	
	BACGene <i>Listeria</i> Multiplex	BACGene <i>Listeria</i> <i>monocytogenes</i>	BACGene <i>Listeria</i> Multiplex	BACGene <i>Listeria</i> <i>monocytogenes</i>
N_x	120	120	120	120
$(p^+)_{ref}$	0.7	0.7	1.0	1.0
$(p^+)_{alt}$	0.6	0.6	1.0	1.0
AL = (ND - PD) max	12.89	12.85	5.61	5.1
ND - PD	11	10	3	1
Conclusion	ND - PD < AL	ND - PD < AL	ND - PD < AL	ND - PD < AL

The ISO 16140-2 (2016) requirements are fulfilled as (ND - PD) is lower than the AL.

3.2.4.4 Evaluation of the LOD_{50%}, LOD_{95%} and RLOD between laboratories

The RLOD was calculated using the EN ISO 16140-2:2016 Excel spreadsheet available at https://standards.iso.org/iso/16140/-5/ed-1/en/RLOD_inter-lab-study_16140-2_AnnexF_ver1_28-06-2017.xls. The results are used only for information (see Tables 32 and 33).

Table 32 - LOD_{50%}, LOD_{95%} and RLOD - BACGene Multiplex

Method	LOD 50%	LOD 95%	RLOD
Reference	0,65 [0,54;0,80]	2,83 [2,33;3,44]	1,12 [0,9;1,4]
Alternative	0,73 [0,61;0,89]	3,17 [2,62;3,84]	

Table 33 - LOD_{50%}, LOD_{95%} and RLOD - BACGene *Listeria monocytogenes*

Method	LOD 50%	LOD 95%	RLOD
Reference	0,65 [0,54;0,80]	2,83 [2,33;3,44]	1,03 [0,82;1,29]
Alternative	0,68 [0,56;0,82]	2,92 [2,41;3,55]	

3.3 General conclusion

The **method comparison study conclusions** are:

- ☒ The method comparison study scheme corresponds to an unpaired study design as the reference and the alternative methods have different primary enrichment procedures.
- ☒ In the Sensitivity Study, 6 categories were tested: 5 human food product categories and environmental samples. The protocol of the alternative method shows for all the categories:

Thermocycler	Kit	Positive deviation	Negative deviation
BACGene <i>Listeria</i>	CFX96	55	45
Multiplex	AriaMx	57	43
BACGene <i>Listeria</i>	CFX96	55	44
<i>monocytogenes</i>	AriaMx	57	43

The (ND - PD) values are below the acceptability limits (AL) in each category, and for the 6 tested categories. The number of PD is higher than the number of ND.

- ☒ The Relative Levels of Detection (RLOD) are all below the AL fixed at 2.5 for the unpaired data study design for all matrix/strain pairs.
- ☒ The inclusivity and exclusivity testing did give the expected results for the 50 target strains and the 41 non target strains.
- ☒ It is possible to store the primary enrichment broth for 72 h at 5°C ± 3°C.
- ☒ The alternative method allows a one-day screening of negative samples.
- ☒ The alternative method fulfils all the EN ISO 16140-2:2016 and AFNOR technical rules.

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

- ☒ The data and interpretations comply with the EN ISO 16140-2:2016 requirements. The **BACGene *Listeria* Multiplex and & BACGene *Listeria monocytogenes*** are considered equivalent to the ISO standard.

Quimper, 08 January 2021

Lizaïg GOUGUET
Technical Study Manager
Validation of Alternative methods
Food Safety & Quality



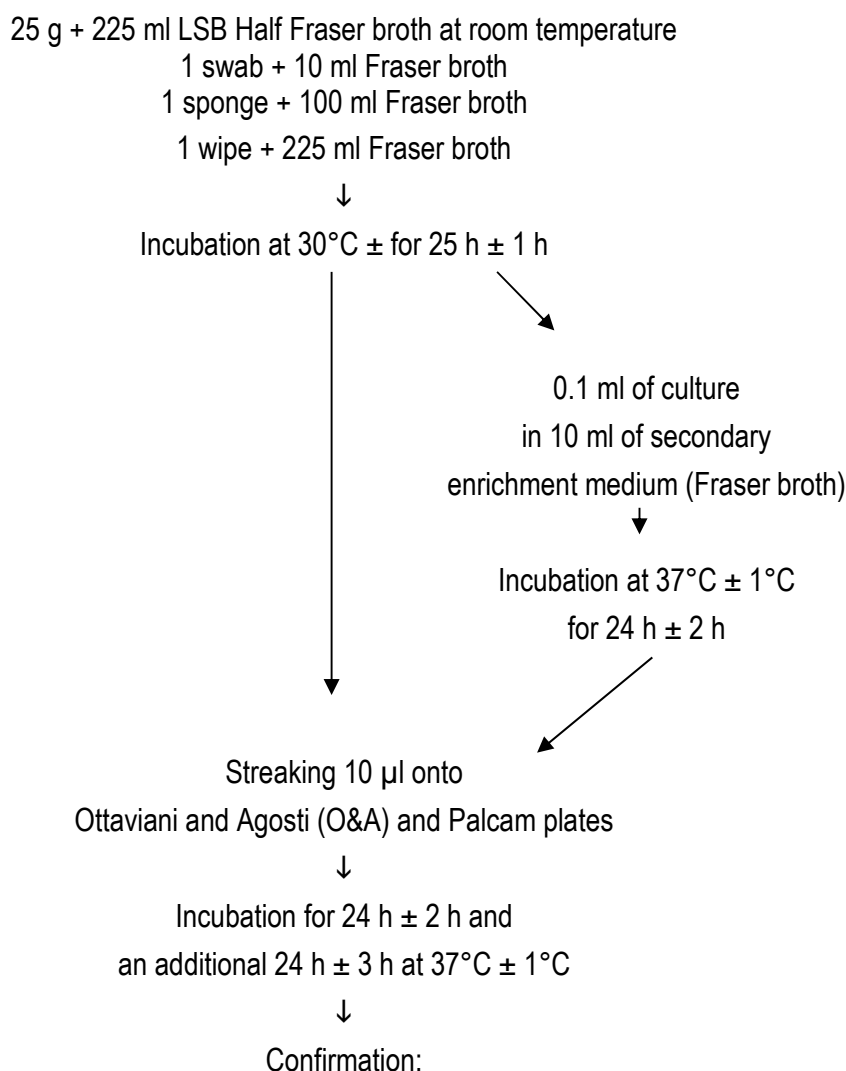
I hereby attest to the validation of the results of the analyses carried out under the COFRAC accreditation.

Maryse RANNOU
Project Manager
Validation of Alternative methods
Food Safety & Quality



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

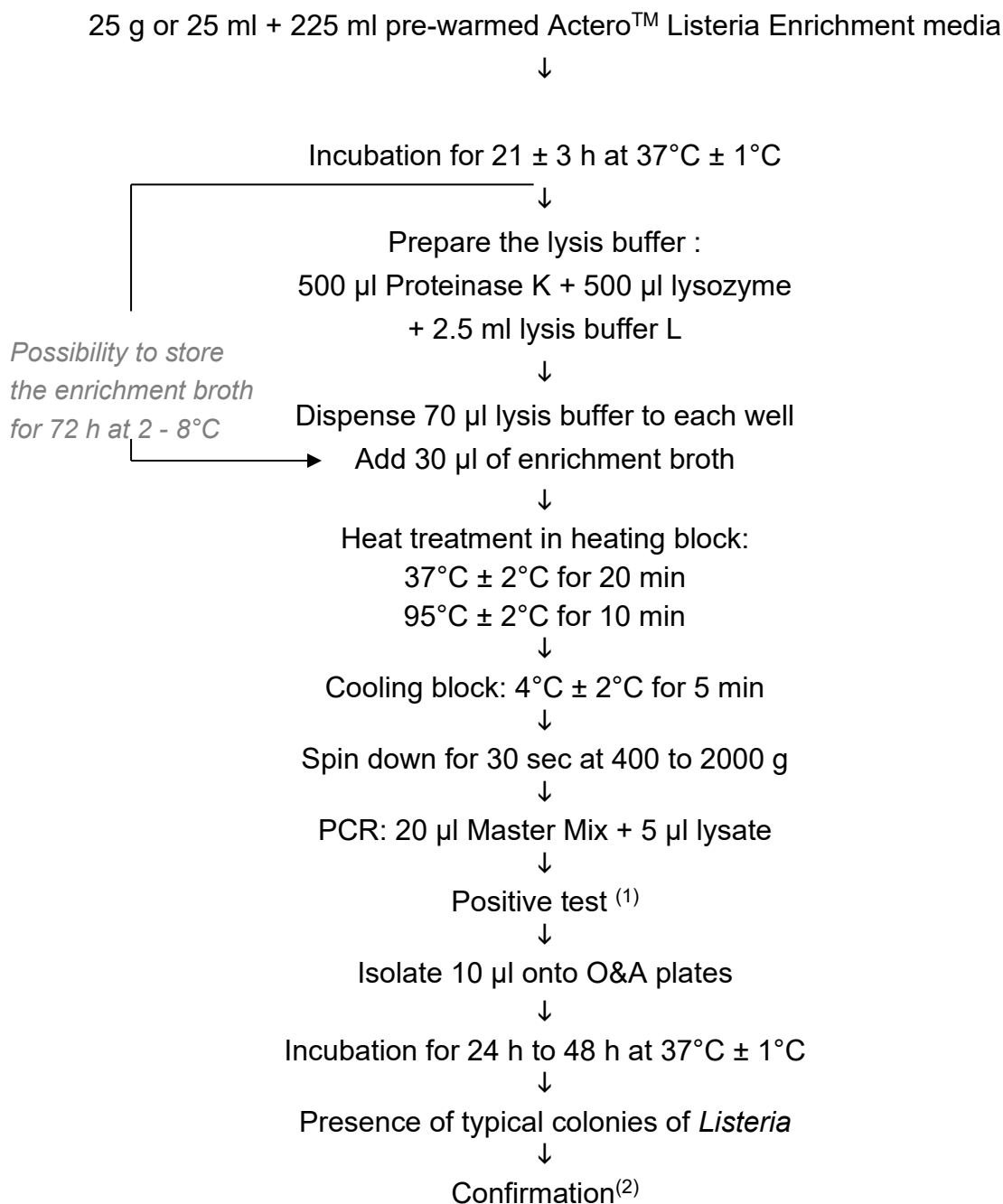
Appendix 1 – Flow diagram of the reference method
ISO 11290-1 (2017) Microbiology of the food chain - Horizontal method for the
detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp.-
Part 1: detection method



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 BACGene *Listeria* Multiplex and the BACGene *Listeria monocytogenes* Test Kits



⁽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 biotyper of Bruker on isolated colonies on O&A and TSYEA plates

During the validation, all the negative results were confirmed by proceeding to a subculture in Fraser broth incubated for 48 h at 37°C , prior to streaking onto O&A plates in order to have the total duration of incubation of the reference method (Half Fraser: $24 \text{ h} \pm 2 \text{ h}$ at 37°C + Fraser: $48 \text{ h} \pm 2 \text{ h}$ at 37°C).

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

Extraction procedure

(confirmation to 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

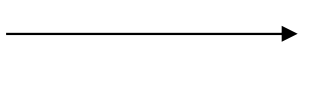


Centrifuge 2 min. at maximum speed



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 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)	+
3352	Déchet poudre de lait	Pasteurised milk cheese	<i>L.monocytogenes</i> Ad627	Environmental samples (milk industry)	Seeding 48h 4°C	0-1-1-0-1 (0.6)	-
3354	Eau rinçage poussoir (production saucisson poisson)	Pasteurised milk cheese	<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)	Pasteurised milk cheese	<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)	Pasteurised milk cheese	<i>L.monocytogenes</i> Ad548	Environmental samples (fish industry)	Seeding 48h 4°C	0-1-0-0-1 (0.4)	-
3357	Lingette planche découpe poisson (thon saumon)	Pasteurised milk cheese	<i>L.monocytogenes</i> Ad1272	Environmental samples	Seeding 48h 4°C	(0-1-1-3-1)x2 (2.8)	+
3358	Lingette lave botte	Raw goat milk cheese	<i>L.monocytogenes</i> Ad1272	Environmental samples	Seeding 48h 4°C	(0-1-1-3-1)x2 (2.8)	-
3359	Lingette bac stockage poisson	Raw ewe milk cheese	<i>L.monocytogenes</i> Ad1272	Environmental samples	Seeding 48h 4°C	(0-1-1-3-1)x2 (2.8)	+
4189	Eclair vanille	Pastry	<i>L.monocytogenes</i> Ad551	Pastries	Seeding 48h 4°C	1-1-0-1-1 (0.8)	+
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	Meat based products ready to reheat	<i>L.monocytogenes</i> Ad666	Poultry product	Seeding 48h 4°C	1-1-0-1-1 (0.8)	+

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
4200	Bœuf aux oignons	Meat based products ready to reheat	<i>L.monocytogenes</i> Ad1206	Beef product	Seeding 48h 4°C	5-2-1-1-3 (2.4)	+
4202	Carottes râpées assaisonnées	Seasoned grated carrots	<i>L.monocytogenes</i> Ad1719	Vegetables	Seeding 48h 4°C	2-1-2-1-0 (1.2)	+
4204	Concombre au fromage blanc et ciboulette	Seasoned cucumber	<i>L.monocytogenes</i> Ad1719	Vegetables	Seeding 48h 4°C	2-1-2-1-0 (1.2)	+
4206	Macédoine de légumes avec mayonnaise	Macédoine	<i>L.monocytogenes</i> Ad1719	Vegetables	Seeding 48h 4°C	2-1-2-1-0 (1.2)	+
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)	+
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)	+
4321	Déchet saucisse 1	Waste (pork)	<i>L.monocytogenes</i> Ad1255	Environmental sample (pork)	Seeding 48h 4°C	2-1-1-1-1 (1.2)	+
4323	Déchet saucisse 2	Waste (pork)	<i>L.monocytogenes</i> Ad1255	Environmental sample (pork)	Seeding 48h 4°C	2-1-1-1-1 (1.2)	-
4325	Déchet porc	Waste (pork)	<i>L.monocytogenes</i> Ad1255	Environmental sample (pork)	Seeding 48h 4°C	2-1-1-1-1 (1.2)	+
4327	Déchet saucisson	Waste (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 goat 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)	-

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
4533	Lait fermenté	Fermented milk	<i>L.monocytogenes</i> Ad665	Raw milk	Seeding 48h 4°C	0-1-1-0-1 (0.6)	+
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)	+
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)	+
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)	+
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	Cured 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	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	Deli salad	<i>L.monocytogenes</i> Ad1719	Vegetables	Seeding 48h 4°C	1-1-2-0-5 (1.8)	+
4740	Champignons à la grecque	Deli salad	<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	Seasoned tomatoes	<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	Seasoned grated carrots	<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	Ovoproduits/Pastries	Seeding 48h 4°C	1-0-2-3-0 (1.2)/ 1-1-0-2-0 (0.8)	+
4747	Pêche melba	Pastry	<i>L.monocytogenes</i> JL2862/ <i>L.innocua</i> Ad644	Ovoproduits/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)	+
4752	Croissant au jambon	Ready to reheat	<i>L.monocytogenes</i> Ad1197	Pizza	Seeding 48h 4°C	2-0-0-5-3 (2.0)	-
4753	Tarte aux tomates	Ready to reheat	<i>L.monocytogenes</i> Ad1197	Pizza	Seeding 48h 4°C	2-0-0-5-3 (2.0)	-
4754	Feuilleté au jambon champignons	Ready to reheat	<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	Ready to reheat	<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	Ready to reheat	<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	Ready to reheat	<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 au tomates	Ready to reheat	<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	Ham and cheese sandwich	<i>L.monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	1-2-0-0-0 (0.6)	+
5024	Simple et bon jambon emmental	Ham and cheese sandwich	<i>L.monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	1-2-0-0-0 (0.6)	-
5026	Club jambon beurre	Ham and butter sandwich	<i>L.monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	1-2-0-0-0 (0.6)	-
5028	Sandwich poulet à l'ancienne	Chicken sandwich	<i>L.monocytogenes</i> Ad266	Chicken meat	Seeding 48h 4°C	1-0-0-0-0 (0.2)	-
5030	Sandwich poulet rôti	Chicken sandwich	<i>L.monocytogenes</i> Ad266	Chicken meat	Seeding 48h 4°C	1-0-0-0-0 (0.2)	-
5031	Club poulet rôti sauce salsa	Chicken sandwich	<i>L.monocytogenes</i> Ad266	Chicken meat	Seeding 48h 4°C	1-0-0-0-0 (0.2)	-
5033	Pizza pate fine jambon fromage	Ham and cheese 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	Ham and goat's cheese 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	Cheese 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)	+
5226	Filet de Julienne	Fish fillet	<i>L.monocytogenes</i> Ad229	Seafood	Seeding 48h 4°C	2-2-1-4-4 (2.6)	+
5227	Filet de Vieille	Fish fillet	<i>L.monocytogenes</i> Ad229	Seafood	Seeding 48h 4°C	2-2-1-4-4 (2.6)	+
5228	Filet de Tacaud	Fish fillet	<i>L.monocytogenes</i> Ad229	Seafood	Seeding 48h 4°C	2-2-1-4-4 (2.6)	+

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
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	Ham and butter sandwich	<i>L.monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	2-2-2-1-1 (1.6)	+
5232	Sandwich jambon beurre	Ham and butter sandwich	<i>L.monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	2-2-2-1-1 (1.6)	+
5233	Sandwich jambon emmental	Ham and cheese sandwich	<i>L.monocytogenes</i> Ad273	Pork meat	Seeding 48h 4°C	2-2-2-1-1 (1.6)	+
5234	Sandwich jambon beurre	Ham and butter sandwich	<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	Chicken sandwich	<i>L.monocytogenes</i> Ad266	Chicken meat	Seeding 48h 4°C	2-1-2-1-1 (1.4)	+
5236	Sandwich poulet rôti	Chicken sandwich	<i>L.monocytogenes</i> Ad266	Chicken meat	Seeding 48h 4°C	2-1-2-1-1 (1.4)	+
5238	Bâtonnets crabe	Surimi	<i>L.monocytogenes</i> Ad1189	Fish	Seeding 48h 4°C	1-1-2-1-4 (1.8)	+
5239	Terrine de saumon aneth	Salmon terrine	<i>L.monocytogenes</i> Ad1189	Fish	Seeding 48h 4°C	1-1-2-1-4 (1.8)	+
5240	Bâtonnets crabe	Surimi	<i>L.monocytogenes</i> Ad1189	Fish	Seeding 48h 4°C	1-1-2-1-4 (1.8)	+
5241	Saumon fumé	Smoked salmon	<i>L.monocytogenes</i> Ad128	Smoked salmon	Seeding 48h 4°C	2-0-1-2-2 (1.4)	+
5242	Truite fumée	Smoked trout	<i>L.monocytogenes</i> Ad128	Smoked salmon	Seeding 48h 4°C	2-0-1-2-2 (1.4)	+
5243	Filets de maquereau fumés	Smoked mackerel fillets	<i>L.monocytogenes</i> Ad128	Smoked salmon	Seeding 48h 4°C	2-0-1-2-2 (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)	+
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)	+
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)	+
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)	+

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
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)	+
6757	Saucisse végétale déchet 2	Wastes (vegetables)	<i>L.monocytogenes</i> Ad1238	Vegetables	Seeding 48h 4°C	0-3-4-0-2 (1.8)	+
6759	Déchet poisson blanc	Wastes (White fish)	<i>L.monocytogenes</i> Ad1182	Seafood products	Seeding 48h 4°C	3-0-3-2-2 (2.0)	+
6760	Déchet raie	Wastes (Fish)	<i>L.monocytogenes</i> Ad1182	Seafood products	Seeding 48h 4°C	3-0-3-2-2 (2.0)	-
6761	Déchet sang	Wastes (Blood)	<i>L.monocytogenes</i> Ad265	Beef meat	Seeding 48h 4°C	2-5-1-1-3 (2.4)	+
6764	Eau process lavage carcasse poulet	Process water	<i>L.monocytogenes</i> Ad2519	Environmental sample	Seeding 48h 4°C	3-4-1-2-3 (2.6)	+
6766	Eau rinçage mélangeur ferments	Rinsing water	<i>L.monocytogenes</i> Ad2519	Environmental sample	Seeding 48h 4°C	3-4-1-2-3 (2.6)	+
6768	Eau process rinçage robot coupe fabrication appâts	Process water	<i>L.monocytogenes</i> Ad1679	Environmental sample (fish)	Seeding 48h 4°C	1-2-3-3-2 (2.2)	+
6770	Eau rinçage fabrication biscuits	Rinsing water	<i>L.monocytogenes</i> Ad620	Environmental sample (Milk industry)	Seeding 48h 4°C	2-3-4-1-1 (2.2)	+
6772	Eau rinçage fabrication riz cuit	Rinsing water	<i>L.monocytogenes</i> Ad620	Environmental sample (Milk industry)	Seeding 48h 4°C	2-3-4-1-1 (2.2)	-
6774	Eau rinçage riz au lait	Rinsing water	<i>L.monocytogenes</i> Ad620	Environmental sample (Milk industry)	Seeding 48h 4°C	2-3-4-1-1 (2.2)	+
6776	Eau process fabrication chipolatas	Process water	<i>L.monocytogenes</i> Ad2519	Environmental sample	Seeding 48h 4°C	3-4-1-2-3 (2.6)	+
6778	Chiffonnette table à nerfs (Industrie porc/bœuf)	Wipe (Pork and beef 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)	<i>L.monocytogenes</i> Ad614	Environmental sample (Milk industry)	Seeding 48h 4°C	2-2-2-1-1 (1.6)	-
6780	Chiffonnette cuve poussoir vertical production saucisse végétale	Wipe (Vegetables)	<i>L.monocytogenes</i> Ad614	Environmental sample (Milk industry)	Seeding 48h 4°C	2-2-2-1-1 (1.6)	-
6781	Chiffonnette poussoir après nettoyage production saucisse végétale	Wipe (Vegetables)	<i>L.monocytogenes</i> Ad614	Environmental sample (Milk industry)	Seeding 48h 4°C	2-2-2-1-1 (1.6)	+
6782	Chiffonnette paille production saucisse végétale	Wipe (Vegetables)	<i>L.monocytogenes</i> Ad614	Environmental sample (Milk industry)	Seeding 48h 4°C	2-2-2-1-1 (1.6)	-

N° Sample	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
6783	Chiffonnette riz cuit au lait	Wipe	<i>L.monocytogenes</i> Ad2503	Environmental sample (salad)	Seeding 48h 4°C	4-3-3-2-4 (3.2)	+
6784	Chiffonnette riz au lait	Wipe	<i>L.monocytogenes</i> Ad2503	Environmental sample (salad)	Seeding 48h 4°C	4-3-3-2-4 (3.2)	+
6933	Déchets harengs	Wastes (fish)	<i>L.monocytogenes</i> A00E08	Fish product	Seeding 48h 4°C	0-3-4-3-2 (2.4)	+
6934	Eau rinçage poussoir après production saucisson	Rinsing water	<i>L.monocytogenes</i> Ad1259	Encironmental samples (pork)	Seeding 48h 4°C	3-3-2-5-4 (3.4)	-
6935	Eau rinçage Cutter production saucisson	Rinsing water	<i>L.monocytogenes</i> Ad1259	Encironmental samples (pork)	Seeding 48h 4°C	3-3-2-5-4 (3.4)	+
6936	Eau rinçage bac saucisson	Rinsing water	<i>L.monocytogenes</i> Ad1259	Encironmental samples (pork)	Seeding 48h 4°C	3-3-2-5-4 (3.4)	+
6937	Déchets porc salage	Wastes (pork)	<i>L.monocytogenes</i> Ad243	Encironmental samples (pork)	Seeding 48h 4°C	4-4-5-7-1 (4.2)	+
6938	Chiffonnette pailasse atelier	Wipe	<i>L.monocytogenes</i> Ad2519	Encironmental samples	Seeding 48h 4°C	0-2-4-4-1 (2.2)	+
6939	Chiffonnette épices	Wipe (spices)	<i>L.monocytogenes</i> Ad2519	Encironmental samples	Seeding 48h 4°C	0-2-4-4-1 (2.2)	+
6940	Chiffonnette lavabo atelier	Wipe	<i>L.monocytogenes</i> Ad2519	Encironmental samples	Seeding 48h 4°C	0-2-4-4-1 (2.2)	+
6943	Salami	Delicatessen (salami)	<i>L.monocytogenes</i> A00C014	Meat samples (pork)	Seeding 48h 4°C	2-5-4-1-6 (3.6)	+
6944	Jambon fumé	Delicatessen (smoked ham)	<i>L.monocytogenes</i> A00C014	Meat samples (pork)	Seeding 48h 4°C	2-5-4-1-6 (3.6)	+
6945	Terrine campagne	Delicatessen (terrine)	<i>L.monocytogenes</i> A00C014	Meat samples (pork)	Seeding 48h 4°C	2-5-4-1-6 (3.6)	+
6946	Bacon fumé	Delicatessen (Smoked bacon)	<i>L.monocytogenes</i> A00C014	Meat samples (pork)	Seeding 48h 4°C	2-5-4-1-6 (3.6)	+
6947	Rosette	Delicatessen	<i>L.monocytogenes</i> A00C022	Meat samples (pork)	Seeding 48h 4°C	3-2-3-3-1 (2.4)	-
6948	Mortadelle	Delicatessen	<i>L.monocytogenes</i> A00C022	Meat samples (pork)	Seeding 48h 4°C	3-2-3-3-1 (2.4)	+
6950	Rillettes porc	Delicatessen (rillettes)	<i>L.monocytogenes</i> A00C022	Meat samples (pork)	Seeding 48h 4°C	3-2-3-3-1 (2.4)	+

Appendix 5 – Sensitivity study: raw data

Bold typing : artificially inoculated samples

Listeria detection results:

H-:	characteristic <i>Listeria</i> colonies without halo
H+:	characteristic <i>Listeria</i> colonies with halo
-:	no typical colonies but presence of background microflora
st:	plate without any colony
i:	PCR inhibition
PA:	positive agreement
NA:	negative agreement
ND:	negative deviation
PD:	positive deviation
PPNA:	positive presumptive negative agreement
PPND :	positive presumptive negative deviation
NC:	non characteristic colony on TSYEA
d:	doubtful colony
L.mono	<i>Listeria monocytogenes</i>
L.welsh	<i>Listeria welshimeri</i>
L.innoc	<i>Listeria innocua</i>
L.seeli	<i>Listeria seeligeri</i>
L.iva	<i>Listeria ivanovii</i>
NI	no identification
No result	not enough biological matter on the slide to get a result
RTE	ready to eat
RTRH	ready to reheat
	typical colonies observed on O&A plates after 48 h incubation
(*)	result after subculture in Fraser for 48 h at 37°C
RLM	Rapid <i>Listeria monocytogenes</i> plate

COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT																													
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																			Cate- gory	Ty- pe
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																				
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>				Sub- culture Fraser (48h, 37°C)			
			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)			Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h						Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h								
													O&A	Palcam	O&A	Palcam	Result 24h					MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)	All confir- matory tests				
3739	Pain surprise Marin	RTE	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
3985	Saucisson bœuf volaille	Delicatessen	st	st	st	st	/	-	+(37.31)	+(33.60)	+(37.24)	+(33.72)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD	-	-	1	a
3987	Sandwich thon tomates œufs	RTE sandwich	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
3989	Brin surimi	RTE surimi	H+/H-	+	H+/H-	+	<i>L.mono/ L.innoc</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	-	1	a
3995	Rilette de poulet rôti	RTE rillettes	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
4111	Taboulé poisson fumé	RTE tabbouleh	st	-	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
4112	Sandwich poulet tomate œuf	Sandwich	H+	+	-	-	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	-	1	a
4120	Emincés de poulet rôti	RTE chicken meat	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
4121	Sandwich jambon salami emmental	Sandwich	-	st	-	-	/	-	+(39.08)	+(35.56)	+(40.70)	+(36.37)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD	-	-	1	a
4125	Salade du pêcheur	Salad	H-d (1)	-	-	-	NC	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
4288	Guacamole	Guacamole	st	-	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	-	1	a
4293	Salade camarguaise	Salad	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
4671	Duo saumon sandwich	Salmon sandwich	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
5022	Mini jambon emmental	Ham and cheese sandwich	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
5023	Mini jambon emmental	Ham and cheese sandwich	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	-	1	a
5024	Simple et bon jambon emmental	Ham and cheese sandwich	-	-	st	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
5025	Simple et bon jambon emmental	Ham and cheese sandwich	-	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
5026	Club jambon beurre	Ham and butter sandwich	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
5027	Club jambon beurre	Ham and butter sandwich	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
5028	Sandwich poulet à l'ancienne	Chicken sandwich	H-d	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
5029	Sandwich thon crudités	Tuna and crudités sandwich	H-d	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
5030	Sandwich poulet rôti	Chicken sandwich	H-	+	H-	+	<i>L.welsh</i>	-	-	-	-	-	H-(1)	-	<i>L.welsh</i>	No result;-	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
5031	Club poulet rôti sauce salsa	Chicken sandwich	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
5032	Moelleux pain viennois poulet rôti crudités	Chicken and crudités sandwich	st	-	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	1	a
5231	Sandwich jambon beurre	Ham and butter sandwich	H+	+	H+	+	<i>L.mono</i>	+	+(23.61)	+(20.26)	+(24.31)	+(21.12)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	-	-	1	a
5232	Sandwich jambon beurre	Ham and butter sandwich	H+	+	H+	+	<i>L.mono</i>	+	+(20.19)	+(16.98)	+(20.76)	+(18.03)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	-	-	1	a
5233	Sandwich jambon emmental	Ham and cheese sandwich	st	-	st	st	/	-	+(23.90)	+(20.06)	+(24.21)	+(21.59)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD	-	-	1	a
5234	Sandwich jambon beurre	Ham and butter sandwich	H+	+	H+	+	<i>L.mono</i>	+	+(21.92)	+(18.30)	+(22.16)	+(19.88)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	-	-	1	a

COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT																													
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																			Cate- gory	Ty- pe
									Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																				
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>				Sub- culture Fraser (48h, 37°C)			
			O&A	Palcam	O&A	Palcam			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	O&A		After purification step on TSYEA		All confir- matory tests	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h				
								Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)																		
5235	Sandwich pain polaire poulet à l'indienne	Chicken sandwich	H+/H-	+	H+/H-	+	<i>L.mono</i> / <i>L.welsh</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	1	a	
5236	Sandwich poulet rôti	Chicken sandwich	H+	+	H+	+	<i>L.mono</i>	+	+(28.00)	+(24.41)	+(28.14)	+(25.86)	H+d	+	<i>L.mono</i> at 72h	+	+	+	PA	+	PA	+	PA	+	PA		1	a	
3012	Escalope milanaise	Meat product	H+	+	H+	+d	<i>L.mono</i>	+	+(32.23)	+(28.63)	+(32.23)	+(29.11)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		1	b	
3014	Bol de soupe moulinée	RTR soup	-	st	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
3015	Mélange poulet fresh, tomates cubes, tomates marinées	RTR chicken	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
3978	Sauce	Sauce	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
3980	Cordon bleu de dinde	RTR poultry meat	H+	+	H+	+	<i>L.mono</i>	+	+(24.57)	+(22.21)	+(25.28)	+(22.44)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		1	b	
3983	Cordon bleu de dinde	RTR poultry meat	-	-	H+	+	<i>L.mono</i>	+	+(26.16)	+(23.93)	+(26.76)	+(24.00)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		1	b	
3986	Pâte feuilleté beurre	Puff pastry	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
4115	Sauce	Sauce	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
4116	Plaque à croissant	RTR croissant	H+	-	H+/H-	+	<i>L.mono</i> / <i>L.welsh</i>	+	-/ +(40.85) /-	+(36.52)	-/(31.18)/ +(31.40)	+(37.03)	H+	+	<i>L.mono</i>	+	+	-	ND	+	PA	-	ND	+	PA		1	b	
4127	Paëlla	Paella	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
4286	Pâte brisée au beurre	Short pastry	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
4289	Poêlée Pommes de terre	Pre-cooked potatoes	st	st	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
4294	Raviolis	Raviolis	H-	+	H-	+d	<i>L.welsh</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	No result;-	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
4752	Croissant au jambon	Ready to reheat	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
4753	Tarte aux tomates	Ready to reheat	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
4754	Feuilleté au jambon champignons	Ready to reheat	H-	+	H-	+	<i>L.innocua</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
4755	Friands à la viande	Ready to reheat	H+	+	H+/H-	+	<i>L.mono</i> / <i>L.innoc</i>	+	+(20.84)	+(18.95)	+(21.80)	+(18.74)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		1	b	
4756	Quiche lorraine	Ready to reheat	H+	+	H+/H-	+	<i>L.mono</i> <i>L.innoc</i>	+	+(21.13)	+(18.99)	+(21.92)	+(19.38)	H+/H-	+/-	<i>L.mono</i> / <i>L.innoc</i>	+/-	+	+	PA	+	PA	+	PA	+	PA		1	b	
4757	Flammekueche d'Alsace	Ready to reheat	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
4758	Tarte au tomates	Ready to reheat	H-	+	H-	+	<i>L.innoc</i>	-	+(22.86)	+(20.97)	+(23.45)	+(20.91)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		1	b	
5033	Pizza pâte fine jambon fromage	Ham and cheese pizza	st	-	-	-	/	-	+(31.17)	+(28.70)	+(31.63)	+(29.90)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		1	b	
5034	Pizza pate fine jambon fromage	Ham and cheese pizza	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
5035	Pizza pâte fine jambon chèvre	Ham and goat's cheese pizza	H+	+	H+	+	<i>L.mono</i>	+	+(32.08)	+(29.84)	+(32.58)	+(31.45)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		1	b	
5036	Pizza pâte fine jambon chèvre	Ham and goat's cheese pizza	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	b	
5037	Pizza pâte fine trois fromages	Cheese pizza	H+	-	H+	+d	<i>L.mono</i>	+	+(34.83)	+(31.31)	+(34.70)	+(33.58)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		1	b	
3013	Mille feuille	Pastry	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	1	c	
4188	Eclair vanille	Pastry	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	1	c	
4189	Eclair vanille	Pastry	H+	+	H+	+	<i>L.mono</i>	+	+(28.59)	+(25.37)	+(29.10)	+(26.54)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		1	c	
4190	Millefeuille	Pastry	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	1	c	
4191	Millefeuille	Pastry	H+	+	H+	+	<i>L.mono</i>	+	+(29.89)	+(26.62)	+(30.22)	+(26.53)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		1	c	
4192	Omelette Tortilla nature	Omelette	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	1	c	

COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT																													
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																			Category	Ty- pe
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																				
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>				Sub- culture Fraser (48h, 37°C)			
			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)																					O&A		
									Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)																	
4193	Omelette Tortilla nature	Omelette	H+	+	H+	+	<i>L.mono</i>	+	+(25.86)	+(22.69)	+(26.30)	+(23.47)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			1	c
4194	Omelette tortilla oignons	Omelette	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-		1	c
4746	Religieuse café	Pastry	H+/H-	+	H+/H-	+	<i>L.mono</i> / <i>L.innoc</i>	+	+(25.85)	+(21.97)	+(24.72)	+(22.60)	H+/H-	+/-	<i>L.mono</i> / <i>L.innoc</i>	+/No result;-	+	+	PA	+	PA	+	PA	+	PA			1	c
4747	Pêche melba	Pastry	H-	+	H-	+	<i>L.innoc</i>	-	+(28.48)	+(25.82)	+(28.80)	+(25.86)	H+/H-	+/-	<i>L.mono</i> / <i>L.innoc</i>	+/-	+	+	PD	+	PD	+	PD	+	PD			1	c
4749	Eclair chocolat	Pastry	H+	+	H+/H-	+	<i>L.mono</i> / <i>L.innoc</i>	+	+(31.85)	+(29.00)	+(32.31)	+(29.16)	H+/H-	+/-	<i>L.mono</i> / <i>L.innoc</i>	+/-	+	+	PA	+	PA	+	PA	+	PA			1	c
4750	Choux caramel	Pastry	st	st	st	st	/	-	+(31.91)	+(28.84)	+(32.22)	+(29.23)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD			1	c
5038	Eclair vanille	Pastry	st	-	st	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-		1	c
5039	Eclair chocolat	Pastry	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-		1	c
5040	Tortilla omelette oignons	Tortilla with onions	st	st	st	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-		1	c
5041	Tortilla omelette nature	Tortilla	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-		1	c
5042	Crème pâtissière	Custard	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-		1	c
5043	Coupe profiterole	Pastry	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-		1	c
5044	Tartelette fraise avec crème pâtissière	Pastry	st	st	-	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-		1	c
5045	Coupe bavaroise	Pastry	st	-	st	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-		1	c
5229	Crème pâtissière	Custard	H+	+	H+	+	<i>L.mono</i>	+	+(23.73)	+(20.22)	+(24.13)	+(21.44)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			1	c
5230	Tortilla nature	Tortilla	H+	+	H+	+	<i>L.mono</i>	+	+(23.74)	+(19.99)	+(23.51)	+(21.30)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			1	c

MEAT PRODUCTS																												
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																Cate- gory	Ty- pe		
									Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																			
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>					Sub- culture Fraser (48h, 37°C)	
			O&A	Palcam	O&A	Palcam			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	O&A		After purification step on TSYEA		All confir- matory tests	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx				Agree- ment AriaMx Ref/Alt 18h
Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1											MALDI-TOF (species: <i>L.mono</i>)															
3007	Trime abime silver skinne	Meat product	st	st	st	st	/	-	- /+ (39.20 y/-	+(36.15)	-/-/-	+(36.02)	H+	+	<i>L.mono</i>	+	+	-	NA	+	PD	-	NA	+	PD		2	a
3009	Lardons	Meat product	H-d (1)	+(2)	H-	+	<i>L.welsh</i>	-	+(38.37)	+(34.87)	+(39.09)	+(35.18)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		2	a
3010	Gésiers	Meat product	H+	+	H+	+	<i>L.mono</i>	+	+(33.21)	+(29.91)	+(34.36)	+(30.52)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		2	a
3011	Paupiette	Meat product	-	-	-	-	/	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	2	a
3722	VSM Poulet	Chicken meat	H-	-	H-	+	<i>L.innoc</i>	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	a
3723	Escalope dinde crue	Poultry meat	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	a
3724	Filet de poulet	Chicken meat	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	a
3726	Filet dinde	Poultry meat	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	a
3735	Viande hachée	Ground beef	-	-	H-d	+d	NC	-	-	-	-	-	H-	-	<i>L.welsh</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	2	a
3736	Viande poulet	Poultry meat	H+/H-	+	H+/H-	+	<i>L.mono/ L.welsh</i>	+	+(33.96)	+(33.99)	+(38.60)	+(33.93)	H-/H+ (on RLM)	-/+	<i>L.welsh/ L.mono</i>	-/+	+	+	PA	+	PA	+	PA	+	PA	-	2	a
4109	Escalope de dinde	Poultry meat	H-	+	H-	+	<i>L.welsh</i>	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	a
4117	Suprême poulet	Chicken meat	H+	-	H+	+	<i>L.mono</i>	+	+(33.66)	+(32.04)	+(34.84)	+(29.81)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		2	a
4118	Cuisse de poule	Poultry meat	H+	-	H+	+	<i>L.mono</i>	+	-	-	-	-	H-	-	<i>L.innoc</i>	No result;-	-	-	ND	-	ND	-	ND	-	ND	-	2	a
4128	Haché d'agneau	Lamb meat	H+	-	H+/H-	+	<i>L.mono/ L.welsh</i>	+	- /+ (36.09 y/-	+(33.61)	+(37.53)	+(34.16)	H+/H-	+	<i>L.mono/ L.welsh</i>	+/-	+	-	ND	+	PA	+	PA	+	PA		2	a
6616	Aiguillettes de poulet crués	Raw chicken meat	st	-	st	-	/	-	+(25.58)	+(22.64)	+(25.15)	+(22.74)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		2	a
6617	Cuisses de poulet crués	Raw chicken meat	H+/H-	+(1)	H+/H-	+	<i>L.mono/ L.wels</i>	+	+(31.78)	+(28.50)	+(31.10)	+(28.50)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		2	a
6619	Dinde	Raw turkey meat	H+	+	H+	+	<i>L.mono</i>	+	+(29.16)	+(26.11)	+(28.34)	+(26.33)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		2	a
6659	Escalope dinde nature	Turkey meat	H-	+	H-	+	<i>L.welsh</i>	-	+(26.07)	+(23.52)	+(27.09)	+(24.38)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		2	a
6660	Cuisse de poulet sans os	Chicken leg	H+/H-	+	H+	+	<i>L.mono/ L.welsh</i>	+	+(30.26)	+(26.65)	+(30.71)	+(27.73)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		2	a
6662	Cuisse dinde	Turkey leg	H+/H-	+	H+/H-	+	<i>L.mono/ L.innoc</i>	+	+(27.08)	+(24.09)	+(26.60)	+(24.09)	H+/H-	+/-	<i>L.mono/ L.innoc</i>	+/-	+	+	PA	+	PA	+	PA	+	PA		2	a
6675	Filet de dinde congelé	Frozen turkey meat	H+/H-	+	H-	+	<i>L.mono/ L.innoc</i>	+	+(33.01)	+(27.78)	+(31.93)	+(28.81)	H+/H-	+/-	<i>L.mono/ L.innoc</i>	+/-	+	+	PA	+	PA	+	PA	+	PA		2	a
6676	Gigot d'agneau	Lamb meat	st	-	st	-	/	-	+(26.40)	+(23.42)	+(26.91)	+(24.09)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		2	a
6677	Steak haché surgelé	Frozen ground beef	H+/H-	+	H+/H-	+	<i>L.mono/ L.welsh</i>	+	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	ND	-	ND	-	ND	-	ND	-	2	a
6679	Steak haché	Ground beef	H+/H- (1)	+	H+/H-	+	<i>L.mono/ L.welsh</i>	+	+(26.86)	+(23.68)	+(27.35)	+(24.69)	H+/H-	+/-	<i>L.mono/ L.welsh</i>	+/-	+	+	PA	+	PA	+	PA	+	PA		2	a
6680	Minerai de bœuf	Beef meat	H+	+	H+	+	<i>L.mono</i>	+	+(21.05)	+(18.45)	+(21.65)	+(19.04)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		2	a
6681	Fourchette de dinde	Turkey meat	H+/H-d	+	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	2	a
6840	Côte à griller	Raw meat (beef)	st	-	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	a
6841	Pavés de veau	Raw meat (veal)	st	st	-	st	/	-	+(28.65)	+(25.44)	+(28.68)	+(25.77)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		2	a
6842	Côtes de porc	Raw meat (pork)	st	-	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	a
7046	Steak haché 15%MG	Ground beef	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	a
3737	Côte de porc Miel moutarde	Seasoned pork meat	st	st	-	st	/	-	+(30.16)	+(28.70)	+(31.12)	+(28.33)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		2	b
3994	Blanquette	RTR Blanquette	H-	+	H-	+	<i>L.innoc</i>	-	+(25.11)	+(22.55)	+(25.22)	+(22.60)	H+/H-	+	<i>L.mono/ L.innoc</i>	+/-	+	+	PD	+	PD	+	PD	+	PD		2	b
4114	Côte de porc thym romarin	Meat based products ready to reheat	H+	+	H+	+	<i>L.mono</i>	+	+(33.67)	+(31.95)	+(33.71)	+(29.82)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		2	b
4124	Côte de porc thym romarin	Meat based products ready to reheat	-	-	-	-	/	-	+(39.41)	+(35.15)	+(39.49)	+(32.62)	H-/H+ (RLM)	+/-	<i>L.mono/ L.welsh</i>	+/-	+	+	PD	+	PD	+	PD	+	PD		2	b

♦ Analyses performed according to the COFRAC accreditation

ADRIA Développement

Summary report (Version 0)

BACGene™ Listeria Multiplex & Listeria monocytogenes

MEAT PRODUCTS																												
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																		Cate- gory	Ty- pe
									Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																			
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>				Sub- culture Fraser (48h, 37°C)		
			O&A	Palcam	O&A	Palcam			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	O&A		After purification step on TSYEA		All confir- matory tests	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h			
Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1																									MALDI-TOF (species: <i>L.mono</i>)	
4195	Coq au vin	Meat based products ready to reheat	H+	+	H+	+	<i>L.mono</i>	+	+(28.97)	+(25.72)	+(29.47)	+(26.76)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	-	2	b
4196	Porc sauce aigre douce	Meat based products ready to reheat	H-	+	H-	+	<i>L.welsh</i>	-	-	-	-	-	H-	-	<i>L.welsh</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	2	b
4197	Porc sauce aigre douce	Meat based products ready to reheat	st	st	st	st	/	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	2	b
4198	Fricadelles sauce tomate	Meat based products ready to reheat	st	st	st	st	/	-	-	-	-	-	H-	-	<i>L.welsh</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	2	b
4199	Fricadelles sauce tomate	Meat based products ready to reheat	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	2	b
4200	Bœuf aux oignons	Meat based products ready to reheat	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	2	b
4201	Bœuf aux oignons	Meat based products ready to reheat	H-	+	H-	+	<i>L.welsh</i>	-	-	-	-	-	H-	-	<i>L.welsh</i>	+	-	-	NA	-	NA	-	NA	-	NA	-	2	b
6661	Cordon bleu	RTRH poultry	-	-	-	-	/	-	+(31.38)	+(27.32)	+(30.88)	+(27.93)	H+/-H-	+/-	<i>L.mono</i> / <i>L.innoc</i>	+/-	+	+	PD	+	PD	+	PD	+	PD		2	b
6664	Tajine poulet olives	RTRH chicken	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	b
6665	Côte de porc Miel moutarde	RTRH pork meat	H+	+	H+	+	<i>L.mono</i>	+	+(27.38)	+(23.78)	+(27.55)	+(24.57)	H+/-H-	+/-	<i>L.mono</i> / <i>L.innoc</i>	+/-	+	+	PA	+	PA	+	PA	+	PA		2	b
6666	Cordon bleu de dinde	RTRH poultry	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	2	b
6667	Langue porc cuite	Cooked pork tongue	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	2	b
6668	Cordon bleu de dinde	RTRH poultry	H+	+	H+	+	<i>L.mono</i>	+	+(23.86)	+(20.48)	+(24.03)	+(21.37)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		2	b
6669	Filet poulet rôti	Cooked poultry	H-	+	H-	+	<i>L.welsh</i>	-	+(26.22)	+(23.12)	+(26.68)	+(24.05)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		2	b
7032	Tomates facies au bœuf	RTRH (tomatoes, beef)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	b
7033	Escalope de dinde milanaise	RTRH (turkey)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	b
7034	Gratin d'endives au jambon	RTRH (Ham, endives)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	b
7035	Poulet à la moutarde et au riz	RTRH (Chicken)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	b
7036	Bœuf à la bolognaise et pâtes	RTRH (Beef, pasta)	st	st	st	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	b
3008	Merguez volaille	Raw goat milk cheese	-	-	-	-	/	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	2	c
3725	Saucisse sèche volaille bœuf	Fermented milk	H-d	+d	H-d	+d	NC	-	+(35.73)	+(33.87)	+(36.29)	+(34.03)	H+/-H-	+	<i>L.mono</i> / NC	+	+	+	PD	+	PD	+	PD	+	PD		2	c
3727	Saucisson à l'oignon de Roscoff	Delicatessen	st	-	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	2	c
3992	Rosette	Delicatessen	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	c
3996	Jambon	Ham	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	c
4113	Jambon à l'ancienne	Ham	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	c
4541	Salami	Salami	-	st	-	-	/	-	+(33.61)	+(30.63)	+(35.41)	+(30.93)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		2	c
4542	Jambon de Paris	Ham	st	+(1)	H+	+	<i>L.mono</i>	+	+(23.09)	+(20.54)	+(23.91)	+(20.89)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		2	c
4544	Bacon fumé	Smoked bacon	H+	+	H+/-		<i>L.mono</i> / <i>L.welsh</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	2	c
4545	Jambon serrano	Cured ham	st	st	st	-	/	-	-	-	-	-	H-	-	<i>L.welsh</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	2	c
4546	Saucisson sec tranches fines	Sausage	st	st	st	st	/	-	+(34.01)	+(31.69)	+(34.93)	+(31.39)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		2	c
4679	Fromage de tête aux herbes	Delicatessen	st	st	st	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	c
4684	Jambon à l'ancienne	Ham	H-d(1)	+(1)	H-	+	<i>L.innoc</i>	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	2	c
6663	Saucisson sec	Low moisture sausage	H+	+	H+	+	<i>L.mono</i>	+	+(35.37)	+(31.63)	+(35.35)	+(32.05)	H+/-H-	+/-	<i>L.mono</i> / <i>L.welsh</i>	+/-	+	+	PA	+	PA	+	PA	+	PA		2	c

MEAT PRODUCTS																														
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																			Category	Ty- pe	
			Half Fraser		Fraser 1		Identification	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																					
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>				Sub- culture Fraser (48h, 37°C)				
			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)												Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h					
									O&A	Palcam	O&A	Palcam	O&A	After purification step on TSYEA	All confir- matory tests															
6670	Saucisse sèche volaille bœuf	Low moisture beef sausage	H+	+	H+	+	<i>L.mono</i>	+	+(32.55)	+(28.78)	+(32.72)	+(29.59)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		2	c
6672	Saucisse sèche volaille bœuf	Low moisture beef sausage	H-	+	H-	+	<i>L.welsh</i>	-	-	-	-	-	H-	-	<i>L.welsh</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	2	c
6673	Chorizo	Chorizo	H+	+	H+	+	<i>L.mono</i>	+	+(30.56)	+(26.62)	+(31.33)	+(27.01)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		2	c
6678	Saucisson sec	Low moisture sausage	H+(3)	+(2)	H+	+	<i>L.mono</i>	+	-	+(37.91) / +(37.63) /-	-	-	-	/	/	/	-	-	ND	-	PPND	-	ND	-	ND	-	ND	-	2	c
6943	Salami	Delicatessen (salami)	H+	+	H+	+	<i>L.mono</i>	+	+(35.44)	+(32.21)	+(36.05)	+(33.13)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		2	c
6944	Jambon fumé	Delicatessen (smoked ham)	H+	+	H+	+	<i>L.mono</i>	+	+(27.47)	+(24.11)	+(27.49)	+(24.96)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		2	c
6945	Terrine campagne	Delicatessen (terrine)	H+	+	H+	+	<i>L.mono</i>	+	+(26.35)	+(23.38)	+(26.71)	+(24.48)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		2	c
6946	Bacon fumé	Delicatessen (Smoked bacon)	H+	+	H+	+	<i>L.mono</i>	+	+(30.54)	+(27.39)	+(30.64)	+(28.29)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		2	c
6947	Rosette	Delicatessen	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	2	c
6948	Mortadelle	Delicatessen	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	2	c
6950	Rillettes porc	Delicatessen (rillettes)	st	st	st	st	/	-	+(23.70)	+(21.01)	+(24.47)	+(22.36)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD	+	PD		2	c

MILK AND DAIRY PRODUCTS																													
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																	Cate- gory	Ty- pe		
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																				
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monocytogenes</i>						Sub- culture Fraser (48h, 37°C)	
			CFX96 PCR result	AriaMx PCR result	CFX96 PCR result	AriaMx PCR result												Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h				
			O&A	Palcam	O&A	Palcam			O&A	Palcam	Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)	All confir- matory tests														
3016	Petit reblochon au lait cru	Raw milk cheese	-	-	st	-	/	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a		
3017	Rocamadour AOP lait cru	Raw ewe milk cream	st	-	-	st	/	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a		
3339	Abondance lait cru	Raw milk cheese	st	st	-	-	/	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a		
3340	Comte lait cru	Raw milk cheese	st	st	-	-	/	-	+(36.66)	+(34.28)	+(37.33)	+(34.77)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		3	a	
3341	Bethmale lait cru	Raw milk cheese	-	-	-	-	/	-	+(38.99)	+(37.25)	+(36.61)	+(33.90)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		3	a	
3342	Grana padano lait cru	Raw milk cheese	-	-	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	3	a	
3343	Rocamadour lait cru	Raw goat milk cheese	st	st	-	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
3344	Roquefort lait cru	Raw milk cheese	st	-	-	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
3345	Morbier lait cru	Raw milk cheese	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
3990	Maroilles	Raw milk cheese	st	st	st	st	/	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
3991	Fromage affiné brebis	Raw ewe milk cheese	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
3993	Morbier lait cru	Raw milk cheese	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
4526	Rocamadour au lait cru	Raw goat milk cheese	st	st	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	3	a	
4528	Tomme des bauges au lait cru	Raw milk cheese	H+(1)	+(1)	H+	+	<i>L.mono</i>	+	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	ND	-	ND	-	ND	-	ND	-	3	a	
4529	Saint Nectaire fermier au lait cru	Raw milk cheese	-	-	-	-	/	-	+(33.57)	+(30.81)	+(34.19)	+(31.07)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		3	a	
4530	Comte 12 mois au lait cru	Raw milk cheese	H-(2)	+(1)	H-	+	<i>L.welsh</i>	-	-	-	-	-	H-	-	<i>L.welsh</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
4531	Beaufort au lait cru	Raw milk cheese	-	-	st	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
5945	Brie de Meaux lait cru	Raw milk cheese	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
5946	Comté lait cru	Raw milk cheese	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
5947	Saint nectaire lait cru	Raw milk cheese	-	-	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
5948	Roquefort lait cru	Raw ewe milk cheese	st	-	st	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
5949	Crottin chavignol lait cru	Raw goat milk cheese	-	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
5950	Picodon lait cru	Raw goat milk cheese	st	st	-	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
5951	Salers lait cru	Raw milk cheese	-	-	st	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
5952	Munster au lait cru	Raw milk cheese	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
6951	Formage au lait cru 01	Raw milk cheese	H+	+	H+	+	<i>L.mono</i>	+	+(36.08)	+(32.75)	+(37.07)	+(33.33)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		3	a	
6952	Formage au lait cru 06	Raw milk cheese	-	-	-	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	a	
6953	Formage au lait cru 07	Raw milk cheese	-	-	-	-	/	-	+(38.09)	+(35.42)	+(38.01)	+(34.65)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		3	a	
6954	Formage au lait cru 14	Raw milk cheese	H+	+(2)	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	3	a	
3018	Lait cru	Raw milk	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	b	
3019	Lait cru fermier	Raw milk	st	-	-	-	/	-	-	-	-	-	H-d	/	NC	/	-	-	NA	-	NA	-	NA	-	NA	-	3	b	
3346	Crème au lait cru 1	Raw milk cream	H+	+	H+	+	<i>L.mono</i>	+	+(29.60)	+(26.66)	+(30.00)	+(27.02)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		3	b	
3347	Crème au lait cru 2	Raw milk cream	H+	+	H+	+	<i>L.mono</i>	+	+(28.17)	+(25.50)	+(28.50)	+(25.70)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		3	b	
3348	Crème au lait cru 6	Raw milk cream	4H+	+	H+/H-	+	<i>L.mono/</i> <i>L.innoc</i>	+	+(30.98)	+(28.09)	+(31.41)	+(28.31)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		3	b	
3745	Lait brebis	Raw ewe milk	H+	-	H+	+	<i>L.mono</i>	+	+(38.07)	+(34.55)	+(38.01)	+(34.05)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		3	b	
3997	Lait brebis	Raw ewe milk	st	-	st	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	3	b	
4532	Lait fermenté	Fermented milk	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	3	b	
4533	Lait fermenté	Fermented milk	H+	+	H+	+	<i>L.mono</i>	+	+(26.88)	+(24.29)	+(27.84)	+(24.63)	H+/H-	+	<i>L.mono/</i> <i>L.innoc</i>	+/-	+	+	PA	+	PA	+	PA	+	PA		3	b	
4534	Lait ribot lait fermenté maigre	Fermented milk	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	No result;-	-	-	NA	-	NA	-	NA	-	NA	-	3	b	

♦ Analyses performed according to the COFRAC accreditation

MILK AND DAIRY PRODUCTS																														
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																	Cate- gory	Ty- pe			
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																					
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>						Sub- culture Fraser (48h, 37°C)		
			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)			Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h						Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h									
													O&A	Palcam	O&A	Palcam	Result 24h					MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)	All confir- matory tests					
4535	Lait ribot lait fermenté maigre	Fermented milk	H+	+	H+	+	<i>L.mono</i>	+	+(35.14)	+(33.12)	+(37.44)	+(33.46)	H+/H-	+	<i>L.mono/</i> <i>L.innoc</i>	+/-	+	+	PA	+	PA	+	PA	+	PA	+	PA		3	b
4536	Lait cru de vache	Raw milk	H+	+	H+	+	<i>L.mono</i>	+	+(34.33)	+(31.67)	+(35.44)	+(31.54)	H+/H-	+	<i>L.mono</i> <i>/L.innoc</i>	+/-	+	+	PA	+	PA	+	PA	+	PA	+	PA		3	b
4537	Lait ribot	Fermented milk	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	ND	-	3	b
4538	Lait fermenté	Fermented milk	H+	+	H+	+	<i>L.mono</i>	+	+(27.02)	+(24.46)	+(27.91)	+(25.08)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		3	b
4539	Lait fermenté	Fermented milk	H+/H-	+	H+/H-	+	<i>L.mono/</i> <i>L.innoc</i>	+	+(27.00)	+(23.99)	+(27.31)	+(24.25)	H+/H-	+	<i>L.mono/</i> <i>L.innoc</i>	+/-No result;-	+	+	PA	+	PA	+	PA	+	PA	+	PA			b
5953	Lait cru fermier	Raw milk	H+	+	H+	+	<i>L.mono</i>	+	+(29.49)	+(26.24)	+(30.03)	+(27.78)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		3	b
5954	Lait cru de vache	Raw milk	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	b
5955	Lait cru fermier	Raw milk	H+	+	H+	+	<i>L.mono</i>	+	+(29.55)	+(26.60)	+(29.84)	+(27.58)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		3	b
5956	Lait cru	Raw milk	-	st	-	st	/	-	+(29.13)	+(26.38)	+(29.01)	+(26.98)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD	+	PD		3	b
6836	lait cru	Raw milk	-	-	-	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	b
6837	Lait cru fermier	Raw milk	st	-	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	b
6838	Beurre de baratte au lait cru	Raw milk butter	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	b
6839	Beurre de baratte cru demi-sel	Raw milk butter	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	b
3006	Beurre	Butter	H-d	-	-	-	NC	-	+(41.45)	+(38.67)	-/-	+(39.11)	H-d/H+ (*)	+	<i>L.mono/</i> <i>L.seeli</i> at 72h	+/-Not tested	+	+	PD	+	PD	-	NA	+	PD	H+		3	c	
3349	Bleu des causses lait pasteurisé	Pasteurised milk cheese	st	-	st	-	/	-	-	-	-	-	H-d	-	<i>L.seeligeri</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	c
3350	Le chèvre feuille lait pasteurisé	Pasteurised milk cheese	-	-	-	-	/	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	c
3351	Camembert lait pasteurisé	Pasteurised milk cheese	st	-	-	-	/	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	c
4306	Brique brebis au lait pasteurisé	Pasteurised ewe milk cheese	H+	+	H+	+	<i>L.mono</i>	+	+(23.69)	+(20.59)	+(23.64)	+(21.53)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		3	c
4307	Fromage au lait pasteurisé	Pasteurised milk cheese	H+	+	H+	+	<i>L.mono</i>	+	+(29.30)	+(26.01)	+(29.70)	+(27.98)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		3	c
4308	Tomme des Pyrénées au lait pasteurisé	Pasteurised milk cheese	H+	+	H+	+	<i>L.mono</i>	+	+(23.41)	+(20.43)	+(23.19)	+(20.90)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		3	c
4309	Bleu d'auvergne au lait pasteurisé	Pasteurised milk cheese	H-(4)	+(2)	H-	+	<i>L.innoc</i>	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	c
4310	Emmental français au lait pasteurisé	Pasteurised milk cheese	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	c
4311	Saint Paulin au lait pasteurisé	Pasteurised milk cheese	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	c
4312	Camembert au lait pasteurisé	Pasteurised milk cheese	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	No result;-	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	c
4328	Fromage au lait pasteurisé	Pasteurised milk cheese	st	st	st	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	c
4329	Tomme des Pyrénées au lait pasteurisé	Pasteurised milk cheese	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	c
4330	Brique brebis au lait pasteurisé	Pasteurised ewe milk cheese	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	H+	3	c
4331	Camembert au lait pasteurisé	Pasteurised milk cheese	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	c
4332	Saint Paulin au lait pasteurisé	Pasteurised milk cheese	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	NA	-	3	c
5958	Petit suisse lait pasteurisé	Pasteurised fermented milk	H+	+	H+	+	<i>L.mono</i>	+	+(23.50)	+(21.24)	+(24.39)	+(22.11)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA		3	

MILK AND DAIRY PRODUCTS																													
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																			Category	Type
			Half Fraser		Fraser 1		Identification	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																				
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>				Sub- culture Fraser (48h, 37°C)			
			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)												Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h				
									O&A	Palcam	O&A	Palcam	Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)	All confir- matory tests												
5959	Yaourt nature lait pasteurisé	Pasteurised fermented milk	H+(4)	+(2)	H+	+	<i>L.mono</i>	+	+(24.68)	+(21.59)	+(23.85)	+(22.05)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			3	c
5960	Yaourt au lait entier lait pasteurisé	Pasteurised fermented milk	-	-	-	-	/	-	+(26.27)	+(23.05)	+(25.78)	+(24.20)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD			3	c
5961	Fromage frais lait pasteurisé	Pasteurised fermented milk	-	-	-	-	/	-	+(24.25)	+(21.12)	+(24.78)	+(22.50)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD			3	c
5962	Crème dessert saveur chocolat lait pasteurisé	Dairy based dessert	H+	+	H+	+	<i>L.mono</i>	+	i/+(29.79)	+(26.57)	+(24.48)	+(24.42)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			3	c
6671	Fromage trois laits	Pasteurised three milk cheese	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-		3	c
6674	Forêt noire	Pastry	H+	+	H+	+	<i>L.mono</i>	+	+(21.72)	+(19.35)	+(22.28)	+(19.67)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			3	c

VEGETABLES																												
N° Sam-ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																		Category	Type
			Half Fraser		Fraser 1		Identification	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																			
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>				Sub-culture Fraser (48h, 37°C)		
			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)												Final result CFX96	Agreement CFX96 Ref/Alt 18h	Final result AriaMx	Agreement AriaMx Ref/Alt 18h	Final result CFX96	Agreement CFX96 Ref/Alt 18h	Final result AriaMx	Agreement AriaMx Ref/Alt 18h			
									O&A	Palcam	O&A	Palcam	Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)	All confirmatory tests											
3003	Jeunes carottes surgelées	Carrots	-	-	-	-	/	-	+(29.70)	+(26.76)	+(30.28)	+(26.98)	H+/H-d (NC)	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD	-	4	a
3004	Courgettes émincées	Zucchini	-	-	-	-	/	-	-	-	-	-	H-d	/	NI	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
3005	Ciboulette	Chive	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
3734	Pousses haricot mungo	Vegetables	H+	+	H+/H-d (NC)	+	<i>L.mono</i>	+	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	ND	-	ND	-	ND	-	ND	-	4	a
3742	Courgettes bio	Zucchini	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
3743	Maïs	Corn	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	4	a
3744	Aubergines	Eggplant	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
3979	Petits pois	Peas	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	4	a
4296	Persil plat	Parsley	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
4298	Ciboulette	Chive	st	-	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
4300	Pommes	Apples	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
4302	Grain de maïs	Corn	H+/H-	+	H+/H-	+	<i>L.mono/L.innoc</i>	+	-	-	-	-	- H- (*)	-	<i>L.innoc</i>	-	-	-	ND	-	ND	-	ND	-	ND	H-	4	a
4305	Pousses de haricots mungo	Vegetables	H-d	-	H+/H-	+	<i>L.mono/L.innoc</i>	+	+(34.82)	+(31.94)	+(35.53)	+(32.74)	H+ (RLM)/H-st	+	<i>L.innoc/L.mono</i>	-/+	+	+	PA	+	PA	+	PA	+	PA	-	4	a
4669	Poivrons jaunes crus	Yellow peppers	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
4672	Persil plat	Parsley	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
4674	Ciboulette	Chive	st	-	1H-d	-	NC	-	-	-	-	-	H-d	Not tested	NC	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
4676	Brocolis	Broccoli	-	st	-	-	/	-	+(25.43)	+(22.84)	+(26.26)	+(23.77)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD	-	4	a
4677	Brocolis	Broccoli	-	-	-	-	/	-	-	-	-	-	H-d	Not tested	NC	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
5788	Poivrons rouges	Red pepper	st	st	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
5795	Poivrons jaunes	Yellow pepper	st	st	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
5797	Champignons	Mushrooms	H-(3)	+(2)	H-	+	<i>L.innoc</i>	-	+(29.96)	+(27.33)	+(30.31)	+(28.46)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD	+	4	a
5799	Ciboulette	Chive	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
6607	Haricots verts	Beans	H-d	+	H-	+	<i>L.innoc</i>	-	+(27.03)	+(24.36)	+(26.02)	+(24.24)	H+/H-	+/-	<i>L.mono/L.innoc</i>	+/-	+	+	PD	+	PD	+	PD	+	PD	-	4	a
6608	Choux fleurs	Cauliflower	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
6610	Haricots verts	Beans	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
6611	Carottes crues émincées	Sliced carrots	H+	+	H+	+	<i>L.mono</i>	+	+(28.07)	+(25.24)	+(27.01)	+(24.88)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	-	4	a
6614	Courgettes	Zucchini	H+/H-	+	H+/H-	+	<i>L.mono/L.innoc</i>	+	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	ND	-	ND	-	ND	-	ND	-	4	a
6713	Persil	Parsley	-	st	H+d	+	<i>L.mono</i>	+	+(38.72)	+(34.96)	+(41.73)	+(35.37)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	-	4	a
6714	Ciboulette	Chive	-	-	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-d	No result;-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	4	a
6715	Courgettes en rondelles	Zucchini	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	a
6716	Courgettes en rondelles	Zucchini	H+(2)	+	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	4	a
6717	Persil	Parsley	-	-	-	-	/	-	-	-	-	-	H-d (*)	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	H-d	4	a
3001	Poêlée Pommes de terre	Cooked potatoes	st	st	st	st	/	-	-	-	-	-	H+d/-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b
3002	Oignons préfaits	Cooked onions	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b
3733	Carottes précuites	Pre-cooked carrots	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b
3740	Tajine de légumes	Pre-cooked vegetables	st	-	-	-	/	-	-	-	-	-	H-d	-	<i>L.seeli</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	4	b
3741	Champignons émincés	Sliced mushrooms	st	-	-	-	/	-	+(33.20)	+(31.04)	+(34.24)	+(31.03)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD	-	4	b

♦ Analyses performed according to the COFRAC accreditation

VEGETABLES																													
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																	Cate- gory	Ty- pe		
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																				
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>						Sub- culture Fraser (48h, 37°C)	
			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)												Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h				
			O&A	Palcam	O&A	Palcam			O&A	Palcam	Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)	All confir- matory tests														
4119	Pomme de terre lamelles	Pre-cooked potatoes	st	st	st	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
4123	Oignons préfrits	Pre-cooked onions	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
4287	Matières premières saupoudreur tomates	Vegetable raw material	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
4297	Purée de carottes	Carrot purée	H+	+	H+	+	<i>L.mono</i>	+	+(20.09)	+(17.41)	+(20.84)	+(18.30)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		4	b	
4299	Tajine	Tajine	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	4	b	
4301	Courgettes bio	Zucchini	-	st	H-	+	<i>L.innoc</i>	-	+(38.74)	+(35.99)	+(38.41)	+(37.09)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		4	b	
4304	Oignons préfrits	Pre-cooked onions	st	st	-	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
4673	Tomates quartier	Tomatoes	-	-	-	-	/	-	-	-	-	-	H-d	Not tested	NC	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
4675	Courgettes rondes lisses	Zucchini	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
4678	Jeunes carottes surgelées	Frozen carrots	-	-	-	-	/	-	-	-	-	-	H-d	Not tested	NC	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
4680	Oignons préfrits	Pre-fried onions	H+/H-	+(2)	H+	+	<i>L.mono/ L.innoc</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	4	b	
4681	Courgettes	Precooked zucchini	-	-	-	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
4682	Poêlée de pommes de terre précuites	Precooked potatoes	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
4683	Champignons émincés surgelés	Frozen mushrooms	st	st	st	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
5789	Farce pour wrap	Stuffing for wrap	-	-	H+	+	<i>L.mono</i>	+	+(29.46)	+(27.08)	+(29.88)	+(27.77)	H+d (1)	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		4	b	
5793	Julienne de légumes	Sliced vegetables	-	-	H+	+	<i>L.mono</i>	+	+(27.26)	+(23.85)	+(26.75)	+(24.54)	H+	+	<i>L.mono</i>	No result; +	+	+	PA	+	PA	+	PA	+	PA		4	b	
5794	Purée d'artichaut	Artichoke purée	-	-	-	-	/	-	i/-	i/-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
5796	Préparation provençale	Vegetables based preparation	-	-	-	-	/	-	-	-	-	-	-(*)	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
5798	Petits pois	Beans	H+	+	H+	+	<i>L.mono</i>	-	+(30.16)	+(26.74)	+(29.65)	+(27.96)	H+/H-	+/-	<i>L.mono/ L.innoc</i>	+/-	+	+	PD	+	PD	+	PD	+	PD		4	b	
6609	Riz tomates oignons pommes de terre poivrons	Rice based preparation	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
6612	Légumes pour potager	Vegetables	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
6613	Julienne de légumes	Sliced vegetables	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
6615	Légumes parisienne	Vegetables preparation	st	st	-	-	/	-	+(39.81)	+(35.80)	+(38.34)	+(37.64)	H+ (1)	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		4	b	
6718	Courgettes farcies	RTRH zucchini	H-d	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
6719	Galettes soja tomates	Vegetables RTRH preparation	-	-	-	-	/	-	+(32.94)	+(29.86)	+(33.93)	+(30.51)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD	-	4	b	
6720	Galettes quinoa provençale	Vegetables RTRH preparation	-	-	-	-	/	-	-	-	-	-	H-d (*)	-	<i>L.welsh</i>	-	-	-	NA	-	NA	-	NA	-	NA	H-d	4	b	
6721	Galettes soja tomates	Vegetables RTRH preparation	H-d	+d	H+d	-	<i>L.mono</i>	+	+(34.57)	+(32.01)	+(35.47)	+(33.36)	H-d (*)	+	<i>L.mono</i> at 72h	+	+	+	PA	+	PA	+	PA	+	PA	H-d	4	b	
6722	Galettes boulgour lentilles	Vegetables RTRH preparation	H-d	-	H-	+	<i>L.innoc</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	4	b	
6723	Brunoise méridionale	Vegetables preparation	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
6725	Brunoise méridionale	Vegetables preparation	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	b	
3746	Piémontaise	Piémontaise	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	c	
4202	Carottes râpées assaisonnées	Seasoned grated carrots	st	st	st	st	/	-	+(35.97)	+(31.55)	+(35.89)	+(33.24)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		4	c	
4203	Carottes râpées assaisonnées	Seasoned grated carrots	H-d	+5	H-	+	<i>L.welsh</i>	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	c	

VEGETABLES																													
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																			Cate- gory	Ty- pe
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																				
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monocytogenes</i>				Sub- culture Fraser (48h, 37°C)			
			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)																					O&A		
									Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)																	
4204	Concombre au fromage blanc et ciboulette	Seasoned cucumber	H+	+	H+	+	<i>L.mono</i>	+	+(30.86)	+(27.73)	+(31.77)	+(28.76)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		4	c	
4205	Concombre au fromage blanc et ciboulette	Seasoned cucumber	H-d	+d	H-	+	<i>L.welsh</i>	-	-	-	-	-	H-d (After subculture)	/	NC	/	-	-	NA	-	NA	-	NA	-	NA	H-d (NC)	4	c	
4206	Macédoine de légumes avec mayonnaise	Macédoine	H+	+	H+	+	<i>L.mono</i>	+	+(27.81)	+(24.58)	+(28.20)	+(25.40)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		4	c	
4207	Macédoine de légumes avec mayonnaise	Macédoine	H-d	+d	H-	+	<i>L.welsh</i>	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	c	
4208	Céleri rémoulade	Grated celery	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	c	
4303	Macédoine	Macedoine	st	st	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	c	
4739	Céleri rémoulade	Deli salad	-	st	-	-	/	-	+(26.59)	+(23.96)	+(27.67)	+(24.49)	H+/H-d	+ /Not tested	<i>L.mono</i> / <i>L.seeli</i>	+	+	+	PD	+	PD	+	PD	+	PD		4	c	
4740	Champignons à la grecque	Deli salad	H+	+5	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	4	c	
4741	Tri choux jambon comte	Deli salad	st	-	H+	+	<i>L.mono</i>	+	+(38.75)	+(36.11)	+(40.36)	+(37.30)	H-/H+ (RLM)	-	<i>L.mono</i> (RLM)/ <i>L.innoc</i>	No result;+	+	+	PA	+	PA	+	PA	+	PA		4	c	
4742	Piémontaise	Deli salad	H-	+	H+/H-	+	<i>L.mono</i> / <i>L.innoc</i>	+	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	ND	-	ND	-	ND	-	ND	H-	4	c	
4743	Jardinière de légumes et mayonnaise	Deli salad	H+/H-	+	H-	+	<i>L.mono</i> / <i>L.innoc</i>	+	+(24.02)	+(21.51)	+(24.69)	+(21.87)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		4	c	
4744	Tartare de tomates	Seasoned tomatoes	H+/H-	+	H-	+	<i>L.mono</i> / <i>L.innoc</i>	+	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	ND	-	ND	-	ND	-	ND	H-	4	c	
4745	Carottes râpées assaisonnées	Seasoned grated carrots	H-	+1	H-	+	<i>L.innoc</i>	-	+(27.64)	+(25.22)	+(27.93)	+(25.35)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		4	c	
6822	Macédoine de légumes	Vegetable mix	-	st	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	c	
6823	Piémontaise jambon	Deli salad	-	-	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	c	
6824	Piémontaise jambon	Deli salad	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	c	
6825	Macédoine de légumes	Vegetable mix	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	4	c	

SEAFOOD AND FISHERY PRODUCTS																												
N° Sam-ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																		Cate-gory	Ty-pe
									Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																			
			Half Fraser		Fraser 1		Identi-fication	<i>L.mono</i> result	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monoocytogenes</i>				Sub-culture Fraser (48h, 37°C)		
			O&A	Palcam	O&A	Palcam			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)	All confir-matory tests	Final result CFX96	Agree-ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree-ment AriaMx Ref/Alt 18h	Final result CFX96	Agree-ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree-ment AriaMx Ref/Alt 18h			
2996	Filet de Hoki meunière	Fish filet	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
2999	Crevettes grises	Shrimps	-	-	st	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
3000	Noix de Saint Jacques	Scallops	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	5	a
3729	Filet de Hoki meunière	Fermented milk	H-	-	H-	+	<i>L.welsh</i>	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
3730	Meunière poisson blanc	Fermented milk	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
3981	Tranche pané merlu blanc	RTR fish	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
3982	Filet de Panga	Fish filet	H+	+	H+	+	<i>L.mono</i>	+	+(25.64)	+(23.15)	+(26.09)	+(23.41)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	a
3984	Moules déco cuites	Mussels	H-	st	H-d	st	NC	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
4110	Pavé merlu	Fish product	st	st	-	st	/	-	-/- +(40.77)	+(37.99)	+(39.64)	+(36.64)	H+	+	<i>L.mono</i>	+	+	-	NA	+	PD	+	PD	+	PD		5	a
4130	Cœur de filet de Merlu blanc du cap	Fish filet	H+	+	H+	+1	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	5	a
4131	Aile de raie	Fish product	H+	+	H+	+	<i>L.mono</i>	+	+(31.01)	+(27.86)	+(31.36)	+(27.67)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	a
4685	Ailes de raie	Fish fillet	st	st	st	st	/	-	+(30.34)	+(27.74)	+(31.27)	+(28.17)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		5	a
4967	Saumon	Salmon fillet	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
4968	Colin Alaska	Fish fillet	st	-	-	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
4969	Noix de St Jacques	Scallops	st	-	st	st	/	-	+(35.32)	+(39.31)	+(39.91)	+(36.74)	H+(7)	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		5	a
4970	Pavé poisson blanc	Fish fillet	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
4971	Duo saumon	Salmon fillet	-	st	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
4972	Filet de Hoki meunière	Fish fillet	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
4973	Nacette de saumon cru	Salmon fillet	H+	+	H+	+	<i>L.mono</i>	+	+(24.69)	+(26.64)	+(27.09)	+(24.89)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	a
5224	Encornet sauvage	Squid	H+	+	H+	+	<i>L.mono</i>	+	+(30.85)	+(27.12)	+(31.42)	+(28.40)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	a
5225	Filet de Merlan	Fish fillet	H+	+	H+	+	<i>L.mono</i>	+	+(25.07)	+(21.39)	+(25.67)	+(22.79)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	a
5226	Filet de Julienne	Fish fillet	H+	+	H+	+	<i>L.mono</i>	+	+(25.66)	+(22.18)	+(26.08)	+(23.27)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	a
5227	Filet de Vieille	Fish fillet	H+	+	H+	+	<i>L.mono</i>	+	+(24.85)	+(21.38)	+(25.12)	+(22.46)	H+/H-	-/+	<i>L.innoc</i> / <i>L.mono</i>	-/+	+	+	PA	+	PA	+	PA	+	PA		5	a
5228	Filet de Tacaud	Fish fillet	H+	+	H+	+	<i>L.mono</i>	+	+(25.64)	+(22.05)	+(26.10)	+(23.28)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	a
5790	Chair de saumon	Salmon	-	st	st	-	/	-	-	-	-	-	H-	-	<i>L.welsh</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	5	a
5791	Poisson Panga	Fish fillet	H+	+	H+/H-	+	<i>L.mono</i> / <i>L.innoc</i>	+	+(32.20)	+(29.09)	+(33.37)	+(30.09)	H+/H-	+/-	<i>L.mono</i> / <i>L.innoc</i>	+/-	+	+	PA	+	PA	+	PA	+	PA		5	a
5801	Poisson blanc tranché nature	White piece of fish	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	5	a
5802	Filet de cabillaud	Cod fillet	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	a
5964	Crevettes décortiquées crues	Raw peeled shrimps	-	-	-	-	/	-	+(25.15)	+(22.13)	+(24.91)	+(23.03)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		5	a
5965	Blanc de calmar	Calimari	H+	+	H+	+	<i>L.mono</i>	+	+(24.52)	+(22.08)	+(24.49)	+(22.31)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	a
6618	Poisson blanc	White fish	H+	+	H+	+	<i>L.mono</i>	+	+(26.17)	+(23.29)	+(25.60)	+(23.38)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	a
2998	Filet de bar sauce iodée	Seasoned fish	H+	+	H+	+	<i>L.mono</i>	+	+(31.57)	+(28.44)	+(31.47)	+(28.60)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	b
3728	Pulpe saumon fumé	Smoked salmon	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	5	b
3998	Saumon fumé	Smoked salmon	H+(2)	+(3)	H+	+	<i>L.mono</i>	+	+(29.05)	+(26.77)	+(29.26)	+(26.44)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	b
3999	Saumon fumé	Smoked salmon	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	b
4000	Truite fumée Norvège	Smoked trout	H-	+	H-	+	<i>L.welsh</i>	-	+(29.26)	+(25.99)	+(29.07)	+(26.02)	H+/H-	+	<i>L.mono</i> / <i>L.welsh</i>	+/-	+	+	PD	+	PD	+	PD	+	PD		5	b
4001	Truite fumée Norvège	Smoked trout	H+/H-	+	H+/H-	+	<i>L.welsh</i> / <i>L.mono</i>	+	+(21.32)	+(18.77)	+(21.32)	+(18.60)	H+/H-	+	<i>L.mono</i> / <i>L.welsh</i>	+/-	+	+	PA	+	PA	+	PA	+	PA		5	b
4002	Saumon fumé	Smoked salmon	H-	+	H-	+	<i>L.welsh</i>	-	-	-	-	-	H-	-	<i>L.welsh</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	5	b
4670	Saumon fumé	Smoked salmon	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	b

♦ Analyses performed according to the COFRAC accreditation

SEAFOOD AND FISHERY PRODUCTS																												
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1 [♦]						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																		Category	Type
			Half Fraser		Fraser 1		Identification	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																			
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>				Sub- culture Fraser (48h, 37°C)		
			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)												Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h			
									O&A	Palcam	O&A	Palcam	O&A	After purification step on TSYE	All confir- matory tests													
			O&A	Palcam	O&A	Palcam			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)	All confir- matory tests	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h			
4960	Saumon atlantique fumé	Smoked salmon	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	b
4961	Saumon fumé	Smoked salmon	st	st	st	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	b
4962	Saumon atlantique fumé	Smoked salmon	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	b
4963	Truite fumée Norvège	Smoked trout	H+(1)	st	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	5	b
4964	Saumon atlantique fumé	Smoked salmon	st	st	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	5	b
4965	Truite fumée	Smoked trout	H-	+	H-	+	<i>L.welsh</i>	-	+(30.81)	+(33.28)	+(33.40)	+(31.20)	H+/H-	+/+	<i>L.mono</i> / <i>L.welsh</i>	+/+	+	+	PD	+	PD	+	PD	+	PD		5	b
4966	Saumon atlantique fumé	Smoked salmon	H+(3)	+(1)	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	5	b
5241	Saumon fumé	Smoked salmon	H+	+	H+	+	<i>L.mono</i>	+	+(24.57)	+(21.39)	+(24.69)	+(21.96)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	b
5242	Truite fumée	Smoked trout	H+	+	H+	+	<i>L.mono</i>	+	+(25.09)	+(21.97)	+(25.26)	+(22.63)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	b
5243	Filets de maquereau fumés	Smoked mackerel filets	H+	+	H+	+	<i>L.mono</i>	+	+(31.25)	+(27.82)	+(31.43)	+(28.44)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	b
5966	Lardons saumon fumé	Smoked salmon	H+	+	H+	+	<i>L.mono</i>	+	+(25.27)	+(22.82)	+(25.24)	+(23.63)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	b
5967	Filets de harengs fumés	Smoked herring	H+	+	H+	+	<i>L.mono</i>	+	+(32.99)	+(29.68)	+(32.11)	+(29.72)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	b
6826	Lardons saumon atlantique	Smoked salmon	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	b
6827	Tranches de truite fumée	Smoked trout	st	-	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	b
6828	Petites tranches de saumon fumé	Smoked salmon	st	-	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	b
6829	Harengs fumés	Smoked herrings	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	b
6830	Harengs fumés	Smoked herrings	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	b
2997	Pané poisson blanc cuit	Breaded fish	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	c
3731	Portion Merlu pané	Fish fillet	H-d/ H+d	-	H-d	-	NC	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	c
3732	Filet de colin Fish and chips	RTR fish	-	-	-	-	/	-	+(31.15)	+(29.53)	+(32.76)	+(29.47)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		5	c
3738	Salade du pêcheur	Seafood salad	-	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	c
3988	Poisson pané	RTR fish	H+d/H-	+	H+d/H-	+	H+NC/ <i>L.welsh</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	5	c
4122	Pané de poisson blanc cuit	RTR fish product	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	c
4126	Nacette de saumon	RTR Salmon	H+	+	H+	-	<i>L.mono</i>	+	+(25.38)	+(23.54)	+(26.05)	+(23.50)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	c
4129	Pané Hoki	RTR Fish product	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	c
4290	Cœur cabillaud sauce provençale	RTR fish product	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	5	c
4291	Filet merlu sauce vierge	RTR fish product	H+d	-	H+	+	<i>L.mono</i>	+	+(38.14)	+(33.89)	+(37.74)	+(35.81)	H+ (1)	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	c
4292	Dos de cabillaud sauce provençale	RTR fish product	st	-	-	-	/	-	-	-	-	-	H-(1)	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	5	c
4295	Hoki pané	RTR fish product	H+	-	H+	+	<i>L.mono</i>	+	+(35.39)	+(31.39)	+(35.79)	+(33.49)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	c
4313	Bâtonnets crabe	Surimi	H+	+	H+	+	<i>L.mono</i>	+	+(21.13)	+(18.13)	+(21.17)	+(18.95)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	c
4314	Terrine de saumon aneth	Salmon terrine	H+	+	H+	+	<i>L.mono</i>	+	+(22.94)	+(19.67)	+(22.84)	+(20.36)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	c
4315	Rillettes saumon	Salmon rillettes	-	-	st	st	/	-	+(23.05)	+(19.58)	+(22.49)	+(20.08)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		5	c
4316	Rillettes crabe tourteau	Crab rillettes	H+	+	H+	+	<i>L.mono</i>	+	+(22.86)	+(19.75)	+(22.86)	+(20.48)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		5	c

SEAFOOD AND FISHERY PRODUCTS																														
N° Sam-ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																			Category	Ty-pe	
			Half Fraser		Fraser 1		Identification	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																					
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmation						BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monoocytogenes</i>				Sub-culture Fraser (48h, 37°C)			
			O&A	Palcam	O&A	Palcam			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	O&A		After purification step on TSYEA		All confir-matory tests	Final result CFX96	Agree-ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree-ment AriaMx Ref/Alt 18h	Final result CFX96	Agree-ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree-ment AriaMx Ref/Alt 18h					
Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)																											
4317	Rillettes crabe tourteau	Crab rillettes	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	-	5	c	
4318	Bâtonnets crabe	Surimi	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	-	5	c	
4319	Rillettes saumon	Salmon rillettes	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	-	5	c	
5238	Bâtonnets crabe	Surimi	H+	+	H+	+	<i>L.mono</i>	+	+(21.24)	+(18.18)	+(20.55)	+(19.39)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA	-	5	c
5239	Terrine de saumon aneth	Salmon terrine	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	-	5	c	
5240	Bâtonnets crabe	Surimi	H+	+	H+	+	<i>L.mono</i>	+	+(21.12)	+(17.70)	+(21.72)	+(18.58)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA	-	5	c
5792	Farce de tartare de saumon	Salmon tartar	H-	+	H+/H-	+	<i>L.mono/L.welsh</i>	+	+(26.02)	+(23.39)	+(26.30)	+(24.05)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA	-	5	c
5800	Filet de hoki pané	Breaded fish	H+	+	H+	+	<i>L.mono</i>	+	+(31.71)	+(28.89)	+(31.76)	+(29.31)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA	-	5	c
5803	Américain thon	Sandwich (tuna)	H+	+	H+	+	<i>L.mono</i>	+	+(33.61)	+(31.77)	+(33.72)	+(31.49)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA	-	5	c
5804	Hoki pané	Breaded fish	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	5	c	
5968	Mini tranche de truite fumée	Smoked trout	H+	+	H+	+	<i>L.mono</i>	+	+(24.57)	+(22.56)	+(24.49)	+(23.28)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA	-	5	c
5969	bâtonnets saveur crabe	Surimi	-	-	-	-	/	-	+(19.02)	+(16.60)	+(19.72)	+(18.29)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD	+	PD	-	5	c
5970	Terrine de saumon aneth	Salmon terrine	H+	+	H+	+	<i>L.mono</i>	+	+(21.27)	+(18.45)	+(21.63)	+(19.58)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA	-	5	c
5971	Terrine aux saint jacques	Scallops terrine	H+	+	H+	+	<i>L.mono</i>	+	+(20.69)	+(18.02)	+(21.09)	+(18.55)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA	+	PA	-	5	c

ENVIRONMENTAL SAMPLES																													
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																		Cate- gory	Ty- pe	
									Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																				
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>				Sub- culture Fraser (48h, 37°C)			
			O&A	Palcam	O&A	Palcam			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	O&A		After purification step on TSYEA		All confir- matory tests	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h				
Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1																									MALDI-TOF (species: <i>L.mono</i>)		
3352	Déchet poudre de lait	Dust (milk)	st	-	-	-	/	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a	
3353	Déchet poissons	Waste (fish)	st	st	st	-	/	-	-	-	-	-	H-(1)	-	<i>L.seeligeri</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
4320	Déchet saucisse 1	Waste (pork)	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
4321	Déchet saucisse 1	Waste (pork)	H+	+	H+	+	<i>L.mono</i>	+	+(24.78)	+(21.83)	+(24.74)	+(22.30)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		-	6	a
4322	Déchet saucisse 2	Waste (pork)	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
4323	Déchet saucisse 2	Waste (pork)	st	st	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
4324	Déchet porc	Waste (pork)	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
4325	Déchet porc	Waste (pork)	H+/H-	+	H+/H-	+	<i>L.mono/</i> <i>L.welsh</i>	+	+(23.61)	+(20.63)	+(23.88)	+(21.48)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		-	6	a
4326	Déchet saucisson	Waste (pork)	st	st	st	st	/	-	-	-	-	-	H-(4)	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
4327	Déchet saucisson	Waste (pork)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
5437	Matières premières à réception	Residues (Fish industry)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
5438	Déchets de sol	Residues (Fish industry)	H-d	-	-	-	NC	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
5439	Déchets de sol étêteuse	Residues (Fish industry)	H+	+	H+/H-	+	<i>L.mono/</i> <i>L.innoc</i>	+	+(30.16)	+(27.15)	+(30.71)	+(27.43)	H+/H-	+/-	<i>L.mono/</i> <i>L.innoc</i>	+	+	+	PA	+	PA	+	PA	+	PA		-	6	a
5440	Déchets de sol	Residues (Fish industry)	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
5441	Déchets parage	Residues (Fish industry)	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
5447	Déchets de sol	Residues (Fish industry)	st	st	H-	+	<i>L.innoc</i>	-	+(37.23)	+(34.54)	+(38.21)	+(34.49)	H+/H-	+/-	<i>L.mono/</i> <i>L.innoc</i>	+/-	+	+	PD	+	PD	+	PD	+	PD		-	6	a
6756	Saucisse végétale déchet 1	Waste (vegetables)	H+	-	H+	-	<i>L.mono</i>	+	-	-	-	-	-	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	-	6	a
6757	Saucisse végétale déchet 2	Waste (vegetables)	-	-	-	-	/	-	+(28.22)	+(25.22)	+(28.05)	+(25.63)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		-	6	a
6759	Déchet poisson blanc	Waste (White fish)	H+	+	H+	+	<i>L.mono</i>	+	+(30.01)	+(26.93)	+(29.83)	+(27.49)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		-	6	a
6760	Déchet raie	Waste (Fish)	st	st	-	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
6761	Déchet sang	Waste (Blood)	H+/H-	+	H+/H-	+	<i>L.mono/</i> <i>L.innoc</i>	+	+(23.36)	+(20.96)	+(24.52)	+(21.71)	H+/H-	+/-	<i>L.mono/</i> <i>L.innoc</i>	+/-	+	+	PA	+	PA	+	PA	+	PA		-	6	a
6930	Déchets chinchard	Waste (fish)	st	st	st	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
6931	Déchets sardine	Waste (fish)	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
6932	Déchets saumon	Waste (fish)	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	a
6933	Déchets harengs	Waste (fish)	st	st	st	st	/	-	+(31.94)	+(28.84)	+(32.36)	+(29.91)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		-	6	a
6937	Déchets porc salage	Waste (pork)	H+	+	H+	+	<i>L.mono</i>	+	+(29.12)	+(25.69)	+(29.07)	+(26.60)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		-	6	a
3354	Eau rinçage poussoir (production saucisson poisson)	Process water (Pork and fish production)	st	st	st	st	/	-	+(30.49)	+(27.77)	+(30.92)	+(27.83)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		-	6	b
3355	Eau rinçage cutter (production thon assaisonné)	Process water (fish production)	H+/H-	+	H+/H-	+	<i>L.mono/</i> <i>L.welsh</i>	+	-/-/ +(39.31)	-/-/ +(36.12)	-/-/ +(38.08)	-/-/ +(36.04) /-	H-	-	<i>L.welsh/</i> <i>L.mono</i> at 72h)	-/Not tested	+	-	ND	-	ND	-	ND	-	ND	+	-	6	b
3356	Eau rinçage cutter (production chair saumon)	Process water (fish production)	H-	+	H-	+	<i>L.welsh</i>	-	-	-	-	-	H-	-	<i>L.welsh</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
4686	Eau de process Fabrication chipolatas	Process water	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
5431	Eau rinçage filets peleuse	Cleaning water (Fish industry)	H+/H-	+	H+/H-	+	<i>L.mono/</i> <i>L.innoc</i>	+	+(33.57)	+(30.66)	+(34.27)	+(31.90)	H+/H-	+/-	<i>L.mono/</i> <i>L.innoc</i>	+/-	+	+	PA	+	PA	+	PA	+	PA		-	6	b
5432	Eau rampe de dessalage	Process water (Fish industry)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b

ENVIRONMENTAL SAMPLES																													
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																			Cate- gory	Ty- pe
									Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																				
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>				Sub- culture Fraser (48h, 37°C)			
			O&A	Palcam	O&A	Palcam			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	O&A		After purification step on TSYES		All confir- matory tests	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h	Final result CFX96	Agree- ment CFX96 Ref/Alt 18h	Final result AriaMx	Agree- ment AriaMx Ref/Alt 18h				
Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1																									MALDI-TOF (species: <i>L.mono</i>)		
5433	Eau lave-main	Cleaning water (Fish industry)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
5434	Eau rinçage après décaissage	Cleaning water (Fish industry)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
5435	Eau rinçage bac inox	Cleaning water (Fish industry)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
5436	Eau local taux de sel	Process water (Fish industry)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
6682	Eau parage n°1 (industrie de poissons)	Process water (fish industry)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
6683	Eau sortie épineuse (industrie de poissons)	Process water (fish industry)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
6684	Eau égout maturation salage (industrie de poissons)	Sewer water (fish industry)	st	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
6685	Eau peleuse (industrie de poissons)	Process water (fish industry)	st	st	st	st	/	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
6764	Eau process lavage carcasse poulet	Process water	H+	+	H+	+	<i>L.mono</i>	+	-	-	-	-	st	/	/	/	-	-	ND	-	ND	-	ND	-	ND	-	-	6	b
6766	Eau rinçage mélangeur ferments	Rinsing water	H+	+	H+	+	<i>L.mono</i>	+	+(21.09)	+(18.25)	+(20.88)	+(18.61)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			6	b
6768	Eau process rinçage robot coupe fabrication appâts	Process water	H+	+	H+	+	<i>L.mono</i>	+	+(22.24)	+(19.21)	+(21.88)	+(19.48)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			6	b
6770	Eau rinçage fabrication biscuits	Rinsing water	H+	+	H+	+	<i>L.mono</i>	+	+(20.53)	+(17.24)	+(19.64)	+(17.10)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			6	b
6772	Eau rinçage fabrication riz cuit	Rinsing water	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
6774	Eau rinçage riz au lait	Rinsing water	H+	+	H+	+	<i>L.mono</i>	+	+(21.95)	+(19.04)	+(21.78)	+(19.27)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			6	b
6776	Eau process fabrication chipolatas	Process water	H+	+	H+	+	<i>L.mono</i>	+	+(23.33)	+(20.73)	+(23.08)	+(20.72)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			6	b
6934	Eau rinçage poussoir après production saucisson	Rinsing water	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	b
6935	Eau rinçage Cutter production saucisson	Rinsing water	H+	+	H+	+	<i>L.mono</i>	+	+(23.17)	+(20.35)	+(23.41)	+(21.24)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			6	b
6936	Eau rinçage bac saucisson	Rinsing water	H+	+	H+	+	<i>L.mono</i>	+	+(24.71)	+(22.01)	+(25.13)	+(22.24)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			6	b
3357	Lingette planche découpe poisson (thon saumon)	Wipe (fish production)	H+	+	H+	+	<i>L.mono</i>	+	+(28.97)	+(25.92)	+(29.29)	+(26.51)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			6	c
3358	Lingette lave botte	Wipe (fish production)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	c
3359	Lingette bac stockage poisson	Wipe (fish production)	H+	+	H+	+	<i>L.mono</i>	+	+(27.03)	+(24.37)	+(27.79)	+(25.19)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA			6	c
3360	Lingette bac stockage épices (production poisson)	Wipe (fish production)	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	-	6	c
3361	Lingette Multivac conditionneuse	Wipe (fish production)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	c
3362	Lingette Hall techno table production	Wipe (fish production)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	-	6	c

ENVIRONMENTAL SAMPLES																													
N° Sam- ple	Product (French name)	Product	Reference method: ISO 11290-1/A1♦						Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>																		Cate- gory	Ty- pe	
			Half Fraser		Fraser 1		Identi- fication	<i>L.mono</i> result	Actero™ <i>Listeria</i> Enrichment Media for 18 h at 37°C																				
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation					BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monoocytogenes</i>				Sub- culture Fraser (48h, 37°C)			
			CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)																							O&A
									Result 24h	MALDI-TOF (species: <i>L.mono</i>)	Reference tests ISO11290-1	MALDI-TOF (species: <i>L.mono</i>)																	
5442	Lingette roue chariot	Wipe (Fish industry)	H-(2)	-	H-	+	<i>L.innoc</i>	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
5443	Lingette tapis sortie Boader	Wipe (Fish industry)	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	No result;-	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
5444	Lingette sol frigo	Wipe (Fish industry)	st	st	st	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
5445	Lingette peau de saumon	Wipe (Fish industry)	H-(4)	+(5)	H-	+	<i>L.innoc</i>	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
5446	Lingette paroi surgélation	Wipe (Fish industry)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
5448	Lingette tapis parage après nettoyage	Wipe after cleaning (Fish industry)	H-	+	H-	+	<i>L.innoc</i>	-	-	-	-	-	H-	-	<i>L.innoc</i>	-	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
5449	Lingette tapis éteuse après nettoyage	Wipe after cleaning (Fish industry)	st	st	st	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
5450	Lingette balance après nettoyage	Wipe after cleaning (Fish industry)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
5451	Lingette égout yakitori après nettoyage	Wipe after cleaning (Fish industry)	st	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
5452	Lingette darfresh après nettoyage	Wipe after cleaning (Fish industry)	st	st	-	-	/	-	+(34.38)	+(31.48)	+(34.52)	+(31.47)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		6	c	
6686	Chiffonnette sol dessale (industrie de poissons)	Wipe (Fish industry)	st	st	st	st	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
6687	Chiffonnette fin tapis parage (industrie de poissons)	Wipe (Fish industry)	-	-	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
6778	Chiffonnette table à nerfs (Industrie porc/bœuf)	Wipe (Pork and beef industry)	H+	+	H+	+	<i>L.mono</i>	+	+(23.06)	+(20.71)	+(22.44)	+(20.42)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		6	c	
6779	Chiffonnette cutter vertical production saucisse végétale	Wipe (Vegetables)	st	-	st	-	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
6780	Chiffonnette cuve poussoir vertical production saucisse végétale	Wipe (Vegetables)	st	st	-	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
6781	Chiffonnette poussoir après nettoyage production saucisse végétale	Wipe (Vegetables)	-	-	-	-	/	-	+(33.85)	+(31.11)	+(34.27)	+(31.60)	H+	+	<i>L.mono</i>	+	+	+	PD	+	PD	+	PD	+	PD		6	c	
6782	Chiffonnette pailasse production saucisse végétale	Wipe (Vegetables)	-	st	st	st	/	-	-	-	-	-	st	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
6783	Chiffonnette riz cuit au lait	Wipe	H+	+	H+	+	<i>L.mono</i>	+	+(23.87)	+(21.14)	+(23.67)	+(21.47)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		6	c	
6784	Chiffonnette riz au lait	Wipe	H+	+	H+	+	<i>L.mono</i>	+	+(32.19)	+(29.26)	+(31.89)	+(29.48)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		6	c	
6938	Chiffonnette pailasse atelier	Wipe	H+	+	H+	+	<i>L.mono</i>	+	+(23.85)	+(20.68)	+(23.82)	+(21.57)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		6	c	
6939	Chiffonnette épices	Wipe (spices)	H+	+	H+	+	<i>L.mono</i>	+	+(24.25)	+(21.24)	+(24.30)	+(22.22)	H+	+	<i>L.mono</i>	+	+	+	PA	+	PA	+	PA	+	PA		6	c	
6940	Chiffonnette lavabo atelier	Wipe	H+	+	H+	+	<i>L.mono</i>	+	+(25.07)	+(22.28)	+(25.28)	+(23.12)	H+	+	<i>L.mono</i>	+	+	+	ND	+	PA	+	PA	+	PA		6	c	
6941	Chiffonnette cutter production poisson	Wipe (Fish industry)	st	st	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	
6942	Chiffonnette balance production poisson	Wipe (Fish industry)	st	st	-	-	/	-	-	-	-	-	-	/	/	/	-	-	NA	-	NA	-	NA	-	NA	-	6	c	

COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT																			
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1♦ <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>														Cate- gory	Ty- pe
				Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C															
				BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)			Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h		
3985	Saucisson bœuf volaille	Delicatessen	-	+(38.70)	+(35.44)	+(37.59)	+(35.08)	H+	-	+	PD	+	PD	+	PD	+	PD	1	a
3989	Brin surimi	RTE surimi	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	1	a
4112	Sandwich poulet tomate œuf	Sandwich	+	-	-	-	-	-	st	-	ND	-	ND	-	ND	-	ND	1	a
4121	Sandwich jambon salami emmental	Sandwich	-	+(23.26)	+(20.81)	+(23.86)	+(20.94)	H+	+	+	PD	+	PD	+	PD	+	PD	1	a
4125	Salade du pêcheur	Salad	-	-	-	-	-	-	-	-	NA	-	NA	-	NA	-	NA	1	a
4288	Guacamole	Guacamole	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	1	a
4293	Salade camarguaise	Salad	-	-	-	/	/	-	-	-	NA	-	NA					1	a
5023	Minis jambon emmental	Ham and cheese sandwich	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	1	a
5024	Simple et bon jambon emmental	Ham and cheese sandwich	-	-	-	/	/	-	-	-	NA	-	NA					1	a
5028	Sandwich poulet à l'ancienne	Chicken sandwich	-	-	-	/	/	-	-	-	NA	-	NA	-	NA	-	NA	1	a
5029	Sandwich thon crudités	Tuna and crudités sandwich	-	-	-	/	/	-	-	-	NA	-	NA	-	NA	-	NA	1	a
5030	Sandwich poulet rôti	Chicken sandwich	-	-	-	/	/	H-	+	-	NA	-	NA	-	NA	-	NA	1	a
5231	Sandwich jambon beurre	Ham and butter sandwich	+	+(24.07)	+(20.80)	+(23.58)	+(20.71)	H+	+	+	PA	+	PA	+	PA	+	PA	1	a
5232	Sandwich jambon beurre	Ham and butter sandwich	+	+(22.17)	+(18.81)	+(21.72)	+(19.10)	H+	+	+	PA	+	PA	+	PA	+	PA	1	a
5233	Sandwich jambon emmental	Ham and cheese sandwich	-	+(24.19)	+(21.24)	+(24.70)	+(21.99)	H+	+	+	PD	+	PD	+	PD	+	PD	1	a
5234	Sandwich jambon beurre	Ham and butter sandwich	+	+(23.64)	+(20.69)	+(24.03)	+(21.61)	H+	+	+	PA	+	PA	+	PA	+	PA	1	a
5235	Sandwich pain polaire poulet à l'indienne	Chicken sandwich	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	1	a
5236	Sandwich poulet rôti	Chicken sandwich	+	+(27.97)	+(24.69)	+(28.25)	+(25.44)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	1	a
3012	Escalope milanaise	Cooked meat	+	+(28.86)	+(26.03)	+(28.59)	+(25.92)	H+	+	+	PA	+	PA	+	PA	+	PA	1	b
3980	Cordon bleu de dinde	RTR poultry meat	+	+(27.59)	+(24.32)	+(27.74)	+(25.69)	H+	+	+	PA	+	PA	+	PA	+	PA	1	b
3983	Cordon bleu de dinde	RTR poultry meat	+	+(27.51)	+(23.93)	+(26.39)	+(24.59)	H+	-	+	PA	+	PA	+	PA	+	PA	1	b
4115	Sauce	Sauce	-															1	b
4116	Plaque à croissant	RTR croissant	+	+(30.60)	+(27.82)	+(31.03)	+(28.07)	H+	+d	+	PA	+	PA	+	PA	+	PA	1	b
4294	Raviolis	Raviolis	-	-	-	/	/	H-	+	-	NA	-	NA					1	b
4754	Feuilleté au jambon champignons	Ready to reheat composite food	-	-	-	/	/	H-	+	-	NA	-	NA					1	b
4755	Friands à la viande	Ready to reheat composite food	+	+(20.27)	+(17.44)	+(20.06)	+(20.38)	H+	+	+	PA	+	PA	+	PA	+	PA	1	b

* Analyses performed according to the COFRAC accreditation
ADRIA Développement
Summary report (Version 0)
BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*

COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT																			
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1♦ <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>														Cate- gory	Ty- pe
				Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C															
				BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)			Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h		
4756	Quiche lorraine	Ready to reheat composite food	+	+(21.89)	+(19.51)	+(22.20)	+(20.13)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	1	b
4758	Tarte au tomates	Ready to reheat	-	+(22.72)	+(20.04)	+(22.78)	+(21.37)	H+	+	+	PD	+	PD	+	PD	+	PD	1	b
5033	Pizza pate fine jambon fromage	Ham and cheese pizza	-	+(30.35)	+(27.59)	+(30.00)	+(28.15)	H+	+	+	PD	+	PD	+	PD	+	PD	1	b
5035	Pizza pâte fine jambon chèvre	Ham and goat’s cheese pizza	+	+(32.44)	+(28.62)	+(31.75)	+(29.90)	H+	+	+	PA	+	PA	+	PA	+	PA	1	b
5037	Pizza pâte fine trois fromages	Cheese pizza	+	+(30.91)	+(28.37)	+(31.85)	+(29.70)	H+	+	+	PA	+	PA	+	PA	+	PA	1	b
4188	Eclair vanille	Pastry	-	-	-	/	/	H-	+	-	NA	-	NA					1	c
4189	Eclair vanille	Pastry	+	+(25.29)	+(21.72)	+(25.34)	+(23.16)	H+	+	+	PA	+	PA	+	PA	+	PA	1	c
4190	Millefeuille	Pastry	-	-	-	/	/	H-	+	-	NA	-	NA					1	c
4191	Millefeuille	Pastry	+	+(25.48)	+(21.85)	+(26.38)	+(23.51)	H+	+	+	PA	+	PA	+	PA	+	PA	1	c
4192	Omelette Tortilla nature	Omelette	+	-	-	-	-	st	-	-	ND	-	ND	-	ND	-	ND	1	c
4193	Omelette Tortilla nature	Omelette	+	+(20.45)	+(17.22)	+(20.57)	+(17.88)	H+	+	+	PA	+	PA	+	PA	+	PA	1	c
4746	Religieuse café	Pastry	+	+(22.69)	+(19.33)	+(22.82)	+(20.40)	H+	+	+	PA	+	PA	+	PA	+	PA	1	c
4747	Pêche melba	Pastry	-	+(27.19)	+(23.70)	+(27.43)	+(24.78)	H+/H- H+/H-	+	+	PD	+	PD	+	PD	+	PD	1	c
4749	Eclair chocolat	Pastry	+	+(33.11)	+(29.55)	+(33.42)	+(30.44)		+	+	PA	+	PA	+	PA	+	PA	1	c
4750	Choux caramel	Pastry	-	+(27.32)	+(24.36)	+(28.46)	+(25.79)	H+	+	+	PD	+	PD	+	PD	+	PD	1	c
5039	Eclair chocolat	Pastry	-	-	-	/	/	-	-	-	NA	-	NA	-	NA	-	NA	1	c
5229	Crème pâtissière	Custard	+	+(24.81)	+(19.75)	+(23.08)	+(20.38)	H+	+	+	PA	+	PA	+	PA	+	PA	1	c
5230	Tortilla nature	Tortilla	+	+(23.19)	+(19.55)	+(22.16)	+(19.94)	H+	+	+	PA	+	PA	+	PA	+	PA	1	c

MEAT PRODUCTS																					
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1♦ <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i> Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C														Cate- gory	Ty- pe		
				BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h			Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h				
3007	Trime abime silver skinne	Meat product	-	+(35.95)	+(32.59)	+(34.44)	+(32.07)	H+	-	+	PD	+	PD	+	PD	+	PD	2	a		
3009	Lardons	Bacon	-	+(35.46)	+(32.14)	+(35.88)	+(32.15)	H+	+	+	PD	+	PD	+	PD	+	PD	2	a		
3010	Gésiers	Meat product	+	+(29.21)	+(26.26)	+(29.43)	+(26.61)	H+	-	+	PA	+	PA	+	PA	+	PA	2	a		
3011	Paupiette	Meat product	-	-	-	/	/	H-	+	-	NA	-	NA					2	a		
3722	VSM Poulet	Chicken meat	-	-	-	/	/	-	-	-	NA	-	NA					2	a		
3735	Viande hachée	Ground beef	-	-	-	/	/	H-	-	-	NA	-	NA					2	a		
3736	Viande poulet	Poultry meat	+	+(29.21)/ +(27.87)/ +(27.29)	+(27.16)/ +(29.60)/ +(29.54)	+(29.97)	+(27.11)	H-/H+ (on RLM)	+	+	PA	+	PA	+	PA	+	PA	2	a		
4109	Escalope de dinde	Poultry meat	-	-	-	-	-	-	-	-	NA	-	NA	-	NA	-	NA	2	a		
4117	Suprême poulet	Chicken meat	+	+(29.09)	+(25.66)	+(28.08)	+(25.36)	H+	+	+	PA	+	PA	+	PA	+	PA	2	a		
4118	Cuisse de poule	Poultry meat	+	-	-	-	-	-	+	-	ND	-	ND	-	ND	-	ND	2	a		
4128	Haché d'agneau	Lamb meat	+	+(23.74)	+(21.49)	+(24.22)	+(21.45)	H+	+	+	PA	+	PA	+	PA	+	PA	2	a		
6616	Aiguillettes de poulet crues	Raw chicken meat	-	-/-/-	-/-/-	-/-/-	+(35.24)/-/-	st	st	-	NA	-	NA	-	NA	+	PPNA	2	a		
6617	Cuisses de poulet crues	Raw chicken meat	+	+(34.07)	+(33.20)	+(34.14)	+(31.29)	H+	+	+	PA	+	PA	+	PA	+	PA	2	a		
6619	Dinde	Raw turkey meat	+	+(38.75)	+(34.06)	+(37.60)	+(37.43)	H+	+	+	PA	+	PA	+	PA	+	PA	2	a		
6659	Escalope dinde nature	Turkey meat	-	+(24.09)	+(22.83)	+(26.11)	+(23.63)	H+	+	+	PD	+	PD	+	PD	+	PD	2	a		
6660	Cuisse de poulet sans os	Chicken leg	+	+(29.08)	+(26.11)	+(30.32)	+(26.63)	H+	+	+	PA	+	PA	+	PA	+	PA	2	a		
6662	Cuisse dinde	Turkey leg	+	+(27.18)	+(24.87)	+(26.66)	+(23.94)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	2	a		
6675	Filet de dinde congelé	Frozen turkey meat	+	+(31.34)	+(27.41)	+(32.08)	+(28.87)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	2	a		
6676	Gigot d'agneau	Lamb meat	-	+(22.17)	+(19.75)	+(22.66)	+(20.32)	H+	+	+	PD	+	PD	+	PD	+	PD	2	a		
6677	Steak haché surgelé	Frozen ground beef	+	-	-	-	-	H-	-	-	ND	-	ND	-	ND	-	ND	2	a		
6679	Steak haché	Ground beef	+	+(25.17)	+(22.35)	+(25.73)	+(23.20)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	2	a		
6680	Minerai de bœuf	Beef meat	+	+(22.62)	+(20.51)	+(21.02)	+(19.48)	H+	+	+	PA	+	PA	+	PA	+	PA	2	a		
6681	Fourchette de dinde	Turkey meat	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	2	a		
6841	Pavés de veau	Raw meat (veal)	-	+(21.03)	+(18.72)	+(21.04)	+(19.08)	H+	+	+	PD	+	PD	+	PD	+	PD	2	a		
3737	Côte de porc Miel moutarde	Seasoned port meat	-	+(27.01)	+(24.65)	+(27.45)	+(24.57)	H+	+	+	PD	+	PD	+	PD	+	PD	2	b		
3994	Blanquette	RTR Blanquette	-	+(32.15)	+(27.15)	+(29.14)	+(26.21)	H+/H-	+	+	PD	+	PD	+	PD	+	PD	2	b		
4114	Côte de porc thym romarin	Meat based products ready to reheat	+	+(24.81)	+(22.47)	+(25.12)	+(22.31)	H+	+	+	PA	+	PA	+	PA	+	PA	2	b		
4124	Côte de porc thym romarin	Meat based products ready to reheat	-	+(26.19)	+(24.21)	+(27.13)	+(24.32)	H+	+	+	PD	+	PD	+	PD	+	PD	2	b		
4195	Coq au vin	Meat based products ready to reheat	+	+(25.08)	+(21.33)	+(24.79)	+(21.97)	H+	+	+	PA	+	PA	+	PA	+	PA	2	b		
4196	Porc sauce aigre douce	Meat based products ready to reheat	-	-	-	/	/	H-	+	-	NA	-	NA					2	b		
4197	Porc sauce aigre douce	Meat based products ready to reheat	-	-	-	/	/	H-	+	-	NA	-	NA					2	b		
4198	Fricadelles sauce tomate	Meat based products ready to reheat	-	-	-	/	/	H-	+	-	NA	-	NA					2	b		

MEAT PRODUCTS																					
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1* <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i> Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C														Cate- gory	Ty- pe		
				BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h			Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h				
4199	Fricadelles sauce tomate	Meat based products ready to reheat	-	-	-	/	/	H-	+	-	NA	-	NA					2	b		
4200	Bœuf aux oignons	Meat based products ready to reheat	+	-	-	-	-	st	st	-	ND	-	ND	-	ND	-	ND	2	b		
4201	Bœuf aux oignons	Meat based products ready to reheat	-	-	-	/	/	H-	+	-	NA	-	NA					2	b		
6661	Cordon bleu	RTRH poultry	-	+(27.70)	+(24.78)	+(27.95)	+(25.28)	H+/H-	-	+	PD	+	PD	+	PD	+	PD	2	b		
6664	Tajine poulet olives	RTRH chicken	-															2	b		
6665	Côte de porc Miel moutarde	RTRH pork meat	+	+(24.65)	+(22.12)	+(24.61)	+(22.07)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	2	b		
6666	Cordon bleu de dinde	RTRH poultry	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	2	b		
6667	Langue porc cuite	Cooked pork tongue	+	-	-	-	-	st	-	-	ND	-	ND	-	ND	-	ND	2	b		
6668	Cordon bleu de dinde	RTRH poultry	+	+(20.39)	+(17.67)	+(21.25)	+(18.82)	H+	+	+	PA	+	PA	+	PA	+	PA	2	b		
6669	Filet poulet rôti	Cooked poultry	-	+(23.27)	+(20.65)	+(23.99)	+(21.08)	H+	+	+	PD	+	PD	+	PD	+	PD	2	b		
3008	Merguez volaille	Merguez	-	-	-	/	/	H-	-	-	NA	-	NA					2	c		
3725	Saucisse sèche volaille bœuf	Delicatessen	-	+(31.47)	+(29.16)	+(32.10)	+(28.90)	H+	+	+	PD	+	PD	+	PD	+	PD	2	c		
3727	Saucisson à l'oignon de Roscoff	Delicatessen	-	-	-	/	/	H-	-	-	NA	-	NA					2	c		
4541	Salami	Salami	-	+(32.19)	+(29.35)	+(32.07)	+(28.13)	H+	+	+	PD	+	PD	+	PD	+	PD	2	c		
4542	Jambon de Paris	Ham	+	+(20.66)	+(18.61)	+(21.05)	+(18.33)	H+	+	+	PA	+	PA	+	PA	+	PA	2	c		
4544	Bacon fumé	Smoked bacon	+	-	-	-	-	st	st	-	ND	-	ND	-	ND	-	ND	2	c		
4545	Jambon serrano	Cured ham	-	+(40.28)/ +(38.73)/ +(37.86)	+(35.82)/ +(36.51)/-	+(40.79)	+(35.31)	H-/H+ (RLM: <i>L.mono</i>)	+	+	PD	+	PD	+	PD	+	PD	2	c		
4546	Saucisson sec tranches fines	Sausage	-	+(32.74)	+(29.90)	+(33.67)	+(30.13)	H+	+	+	PD	+	PD	+	PD	+	PD	2	c		
4684	Jambon à l'ancienne	Ham	-	-	-	/	/	st	-	-	NA	-	NA	-	NA	-	NA	2	c		
6663	Saucisson sec	Low moisture sausage	+	+(31.71)	+(28.67)	+(31.99)	+(28.52)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	2	c		
6670	Saucisse sèche volaille bœuf	Low moisture beef sausage	+	+(30.78)	+(27.86)	+(30.93)	+(28.08)	H+	+	+	PA	+	PA	+	PA	+	PA	2	c		
6672	Saucisse sèche volaille bœuf	Low moisture beef sausage	-	-	-	-	-	H-	-	-	NA	-	NA					2	c		
6673	Chorizo	Chorizo	+	+(28.71)	+(25.68)	+(28.94)	+(25.99)	H+	+	+	PA	+	PA	+	PA	+	PA	2	c		
6678	Saucisson sec	Low moisture sausage	+	+(38.82)/ +(34.48)/ +(34.53)	+(34.92)/ +(31.13)/ +(31.62)	+(40.42)/ +(29.03)/ +(31.61)	+(36.10)/ +(31.92)/ +(31.38)	-	-	-	PPND	-	PPND	-	ND	-	ND	2	c		
6943	Salami	Delicatessen (salami)	+	+(34.00)	+(29.55)	+(33.16)	+(29.80)	H+	+	+	PA	+	PA	+	PA	+	PA	2	c		
6944	Jambon fumé	Delicatessen (smoked ham)	+	+(24.53)	+(21.32)	+(24.12)	+(21.62)	H+	+	+	PA	+	PA	+	PA	+	PA	2	c		
6945	Terrine campagne	Delicatessen (terriner)	+	+(22.60)	+(19.53)	+(22.51)	+(20.60)	H+	+	+	PA	+	PA	+	PA	+	PA	2	c		
6946	Bacon fumé	Delicatessen (Smoked bacon)	+	+(27.59)	+(24.26)	+(27.41)	+(24.92)	H+	+	+	PA	+	PA	+	PA	+	PA	2	c		
6948	Mortadelle	Delicatessen	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	2	c		
6950	Rillettes porc	Delicatessen (rillettes)	-	+(22.23)	+(18.54)	+(21.98)	+(18.98)	H+	+	+	PD	+	PD	+	PD	+	PD	2	c		

MILK AND DAIRY PRODUCTS																					
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1♦ <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i> Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C														Cate- gory	Ty- pe		
				BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h			Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h				
3340	Comte lait cru	Raw milk cheese	-	+(27.53)	+(22.64)	+(25.44)	+(22.82)	H+	+	+	PD	+	PD	+	PD	+	PD	3	a		
3341	Bethmale lait cru	Raw milk cheese	-	+(31.46)	+(29.27)	+(36.46)	+(33.64)	H+	+	+	PD	+	PD	+	PD	+	PD	3	a		
3342	Grana padano lait cru	Raw milk cheese	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	3	a		
3990	Maroilles	Raw milk cheese	-	-	-	/	/	H-	-	-	NA	-	NA	-	NA	-	NA	3	a		
3991	Fromage affiné brebis	Raw ewe milk cheese	-	-	-	/	/	-	-	-	NA	-	NA	-	NA	-	NA	3	a		
4526	Rocamadour au lait cru	Raw goat's milk cheese	+	-	-	-	-	st	st	-	ND	-	ND	-	ND	-	ND	3	a		
4528	Tomme des bauges au lait cru	Raw milk cheese	+	-	-	-	-	H+d/H-	-	-	ND	-	ND	-	ND	-	ND	3	a		
4529	Saint Nectaire fermier au lait cru	Raw milk cheese	-	+(33.44)	+(30.55)	+(33.81)	+(29.67)	H+	+	+	PD	+	PD	+	PD	+	PD	3	a		
4530	Comte 12 mois au lait cru	Raw milk cheese	-	-	-	/	/	H-	-	-	NA	-	NA	-	NA	-	NA	3	a		
5952	Munster au lait cru	Raw milk cheese	-	-	-	/	/	H-	+	-	NA	-	NA					3	a		
6951	Formage au lait cru 01	Raw milk cheese	+	+(35.45)	+(32.21)	+(34.76)	+(32.17)	H+	+	+	PA	+	PA	+	PA	+	PA	3	a		
6953	Formage au lait cru 07	Raw milk cheese	-	+(37.92)	+(34.21)	+(37.20)	+(33.58)	H+	+	+	PD	+	PD	+	PD	+	PD	3	a		
6954	Formage au lait cru 14	Raw milk cheese	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	3	a		
3346	Crème au lait cru 1	Raw milk cream	+	+(26.30)	+(22.94)	+(25.44)	+(22.79)	H+	+	+	PA	+	PA	+	PA	+	PA	3	b		
3347	Crème au lait cru 2	Raw milk cream	+	+(23.40)	+(30.66)	+(23.21)	+(21.11)	H+ (<i>L. ivai</i> / <i>L. mono</i>)	+	+	PA	+	PA	+	PA	+	PA	3	b		
3348	Crème au lait cru 6	Raw milk cream	+	+(24.79)	+(22.08)	+(25.48)	+(23.12)	H+ (<i>L. iva</i> / <i>L. mono</i>)	+	+	PA	+	PA	+	PA	+	PA	3	b		
3745	Lait brebis	Raw ewe's milk	+	+(32.85)	+(30.03)	+(33.34)	+(30.62)	H+	-	+	PA	+	PA	+	PA	+	PA	3	b		
4532	Lait fermenté	Fermented milk	-	-	-	/	/	H-	+	-	NA	-	NA	-	NA	-	NA	3	b		
4533	Lait fermenté	Fermented milk	+	+(24.23)	+(21.58)	+(24.48)	+(21.50)	H+	+	+	PA	+	PA	+	PA	+	PA	3	b		
4534	Lait ribot lait fermenté maigre	Fermented milk	-	-	-	/	/	H-	+	-	NA	-	NA	-	NA	-	NA	3	b		
4535	Lait ribot lait fermenté maigre	Fermented milk	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	3	b		
4536	Lait cru de vache	Raw milk	+	+(31.03)	+(27.76)	+(31.50)	+(28.58)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	3	b		
4537	Lait ribot	Fermented milk	+	-	-	-	-	st	st	-	ND	-	ND	-	ND	-	ND	3	b		
4538	Lait fermenté	Fermented milk	+	+(23.62)	+(21.00)	+(24.08)	+(21.49)	H+	+	+	PA	+	PA	+	PA	+	PA	3	b		
4539	Lait fermenté	Fermented milk	+	+(23.64)	+(20.91)	+(24.18)	+(21.84)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	3	b		
5953	Lait cru fermier	Raw milk	+	+(24.59)	+(21.33)	+(24.70)	+(22.42)	H+	+	+	PA	+	PA	+	PA	+	PA	3	b		
5954	Lait cru de vache	Raw milk	-	+(37.73)	+(32.09)	+(37.51)	+(33.92)	H+	-	+	PD	+	PD	+	PD	+	PD	3	b		
5955	Lait cru fermier	Raw milk	+	+(26.01)	+(22.68)	+(25.82)	+(23.88)	H+	+	+	PA	+	PA	+	PA	+	PA	3	b		
5956	Lait cru	Raw milk	-	+(24.44)	+(21.65)	+(24.36)	+(22.62)	H+	+	+	PD	+	PD	+	PD	+	PD	3	b		
3006	Beurre	Butter	-	+(34.56)	+(31.32)	+(26.77)	+(30.94)	H-d (<i>L. seeli</i>)/ H+ (<i>L. mono</i>)	+	+	PD	+	PD	+	PD	+	PD	3	c		
3349	Bleu des causses lait pasteurisé	Pasteurised milk cheese	-	-	+(37.07)/ +(39.43)/ +(38.24)	+(40.52)/ +(39.53)/ +(40.00)	+(37.22)/ +(38.33)/ +(37.19)	H- (<i>L. seeli</i>)	+d	-	NA	-	PPNA	-	PPNA	-	PPNA	3	c		

* Analyses performed according to the COFRAC accreditation
ADRIA Développement
Summary report (Version 0)
BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*

MILK AND DAIRY PRODUCTS																			
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1♦ <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>														Cate- gory	Ty- pe
				Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C															
				BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)			Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h		
3350	Le chèvre feuille lait pasteurisé	Pasteurised milk cheese	-	-	-	/	/	H-	+	-	NA	-	NA					3	c
3351	Camembert lait pasteurisé	Pasteurised milk cheese	-	-	-	/	/	H-	+	-	NA	-	NA					3	c
4306	Brique brebis au lait pasteurisé	Pasteurised ewe milk cheese	+	+(21.22)	+(18.34)	+(21.03)	+(19.10)	H+	+	+	PA	+	PA	+	PA	+	PA	3	c
4307	Fromage au lait pasteurisé	Pasteurised milk cheese	+	+(22.21)	+(19.88)	+(22.31)	+(19.96)	H+	+	+	PA	+	PA	+	PA	+	PA	3	c
4308	Tomme des Pyrénées au lait pasteurisé	Pasteurised milk cheese	+	+(22.67)	+(20.30)	+(22.46)	+(20.11)	H+	+	+	PA	+	PA	+	PA	+	PA	3	c
4309	Bleu d'auvergne au lait pasteurisé	Pasteurised milk cheese	-	-	-	/	/	st	-	-	NA	-	NA					3	c
4310	Emmental français au lait pasteurisé	Pasteurised milk cheese	-	-	-	/	/	H-	+	-	NA	-	NA					3	c
4311	Saint Paulin au lait pasteurisé	Pasteurised milk cheese	-	-	-	/	/	H-	+	-	NA	-	NA					3	c
4312	Camembert au lait pasteurisé	Pasteurised milk cheese	-	-	-	/	/	H-	+	-	NA	-	NA					3	c
4330	Brique brebis au lait pasteurisé	Pasteurised ewe's milk cheese	-	+(35.26)	+(33.17)	+(36.28)	+(33.60)	H+ (<i>L.mono</i>)	+	+	PD	+	PD	+	PD	+	PD	3	c
5958	Petit suisse lait pasteurisé	Pasteurised fermented milk	+	+(27.19)	+(20.49)	+(24.39)	+(22.39)	H+	+	+	PA	+	PA	+	PA	+	PA	3	c
5959	Yaourt nature lait pasteurisé	Pasteurised fermented milk	+	+(23.60)	+(19.88)	+(23.31)	+(21.16)	H+	+	+	PA	+	PA	+	PA	+	PA	3	c
5960	Yaourt au lait entier lait pasteurisé	Pasteurised fermented milk	-	+(24.35)	+(20.96)	+(24.29)	+(22.03)	H+	+	+	PD	+	PD	+	PD	+	PD	3	c
5961	Fromage frais lait pasteurisé	Pasteurised fermented milk	-	+(23.57)	+(19.96)	+(23.92)	+(21.44)	H+	+	+	PD	+	PD	+	PD	+	PD	3	c
5962	Crème dessert saveur chocolat lait pasteurisé	Dairy based dessert	+	i/ +(22.60)	+(20.57)	+(21.76)	+(19.87)	H+	+	+	PA	+	PA	+	PA	+	PA	3	c
6674	Forêt noire	Pastry	+	+(19.20)	+(16.87)	+(19.20)	+(16.86)	H+	+	+	PA	+	PA	+	PA	+	PA	3	c

VEGETABLES																			
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1* <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>														Cate- gory	Ty- pe
				Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C															
				BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)			Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h		
3003	Jeunes carottes surgelées	Carrots	-	+(26.85)	+(23.39)	+(38.25)	+(25.59)	H+	+	+	PD	+	PD	+	PD	+	PD	4	a
3734	Pousses haricot mungo	Vegetables	+	-	-	-	-	H-	+	-	ND	-	ND	-	ND	-	ND	4	a
3743	Maïs	Corn	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	4	a
3979	Petits pois	Peas	-	-	-	/	/	H-	+	-	NA	-	NA					4	a
4302	Grain de maïs	Corn	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	4	a
4305	Pousses de haricots mungo	Vegetables	+	+(31.18)	+(27.52)	+(31.34)	+(31.57)	H-/H+	+	+	PA	+	PA	+	PA	+	PA	4	a
4674	Ciboulette	Chive	-	-	-	-	-	-	-	-	NA	-	NA	-	NA	-	NA	4	a
4676	Brocolis	Broccoli	-	+(21.93)	+(21.07)	+(24.22)	+(21.68)	H+	+	+	PD	+	PD	+	PD	+	PD	4	a
5797	Champignons	Mushrooms	-	+(23.75)	+(21.95)	+(23.85)	+(22.26)	H+	+	+	PD	+	PD	+	PD	+	PD	4	a
5799	Ciboulette	Chive	-															4	a
6607	Haricots verts	Beans	-	-/-/-	-/-/-	-/-/-	+(38.51)/-/-	H+/H-	+	-	NA	-	NA	-	NA	+	PD	4	a
6611	Carottes crues émincées	Sliced carrots	+	+(28.47)	+(25.84)	+(29.48)	+(27.09)	H+	+	+	PA	+	PA	+	PA	+	PA	4	a
6614	Courgettes	Zucchini	+	+(34.00)	+(30.46)	+(35.09)	+(31.38)	H+ (<i>L.mono</i>)	+	+	PA	+	PA	+	PA	+	PA	4	a
6713	Persil	Parsley	+	+(35.40)	+(32.63)	+(36.33)	+(33.43)	H+	+	+	PA	+	PA	+	PA	+	PA	4	a
6714	Ciboulette	Chive	-	-	-	/	/	H-d	-	-	NA	-	NA					4	a
6716	Courgettes en rondelles	Zucchini	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	4	a
6717	Persil	Parsley	-	-	-	/	/	-	-	-	NA	-	NA					4	a
3740	Tajine de légumes	Pre-cooked vegetables	-	-	-	/	/	H-	-	-	NA	-	NA					4	b
3741	Champignons émincés	Sliced mushrooms	-	+(30.58)	+(28.48)	+(30.71)	+(27.71)	H+	+	+	PD	+	PD	+	PD	+	PD	4	b
4297	Purée de carottes	carrot purée	+	+(17.67)	+(14.85)	+(18.08)	+(15.51)	H+	+	+	PA	+	PA	+	PA	+	PA	4	b
4299	Tajine	Tajine	+	-	-	-	-	st	-	-	ND	-	ND	-	ND	-	ND	4	b
4301	Courgettes bio	Zucchini	-	+(36.66)	+(33.29)	+(37.23)	+(34.89)	H+	+	+	PD	+	PD	+	PD	+	PD	4	b
4304	Oignons préfrits	Pre-cooked onions	-															4	b
4680	Oignons préfrits	Pre-fried onions	+	-	-	-	-	st	-	-	ND	-	ND	-	ND	-	ND	4	b
4681	Courgettes	Precooked zucchini	-															4	b
4682	Poêlée de pommes de terre précuites	Precooked potatoes	-	-	-	/	/	st	-	-	NA	-	NA	-	NA	-	NA	4	b
5789	Farce pour wrap	Stuffing for wrap	+	+(28.04)	+(24.96)	+(27.58)	+(25.78)	H+	+	+	PA	+	PA	+	PA	+	PA	4	b
5793	Julienne de légumes	Sliced vegetables	+	+(21.48)	+(18.95)	+(21.62)	+(19.45)	H+	+	+	PA	+	PA	+	PA	+	PA	4	b
5796	Préparation provençale	Vegetables based preparation	-	-	-	/	/	-	-	-	NA	-	NA					4	b
5798	Petits pois	Beans	-	+(30.01)	+(27.03)	+(29.05)	+(26.89)	H+/H-	+	+	PD	+	PD	+	PD	+	PD	4	b
6615	Légumes parisienne	Vegetables preparation	-	-/-/-	-/-/-	-/-/-	-/-/-	H+	+	-	NA	-	NA	-	NA	-	NA	4	b
6718	Courgettes farcies	RTRH zucchini	-			/	/	H-	+	-	NA	-	NA					4	b
6719	Galettes soja tomates	Vegetables RTRH preparation	-	+(31.26)	+(29.02)	+(31.16)	+(28.80)	H+ (*)	-	+	PD	+	PD	+	PD	+	PD	4	b
6720	Galettes quinoa provençale	Vegetables RTRH preparation	-	-	-	/	/	-	-	-	NA	-	NA					4	b
6721	Galettes soja tomates	Vegetables RTRH preparation	+	+(31.70)	+(26.95)	+(31.81)	+(29.59)	1H+d (<i>L.mono</i>)	+1d	+	PA	+	PA	+	PA	+	PA	4	b

* Analyses performed according to the COFRAC accreditation
ADRIA Développement
Summary report (Version 0)
BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*

VEGETABLES																			
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1* <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>														Cate- gory	Ty- pe
				Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C															
				BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)			Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h		
6722	Galettes boulgour lentilles	Vegetables RTRH preparation	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	4	b
4202	Carottes râpées assaisonnées	Seasoned grated carrots	-	+(31.54)	+(27.70)	+(31.50)	+(28.55)	H+	+	+	PD	+	PD	+	PD	+	PD	4	c
4203	Carottes râpées assaisonnées	Seasoned grated carrots	-	-	-	/	/	st	st	-	NA	-	NA					4	c
4204	Concombre au fromage blanc et ciboulette	Seasoned cucumber	+	+(27.24)	+(24.46)	+(27.66)	+(25.07)	H+	+	+	PA	+	PA	+	PA	+	PA	4	c
4205	Concombre au fromage blanc et ciboulette	Seasoned cucumber	-	-	-	/	/	-	-	-	NA	-	NA					4	c
4206	Macédoine de légumes avec mayonnaise	Macédoine	+	+(23.46)	+(21.24)	+(23.87)	+(21.68)	H+	+	+	PA	+	PA	+	PA	+	PA	4	c
4207	Macédoine de légumes avec mayonnaise	Macédoine	-	-	-	/	/	-	-	-	NA	-	NA					4	c
4208	Céleri rémoulade	Grated celery	-	-	-	/	/	st	-	-	NA	-	NA					4	c
4739	Céleri rémoulade	Deli salad	-	+(24.89)	+(22.24)	+(25.47)	+(22.83)	H+	+	+	PD	+	PD	+	PD	+	PD	4	c
4740	Champignons à la grecque	Deli salad	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	4	c
4741	Tri choux jambon comte	Deli salad	+	+(36.23)	+(32.24)	+(37.64)	+(33.96)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	4	c
4742	Piémontaise	Deli salad	+	-	-	-	-	-	+	-	ND	-	ND	-	ND	-	ND	4	c
4743	Jardinière de légumes et mayonnaise	Deli salad	+	+(23.58)	+(18.06)	+(24.81)	+(21.88)	H+	+	+	PA	+	PA	+	PA	+	PA	4	c
4744	Tartare de tomates	Seasoned tomatoes	+	-	-	-	-	-	+	-	ND	-	ND	-	ND	-	ND	4	c
4745	Carottes râpées assaisonnées	Seasoned grated carrots	-	+(26.06)	+(22.62)	+(26.11)	+(23.33)	H+	+	+	PD	+	PD	+	PD	+	PD	4	c

SEAFOOD AND FISHERY PRODUCTS																			
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1* <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>														Cate- gory	Ty- pe
				Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C															
				BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)			Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h		
3000	Noix de Saint Jacques	Scallops	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	5	a
3729	Filet de Hoki meunière	Fish fillet	-	-	-	/	/	-	-	-	NA	-	NA					5	a
3982	Filet de Panga	Fish fillet	+	+(30.86)	+(25.45)	+(28.43)	+(26.95)	H+	+	+	PA	+	PA	+	PA	+	PA	5	a
3984	Moules déco cuites	mussels	-	-	-	/	/	-	-	-	NA	-	NA					5	a
4110	Pavé merlu	Fish product	-	+(26.49)	+(23.96)	+(26.89)	+(23.90)	H+	+	+	PD	+	PD	+	PD	+	PD	5	a
4130	Cœur de filet de Merlu blanc du cap	Fish fillet	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	5	a
4131	Aile de raie	Fish product	+	+(20.92)	+(18.82)	+(21.31)	+(18.82)	H+	+	+	PA	+	PA	+	PA	+	PA	5	a
4685	Ailes de raie	Fish fillet	-	+(24.68)	+(24.06)	+(27.14)	+(24.67)	H+	+	+	PD	+	PD	+	PD	+	PD	5	a
4968	Colin Alaska	Fish fillet	-	-	-	/	/	-	-	-	NA	-	NA					5	a
4969	Noix de st jacques	Scallops	-	+(32.22)	+(30.70)	+(31.62)	+(29.76)	H+	+	+	PD	+	PD	+	PD	+	PD	5	a
4973	Nacette de saumon cru	Salmon fillet	+	+(24.96)	+(22.26)	+(23.79)	+(22.56)	H+	+	+	PA	+	PA	+	PA	+	PA	5	a
5224	Encornet sauvage	Squid	+	+(31.32)	+(27.50)	+(31.56)	+(28.46)	H+	+	+	PA	+	PA	+	PA	+	PA	5	a
5225	Filet de Merlan	Fish fillet	+	+(24.65)	+(21.17)	+(25.19)	+(22.54)	H+	+	+	PA	+	PA	+	PA	+	PA	5	a
5226	Filet de Julienne	Fish fillet	+	+(25.03)	+(21.45)	+(25.33)	+(23.06)	H+	+	+	PA	+	PA	+	PA	+	PA	5	a
5227	Filet de Vieille	Fish fillet	+	+(25.93)	+(22.34)	+(26.38)	+(23.61)	H+	+	+	PA	+	PA	+	PA	+	PA	5	a
5228	Filet de Tacaud	Fish fillet	+	+(25.02)	+(21.69)	+(25.06)	+(22.50)	H+	+	+	PA	+	PA	+	PA	+	PA	5	a
5790	Chair de saumon	Salmon	-	+(32.78)	+(29.35)	+(34.45)	+(32.65)	H-	+	+	PD	+	PD	+	PD	+	PD	5	a
5791	Poisson Panga	Fish fillet	+	+(30.81)	+(27.77)	+(31.65)	+(28.60)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	5	a
5801	Poisson blanc tranché nature	White piece of fish	+	-	-	-	-	st	st	-	ND	-	ND	-	ND	-	ND	5	a
5802	Filet de cabillaud	Cod fillet	-	-	-	/	/	-	-	-	NA	-	NA					5	a
5964	Crevettes décortiquées crues	Raw peeled shrimps	-	+(24.62)	+(21.44)	+(24.86)	+(22.52)	H+	+	+	PD	+	PD	+	PD	+	PD	5	a
5965	Blanc de calmar	Calimari	+	+(23.06)	+(19.83)	+(22.65)	+(20.67)	H+	+	+	PA	+	PA	+	PA	+	PA	5	a
6618	Poisson blanc	White fish	+	+(29.26)	+(27.80)	+(28.91)	+(27.72)	H+	+	+	PA	+	PA	+	PA	+	PA	5	a
2998	Filet de bar sauce iodée	Seasoned fish	+	+(25.82)	+(22.39)	+(25.86)	+(23.35)	H+	+	+	PA	+	PA	+	PA	+	PA	5	b
3728	Pulpe saumon fumé	Smoked salmon	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	5	b
3998	Saumon fumé	Smoked salmon	+	+(32.02)	+(26.71)	+(30.83)	+(28.10)	H+	+	+	PA	+	PA	+	PA	+	PA	5	b
3999	Saumon fumé	Smoked salmon	-	-	-	/	/	-	st	-	NA	-	NA					5	b
4000	Truite fumée Norvège	Smoked trout	-	+(27.55)	+(23.44)	+(27.66)	+(24.76)	H+ni/H-	+	+	PD	+	PD	+	PD	+	PD	5	b
4001	Truite fumée Norvège	Smoked trout	+	+(23.01)	+(19.50)	+(22.64)	+(19.95)	H+	+	+	PA	+	PA	+	PA	+	PA	5	b
4002	Saumon fumé	Smoked salmon	-	-	-	/	/	H-	+	-	NA	-	NA					5	b
4963	Truite fumée Norvège	Smoked trout	+	-	-	-	-	st	st	-	ND	-	ND	-	ND	-	ND	5	b
4964	Saumon atlantique fumé	Smoked salmon	+	-/-	+(37.86)	-/-	-/-	H+(3)	+(1)	-	ND	+	PA	-	ND	-	ND	5	b
4965	Truite fumée	Smoked trout	-	+(27.32)	+(24.29)	+(26.81)	+(25.11)	H+/H-	+	+	PD	+	PD	+	PD	+	PD	5	b
4966	Saumon atlantique fumé	Smoked salmon	+	-	-	-	-	st	st	-	ND	-	ND	-	ND	-	ND	5	b

* Analyses performed according to the COFRAC accreditation
ADRIA Développement
Summary report (Version 0)
BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*

SEAFOOD AND FISHERY PRODUCTS																			
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1* <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>														Cate- gory	Ty- pe
				Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C															
				BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)			Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h		
5241	Saumon fumé	Smoked salmon	+	+(23.25)	+(20.56)	+(23.66)	+(21.24)	H+	+	+	PA	+	PA	+	PA	+	PA	5	b
5242	Truite fumée	Smoked trout	+	+(23.86)	+(21.19)	+(24.24)	+(22.16)	H+	+	+	PA	+	PA	+	PA	+	PA	5	b
5243	Filets de maquereau fumés	Smoked mackerel fillets	+	+(30.63)	+(27.50)	+(31.24)	+(28.22)	H+	+	+	PA	+	PA	+	PA	+	PA	5	b
5966	Lardons saumon fumé	Smoked salmon	+	+(22.82)	+(19.72)	+(22.29)	+(19.93)	H+	+	+	PA	+	PA	+	PA	+	PA	5	b
5967	Filets de harengs fumés	Smoked herring	+	+(28.91)	+(25.30)	+(29.11)	+(26.53)	H+	+	+	PA	+	PA	+	PA	+	PA	5	b
6830	Harengs fumés	Smoked herrings	-	-	-	-	-	st	st	-	NA	-	NA	-	NA	-	NA	5	b
3731	Portion Merlu pané	Fish fillet	-	-	-	/	/	-	-	-	NA	-	NA					5	c
3732	Filet de colin Fish and chips	RTR fish	-	+(30.65)	+(33.28)	+(31.11)	+(28.43)	H+	+	+	PD	+	PD	+	PD	+	PD	5	c
3988	Poisson pané	RTR fish	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	5	c
4126	Nacette de saumon	RTR Salmon	+	+(20.67)	+(18.61)	+(20.71)	+(18.03)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
4129	Pané Hoki	RTR Fish product	-															5	c
4291	Filet merlu sauce vierge	RTR fish product	+	+(34.94)	+(31.00)	+(35.66)	+(32.98)	H+	-	+	PA	+	PA	+	PA	+	PA	5	c
4292	Dos de cabillaud sauce provençale	RTR fish product	-	-	-	/	/	-	-	-	NA	-	NA					5	c
4295	Hoki pané	RTR fish product	+	+(31.01)	+(27.55)	+(31.46)	+(28.78)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
4313	Bâtonnets crabe	Surimi	+	+(18.92)	+(15.95)	+(18.86)	+(16.50)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
4314	Terrine de saumon aneth	Salmon terrine	+	+(20.50)	+(17.50)	+(20.42)	+(18.32)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
4315	Rillettes saumon	Salmon rillettes	-	+(18.91)	+(15.94)	+(19.19)	+(16.80)	H+	+	+	PD	+	PD	+	PD	+	PD	5	c
4316	Rillettes crabe tourteau	Crab rillettes	+	+(18.23)	+(15.73)	+(18.61)	+(16.31)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
4317	Rillettes crabe tourteau	Crab rillettes	-	-	-	/	/	H-	+	-	NA	-	NA					5	c
4318	Bâtonnets crabe	Surimi	-	-	-	/	/	H-	+	-	NA	-	NA					5	c
4319	Rillettes saumon	Salmon rillettes	-	-	-	/	/	H-	+	-	NA	-	NA					5	c
5238	Bâtonnets crabe	Surimi	+	+(20.52)	+(17.96)	+(19.76)	+(17.31)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
5239	Terrine de saumon aneth	Salmon terrine	+	-	-	-	-	st	st	-	ND	-	ND	-	ND	-	ND	5	c
5240	Bâtonnets crabe	Surimi	+	+(20.08)	+(17.43)	+(20.26)	+(17.80)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
5792	Farce de tartare de saumon	Salmon tartar	+	+(25.61)	+(22.91)	+(25.71)	+(23.33)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
5800	Filet de hoki pané	Breaded fish	+	+(25.58)	+(22.67)	+(24.91)	+(23.01)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
5803	Américain thon	Sandwich (tuna)	+	+(29.90)	+(26.33)	+(28.84)	+(27.15)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
5968	Mini tranche de truite fumée	Smoked trout	+	+(21.91)	+(18.38)	+(22.04)	+(20.01)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
5969	bâtonnets saveur crabe	Surimi	-	+(18.33)	+(15.28)	+(19.00)	+(16.87)	H+	+	+	PD	+	PD	+	PD	+	PD	5	c
5970	Terrine de saumon aneth	Salmon terrine	+	+(20.37)	+(17.34)	+(21.27)	+(18.96)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c
5971	Terrine aux saint jacques	Scallops terrine	+	+(19.59)	16.28)	+(19.68)	+(17.86)	H+	+	+	PA	+	PA	+	PA	+	PA	5	c

ENVIRONMENTAL SAMPLES																			
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1* <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i> Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C														Cate- gory	Ty- pe
				BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)			Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h		
3352	Déchet poudre de lait	Dust (milk)	-	-	-	/	/	-	-	-	NA	-	NA					6	a
3353	Déchet poissons	Waste (fish)	-	-	-	/	/	H-	+	-	NA	-	NA					6	a
4320	Déchet saucisse 1	Waste (pork)	-	-	-	/	/	H-	+	-	NA	-	NA					6	a
4321	Déchet saucisse 1	Waste (pork)	+	+(19.58)	+(18.04)	+(19.82)	+(17.78)	H+	+	+	PA	+	PA	+	PA	+	PA	6	a
4322	Déchet saucisse 2	Waste (pork)	-	-	-	/	/	H-	+	-	NA	-	NA					6	a
4324	Déchet porc	Waste (pork)	-	-	-	/	/	H-	+	-	NA	-	NA					6	a
4325	Déchet porc	Waste (pork)	+	+(20.72)	+(18.62)	+(21.12)	+(18.88)	H+	+	+	PA	+	PA	+	PA	+	PA	6	a
4326	Déchet saucisson	Waste (pork)	-	-	-	/	/	H-	+	-	NA	-	NA					6	a
5439	Déchets de sol étéuse	Residues (Fish industry)	+	+(28.12)	+(25.39)	+(28.00)	+(25.52)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	6	a
5447	Déchets de sol	Residues (Fish industry)	-	+(34.45)	+(32.28)	+(35.26)	+(32.74)	H+	+	+	PD	+	PD	+	PD	+	PD	6	a
6756	Saucisse végétale déchet 1	Waste (vegetables)	+	-	-	-	-	H-d	-	-	ND	-	ND	-	ND	-	ND	6	a
6757	Saucisse végétale déchet 2	Waste (vegetables)	-	+(26.34)	+(23.71)	+(27.25)	+(24.38)	H+	+	+	PD	+	PD	+	PD	+	PD	6	a
6759	Déchet poisson blanc	Waste (White fish)	+	+(25.11)	+(22.29)	+(25.41)	+(22.68)	H+	+	+	PA	+	PA	+	PA	+	PA	6	a
6761	Déchet sang	Waste (Blood)	+	+(24.11)	+(21.59)	+(24.34)	+(21.80)	H+/H-	+	+	PA	+	PA	+	PA	+	PA	6	a
6931	Déchets sardine	Waste (fish)	-	-	-	-	-	st	st	-	NA	-	NA	-	NA	-	NA	6	a
6933	Déchets harengs	Waste (fish)	-	+(27.25)	+(24.02)	+(26.98)	+(24.66)	H+	+	+	PD	+	PD	+	PD	+	PD	6	a
6937	Déchets porc salage	Waste (pork)	+	+(24.91)	+(21.60)	+(25.06)	+(22.55)	H+	+	+	PA	+	PA	+	PA	+	PA	6	a
3354	Eau rinçage poussoir (production saucisson poisson)	Process water (Pork and fish production)	-	+(21.87)	+(19.32)	+(22.22)	+(19.25)	H+	+	+	PD	+	PD	+	PD	+	PD	6	b
3355	Eau rinçage cutter (production thon assaisonné)	Process water (fish production)	+	+(32.91)	+(29.16)	+(32.77)	+(28.87)	H-(<i>L.welsh</i>)/ H+(<i>L.mono</i>)	+	+	PA	+	PA	+	PA	+	PA	6	b
3356	Eau rinçage cutter (production chair saumon)	Process water (fish production)	-	-	-	/	/	H-	+	-	NA	-	NA					6	b
4686	Eau de process Fabrication chipolatas	Process water	-	-	-	/	/	st	-	-	NA	-	NA					6	b
5431	Eau rinçage filets peleuse	Cleaning water (Fish industry)	+	+(31.15)	+(27.96)	+(31.60)	+(29.50)	H+	+	+	PA	+	PA	+	PA	+	PA	6	b
6682	Eau parage n°1 (industrie de poissons)	Process water (fish industry)	-	-	-	-	-	st	st	-	NA	-	NA					6	b
6685	Eau peleuse (industrie de poissons)	Process water (fish industry)	-	-	-	-	-	H-	+	-	NA	-	NA					6	b
6764	Eau process lavage carcasse poulet	Process water	+	-	-	-	-	-	-	-	ND	-	ND	-	ND	-	ND	6	b

• Analyses performed according to the COFRAC accreditation
ADRIA Développement
Summary report (Version 0)
BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*

ENVIRONMENTAL SAMPLES																			
N° Sample	Product (French name)	Product	Reference method: ISO 11290-1/A1♦ <i>L. mono</i> result	Alternative method: BACGene <i>Listeria</i> - Detection of <i>Listeria monocytogenes</i>														Cate- gory	Ty- pe
				Actero™ <i>Listeria</i> Enrichment Media for 18h at 37°C + 72h at 5°C ± 3°C															
				BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmations		BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>					
				CFX96 PCR result (Ct)	AriaMx PCR result (Ct)	CFX96 PCR result (Ct)	AriaMx PCR result (Ct)			Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h	Final result CFX96 72H	Agreement CFX96 Ref/Alt 18h +72h	Final result AriaMx 72H	Agreement AriaMx Ref/Alt 18h+72h		
6766	Eau rinçage mélangeur ferments	Rinsing water	+	+(19.20)	+(16.71)	+(19.80)	+(23.50)	H+	+	+	PA	+	PA	+	PA	+	PA	6	b
6768	Eau process rinçage robot coupe fabrication appâts	Process water	+	+(19.66)	+(16.88)	+(20.79)	+(17.50)	H+	+	+	PA	+	PA	+	PA	+	PA	6	b
6770	Eau rinçage fabrication biscuits	Rinsing water	+	+(18.72)	+(15.68)	+(18.75)	+(16.19)	H+	+	+	PA	+	PA	+	PA	+	PA	6	b
6774	Eau rinçage riz au lait	Rinsing water	+	+(20.22)	+(17.75)	+(20.21)	+(17.27)	H+	+	+	PA	+	PA	+	PA	+	PA	6	b
6776	Eau process fabrication chipolatas	Process water	+	+(21.27)	+(18.74)	+(20.63)	+(18.07)	H+	+	+	PA	+	PA	+	PA	+	PA	6	b
6935	Eau rinçage Cutter production saucisson	Rinsing water	+	+(20.65)	+(17.64)	+(20.41)	+(17.90)	H+	+	+	PA	+	PA	+	PA	+	PA	6	b
6936	Eau rinçage bac saucisson	Rinsing water	+	+(19.83)	+(17.35)	+(19.76)	+(17.70)	H+	+	+	PA	+	PA	+	PA	+	PA	6	b
3357	Lingette planche découpe poisson (thon saumon)	Wipe (fish production)	+	+(25.87)	+(23.10)	+(26.00)	+(23.12)	H+	+	+	PA	+	PA	+	PA	+	PA	6	c
3359	Lingette bac stockage poisson	Wipe (fish production)	+	+(20.32)	+(17.51)	+(20.07)	+(17.60)	H+	+	+	PA	+	PA	+	PA	+	PA	6	c
3360	Lingette bac stockage épices (production poisson)	Wipe (fish production)	-	-	-	/	/	H-	+	-	NA	-	NA					6	c
5452	Lingette darfresh après nettoyage	Wipe after cleaning (Fish industry)	-	+(27.94)	+(25.35)	+(28.63)	+(26.19)	H+	+	+	PD	+	PD	+	PD	+	PD	6	c
6778	Chiffonnette table à nerfs (Industrie porc/bœuf)	Wipe (Pork and beef industry)	+	+(22.31)	+(19.58)	+(22.52)	+(20.01)	H+	+	+	PA	+	PA	+	PA	+	PA	6	c
6781	Chiffonnette poussoir après nettoyage production saucisse végétale	Wipe (Vegetables)	-	+(32.47)	+(28.70)	+(32.35)	+(29.55)	H+	+	+	PD	+	PD	+	PD	+	PD	6	c
6783	Chiffonnette riz cuit au lait	Wipe	+	+(20.66)	+(17.77)	+(20.81)	+(18.63)	H+	+	+	PA	+	PA	+	PA	+	PA	6	c
6784	Chiffonnette riz au lait	Wipe	+	+(27.23)	+(24.15)	+(27.35)	+(24.87)	H+	+	+	PA	+	PA	+	PA	+	PA	6	c
6938	Chiffonnette paillasse atelier	Wipe	+	+(20.25)	+(17.68)	+(20.56)	+(18.09)	H+	+	+	PA	+	PA	+	PA	+	PA	6	c
6939	Chiffonnette épices	Wipe (spices)	+	+(21.14)	+(18.31)	+(21.53)	+(18.89)	H+	+	+	PA	+	PA	+	PA	+	PA	6	c
6940	Chiffonnette lavabo atelier	Wipe	+	+(21.50)	+(18.90)	+(21.46)	+(19.05)	H+	+	+	PA	+	PA	+	PA	+	PA	6	c

Appendix 6 – Relative level of detection study: raw data

Matrix : Deli-salad

Aerobic mesophilic flora: 8.0 10² CFU/gStrain : *Listeria monocytogenes* Ad494

N° sample	Level	Inoculation level (cfu/sample) MPN	Reference method : ISO 11290-1/A1*					Alternative method : BACGene <i>Listeria monocytogenes</i> Actero™ <i>Listeria</i> Enrichment media for18h at 37°C												
			Half Fraser		Fraser		Final Result	Number positive samples/Total	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmation		BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Fraser 48h	Number positive samples/Total
									PCR CFX96	PCR AriaMx	PCR CFX96	PCR AriaMx	Tests of the reference method	MALDI-TOF tests	Final result CFX96	Final result AriaMx	Final result CFX96	Final result AriaMx		
			O&A	Palcam	O&A	Palcam			PCR CFX96	PCR AriaMx	Tests of the reference method	MALDI-TOF tests	Final result CFX96	Final result AriaMx	Final result CFX96	Final result AriaMx				
5381	0	0	-	-	-	-	-	0/5	-	-	-	-	-	/	-	-	-	-	-	0/5
5382			-	-	-	-	-		-	-	-	-	-	-	-	-	-	-		
5383			-	-	-	-	-		-	-	-	-	-	-	-	-	-	-		
5384			-	-	-	-	-		-	-	-	-	-	-	-	-	-	-		
5385			-	st	-	-	-		-	-	-	-	-	-	-	-	-	-		
5386	Low	1,1	H+	+	H+	+	+	14/20	+(27.79)	+(24.88)	+(27.65)	+(25.08)	+	+	+	+	+	+	+	16/20
5387			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-	
5388			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-	
5389			H+	+	H+	+	+		i/(26.60)	+(23.91)	+(27.11)	+(24.19)	+	+	+	+	+	+	+	
5390			-	-	-	-	-		+(30.03)	+(26.93)	+(30.24)	+(27.40)	+	+	+	+	+	+	+	
5391			-	-	-	-	-		-	-	-	-	-	/	-	-	-	-	-	
5392			H+	+	H+	+	+		+(27.07)	+(24.15)	+(27.35)	+(24.62)	+	+	+	+	+	+	+	
5393			H+	+	H+	+	+		+(29.75)	+(26.72)	+(29.94)	+(27.08)	+	+	+	+	+	+	+	
5394			-	st	-	-	-		-	-	-	-	-	/	-	-	-	-	-	
5395			H+	+	H+	+	+		+(30.81)	+(27.70)	+(31.18)	+(27.69)	+	+	+	+	+	+	+	
5396			-	-	-	-	-		+(30.01)	+(26.87)	+(30.23)	+(27.43)	+	+	+	+	+	+	+	
5397			H+	+	H+	+	+		+(28.56)	+(25.57)	+(28.96)	+(26.04)	+	+	+	+	+	+	+	
5398			H+	+	H+	+	+		+(28.21)	+(25.27)	+(28.51)	+(25.81)	+	+	+	+	+	+	+	
5399			H+	+	H+	+	+		+(28.39)	+(25.59)	+(28.56)	+(25.87)	+	+	+	+	+	+	+	
5400			-	-	-	-	-		+(27.65)	+(24.82)	+(27.87)	+(25.15)	+	+	+	+	+	+	+	
5401			H+	+	H+	+	+		+(30.40)	+(27.71)	+(30.62)	+(27.96)	+	+	+	+	+	+	+	
5402			-	-	-	-	-		+(30.08)	+(27.15)	+(30.07)	+(27.27)	+	+	+	+	+	+	+	
5403			H+	+	H+	+	+		+(29.50)	+(26.83)	+(29.83)	+(26.90)	+	+	+	+	+	+	+	
5404			H+	+	H+	+	+		+(29.53)	+(26.53)	+(29.38)	+(26.78)	+	+	+	+	+	+	+	
5405			H+	+	H+	+	+		i/(30.23)	+(27.12)	+(30.30)	+(27.40)	+	+	+	+	+	+	+	
5406	High	3,1	H+	+	H+	+	+	5/5	+(27.17)	+(24.44)	+(27.35)	+(24.78)	+	+	+	+	+	+	5/5	
5407			H+	+	H+	+	+		+(27.09)	+(24.13)	+(27.46)	+(24.76)	+	+	+	+	+	+		
5408			H+	+	H+	+	+		+(25.63)	+(22.89)	+(25.79)	+(23.23)	+	+	+	+	+	+		
5409			H+	+	H+	+	+		+(26.37)	+(23.82)	+(26.56)	+(23.93)	+	+	+	+	+	+		
5410			H+	+	H+	+	+		+(26.10)	+(23.67)	+(26.32)	+(23.84)	+	+	+	+	+	+		

♦ Analysis performed according to the COFRAC accreditation

ADRIA Développement

95/121

08 January 2021

Summary report (Version 0)

BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*

Matrix : Raw milk

Aerobic mesophilic flora: 9.40 10⁷ CFU/gStrain : *Listeria monocytogenes* Ad 618

N° sample	Level	Inoculation level (cfu/sample) MPN	Reference method : ISO 11290-1/A1♦						Alternative method : BACGene <i>Listeria monocytogenes</i> Actero™ <i>Listeria</i> Enrichment media for18h at 37°C											
			Half Fraser		Fraser		Final Result	Number positive samples/Total	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmation		BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Fraser 48h	Number positive samples/Total
									PCR CFX96	PCR AriaMx	PCR CFX96	PCR AriaMx	Tests of the reference method	MALDI-TOF tests	Final result CFX96	Final result AriaMx	Final result CFX96	Final result AriaMx		
			O&A	Palcam	O&A	Palcam														
5703	0	0	st	st	st	st	-	0/5	-	-	-	-	-	/	-	-	-	-	-	0/5
5704			st	st	st	st	-		-	-	-	-	/	-	-	-	-	-		
5705			st	st	st	st	-		-	-	-	-	/	-	-	-	-	-		
5706			st	st	st	st	-		-	-	-	-	/	-	-	-	-	-		
5707			st	st	st	st	-		-	-	-	-	/	-	-	-	-	-		
5708	Low	1,3	st	st	st	st	-	15/20	+(41.94)/-/(41.01)	-/(35.66)/-	-/i/-	+(36.69)	+	+	+	-	-	+	+	19/20 CFX96 18/20 AriaMx
5709			H+	+	H+	+	+		+(32.41)	+(30.37)	+(31.99)	+(29.54)	+	+	+	+	+	+	+	
5710			H+	+	H+	+	+		+(31.56)	+(29.37)	+(29.63)	+(28.78)	+	+	+	+	+	+	+	
5711			st	st	st	-	-		+(28.19)	+(25.80)	+(27.97)	+(25.80)	+	+	+	+	+	+	+	
5712			H+	+	H+	+	+		+(27.22)	+(24.90)	+(27.13)	+(24.90)	+	+	+	+	+	+	+	
5713			H+	+	H+	+	+		+(29.47)	+(27.05)	+(29.70)	+(27.10)	+	+	+	+	+	+	+	
5714			H+	+	H+	+	+		+(28.23)	+(25.78)	+(28.37)	+(26.06)	+	+	+	+	+	+	+	
5715			st	st	-	st	-		+(27.44)	+(24.91)	+(27.59)	+(25.12)	+	+	+	+	+	+	+	
5716			H+	+	H+	+	+		+(33.42)	+(31.09)	+(33.68)	+(30.71)	+	+	+	+	+	+	+	
5717			H+	+	H+	+	+		+(35.93)	+(33.34)	+(35.92)	+(33.62)	+	+	+	+	+	+	+	
5718			st	st	-	-	-		+(37.22)	+(34.81)	+(37.52)	+(33.65)	+	+	+	+	+	+	+	
5719			st	st	st	st	-		+(33.12)	+(30.37)	+(33.29)	+(30.06)	+	+	+	+	+	+	+	
5720			H+	+	H+	+	+		+(26.86)	+(24.29)	+(26.81)	+(24.30)	+	+	+	+	+	+	+	
5721			H+	+	H+	+	+		+(27.10)	+(24.48)	+(27.10)	+(24.66)	+	+	+	+	+	+	+	
5722			H+	+	H+	+	+		+(33.71)	+(30.90)	+(34.03)	+(30.96)	+	+	+	+	+	+	+	
5723			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-	
5724			H+	+	H+	+	+		+(25.74)	+(23.32)	+(25.56)	+(23.25)	+	+	+	+	+	+	+	
5725			H+	+	H+	+	+		+(25.84)	+(24.19)	+(26.11)	+(23.62)	+	+	+	+	+	+	+	
5726			H+	+	H+	+	+		+(29.29)	+(27.74)	+(29.46)	+(26.86)	+	+	+	+	+	+	+	
5727			H+	+	H+	+	+		+(30.51)	+(28.41)	+(29.98)	+(27.11)	+	+	+	+	+	+	+	
5728	High	3,6	H+	+	H+	+	+	5/5	+(27.16)	+(24.69)	+(26.87)	+(24.29)	+	+	+	+	+	+	5/5	
5729			H+	+	H+	+	+		+(35.39)	+(31.62)	+(35.52)	+(31.71)	+	+	+	+	+	+		
5730			H+	+	H+	+	+		+(28.31)	+(25.79)	+(28.45)	+(25.84)	+	+	+	+	+	+		
5731			H+	+	H+	+	+		+(30.52)	+(28.20)	+(29.86)	+(27.09)	+	+	+	+	+	+		
5732			H+	+	H+	+	+		+(36.61)	+(33.58)	+(35.54)	+(32.63)	+	+	+	+	+	+		

Matrix : Smoked salmon

Aerobic mesophilic flora: 7.0 10⁵ CFU/gStrain : *Listeria monocytogenes* Ad 670

N° sample	Level	Inoculation level (cfu/sample) MPN	Reference method : ISO 11290-1/A1*					Alternative method : BACGene <i>Listeria monocytogenes</i> Actero™ <i>Listeria</i> Enrichment media for 18h at 37°C													
			Half Fraser		Fraser		Final Result	Number positive samples/Total	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmation		BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Fraser 48h	Number positive samples/Total	
			O&A	Palcam	O&A	Palcam			PCR CFX96	PCR AriaMx	PCR CFX96	PCR AriaMx	Tests of the reference method	MALDI-TOF tests	Final result CFX96	Final result AriaMx	Final result CFX96	Final result AriaMx			
5653	0	0	st	st	st	st	-	0/5	-	-	-	-	-	/	-	-	-	-	-	0/5	
5654			st	st	st	st	-		-	-	-	-	/	-	-	-	-	-			
5655			st	st	-	-	-		-	-	-	-	/	-	-	-	-	-			
5656			st	-	-	-	-		-	-	-	-	/	-	-	-	-	-			
5657			st	-	-	-	-		-	-	-	-	/	-	-	-	-	-			
5658	Low	1,4	-	-	st	st	-	14/20	+(29.12)	+(26.58)	+(28.51)	+(26.50)	+	+	+	+	+	+	+	16/20	
5659			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-		
5660			H+	+	H+	+	+		+(28.57)	+(25.76)	+(28.35)	+(25.95)	+	+	+	+	+	+	+		+
5661			H+	+	H+	+	+		+(28.56)	+(26.03)	+(28.23)	+(25.92)	+	+	+	+	+	+	+		+
5662			H+	+	H+	+	+		+(30.66)	+(27.68)	+(30.45)	+(28.11)	+	+	+	+	+	+	+		+
5663			H+	+	H+	+	+		+(28.02)	+(26.01)	+(27.89)	+(25.69)	+	+	+	+	+	+	+		+
5664			H+	+	H+	+	+		+(28.20)	+(26.03)	+(28.08)	+(25.84)	+	+	+	+	+	+	+		+
5665			H+	+	H+	+	+		+(33.12)	+(30.40)	+(32.87)	+(30.38)	+	+	+	+	+	+	+		+
5666			H+	+	H+	+	+		+(31.60)	+(29.26)	+(31.43)	+(29.16)	+	+	+	+	+	+	+		+
5667			-	-	-	-	-		-	-	-	-	-	/	-	-	-	-	-		-
5668			-	st	-	-	-		+(28.07)	+(25.61)	+(27.63)	+(25.70)	+	+	+	+	+	+	+		+
5669			H+	+	H+	+	+		+(26.94)	+(24.16)	+(26.60)	+(24.41)	+	+	+	+	+	+	+		+
5670			H+	+	H+	+	+		+(28.38)	+(25.84)	+(28.21)	+(26.07)	+	+	+	+	+	+	+		+
5671			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-		-
5672			H+	+	H+	+	+		+(27.06)	+(24.74)	+(26.86)	+(24.76)	+	+	+	+	+	+	+		+
5673			-	-	-	-	-		+(26.20)	+(23.75)	+(26.05)	+(23.98)	+	+	+	+	+	+	+		+
5674			st	-	-	-	-		+(30.23)	+(27.66)	+(30.10)	+(28.19)	+	+	+	+	+	+	+		+
5675			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-		-
5676			-	-	-	-	-		+(30.13)	+(27.31)	+(29.79)	+(27.56)	+	+	+	+	+	+	+		+
5677			H+	+	H+	+	+		+(28.59)	+(25.78)	+(28.22)	+(25.95)	+	+	+	+	+	+	+		+
5678	High	4,0	H+	+	H+	+	+	5/5	+(27.04)	+(24.43)	+(26.71)	+(24.65)	+	+	+	+	+	+	5/5		
5679			H+	+	H+	+	+		+(26.58)	+(24.11)	+(26.35)	+(24.27)	+	+	+	+	+	+			
5680			H+	+	H+	+	+		+(29.30)	+(26.43)	+(28.88)	+(26.68)	+	+	+	+	+	+			
5681			H+	+	H+	+	+		+(26.21)	+(23.63)	+(26.10)	+(23.95)	+	+	+	+	+	+			
5682			H+	+	H+	+	+		+(26.32)	+(23.84)	+(26.10)	+(24.47)	+	+	+	+	+	+		+	

♦ Analysis performed according to the COFRAC accreditation

♦ Analysis performed according to the COFRAC accreditation

ADRIA Développement

97/121

08 January 2021

Summary report (Version 0)

BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*

Matrix : Frankfurters

Aerobic mesophilic flora: 8.1 10⁶ CFU/gStrain : *Listeria monocytogenes* Ad 669

N° sample	Level	Inoculation level (cfu/sample) MPN	Reference method : ISO 11290-1/A1♦						Alternative method : BACGene <i>Listeria monocytogenes</i> Actero™ <i>Listeria</i> Enrichment media for18h at 37°C												
			Half Fraser		Fraser		Final Result	Number positive samples/Total	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmation		BACGene <i>Listeria</i> Multiplex		BACGene <i>L</i> <i>isteria monocytogenes</i>		Fraser 48h	Number positive samples/Total	
									PCR CFX96	PCR AriaMx	PCR CFX96	PCR AriaMx	Tests of the reference method	MALDI-TOF tests	Final result CFX96	Final result AriaMx	Final result CFX96	Final result AriaMx			
5497	0	0	st	st	st	st			-	0/5	-	-	-	-	-	/	-	-			-
5498			st	st	st	st	-	-	-		-	-	-	/	-	-	-	-	-		
5499			st	st	st	st	-	-	-		-	-	-	/	-	-	-	-	-		
5500			-	st	st	st	-	-	-		-	-	-	/	-	-	-	-	-		
5501			st	st	st	st	-	-	-		-	-	-	/	-	-	-	-	-		
5905	Low	0,9	st	st	st	st	-	15/20	+(30.77)	+(26.98)	+(30.58)	+(27.72)	+	+	+	+	+	+		16/20	
5906			H+	+	H+	+	+		+(27.03)	+(23.75)	+(27.07)	+(24.55)	+	+	+	+	+	+	+		
5907			st	st	st	st	-		+(28.60)	+(25.41)	+(28.68)	+(25.86)	+	+	+	+	+	+	+		
5908			H+	+	H+	+	+		+(27.28)	+(23.88)	+(26.83)	+(24.41)	+	+	+	+	+	+	+		
5909			H+	+	H+	+	+		+(28.70)	+(25.63)	+(28.56)	+(25.89)	+	+	+	+	+	+	+		
5910			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-		-
5911			H+	+	H+	+	+		+(28.88)	+(26.43)	+(28.36)	+(25.89)	+	+	+	+	+	+	+		
5912			-	st	-	-	-		-	-	-	-	-	/	-	-	-	-	-		-
5913			H+	+	H+	+	+		+(27.35)	+(23.85)	+(27.10)	+(24.70)	+	+	+	+	+	+	+		
5914			st	-	st	st	-		+(28.05)	+(24.51)	+(27.99)	+(25.60)	+	+	+	+	+	+	+		
5915			st	st	st	st	-		+(26.10)	+(22.84)	+(26.04)	+(23.55)	+	+	+	+	+	+	+		
5916			H+	+	H+	+	+		+(27.72)	+(24.82)	+(27.62)	+(25.00)	+	+	+	+	+	+	+		
5917			H+	+	H+	+	+		+(26.45)	+(23.55)	+(26.33)	+(23.81)	+	+	+	+	+	+	+		
5918			H+	+	H+	+	+		+(27.54)	+(24.69)	+(27.25)	+(24.72)	+	+	+	+	+	+	+		
5919			H+	+	H+	+	+		+(30.24)	+(27.93)	+(29.80)	+(27.25)	+	+	+	+	+	+	+		
5920			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-		-
5921			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-		-
5922			H+	+	H+	+	+		+(25.56)	+(21.05)	+(25.21)	+(23.02)	+	+	+	+	+	+	+		
5923			H+	+	H+	+	+		+(25.52)	+(21.90)	+(24.90)	+(22.36)	+	+	+	+	+	+	+		
5924			H+	+	H+	+	+		+(29.85)	+(26.79)	+(29.65)	+(27.06)	+	+	+	+	+	+	+		
5522	High	1,8	st	st	st	st	-	4/5	+(29.57)	+(26.58)	+(29.30)	+(26.82)	+	+	+	+	+	+		4/5	
5523			H+	+	H+	+	+		+(29.40)	+(26.95)	+(29.70)	+(27.12)	+	+	+	+	+	+			
5524			H+	+	H+	+	+		+(30.20)	+(27.83)	+(30.44)	+(27.73)	+	+	+	+	+	+			
5525			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-		
5526			H+	+	H+	+	+		+(34.82)	+(33.86)	+(35.08)	+(32.42)	+	+	+	+	+	+	+		

♦ Analysis performed according to the COFRAC accreditation

ADRIA Développement

98/121

08 January 2021

Summary report (Version 0)

BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*

Matrix : Cantaloupe frozen balls
Strain : *Listeria monocytogenes* Ad532

Aerobic mesophilic flora: 2.0 10⁵ CFU/g

N° sample	Level	Inoculation level (cfu/sample)	Reference method : ISO 11290-1/A1*					Alternative method : BACGene <i>Listeria monocytogenes</i>												
			Half Fraser		Fraser		Final Result	Number positive samples/Total	Actero™ <i>Listeria</i> Enrichment media for18h at 37°C											
									BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmation		BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Fraser 48h	Number positive samples/Total
			O&A	Palcam	O&A	Palcam			PCR CFX96	PCR AriaMx	PCR CFX96	PCR AriaMx	Tests of the reference method	MALDI-TOF tests	Final result CFX96	Final result AriaMx	Final result CFX96	Final result AriaMx		
5972	0	0	st	st	st	st	-	0/5	-	-	-	-	-	/	-	-	-	-	-	0/5
5973			st	st	st	st	-		-	-	-	-	/	-	-	-	-	-		
5974			st	st	st	st	-		-	-	-	-	/	-	-	-	-	-		
5975			-	-	-	-	-		-	-	-	-	/	-	-	-	-	-		
5976			-	-	-	-	-		-	-	-	-	/	-	-	-	-	-		
5977	Low	1,0	H+	+	H+	+	+	13/20	+(31.17)	+(28.88)	+(31.42)	+(32.42)	+	+	+	+	+	+		15/20
5978			H+	+	H+	+	+		+(31.02)	+(27.82)	+(30.20)	+(28.86)	+	+	+	+	+	+		
5979			H+	+	H+	+	+		+(34.97)	+(31.91)	+(36.39)	+(33.06)	+	+	+	+	+	+		
5980			-	-	-	-	-		+(31.46)	+(29.19)	+(31.54)	+(29.42)	+	+	+	+	+	+		
5981			st	st	-	-	-		+(31.51)	+(28.98)	+(31.90)	+(29.47)	+	+	+	+	+	+		
5982			-	-	-	-	-		-	-	-	-	-	/	-	-	-	-	-	
5983			-	-	-	-	-		+(31.52)	+(29.10)	+(31.53)	+(29.52)	+	+	+	+	+	+		
5984			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-	
5985			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-	
5986			-	-	H+	+	+		-	-	-	-	-	/	-	-	-	-	-	
5987			H+	+	H+	+	+		+(34.66)	+(32.38)	+(36.16)	+(33.11)	+	+	+	+	+	+		
5988			H+	+	H+	+	+		+(30.27)	+(28.04)	+(30.98)	+(29.10)	+	+	+	+	+	+		
5989			-	-	-	-	-		+(31.69)	+(29.31)	+(32.40)	+(30.08)	+	+	+	+	+	+		
5990			H+	+	H+	+	+		+(31.66)	+(29.49)	+(32.60)	+(29.97)	+	+	+	+	+	+		
5991			-	-	-	-	-		+(30.26)	+(28.16)	+(30.82)	+(28.63)	+	+	+	+	+	+		
5992			H+	+	H+	+	+		+(38.17)	+(35.05)	+(39.56)	+(35.75)	+	+	+	+	+	+		
5993			H+	+	H+	+	+		+(34.22)	+(32.73)	+(35.22)	+(32.76)	+	+	+	+	+	+		
5994			-	-	-	-	-		+(35.77)	+(32.90)	+(34.13)	+(33.03)	+	+	+	+	+	+		
5995			H+	+	H+	+	+		+(34.58)	+(32.09)	+(34.83)	+(33.31)	+	+	+	+	+	+		
5996			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-	
5997	High	2,8	H+	+	H+	+	+	5/5	+(27.24)	+(25.08)	+(28.13)	+(25.72)	+	+	+	+	+	+	5/5	
5998			H+	+	H+	+	+		+(27.43)	+(25.51)	+(28.17)	+(25.87)	+	+	+	+	+	+		
5999			H+	+	H+	+	+		+(27.39)	+(25.83)	+(27.56)	+(25.74)	+	+	+	+	+	+		
6000			H+	+	H+	+	+		+(26.41)	+(24.87)	+(26.50)	+(24.85)	+	+	+	+	+	+		
6001			H+	+	H+	+	+		+(25.80)	+(25.17)	+(26.02)	+(24.59)	+	+	+	+	+	+		

♦ Analysis performed according to the COFRAC accreditation

ADRIA Développement

Summary report (Version 0)

BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*

Matrix: Process water

Aerobic mesophilic flora: 1.2 10³ CFU/mlStrain : *Listeria monocytogenes* Ad 551

N° sample	Level	Inoculation level (cfu/sample) MPN	Reference method : ISO 11290-1/A1♦						Alternative method : BACGene <i>Listeria monocytogenes</i> Actero™ <i>Listeria</i> Enrichment media for18h at 37°C											
			Half Fraser		Fraser		Final Result	Number positive samples /Total	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Confirmation		BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>		Fraser 48h	Number positive samples/ Total
									PCR CFX96	PCR AriaMx	PCR CFX96	PCR AriaMx	Tests of the reference method	MALDI- TOF tests	Final result CFX96	Final result AriaMx	Final result CFX96	Final result AriaMx		
			O&A	Palcam	O&A	Palcam														
6907	0	0	st	-	st	-	-	0/5	-	-	-	-	-	/	-	-	-	-	-	0/5
6908			st	-	-	-	-		-	-	-	-	/	-	-	-	-	-		
6909			st	-	st	-	-		-	-	-	-	/	-	-	-	-	-		
6910			st	-	-	-	-		-	-	-	-	/	-	-	-	-	-		
6911			st	-	-	-	-		-	-	-	-	/	-	-	-	-	-		
6976	Low	0,6	st	-	-	-	-	9/20	+(25.80)	+(23.17)	+(25.96)	+(23.72)	+	+	+	+	+	+	-	13/20
6977			st	st	st	st	-		-	-	-	-	/	-	-	-	-	-		
6978			st	st	st	st	-		+(27.25)	+(24.41)	+(27.29)	+(25.45)	+	+	+	+	+	+	-	
6979			H+	+	H+	+	+		-	-	-	-	/	-	-	-	-	-	-	
6980			H+	+	H+	+	+		+(25.67)	+(23.44)	+(26.03)	+(23.57)	+	+	+	+	+	+	-	
6981			H+	+	H+	+	+		+(26.14)	+(23.35)	+(26.25)	+(24.21)	+	+	+	+	+	+	-	
6982			st	st	st	st	-		+(24.72)	+(22.29)	+(24.97)	+(22.63)	+	+	+	+	+	+	-	
6983			H+	+	H+	+	+		+(26.30)	+(23.50)	+(26.46)	+(24.34)	+	+	+	+	+	+	-	
6984			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-	
6985			st	st	st	st	-		-	-	-	-	-	/	-	-	-	-	-	
6986			st	st	st	st	-		+(25.27)	+(22.84)	+(25.49)	+(23.43)	+	+	+	+	+	+	-	
6987			H+	+	H+	+	+		+(26.00)	+(24.29)	+(26.35)	+(24.32)	+	+	+	+	+	+	-	
6988			st	-	-	-	-		-	-	-	-	-	/	-	-	-	-	-	
6989			H+	+	H+	+	+		-	-	-	-	-	/	-	-	-	-	-	
6990			st	-	-	-	-		+(25.46)	+(22.98)	+(25.57)	+(23.38)	+	+	+	+	+	+	-	
6991			H+	+	H+	+	+		+(39.95)	+(36.88)	+(37.40)	+(37.56)	+	+	+	+	+	+	-	
6992			H+	+	H+	+	+		+(24.52)	+(22.20)	+(24.96)	+(22.38)	+	+	+	+	+	+	-	
6993			st	st	st	st	-		+(39.08)/-/-	-	-	-	-	/	-	-	-	-	-	
6994			st	-	-	st	-		+(26.28)	+(24.19)	+(26.54)	+(24.40)	+	+	+	+	+	+	-	
6995			st	st	-	-	-		+(25.40)	+(24.30)	+(25.78)	+(23.63)	+	+	+	+	+	+	-	
6996	High	1,9	H+	+	H+	+	+	5/5	+(26.55)	+(24.90)	+(26.69)	+(24.80)	+	+	+	+	+	+	-	5/5
6997			H+	+	H+	+	+		+(24.47)	+(22.83)	+(24.51)	+(22.45)	+	+	+	+	+	+		
6998			H+	+	H+	+	+		+(26.37)	+(23.79)	+(26.41)	+(24.07)	+	+	+	+	+	+		
6999			H+	+	H+	+	+		+(24.03)	+(21.21)	+(24.18)	+(21.79)	+	+	+	+	+	+		
7000			H+	+	H+	+	+		+(22.80)	+(20.32)	+(22.92)	+(20.72)	+	+	+	+	+	+		

♦ Analysis performed according to the COFRAC accreditation

ADRIA Développement

100/121

08 January 2021

Summary report (Version 0)

BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*

Appendix 7 – Inclusivity and exclusivity study: raw data

spp: *Listeria* spp.

mono: *Listeria monocytogenes*

INCLUSIVITY: Pre-warmed Actero™ <i>Listeria</i> Enrichment media for 18 h at 37°C															
Strains						Inoculation level/ 225 ml Actero™ <i>Listeria</i> Enrichment media	BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation		
							PCR mono results				PCR				
No	Genus	Species	Reference	Molecular serotypes	Origin		CFX96		AriaMx		CFX96	AriaMx	O&A	MALDI-TOF	
							spp	mono	spp	mono				O&A	O&A
1	<i>Listeria</i>	<i>monocytogenes</i>	Adria 153	VI b	Soft cheese (Munster)	28	+(17.65)	+(19.39)	+(15.36)	+(16.24)	+(19.75)	+(16.54)	H+	+	+
2	<i>Listeria</i>	<i>monocytogenes</i>	1011/1410	II a	Frozen broccoli	37	+(17.25)	+(19.96)	+(15.50)	+(16.91)	+(20.79)	+(16.82)	H+	+	+
3	<i>Listeria</i>	<i>monocytogenes</i>	1972/2399	VI b	Puff pastry with mushrooms	17	+(17.79)	+(19.45)	+(15.52)	+(16.25)	+(19.60)	+(16.57)	H+	+	+
4	<i>Listeria</i>	<i>monocytogenes</i>	1973/2400	VI b	Puff pastry egg and ham (Quiche-lorraine)	21	+(18.17)	+(20.56)	+(16.25)	+(17.73)	+(21.01)	+(17.57)	H+	+	+
5	<i>Listeria</i>	<i>monocytogenes</i>	2407/3139	IV b	Tripes with tomatoes	24	+(18.11)	+(20.09)	+(16.33)	+(17.08)	+(20.38)	+(17.04)	H+	+	+
6	<i>Listeria</i>	<i>monocytogenes</i>	2760/3145	II a	Raw bacon	19	+(18.14)	+(20.89)	+(16.64)	+(18.24)	+(21.00)	+(18.27)	H+	+	+
7	<i>Listeria</i>	<i>monocytogenes</i>	32.183	II b	Croque-Monsieur	19	+(18.87)	+(21.38)	+(16.56)	+(18.40)	+(21.96)	+(17.82)	H+	+	+
8	<i>Listeria</i>	<i>monocytogenes</i>	38/181	II a	Toulouse sausages	20	+(18.30)	+(20.71)	+(16.45)	+(17.83)	+(21.33)	+(17.83)	H+	+	+
9	<i>Listeria</i>	<i>monocytogenes</i>	5721/6179	IV b	Smoked bacon	40	+(19.10)	+(21.02)	+(17.04)	+(17.86)	+(21.07)	+(17.75)	H+	+	+
10	<i>Listeria</i>	<i>monocytogenes</i>	7111/7516	IV b	Pâté (Rillettes)	16	+(17.27)	+(19.90)	+(25.49)	+(16.89)	+(20.18)	+(16.94)	H+	+	+
11	<i>Listeria</i>	<i>monocytogenes</i>	850/109	II a	RTE food (deli salad with seafood)	11	+(17.24)	+(15.15)	+(19.64)	+(17.18)	+(20.15)	+(16.96)	H+	+	+
12	<i>Listeria</i>	<i>monocytogenes</i>	877/113	II a	Environmental sample (pastry)	10	+(18.18)	+(20.62)	+(16.39)	+(17.75)	+(20.81)	+(17.56)	H+	+	+
13	<i>Listeria</i>	<i>monocytogenes</i>	913/1048	IV b	Black pudding	32	+(17.33)	+(19.35)	+(15.95)	+(16.71)	+(19.71)	+(16.61)	H+	+	+
14	<i>Listeria</i>	<i>monocytogenes</i>	A00C014	II a	Sausage	24	+(18.33)	+(20.86)	+(16.47)	+(18.04)	+(21.36)	+(17.91)	H+	+	+
15	<i>Listeria</i>	<i>monocytogenes</i>	A00C022	II a	Merguez	27	+(19.39)	+(20.94)	+(15.93)	+(17.44)	+(20.98)	+(17.24)	H+	+	+
16	<i>Listeria</i>	<i>monocytogenes</i>	A00C024	II a	Sausage	34	+(18.78)	+(21.03)	+(16.44)	+(17.91)	+(21.79)	+(17.97)	H+	+	+
17	<i>Listeria</i>	<i>monocytogenes</i>	A00C036	II a	Poultry (guinea)	20	+(18.27)	+(20.88)	+(16.49)	+(17.96)	+(21.10)	+(17.71)	H+	+	+
18	<i>Listeria</i>	<i>monocytogenes</i>	A00C039	II a	Sausages	14	+(18.05)	+(20.59)	+(16.29)	+(17.73)	+(20.77)	+(17.73)	H+	+	+
19	<i>Listeria</i>	<i>monocytogenes</i>	A00C040	IV b	Cooked delicatessen (Museau)	57	+(17.56)	+(19.60)	+(16.00)	+(16.84)	+(19.76)	+(16.78)	H+	+	+
20	<i>Listeria</i>	<i>monocytogenes</i>	A00C041	La	Sausage	14	+(18.23)	+(20.94)	+(16.56)	+(17.95)	+(21.02)	+(17.85)	H+	+	+
21	<i>Listeria</i>	<i>monocytogenes</i>	A00C042	IV b	Raw sausage	49	+(19.03)	+(20.97)	+(17.29)	+(18.06)	+(21.28)	+(17.93)	H+	+	+
22	<i>Listeria</i>	<i>monocytogenes</i>	A00C043	II a	Smoked Bacon	30	+(21.18)	+(23.72)	+(17.28)	+(18.45)	+(21.72)	+(18.19)	H+	+	+

INCLUSIVITY: Pre-warmed Actero™ <i>Listeria</i> Enrichment media for 18 h at 37°C															
Strains						Inoculation level/ 225 ml Actero™ <i>Listeria</i> Enrichment media	BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria</i> <i>monocytogenes</i>		Confirmation		
							PCR mono results				PCR				
No	Genus	Species	Reference	Molecular serotypes	Origin		CFX96		AriaMx		CFX96	AriaMx	O&A	MALDI-TOF	
							spp	mono	spp	mono				O&A	TSYEA
23	<i>Listeria</i>	<i>monocytogenes</i>	A00C044	II b	Poultry (duck)	32	+(18.87)	+(21.09)	+(16.32)	+(17.94)	+(21.40)	+(17.77)	H+	+	+
24	<i>Listeria</i>	<i>monocytogenes</i>	A00C052	II b	RTE food (Osso bucco with turkey)	34	+(17.68)	+(20.27)	+(15.65)	+(17.30)	+(20.27)	+(17.47)	H+	+	+
25	<i>Listeria</i>	<i>monocytogenes</i>	A00C053	II a	Gizzards	68	+(19.14)	+(21.80)	+(17.29)	+(18.82)	+(22.04)	+(18.81)	H+	+	+
26	<i>Listeria</i>	<i>monocytogenes</i>	A00C054	IV b	Beef hart	43	+(17.14)	+(19.78)	+(15.51)	+(17.00)	+(19.91)	+(16.97)	H+	+	+
27	<i>Listeria</i>	<i>monocytogenes</i>	A00C055	II a	Raw sausages	45	+(17.27)	+(19.77)	+(15.27)	+(16.69)	+(19.70)	+(16.89)	H+	+	+
28	<i>Listeria</i>	<i>monocytogenes</i>	A00E008	II a	Environmental sample	43	+(18.07)	+(20.71)	+(16.29)	+(17.80)	+(20.74)	+(17.74)	H+	+	+
29	<i>Listeria</i>	<i>monocytogenes</i>	A00E049	II a	Environmental sample (smoked salmon)	27	+(22.83)	+(25.46)	+(20.98)	+(22.49)	+(25.60)	+(22.42)	H+	+	+
30	<i>Listeria</i>	<i>monocytogenes</i>	A00E082	II a	Environmental sample (smoked salmon)	44	+(18.33)	+(20.93)	+(16.80)	+(18.28)	+(21.15)	+(17.99)	H+	+	+
31	<i>Listeria</i>	<i>monocytogenes</i>	A00L097	II a	Milk	71	+(19.43)	+(21.33)	+(17.03)	+(18.46)	+(21.41)	+(18.42)	H+	+	+
32	<i>Listeria</i>	<i>monocytogenes</i>	A00M009	II a	Smoked salmon	37	+(18.65)	+(21.09)	+(16.83)	+(18.23)	+(21.15)	+(18.44)	H+	+	+
33	<i>Listeria</i>	<i>monocytogenes</i>	A00M032	IV b	Smoked salmon	56	+(17.24)	+(19.99)	+(15.39)	+(16.94)	+(20.00)	+(16.92)	H+	+	+
34	<i>Listeria</i>	<i>monocytogenes</i>	A00M045	II a	Smoked salmon	32	+(17.13)	+(19.76)	+(15.38)	+(16.85)	+(19.96)	+(17.00)	H+	+	+
35	<i>Listeria</i>	<i>monocytogenes</i>	A00M088	II a	Smoked salmon	33	+(19.90)	+(22.60)	+(18.09)	+(19.64)	+(22.79)	+(19.73)	H+	+	+
36	<i>Listeria</i>	<i>monocytogenes</i>	Ad235	II b	Poultry	46	+(17.69)	+(20.32)	+(15.98)	+(17.58)	+(20.40)	+(17.63)	H+	+	+
37	<i>Listeria</i>	<i>monocytogenes</i>	Ad253	II b	Hard cheese	69	+(20.20)	+(23.02)	+(18.67)	+(20.82)	+(23.16)	+(20.44)	H+	+	+
38	<i>Listeria</i>	<i>monocytogenes</i>	Ad260	II a	Semi hard cheese	33	+(17.49)	+(20.03)	+(15.98)	+(17.97)	+(20.40)	+(17.26)	H+	+	+
39	<i>Listeria</i>	<i>monocytogenes</i>	Ad265	II b	Tongue	26	+(17.33)	+(19.91)	+(15.52)	+(17.26)	+(19.98)	+(16.97)	H+	+	+
40	<i>Listeria</i>	<i>monocytogenes</i>	Ad266	II a	Poultry	35	+(18.24)	+(20.97)	+(16.60)	+(18.03)	+(21.08)	+(18.04)	H+	+	+
41	<i>Listeria</i>	<i>monocytogenes</i>	Ad267	II b	Dry sausage	23	+(18.18)	+(20.43)	+(16.62)	+(17.75)	+(20.37)	+(17.62)	H+	+	+
42	<i>Listeria</i>	<i>monocytogenes</i>	Ad268	IV b	Cured ham	75	+(17.59)	+(20.07)	+(15.27)	+(16.87)	+(19.97)	+(16.97)	H+	+	+
43	<i>Listeria</i>	<i>monocytogenes</i>	Ad270	IV b	Fermented sausage	73	+(17.79)	+(19.67)	+(14.91)	+(16.49)	+(19.65)	+(16.87)	H+	+	+
44	<i>Listeria</i>	<i>monocytogenes</i>	Ad272	IV b	Fermented sausage	47	+(16.97)	+(19.39)	+(14.91)	+(16.46)	+(19.50)	+(16.74)	H+	+	+
45	<i>Listeria</i>	<i>monocytogenes</i>	Ad273	II b	Cured delicatessen	64	+(17.90)	+(20.21)	+(15.62)	+(17.03)	+(20.31)	+(17.59)	H+	+	+
46	<i>Listeria</i>	<i>monocytogenes</i>	Ad274	II a	Ready-to-eat food (Asiatic meal)	49	+(18.25)	+(20.32)	+(15.95)	+(17.49)	+(20.82)	+(17.72)	H+	+	+
47	<i>Listeria</i>	<i>monocytogenes</i>	Ad534	II b	Fruits	69	+(17.51)	+(20.01)	+(15.51)	+(17.14)	+(19.99)	+(17.00)	H+	+	+
48	<i>Listeria</i>	<i>monocytogenes</i>	Ad544	II a	Onion	52	+(18.17)	+(20.70)	+(15.71)	+(17.49)	+(20.29)	+(17.51)	H+	+	+
49	<i>Listeria</i>	<i>monocytogenes</i>	Ad546	II a	Flour	43	+(18.88)	+(21.34)	+(16.61)	+(18.23)	+(21.26)	+(18.50)	H+	+	+
50	<i>Listeria</i>	<i>monocytogenes</i>	Ad623	II b	Bread crumbs	52	+(17.92)	+(20.06)	+(15.19)	+(16.80)	+(19.93)	+(17.24)	H+	+	+

EXCLUSIVITY: BPW for 24h at 37°C											
No	Strains				Inoculation level CFU/ml BPW	BACGene <i>Listeria</i> Multiplex				BACGene <i>Listeria monocytogenes</i>	
	Genus	Species	Reference	Origin		PCR spp. Results		PCR mono Results		PCR Results	
						CFX96	AriaMx	CFX96	AriaMx	CFX96	AriaMx
1	<i>Bacillus</i>	<i>cereus</i>	Ad465	Salmon Terrine	2.6 10 ⁵	-	-	-	-	-	-
2	<i>Bacillus</i>	<i>circulans</i>	Ad760	Vegetables	2.6 10 ⁴	-	-	-	-	-	-
3	<i>Bacillus</i>	<i>coagulans</i>	Ad731	Dairy product	2.0 10 ⁴	-	-	-	-	-	-
4	<i>Bacillus</i>	<i>licheniformis</i>	Ad978	Dairy product	1.0 10 ⁵	-	-	-	-	-	-
5	<i>Bacillus</i>	<i>mycoïdes</i>	Ad762	Milk	4.4 10 ⁵	-	-	-	-	-	-
6	<i>Bacillus</i>	<i>pseudomycoïdes</i>	Ad765	Vegetables	6.0 10 ⁴	-	-	-	-	-	-
7	<i>Bacillus</i>	<i>pumilus</i>	Ad284	Ready-to-eat	5.0 10 ⁵	-	-	-	-	-	-
8	<i>Bacillus</i>	<i>weihenstephanensis</i>	Ad726	Egg product	6.6 10 ⁴	-	-	-	-	-	-
9	<i>Brochothrix</i>	<i>thermosphacta</i>	EN 15129	Trout	2.6 10 ⁴	-	-	-	-	-	-
10	<i>Brochrotrix</i>	<i>campestris</i>	CIP 102920T	Environment	6.0 10 ⁴	-	-	-	-	-	-
11	<i>Carnobacterium</i>	<i>divergens</i>	CIP 101029 ^T	/	3.0 10 ⁴	-	-	-	-	-	-
12	<i>Carnobacterium</i>	<i>piscicola</i>	Ad369	Raw milk	9.2 10 ⁴	-	-	-	-	-	-
13	<i>Enterococcus</i>	<i>durans</i>	Ad149	Ham	4.6 10 ⁴	-	-	-	-	-	-
14	<i>Enterococcus</i>	<i>faecalis</i>	Adria 89L326	Soft cheese (Vacherin)	3.4 10 ⁶	-	-	-	-	-	-
15	<i>Lactobacillus</i>	<i>brevis</i>	Adria 86L126	Ham	8.0 10 ⁵	-	-	-	-	-	-
16	<i>Lactobacillus</i>	<i>curvatus</i>	Ad380	Delicatessen	5.0 10 ⁵	-	-	-	-	-	-
17	<i>Lactobacillus</i>	<i>fermentum</i>	Ad482	Tomatoes juice	9.9 10 ⁶	-	-	-	-	-	-
18	<i>Lactobacillus</i>	<i>sakei</i>	Ad473	Ham	4.2 10 ⁴	-	-	-	-	-	-
19	<i>Lactococcus</i>	<i>lactis subsp cremoris</i>	Ad137	Dairy product	6.0 10 ⁵	-	-	-	-	-	-
20	<i>Leuconostoc</i>	<i>carnosum</i>	Ad411	Ham	2.2 10 ⁵	-	-	-	-	-	-
21	<i>Leuconostoc</i>	<i>citreum</i>	Ad396	Ham	4.8 10 ⁴	-	-	-	-	-	-
22	<i>Micrococcus</i>	<i>luteus</i>	Ad432	Cocktail	5.0 10 ⁵	-	-	-	-	-	-
23	<i>Pediococcus</i>	<i>pentosaceus</i>	ATCC 33316	/	8.3 10 ⁵	-	-	-	-	-	-
24	<i>Propionibacterium</i>	<i>freundenreichii</i>	CNRZ 725	Dairy product	1.0 10 ⁴	-	-	-	-	-	-
25	<i>Staphylococcus</i>	<i>aureus</i>	Ad165	Smoked delicatessen	1.20 10 ⁵	-	-	-	-	-	-
26	<i>Staphylococcus</i>	<i>aureus</i>	Ad902	Spring rolls	3.8 10 ⁵	-	-	-	-	-	-
27	<i>Staphylococcus</i>	<i>epidermidis</i>	Ad931	Fruits	2.0 10 ⁴	-	-	-	-	-	-
28	<i>Staphylococcus</i>	<i>haemolyticus</i>	Ad989	Dairy product	8.0 10 ⁴	-	-	-	-	-	-
29	<i>Streptococcus</i>	<i>bovis</i>	Adria 92L622	Dairy product	8.0 10 ⁵	-	-	-	-	-	-
30	<i>Streptococcus</i>	<i>salivarius sps thermophilus</i>	Ad441	Dairy product	4.8 10 ⁴	-	-	-	-	-	-
31	<i>Macrococcus</i>	<i>caseolyticus</i>	CIP100755	Milk	8.3 10 ⁵	-	-	-	-	-	-

Exclusivity : BPW -24h at 37°C									
Number	Strains				Inoculation level CFU/ml BPW	BACGene <i>Listeria</i> Multiplex		BACGene <i>Listeria monocytogenes</i>	
	Strain	Species	Reference	Origin		PCR mono Results		PCR	
						CFX96	AriaMx	CFX96	AriaMx
1	<i>Listeria</i>	<i>grayi</i>	Ad1198	Smoked salmon	1.2 10 ⁴	-	-	-	-
2	<i>Listeria</i>	<i>grayi</i>	Ad1443	Pork meat sausages	1.0 10 ⁵	-	-	-	-
3	<i>Listeria</i>	<i>innocua</i>	1	Smoked salmon	8.6 10 ⁴	-	-	-	-
4	<i>Listeria</i>	<i>innocua</i>	Ad658	Gorgonzola	3.2 10 ⁵	-	-	-	-
5	<i>Listeria</i>	<i>ivanovii</i>	Ad466	Raw veal meat	7.4 10 ⁴	-	-	-	-
6	<i>Listeria</i>	<i>ivanovii</i>	Ad662	Environment (dairy industry)	1.8 10 ⁵	-	-	-	-
7	<i>Listeria</i>	<i>seeligeri</i>	Ad649	Cheese	1.2 10 ⁵	-	-	-	-
8	<i>Listeria</i>	<i>seeligeri</i>	BR1	Trout	8.0 10 ⁴	-	-	-	-
9	<i>Listeria</i>	<i>welshimeri</i>	Ad1276	Environment (Slaughterhouse)	1.2 10 ⁵	-	-	-	-
10	<i>Listeria</i>	<i>welshimeri</i>	Ad1175	Ready-to-eat-food	2.2 10 ⁵	-	-	-	-

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

Laboratory A

Aerobic mesophilic flora: 4,4.10⁸CFU/g

Thermocycler: AriaMx

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L. monocytogenes</i>)	BACGene <i>Listeria</i> <i>monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria</i> <i>monocytogenes</i>	Agreement BACGene <i>Listeria</i> <i>monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
A3	-	-	-	-	-	-	-	-	-	NA	-	NA
A5	-	-	-	-	-	-	-	-	-	NA	-	NA
A10	-	-	-	-	-	-	-	-	-	NA	-	NA
A13	-	-	-	-	-	-	-	-	-	NA	-	NA
A17	-	-	-	-	-	-	-	-	-	NA	-	NA
A18	-	-	-	-	-	-	-	-	-	NA	-	NA
A21	-	-	-	-	-	-	-	-	-	NA	-	NA
A24	-	-	-	-	-	-	-	-	-	NA	-	NA
A1	-	-	-	-	-	+(28.88)	+(29.25)	+	+	PD	+	PD
A4	-	-	+	+	+	-	-	-	-	ND	-	ND
A7	+	+	+	+	+	-	-	-	-	ND	-	ND
A9	-	-	-	-	-	+(25.67)	+(26.30)	+	+	PD	+	PD
A11	-	-	-	-	-	+(25.63)	+(26.30)	+	+	PD	+	PD
A16	-	-	-	-	-	-	-	-	-	NA	-	NA
A20	-	+	+	+	+	-	-	-	-	ND	-	ND
A23	+	+	+	+	+	-	-	-	-	ND	-	ND
A2	+	+	+	+	+	+(26.78)	+(27.25)	+	+	PA	+	PA
A6	+	+	+	+	+	+(27.54)	+(28.16)	+	+	PA	+	PA
A8	+	+	+	+	+	+(26.69)	+(27.37)	+	+	PA	+	PA
A12	+	+	+	+	+	+(26.50)	+(27.08)	+	+	PA	+	PA
A14	+	+	+	+	+	+(26.76)	+(27.33)	+	+	PA	+	PA
A15	+	+	+	+	+	+(25.98)	+(26.82)	+	+	PA	+	PA
A19	+	+	+	+	+	+(34.22)	+(35.68)	+	+	PA	+	PA
A22	+	+	+	+	+	+(26.40)	+(27.00)	+	+	PA	+	PA

Laboratory B

ADRIA Développement

Summary report (Version 0)

BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*

Aerobic mesophilic flora: >1.10⁷CFU/g

Thermocycler: AriaMx

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria</i> <i>monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria</i> <i>monocytogenes</i>	Agreement BACGene <i>Listeria</i> <i>monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
B3	-	-	-	-	-	-	-	-	-	NA	-	NA
B5	-	-	-	-	-	-	-	-	-	NA	-	NA
B10	-	-	-	-	-	-	-	-	-	NA	-	NA
B13	-	-	-	-	-	-	-	-	-	NA	-	NA
B17	-	-	-	-	-	-	-	-	-	NA	-	NA
B18	-	-	-	-	-	-	-	-	-	NA	-	NA
B21	-	-	-	-	-	-	-	-	-	NA	-	NA
B24	-	-	-	-	-	-	-	-	-	NA	-	NA
B1	+	+	+	+	+	-	-	-	-	ND	-	ND
B4	-	-	-	-	-	-	-	-	-	NA	-	NA
B7	-	-	-	-	-	+(30.55)	+(29.24)	+	+	PD	+	PD
B9	-	-	-	-	-	-	-	-	-	NA	-	NA
B11	-	-	+	+	+	-	-	-	-	ND	-	ND
B16	-	-	-	-	-	+(26.89)	+(25.19)	+	+	PD	+	PD
B20	-	-	+	+	+	+(29.38)	+(27.10)	+	+	PA	+	PA
B23	+	+	+	+	+	+(27.30)	+(26.20)	+	+	PA	+	PA
B2	+	+	+	+	+	+(36.78)	+(37.02)	+	+	PA	+	PA
B6	+	+	+	+	+	+(39.24)	+(39.20)	+	+	PA	+	PA
B8	+	+	+	+	+	+(28.88)	+(28.50)	+	+	PA	+	PA
B12	+	+	+	+	+	+(35.82)	+(36.49)	+	+	PA	+	PA
B14	-	-	+	+	+	+(29.4)	+(28.77)	+	+	PA	+	PA
B15	+	+	+	+	+	-	-	-	-	ND	-	ND
B19	+	+	+	+	+	+(27.12)	+(26.50)	+	+	PA	+	PA
B22	-	-	+	+	+	+(27.66)	+(26.98)	+	+	PA	+	PA

Laboratory CAerobic mesophilic flora: 1,2.10⁹CFU/g

Thermocycler: AriaMx

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria monocytogenes</i>	Agreement BACGene <i>Listeria monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
C3	-	-	-	-	-	-	-	-	-	NA	-	NA
C5	-	-	-	-	-	-	-	-	-	NA	-	NA
C10	-	-	-	-	-	-	-	-	-	NA	-	NA
C13	-	-	-	-	-	-	-	-	-	NA	-	NA
C17	-	-	-	-	-	-	-	-	-	NA	-	NA
C18	-	-	-	-	-	-	-	-	-	NA	-	NA
C21	-	-	-	-	-	-	-	-	-	NA	-	NA
C24	-	-	-	-	-	-	-	-	-	NA	-	NA
C1	-	+	+	+	+	+(21.61)	+(21.94)	+	+	PA	+	PA
C4	+	-	+	+	+	+(24.25)	+(26.92)	+	+	PA	+	PA
C7	+	+	+	+	+	+(21.47)	+(22.22)	+	+	PA	+	PA
C9	-	-	-	-	-	+(19.62)	+(20.97)	+	+	PD	+	PD
C11	+	+	+	+	+	+(25.85)	+(29.27)	+	+	PA	+	PA
C16	-	-	-	-	-	-	-	-	-	NA	-	NA
C20	+	+	+	+	+	-/(28.44)/(28.18)/(27.82)	+(26.99)	+	-	ND	+	PA
C23	+	+	+	+	+	-	-	-	-	ND	-	ND
C2	+	+	+	+	+	+(23.12)	+(22.00)	+	+	PA	+	PA
C6	+	+	+	+	+	+(21.68)	+(22.60)	+	+	PA	+	PA
C8	+	+	+	+	+	+(21.17)	+(22.56)	+	+	PA	+	PA
C12	+	+	+	+	+	+(31.77)	+(35.81)	+	+	PA	+	PA
C14	+	+	+	+	+	+(35.77)	+(35.18)	+	+	PA	+	PA
C15	+	+	+	+	+	-/(38.60)/(38.60)/(37.82)	+(35.86)	+	-	ND	+	PA
C19	+	+	+	+	+	-/(22.41)/(22.95)/(23.16)	+(22.96)	+	-	ND	+	PA
C22	+	+	+	+	+	-/(22.07)/(22.19)/(22.35)	+(22.07)	+	-	ND	+	PA

Laboratory DAerobic mesophilic flora: 3,7.10⁷CFU/g

Thermocycler: Bio-Rad CFX96

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria monocytogenes</i>	Agreement BACGene <i>Listeria monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
D3	-	-	-	-	-	-	-	-	-	NA	-	NA
D5	-	-	-	-	-	-	-	-	-	NA	-	NA
D10	-	-	-	-	-	-	-	-	-	NA	-	NA
D13	-	-	-	-	-	-	-	-	-	NA	-	NA
D17	-	-	-	-	-	-	-	-	-	NA	-	NA
D18	-	-	-	-	-	-	-	-	-	NA	-	NA
D21	-	-	-	-	-	-	-	-	-	NA	-	NA
D24	-	-	-	-	-	-	-	-	-	NA	-	NA
D1	-	-	-	-	-	+(32.47)	+(31.11)	+	+	PD	+	PD
D4	+	+	+	+	+	+(29.89)	+(28.72)	+	+	PA	+	PA
D7	-	-	-	-	-	+(30.16)	+(29.05)	+	+	PD	+	PD
D9	-	-	-	-	-	-	-	-	-	NA	-	NA
D11	-	-	-	-	-	-	-	-	-	NA	-	NA
D16	+	+	+	+	+	-	-	-	-	ND	-	ND
D20	-	-	-	-	-	+(40.19)	+(35.34)	+	+	PD	+	PD
D23	+	+	+	+	+	+(37.18)	+(33.96)	+	+	PA	+	PA
D2	+	+	+	+	+	+(26.87)	+(25.76)	+	+	PA	+	PA
D6	+	+	+	+	+	+(28.83)	+(27.66)	+	+	PA	+	PA
D8	+	+	+	+	+	+(27.12)	+(25.92)	+	+	PA	+	PA
D12	+	+	+	+	+	+(27.42)	+(26.45)	+	+	PA	+	PA
D14	+	+	+	+	+	+(31.64)	+(30.31)	+	+	PA	+	PA
D15	-	-	-	-	-	+(40.71)	+(36.82)	- (+ after subculture in fraser)	+	PD	+	PD
D19	+	+	+	+	+	+(41.47)	+(37.33)	- (+ after subculture in fraser)	+	PA	+	PA
D22	+	+	+	+	+	+(30.23)	+(29.07)	+	+	PA	+	PA

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

Thermocycler: Bio-Rad CFX96

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria</i> <i>monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria</i> <i>monocytogenes</i>	Agreement BACGene <i>Listeria</i> <i>monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
E3	-	-	-	-	-	-	-	-	-	NA	-	NA
E5	-	-	-	-	-	-	-	-	-	NA	-	NA
E10	-	-	-	-	-	-	-	-	-	NA	-	NA
E13	-	-	-	-	-	-	-	-	-	NA	-	NA
E17	-	-	-	-	-	-	-	-	-	NA	-	NA
E18	-	-	-	-	-	-	-	-	-	NA	-	NA
E21	-	-	-	-	-	-	-	-	-	NA	-	NA
E24	-	-	-	-	-	-	-	-	-	NA	-	NA
E1	-	-	-	-	-	+(30.91)	+(30.90)	+	+	PD	+	PD
E4	+	+	+	+	+	+(31.01)	+(30.96)	+	+	PA	+	PA
E7	-	-	+	+	+	+(38.81)	+(36.96)	+	+	PA	+	PA
E9	-	-	-	-	-	+(29.01)	+(28.91)	+	+	PD	+	PD
E11	+	+	+	+	+	+(31.14)	+(31.10)	+	+	PA	+	PA
E16	+	+	+	+	+	-	-	-	-	ND	-	ND
E20	+	+	+	+	+	+(26.93)	+(26.98)	+	+	PA	+	PA
E23	+	+	+	+	+	-	-	-	-	ND	-	ND
E2	+	+	+	+	+	+(28.99)	+(28.94)	+	+	PA	+	PA
E6	+	+	+	+	+	+(28.25)	+(28.37)	+	+	PA	+	PA
E8	+	+	+	+	+	+(25.28)	+(25.19)	+	+	PA	+	PA
E12	+	+	+	+	+	+(24.24)	+(22.04)	+	+	PA	+	PA
E14	+	+	+	+	+	+(26.78)	+(26.78)	+	+	PA	+	PA
E15	+	+	+	+	+	+(25.80)	+(26.27)	+	+	PA	+	PA
E19	+	+	+	+	+	+(26.12)	+(26.12)	+	+	PA	+	PA
E22	+	+	+	+	+	+(24.33)	+(24.28)	+	+	PA	+	PA

Laboratory FAerobic mesophilic flora: 3,56.10⁷CFU/g

Thermocycler: Bio-Rad CFX96

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria monocytogenes</i>	Agreement BACGene <i>Listeria monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
F3	-	-	-	-	-	-	-	-	-	NA	-	NA
F5	-	-	-	-	-	-	-	-	-	NA	-	NA
F10	-	-	-	-	-	-	-	-	-	NA	-	NA
F13	-	-	-	-	-	-	-	-	-	NA	-	NA
F17	-	-	-	-	-	-	-	-	-	NA	-	NA
F18	-	-	-	-	-	-	-	-	-	NA	-	NA
F21	-	-	-	-	-	-	-	-	-	NA	-	NA
F24	-	-	-	-	-	-	-	-	-	NA	-	NA
F1	-	+	-	-	+	+(36.8)	+(36.6)	+	+	PA	+	PA
F4	+	+	+	+	+	+(28.0)	+(28.0)	+	+	PA	+	PA
F7	+	+	+	+	+	+(29.2)	+(29.2)	+	+	PA	+	PA
F9	-	+	+	+	+	+(31.1)	+(31.3)	+	+	PA	+	PA
F11	-	-	-	-	-	+(28.5)	+(28.5)	+	+	PD	+	PD
F16	+	+	+	+	+	+(29.3)	+(28.9)	+	+	PA	+	PA
F20	+	+	+	+	+	-	-	-	-	ND	-	ND
F23	+	+	+	+	+	+(28.2)	+(28.5)	+	+	PA	+	PA
F2	+	+	+	+	+	+(26.5)	+(26.4)	+	+	PA	+	PA
F6	+	+	+	+	+	+(35.3)	+(35.6)	+	+	PA	+	PA
F8	+	+	+	+	+	+(33.0)	+(32.8)	+	+	PA	+	PA
F12	+	+	+	+	+	+(39.0)	+(38.0)	+	+	PA	+	PA
F14	+	+	+	+	+	+(26.6)	+(26.3)	+	+	PA	+	PA
F15	+	+	+	+	+	+(25.5)	+(25.6)	+	+	PA	+	PA
F19	+	+	+	+	+	+(28.1)	+(28.4)	+	+	PA	+	PA
F22	+	+	+	+	+	+(25.4)	+(25.2)	+	+	PA	+	PA

Laboratory GAerobic mesophilic flora: 3,9.10⁸UFC/g

Thermocycler: Bio-Rad CFX96

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria monocytogenes</i>	Agreement BACGene <i>Listeria monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
G3	-	-	-	-	-	-	-	-	-	NA	-	NA
G5	-	-	-	-	-	-	-	-	-	NA	-	NA
G10	-	-	-	-	-	-	-	-	-	NA	-	NA
G13	-	-	-	-	-	-	-	-	-	NA	-	NA
G17	-	-	-	-	-	-	-	-	-	NA	-	NA
G18	-	-	-	-	-	-	-	-	-	NA	-	NA
G21	-	-	-	-	-	-	-	-	-	NA	-	NA
G24	-	-	-	-	-	-	-	-	-	NA	-	NA
G1	-	-	-	-	-	-	-	-	-	NA	-	NA
G4	-	-	-	-	-	-	-	-	-	NA	-	NA
G7	+	+	+	+	+	+(32.20)	+(33.09)	+	+	PA	+	PA
G9	+	+	+	+	+	+(29.54)	+(30.59)	+	+	PA	+	PA
G11	+	+	+	+	+	+(27.91)	+(29.15)	+	+	PA	+	PA
G16	+	+	+	+	+	+(26.48)	+(25.64)	+	+	PA	+	PA
G20	+	+	+	+	+	+(28.04)	+(28.75)	+	+	PA	+	PA
G23	-	-	-	-	-	+(31.16)	+(31.44)	+	+	PD	+	PD
G2	+	+	+	+	+	-	-	-	-	ND	-	ND
G6	+	+	+	+	+	+(24.69)	-/(27.54)/(27.52)/+(27.32)	+	+	PA	-	ND
G8	+	+	+	+	+	+(24.34)	+(24.54)	+	+	PA	+	PA
G12	+	+	+	+	+	+(26.35)	+(27.15)	+	+	PA	+	PA
G14	+	+	+	+	+	+(23.48)	+(23.58)	+	+	PA	+	PA
G15	+	+	+	+	+	+(37.72)	+(37.22)	+	+	PA	+	PA
G19	+	+	+	+	+	+(30.47)	+(31.04)	+	+	PA	+	PA
G22	+	+	+	+	+	+(25.62)	+(25.49)	+	+	PA	+	PA

Laboratory HAerobic mesophilic flora: 7,5.10⁸CFU/g

Thermocycler: AriaMx

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria monocytogenes</i>	Agreement BACGene <i>Listeria monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
H3	-	-	-	-	-	-	-	-	-	NA	-	NA
H5	-	-	-	-	-	-	-	-	-	NA	-	NA
H10	-	-	-	-	-	-	-	-	-	NA	-	NA
H13	-	-	-	-	-	-	-	-	-	NA	-	NA
H17	-	-	-	-	-	-	-	-	-	NA	-	NA
H18	-	-	-	-	-	-	-	-	-	NA	-	NA
H21	-	-	-	-	-	-	-	-	-	NA	-	NA
H24	-	-	-	-	-	-	-	-	-	NA	-	NA
H1	-	-	-	-	-	+(26.98)	+(27.22)	+	+	PD	+	PD
H4	-	-	-	-	-	-	-	-	-	NA	-	NA
H7	+	+	+	+	+	-	-	-	-	ND	-	ND
H9	-	-	-	-	-	-	-	-	-	NA	-	NA
H11	+	+	+	+	+	-	-	-	-	ND	-	ND
H16	+	+	+	+	+	-	-	-	-	ND	-	ND
H20	+	+	+	+	+	+(23.24)	+(23.71)	+	+	PA	+	PA
H23	+	+	+	+	+	-	-	-	-	ND	-	ND
H2	+	+	+	+	+	+(23.96)	+(24.40)	+	+	PA	+	PA
H6	+	+	+	+	+	+(26.47)	+(27.25)	+	+	PA	+	PA
H8	+	+	+	+	+	+(26.61)	+(26.17)	+	+	PA	+	PA
H12	+	+	+	+	+	+(23.29)	+(22.96)	+	+	PA	+	PA
H14	+	+	+	+	+	+(24.15)	+(23.46)	+	+	PA	+	PA
H15	+	+	+	+	+	+(28.15)	+(27.34)	+	+	PA	+	PA
H19	+	+	+	+	+	+(21.98)	+(22.18)	+	+	PA	+	PA
H22	+	+	+	+	+	+(24.48)	+(25.05)	+	+	PA	+	PA

Laboratory IAerobic mesophilic flora: 1,4.10⁷CFU/g

Thermocycler: AriaMx

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria</i> <i>monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria</i> <i>monocytogenes</i>	Agreement BACGene <i>Listeria</i> <i>monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
I3	-	-	-	-	-	-	-	-	-	NA	-	NA
I5	-	-	-	-	-	-	-	-	-	NA	-	NA
I10	-	-	-	-	-	+(34.73)/-/-	-	-	-	PPNA	-	NA
I13	-	-	-	-	-	-	-	-	-	NA	-	NA
I17	-	-	-	-	-	-	-	-	-	NA	-	NA
I18	-	-	-	-	-	-	-	-	-	NA	-	NA
I21	-	-	-	-	-	-	-	-	-	NA	-	NA
I24	-	-	-	-	-	-	-	-	-	NA	-	NA
I1	+	+	+	+	+	-	-	-	-	ND	-	ND
I4	+	+	+	+	+	-	-	-	-	ND	-	ND
I7	+	+	+	+	+	+(29.39)	+(30.58)	+	+	PA	+	PA
I9	+	+	+	+	+	+(21.64)	+(22.63)	+	+	PA	+	PA
I11	-	+	+	+	+	+(24.34)	+(25.40)	+	+	PA	+	PA
I16	+	+	+	+	+	-	-	-	-	ND	-	ND
I20	+	+	+	+	+	+(23.85)	+(24.74)	+	+	PA	+	PA
I23	+	+	+	+	+	+(23.78)	+(24.66)	+	+	PA	+	PA
I2	+	+	+	+	+	+(21.81)	+(23.02)	+	+	PA	+	PA
I6	+	+	+	+	+	+(29.14)	+(30.30)	+	+	PA	+	PA
I8	+	+	+	+	+	+(23.85)	+(24.75)	+	+	PA	+	PA
I12	+	+	+	+	+	+(23.29)	+(24.32)	+	+	PA	+	PA
I14	+	+	+	+	+	+(22.69)	+(23.81)	+	+	PA	+	PA
I15	+	+	+	+	+	+(26.70)	+(27.64)	+	+	PA	+	PA
I19	+	+	+	+	+	+(23.32)	+(24.03)	+	+	PA	+	PA
I22	+	+	+	+	+	+(23.63)	+(24.55)	+	+	PA	+	PA

Laboratory JAerobic mesophilic flora: 6,6.10⁸CFU/g

Thermocycler: AriaMx

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria</i> <i>monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria</i> <i>monocytogenes</i>	Agreement BACGene <i>Listeria</i> <i>monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
J3	-	-	-	-	-	-	-	-	-	NA	-	NA
J5	-	-	-	-	-	-	-	-	-	NA	-	NA
J10	-	-	-	-	-	-	-	-	-	NA	-	NA
J13	-	-	-	-	-	-	-	-	-	NA	-	NA
J17	-	-	-	-	-	-	-	-	-	NA	-	NA
J18	-	-	-	-	-	-	-	-	-	NA	-	NA
J21	-	-	-	-	-	-	-	-	-	NA	-	NA
J24	-	-	-	-	-	-	-	-	-	NA	-	NA
J1	-	-	-	-	-	-	-	-	-	NA	-	NA
J4	+	+	+	+	+	+(24.62)	+(25.04)	+	+	PA	+	PA
J7	-	-	-	-	-	+(28.47)	+(28.70)	+	+	PD	+	PD
J9	+	+	+	+	+	+(31.51)	+(31.84)	+	+	PA	+	PA
J11	-	-	-	-	-	+(23.45)	+(23.92)	+	+	PD	+	PD
J16	+	+	+	+	+	-	-	-	-	ND	-	ND
J20	-	-	-	-	-	-	-	-	-	NA	-	NA
J23	+	+	+	+	+	+(21.89)	+(26.62)	+	+	PA	+	PA
J2	+	+	+	+	+	+(23.79)	+(24.11)	+	+	PA	+	PA
J6	+	+	+	+	+	+(28.34)	+(28.62)	+	+	PA	+	PA
J8	+	+	+	+	+	+(31.50)	+(31.68)	+	+	PA	+	PA
J12	+	+	+	+	+	+(23.69)	+(24.08)	+	+	PA	+	PA
J14	+	+	+	+	+	+(29.84)	+(30.30)	+	+	PA	+	PA
J15	+	+	+	+	+	+(26.53)	+(26.93)	+	+	PA	+	PA
J19	+	+	+	+	+	+(24.34)	+(25.54)	+	+	PA	+	PA
J22	+	+	+	+	+	+(23.56)	+(26.44)	+	+	PA	+	PA

Laboratory KAerobic mesophilic flora: >10⁸CFU/g (~8.10⁸CFU/g)

Thermocycler: Bio-Rad CFX96

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria monocytogenes</i>	Agreement BACGene <i>Listeria monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
K3	-	-	-	-	-	-	-	-	-	NA	-	NA
K5	-	-	-	-	-	-	-	-	-	NA	-	NA
K10	-	-	-	-	-	-	-	-	-	NA	-	NA
K13	-	-	-	-	-	-	-	-	-	NA	-	NA
K17	-	-	-	-	-	-	-	-	-	NA	-	NA
K18	-	-	-	-	-	-	-	-	-	NA	-	NA
K21	-	-	-	-	-	-	-	-	-	NA	-	NA
K24	-	-	-	-	-	-	-	-	-	NA	-	NA
K1	-	-	-	-	-	-	-	-	-	NA	-	NA
K4	+	+	+	+	+	+(27.67)	+(28.05)	+	+	PA	+	PA
K7	+	+	+	+	+	+(32.69)	+(32.31)	+	+	PA	+	PA
K9	+	+	+	+	+	+(25.94)	+(25.80)	+	+	PA	+	PA
K11	-	-	-	-	-	+(24.29)	+(24.38)	+	+	PD	+	PD
K16	+	+	+	+	+	-	-	-	-	ND	-	ND
K20	-	-	-	-	-	-	-	-	-	NA	-	NA
K23	+	+	+	+	+	+(28.83)	+(28.83)	+	+	PA	+	PA
K2	+	+	+	+	+	+(28.34)	+(28.74)	+	+	PA	+	PA
K6	+	+	+	+	+	+(28.86)	+(28.69)	+	+	PA	+	PA
K8	+	+	+	+	+	+(25.60)	+(25.36)	+	+	PA	+	PA
K12	+	+	+	+	+	+(25.47)	+(25.39)	+	+	PA	+	PA
K14	+	+	+	+	+	+(25.08)	+(24.75)	+	+	PA	+	PA
K15	+	+	+	+	+	+(25.40)	+(25.16)	+	+	PA	+	PA
K19	+	+	+	+	+	+(23.98)	+(23.73)	+	+	PA	+	PA
K22	+	+	+	+	+	+(23.44)	+(23.47)	+	+	PA	+	PA

Laboratory LAerobic mesophilic flora: 8,7.10⁷CFU/g

Thermocycler: Bio-Rad CFX96

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria</i> <i>monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria</i> <i>monocytogenes</i>	Agreement BACGene <i>Listeria</i> <i>monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
L3	-	-	-	nd	-	-	-	-	-	NA	-	NA
L5	-	-	-	nd	-	-	-	-	-	NA	-	NA
L10	-	-	-	nd	-	-	-	-	-	NA	-	NA
L13	-	-	-	nd	-	-	-	-	-	NA	-	NA
L17	-	-	-	nd	-	-	-	-	-	NA	-	NA
L18	-	-	-	nd	-	-	-	-	-	NA	-	NA
L21	-	-	-	nd	-	-	-	-	-	NA	-	NA
L24	-	-	-	nd	-	-	-	-	-	NA	-	NA
L1	-	-	-	nd	-	+(31.80)	+(32.02)	+	+	PD	+	PD
L4	-	-	+	nd	+	-	-	-	-	ND	-	ND
L7	-	+	+	nd	+	-	-	-	-	ND	-	ND
L9	-	-	-	nd	-	+(37.37)	+(36.53)	+	+	PD	+	PD
L11	+	+	+	nd	+	+(25.36)	+(24.83)	+	+	PA	+	PA
L16	-	-	-	nd	-	+(25.12)	+(24.75)	+	+	PD	+	PD
L20	+	-	+	nd	+	+(24.24)	+(23.49)	+	+	PA	+	PA
L23	-	-	+	nd	+	-	-	-	-	ND	-	ND
L2	+	+	+	nd	+	+(32.20)	+(31.33)	+	+	PA	+	PA
L6	-	-	+	nd	+	+(23.48)	+(23.25)	+	+	PA	+	PA
L8	+	+	+	nd	+	+(27.58)	+(27.23)	+	+	PA	+	PA
L12	+	+	+	nd	+	+(25.28)	+(24.98)	+	+	PA	+	PA
L14	+	+	+	nd	+	+(25.02)	+(24.80)	+	+	PA	+	PA
L15	-	-	-	nd	-	+(27.40)	+(27.06)	+	+	PD	+	PD
L19	-	+	+	nd	+	+(31.38)	+(30.70)	+	+	PA	+	PA
L22	+	+	+	nd	+	+(33.19)	+(32.9)	+	+	PA	+	PA

Laboratory MAerobic mesophilic flora: 1,7.10⁹CFU/g

Thermocycler: Bio-Rad CFX96

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria monocytogenes</i>	Agreement BACGene <i>Listeria monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
M3	-	-	-	-	-	-	-/-	-	-	NA	-	NA
M5	-	-	-	-	-	-	+(23.96)/-	-	-	NA	-	PPNA
M10	-	-	-	-	-	-	-/-	-	-	NA	-	NA
M13	-	-	+	-	+	-	-/-	-	-	ND	-	ND
M17	-	-	+	-	+	-	-/i	-	-	ND	-	ND
M18	-	-	-	-	-	-	-/i	-	-	NA	-	NA
M21	-	-	-	-	-	-	-/-	-	-	NA	-	NA
M24	-	-	-	-	-	-	-/i	-	-	NA	-	NA
M1	-	-	-	-	-	-	-/-	-	-	NA	-	NA
M4	+	+	+	+	+	-	+(24.05)/-	-	-	ND	-	PPND
M7	+	+	+	+	+	+(24.64)	+(24.02)/+(24.55)	+	+	PA	+	PA
M9	-	-	+	-	+	-	-/-	-	-	ND	-	ND
M11	+	+	+	+	+	+(24.76)	+(25.40)/+(25.51)	+	+	PA	+	PA
M16	-	-	+	-	+	+(30.14)	+(30.74)/+(33.17)	+	+	PA	+	PA
M20	+	+	+	+	+	+(31.67)	+(30.77)/+(33.43)	+	+	PA	+	PA
M23	+	+	+	+	+	+(24.45)	+(23.16)/+(26.37)	+	+	PA	+	PA
M2	+	+	+	+	+	+(26.31)	-/+(25.78)	+	+	PA	-	ND
M6	+	+	+	+	+	+(25.02)	+(22.58)/+(23.35)	+	+	PA	+	PA
M8	+	+	+	+	+	+(24.29)	+(24.83)/+(25.03)	+	+	PA	+	PA
M12	+	+	+	+	+	+(24.33)	+(23.19)/+(23.34)	+	+	PA	+	PA
M14	+	+	+	+	+	+(25.35)	+(25.77)/+(25.01)	+	+	PA	+	PA
M15	+	+	+	+	+	+(27.16)	+(27.82)/+(30.08)	+	+	PA	+	PA
M19	+	+	+	+	+	+(24.46)	+(23.42)/+(26.04)	+	+	PA	+	PA
M22	+	+	+	+	+	+(31.05)	+(29.80)/+(34.11)	+	+	PA	+	PA

Laboratory NAerobic mesophilic flora: 2,09.10⁷CFU/g

Thermocycler: Bio-Rad CFX96

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria</i> <i>monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria</i> <i>monocytogenes</i>	Agreement BACGene <i>Listeria</i> <i>monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
N3	-	-	-	-	-	-	-	-	-	NA	-	NA
N5	-	-	-	-	-	-	-	-	-	NA	-	NA
N10	-	-	-	-	-	-	-	-	-	NA	-	NA
N13	-	-	-	-	-	-	-	-	-	NA	-	NA
N17	-	-	-	-	-	-	-	-	-	NA	-	NA
N18	-	-	-	-	-	-	-	-	-	NA	-	NA
N21	-	-	-	-	-	-	-	-	-	NA	-	NA
N24	-	-	-	-	-	-	-	-	-	NA	-	NA
N1	+	+	+	+	+	-	-	-	-	ND	-	ND
N4	+	+	+	+	+	+(25.61)	+(25.55)	+	+	PA	+	PA
N7	+	+	+	+	+	+(26.11)	+(26.17)	+	+	PA	+	PA
N9	+	+	+	+	+	-	-	-	-	ND	-	ND
N11	-	-	-	-	-	+(29.14)	+(29.26)	+	+	PD	+	PD
N16	+	+	+	+	+	+(26.00)	+(26.09)	+	+	PA	+	PA
N20	+	+	+	+	+	+(26.08)	+(26.10)	+	+	PA	+	PA
N23	+	+	+	+	+	+(25.81)	+(25.80)	+	+	PA	+	PA
N2	+	+	+	+	+	+(24.41)	+(24.47)	+	+	PA	+	PA
N6	+	+	+	+	+	+(30.72)	+(30.68)	+	+	PA	+	PA
N8	+	+	+	+	+	+(21.77)	+(21.76)	+	+	PA	+	PA
N12	+	+	+	+	+	+(23.83)	+(23.85)	+	+	PA	+	PA
N14	+	+	+	+	+	+(26.16)	+(26.21)	+	+	PA	+	PA
N15	+	+	+	+	+	+(26.88)	+(26.70)	+	+	PA	+	PA
N19	+	+	+	+	+	+(28.61)	+(28.42)	+	+	PA	+	PA
N22	+	+	+	+	+	+(26.59)	+(26.66)	+	+	PA	+	PA

Laboratory OAerobic mesophilic flora: 1,6.10⁸CFU/g

Thermocycler: AriaMx

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria</i> <i>monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria</i> <i>monocytogenes</i>	Agreement BACGene <i>Listeria</i> <i>monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
O3	-	-	-	-	-	-	-	-	-	NA	-	NA
O5	-	-	-	-	-	-	-	-	-	NA	-	NA
O10	-	-	-	-	-	-	-	-	-	NA	-	NA
O13	-	-	-	-	-	-	-	-	-	NA	-	NA
O17	-	-	-	-	-	-	-	-	-	NA	-	NA
O18	-	-	-	-	-	-	-	-	-	NA	-	NA
O21	-	-	-	-	-	-	-	-	-	NA	-	NA
O24	-	-	-	-	-	-	-	-	-	NA	-	NA
O1	-	-	+	+	+	-	-	-	-	ND	-	ND
O4	-	-	-	-	-	+(26.03)	+(26.39)	+	+	PD	+	PD
O7	+	+	+	+	+	-	-	-	-	ND	-	ND
O9	-	+	+	+	+	-	-	-	-	ND	-	ND
O11	-	-	-	-	-	+(26.51)	+(29.27)	+	+	PD	+	PD
O16	+	+	+	+	+	+(21.95)	+(22.05)	+	+	PA	+	PA
O20	+	+	+	+	+	+(24.51)	+(24.25)	+	+	PA	+	PA
O23	+	+	+	+	+	-	-	-	-	ND	-	ND
O2	-	-	+	+	+	+(24.46)	+(24.85)	+	+	PA	+	PA
O6	-	+	+	+	+	+(22.00)	+(22.61)	+	+	PA	+	PA
O8	+	+	+	+	+	+(20.56)	+(23.89)	+	+	PA	+	PA
O12	+	+	+	+	+	+(24.18)	+(27.07)	+	+	PA	+	PA
O14	+	+	+	+	+	+(20.84)	+(23.42)	+	+	PA	+	PA
O15	+	+	+	+	+	+(28.23)	+(29.02)	+	+	PA	+	PA
O19	+	+	+	+	+	+(21.18)	+(21.79)	+	+	PA	+	PA
O22	-	+	+	+	+	+(25.04)	+(24.57)	+	+	PA	+	PA

Laboratory PAerobic mesophilic flora: >10⁸CFU/g (>2,1.10⁸CFU/g)

Thermocycler: AriaMx

N°Sample	Reference method: ISO 11290-1/A1					Alternative method: BACGene <i>Listeria monocytogenes</i>						
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)	BACGene <i>Listeria</i> <i>monocytogenes</i>	Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria</i> <i>monocytogenes</i>	Agreement BACGene <i>Listeria</i> <i>monocytogenes</i>
	O&A	Palcam	O&A	Palcam		Ct	Ct	O&A				
P3	-	-	-	-	-	-	-	-	-	NA	-	NA
P5	-	-	-	-	-	-	-	-	-	NA	-	NA
P10	-	-	-	-	-	-	-	-	-	NA	-	NA
P13	-	-	-	-	-	-	-	-	-	NA	-	NA
P17	-	-	-	-	-	-	-	-	-	NA	-	NA
P18	-	-	-	-	-	-	-	-	-	NA	-	NA
P21	-	-	-	-	-	-	-	-	-	NA	-	NA
P24	-	-	-	-	-	-	-	-	-	NA	-	NA
P1	+	-	-	-	+	-	-	-	-	ND	-	ND
P4	+	-	+	+	+	-	-	-	-	ND	-	ND
P7	+	+	+	+	+	+(27.87)	+(28.51)	+	+	PA	+	PA
P9	-	-	+	+	+	-	-	-	-	ND	-	ND
P11	+	+	+	+	+	+(26.19)	+(26.96)	+	+	PA	+	PA
P16	+	-	+	+	+	+(27.67)	+(28.21)	+	+	PA	+	PA
P20	+	-	+	+	+	-	-	-	-	ND	-	ND
P23	+	+	+	+	+	+(23.43)	+(24.08)	+	+	PA	+	PA
P2	+	+	+	+	+	+(24.70)	+(25.43)	+	+	PA	+	PA
P6	+	+	+	+	+	+(24.96)	+(25.69)	+	+	PA	+	PA
P8	+	+	+	+	+	+(24.41)	+(25.03)	+	+	PA	+	PA
P12	+	+	+	+	+	+(23.15)	+(23.84)	+	+	PA	+	PA
P14	+	+	+	+	+	+(27.37)	+(28.43)	+	+	PA	+	PA
P15	+	+	+	+	+	+(32.17)	+(33.50)	+	+	PA	+	PA
P19	+	+	+	+	+	+(29.57)	+(23.90)	+	+	PA	+	PA
P22	+	+	+	+	+	+(27.80)	+(25.02)	+	+	PA	+	PA

Laboratory Z (Adria)

Aerobic mesophilic flora: 5,5.10⁸CFU/g

N°Sample	Reference method: ISO 11290-1/A1♦					Alternative method : BACGene <i>Listeria monocytogenes</i>								
	Half Fraser		Fraser		Final result	BACGene <i>Listeria</i> Multiplex (Target: <i>L.monocytogenes</i>)		BACGene <i>Listeria monocytogenes</i>		Confirmations	Final result BACGene <i>Listeria</i> Multiplex	Agreement BACGene <i>Listeria</i> Multiplex	Final result BACGene <i>Listeria monocytogenes</i>	Agreement BACGene <i>Listeria monocytogenes</i>
						Ct		Ct						
	O&A	Palcam	O&A	Palcam		CFX96	AriaMx	CFX96	AriaMx	O&A				
Z3	-	-	-	-	-	-	-	-	-	-	-	NA	-	NA
Z5	-	-	-	-	-	-	-	-	-	-	-	NA	-	NA
Z10	-	-	-	-	-	-	-	-	-	-	-	NA	-	NA
Z13	-	-	-	-	-	-	-	-	-	-	-	NA	-	NA
Z17	-	-	-	-	-	-	-	-	-	-	-	NA	-	NA
Z18	-	-	-	-	-	-	-	-	-	-	-	NA	-	NA
Z21	-	-	-	-	-	-	-	-	-	-	-	NA	-	NA
Z24	-	-	-	-	-	-	-	-	-	-	-	NA	-	NA
Z1	-	-	-	-	-	-	-	-	-	-	-	NA	-	NA
Z4	+	+	+	+	+	-	-	-	-	-	-	ND	-	ND
Z7	-	-	-	-	-	+(29.17)	+(25.80)	+(29.07)	+(25.43)	+	+	PD	+	PD
Z9	+	+	+	+	+	+(26.91)	+(23.31)	+(26.96)	+(23.68)	+	+	PA	+	PA
Z11	+	+	+	+	+	-	-	-	-	-	-	ND	-	ND
Z16	+	+	+	+	+	+(27.24)	+(23.53)	+(26.90)	+(24.15)	+	+	PA	+	PA
Z20	-	-	-	-	-	-	-	-	-	-	-	NA	-	NA
Z23	+	+	+	+	+	-	-	-	-	-	-	ND	-	ND
Z2	+	+	+	+	+	+(26.86)	+(23.40)	+(26.87)	+(23.91)	+	+	PA	+	PA
Z6	+	+	+	+	+	+(29.16)	+(25.97)	+(29.39)	+(26.55)	+	+	PA	+	PA
Z8	+	+	+	+	+	+(27.94)	+(24.38)	+(27.88)	+(24.75)	+	+	PA	+	PA
Z12	+	+	+	+	+	+(29.88)	+(26.30)	+(29.96)	+(26.78)	+	+	PA	+	PA
Z14	+	+	+	+	+	+(26.99)	+(23.63)	+(27.34)	+(24.30)	+	+	PA	+	PA
Z15	+	+	+	+	+	+(29.86)	+(26.18)	+(29.80)	+(26.61)	+	+	PA	+	PA
Z19	+	+	+	+	+	+(27.41)	+(23.87)	+(27.50)	+(24.46)	+	+	PA	+	PA
Z22	+	+	+	+	+	+(29.54)	+(26.37)	+(29.55)	+(27.71)	+	+	PA	+	PA2

* Analyses performed according to the COFRAC accreditation

ADRIA Développement

Summary report (Version 0)

BACGene™ *Listeria* Multiplex & *Listeria monocytogenes*