

NF VALIDATION
Validation of alternative analysis methods
Application to the food industry

Summary report
according to the standard EN ISO 16140-2:2016

Qualitative method

ANSR for *Listeria*
(certificate # NEO 35/03-01/16)
for the detection of *Listeria* spp in human food products and in
environmental samples

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This report contains 92 pages, including 61 pages of appendices.
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Preamble

- Protocols of validation :

- EN ISO 16140-1 and EN ISO 16140-2 (September 2016): Microbiology of the food chain — Method validation
Part 1: Vocabulary.
Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method.
- Requirements regarding comparison and interlaboratory studies for implementation of the standard EN ISO 16140-2 (project version 7).

- Reference method:

- **EN ISO 11290-1 (July 2017):** Microbiology of the food chain - Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp- Part 1: Detection method.

- Application scope:

- **All human food products** by a validation testing of a broad range of foods, including:
 - meat products,
 - milk and dairy products,
 - fish and seafood,
 - vegetables,
 - composite foods,
- **Environmental samples.**

- Certification body:

- **AFNOR Certification** (<https://nf-validation.afnor.org/>).

Definitions

- **Method comparison study**

The method comparison study is the part of the validation process that is performed in the organizing laboratory. It consists of three parts namely the following:

- A comparative study of the results of the reference method to the results of the alternative method in (naturally and/or artificially) contaminated samples (so-called sensitivity study);
- A comparative study to determine the relative level of detection (RLOD) in artificially contaminated samples (so-called RLOD study);
- An inclusivity/exclusivity study of the alternative method.

- **Sensitivity study**

The sensitivity study aims to determine the difference in sensitivity between the reference and the alternative method.

The sensitivity is the ability of the reference method or alternative method to detect the analyte.

- **Relative level of detection study**

A comparative study is conducted to evaluate the level of detection (LOD) of the alternative method against the reference method. The evaluation is based on the calculation of the relative level of detection (RLOD).

The level of detection at 50% (LOD₅₀) is the measured analyte concentration, obtained by a given measurement procedure, for which the probability of detection is 50%.

The relative level of detection level of detection at $P = 0,50$ (LOD₅₀) of the alternative method divided by the level of detection at $P = 0,50$ (LOD₅₀) of the reference method.

- **Inclusivity and exclusivity study**

The inclusivity study is a study involving pure target strains to be detected or enumerated by the alternative method.

The exclusivity study is a study involving pure non-target strains, which can be potentially cross-reactive, but are not expected to be detected or enumerated by the alternative method.

- **Interlaboratory study**

The interlaboratory 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.

The aim of the interlaboratory study is to determine the difference in sensitivity between the reference and the alternative method when tested by different collaborators using identical samples (reproducibility conditions).

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Appendices

- Appendix A: Protocol of the alternative method
- Appendix B: Protocol of the reference method
- Appendix C: Artificial contaminations
- Appendix D: Results of the sensitivity study
- Appendix E: Nature of the pooled samples
- Appendix F: Results of the relative level of detection study
- Appendix G: Results of the selectivity study
- Appendix H: Results of the interlaboratory study

1. Introduction

The present document is a summary report of the validation AFNOR Certification of the ANSR *Listeria* method.

The ANSR *Listeria* method is certified NF VALIDATION for a validation according to the ISO 16140-2:2016 standard under the certification number NEO 35/03-01/16 for the detection of *Listeria* spp in a broad range of foods and in environmental samples, including analyses of a single sample or of ten pooled samples. The pooling can be performed between samples from various origins and categories.

Table 1 summarizes the different steps of the validation that occurred since the initial validation.

Table 1: validation history

Date	Study	Expert Laboratory	Standards
January 2016	Initial validation for the detection of <i>Listeria</i> spp from a single sample or from 10 pooled samples	ADRIA Développement	- ISO/FDIS 16140-2:2015 - ISO 11290-1/A1:2005
November 2019	First renewal study without modification	Microsept	- ISO 16140-2:2016 - ISO 11290-1:2017
December 2023	Project of second renewal study without modification	Microsept	- ISO 16140-2:2016 - ISO 11290-1:2017

The results set out in this report were produced during validation tests carried out by ADRIA Développement as part of NF Validation, in accordance with prevailing requirements.

2. Protocols of the methods

2.1. Alternative method

2.1.1. Principle of the alternative method

ANSR for *Listeria* is an isothermal, amplified nucleic acid assay. The ANSR for *Listeria* method is based on nicking enzyme amplification reaction (NEAR™) technology preceded by the reverse transcription of 23s ribosomal RNA. Target complementary DNA is amplified through a mechanism of polymerization from the ends of nicks created in double-stranded DNA by the action of a specific endonuclease. Amplified target sequences are detected in real time using fluorescent molecular beacon probes.

A 2-stage lysis reaction is performed, first at 37±2°C for 10 minutes, then at 80±2°C for 20 minutes. Next, a portion of the lysed sample is transferred to a strip tube containing lyophilized ANSR reagents. The tubes are sealed and incubated at 56±1°C on the ANSR reader. Results are generated by the reader and displayed in the ANSR software within 18 minutes. Positive results may be confirmed from the enrichment cultures following standard procedures. Each tube of ANSR reagents contains an internal positive control, ensuring that the reagents are functioning properly.

2.1.2. Protocol of the alternative method

The validated protocol is as follows:

- Enrichment step in LESS Plus broth for 25±3 h at 30±1°C
- Lysis step:
 - o 50 µl enrichment broth + 450 µl lysis buffer,
 - o Incubation at 37°C for 10 min in a heater block,
 - o Heat treatment at 80°C for 20 min.
- Polymerization step,
- Confirmation tests by streaking 100 µl of LESS Plus broth onto Ottaviani & Agosti or Palcam agar media.

During the validation study, the typical colonies were confirmed by the tests described in the ISO 11290-1/A1:2005 method.

The protocols are set out in Appendix A.

2.2. Reference method

Assays of the initial validation for the general protocol were performed according to the EN ISO 11290-1/A1:2005 standard "Horizontal method for the detection and enumeration of *Listeria monocytogenes* - Part 1: Detection method".

This standard was updated in 2017, that's why the method described in the new standard EN ISO 11290-1:2017 "Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp – Part 1: detection method" is considered as the reference method as part of the current renewal study performed by the Laboratory Microsept.

The main changes introduced in the ISO 11290-1:2017 are considered as major but the technical changes were assessed and were considered to have no significant effect on the method performance characteristics or test results.

The results obtained with the reference method during the initial validation are consequently considered as still effective as part of the renewal study.

The analytical scheme of the reference method is presented in Appendix B.

2.3. Restriction

There is no restriction on use for the ANSR for *Listeria* method.

2.4. Study design

As there is no shared enrichment step for both the alternative and the reference methods, different test portions coming from the same batch or lot of products have to be used for the two methods. The study thus provides unpaired data and the expression “unpaired study” is used to describe the study design.

3. Method comparison study

3.1. Sensitivity study

The study was conducted on a variety of samples and strains representative of food products. This is not an exhaustive list of the various matrices included in the application scope. For any remark on the alternative method, you can contact AFNOR Certification by connecting to the Internet page <http://nf-validation.afnor.org/contact-2/>.

3.1.1. Number and nature of samples

449 samples contaminated and non-contaminated with *Listeria* were tested using both the EN ISO 11290-1/A1:2004 reference method and the ANSR for *Listeria* method.

The different kinds of samples analyzed are presented in table 2.

Table 2: Number and nature of samples analyzed for all categories (¹: positive by any method)

Category	Type	Number of positive results ¹	Number of negative results	Total
Composite foods ①	a Ready-to-eat	8	14	22
	b Ready-to-reheat	16	14	30
	c Confectionaries, pastries and egg prod.	8	23	31
	Total	32	51	83
Meat products ②	a Raw products (frozen or fresh)	18	10	28
	b Meat based products ready to reheat	7	14	21
	c Raw and cooked delicatessen	8	14	22
	Total	33	38	71
Milk & dairy products ③	a Raw milk cheeses	10	24	34
	b Other products based on raw milks	11	13	24
	c Heat treated dairy products	9	18	27
	Total	30	55	85
Vegetables ④	a Raw products (fresh and frozen)	12	11	23
	b Pre-cooked vegetables, vegetables under modified atmosphere	9	12	21
	c RTE	11	10	21
	Total	32	33	65
Fish and seafood ⑤	a Raw products (fresh and frozen)	7	14	21
	b Cured & smoked	11	9	20
	c Ready-to-eat, Ready to reheat	13	16	29
	Total	31	39	70
Environmental samples ⑥	a Process & cleaning waters	11	13	24
	b Dusts and residus	8	12	20
	c Surface sampling	11	20	31
	Total	30	45	75
TOTAL		188	261	449

The distribution per target analytes is given in table 3.

Table 3: Distribution per target analyte

Category	<i>Listeria spp.</i>	<i>Listeria spp</i> + <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>
① Composite foods	9	0	23
② Meat products	10	11	12
③ Milk and dairy products	11	2	17
④ Vegetables	21	2	9
⑤ Fish and seafood	2	13	16
⑥ Environmental samples	9	4	17
TOTAL	62	32	94

3.1.2. Artificial contamination of samples

Artificial contamination was carried out using stressed strains in accordance with the requirements of the ISO 16140-2:2016 standard and of the requirements of the AFNOR Validation Technical Board linked to this standard.

A total of 110 samples were artificially contaminated, using 57 different strains:

- 88 gave a positive result, among which:
 - o 74 samples were inoculated at level ≤ 3 CFU / test portion,
 - o 14 samples were inoculated between 3.2 and 6.6 CFU / test portion.

In total, 101 positive results out of 188 were obtained following artificial contaminations, i.e. 53.7%.

The samples and the strains used for the artificial contaminations are presented in Appendix C.

3.1.3. Confirmation protocols

The positive ANSR tests were confirmed by streaking 100 μ l of the LESS broth onto Ottaviani & Agosti and Palcam agar media.

During the validation study, the typical colonies were identified by the tests described in the reference method.

3.1.4. Results

Raw data are shown in Appendix D.

Table 4 shows the results for the two methods for individual samples and for pooled samples. The pooled samples are provided in Appendix E.

Table 4: results of the sensitivity study for both methods for the analysis of individual samples (R+/-: reference method positive or negative, A+/-: alternative method positive or negative, PA: positive agreement, NA: negative agreement, ND: negative deviation, PD: positive deviation, PP: presumptive positive before confirmation). PPNA are included in NA and PPND are included in ND.

Category	Response	Individual samples		Pooled samples	
		R+	R-	R+	R-
Composite foods ①	A+	PA = 18	PD = 7	PA = 18	PD = 7
	A-	ND = 7 incl. 0 PPND	NA = 51 incl. 2 PPNA	ND = 7 incl. 0 PPND	NA = 51 incl. 0 PPNA
Meat products ②	A+	PA = 23	PD = 7	PA = 25	PD = 7
	A-	ND = 3 incl. 0 PPND	NA = 38 incl. 1 PPNA	ND = 1 incl. 0 PPND	NA = 38 incl. 1 PPNA
Milk and dairy products ③	A+	PA = 16	PD = 7	PA = 16	PD = 7
	A-	ND = 7 incl. 2 PPND	NA = 55 incl. 1 PPNA	ND = 7 incl. 0 PPND	NA = 55 incl. 3 PPNA
Vegetables ④	A+	PA = 19	PD = 9	PA = 17	PD = 9
	A-	ND = 4 incl. 1 PPND	NA = 33 incl. 1 PPNA	ND = 6 incl. 1 PPND	NA = 33 incl. 1 PPNA
Fish and seafood ⑤	A+	PA = 26	PD = 4	PA = 26	PD = 3
	A-	ND = 2 incl. 0 PPND	NA = 38 incl. 1 PPNA	ND = 2 incl. 0 PPND	NA = 39 incl. 0 PPNA
Environmental samples ⑥	A+	PA = 18	PD = 6	PA = 17	PD = 5
	A-	ND = 7 incl. 2 PPND	NA = 44 incl. 4 PPNA	ND = 8 incl. 0 PPND	NA = 45 incl. 2 PPNA
All categories	A+	PA = 120	PD = 40	PA = 119	PD = 38
	A-	ND = 30 incl. 5 PPND	NA = 259 incl. 10 PPNA	ND = 31 incl. 1 PPND	NA = 261 incl. 7 PPNA

3.1.5. Calculation of relative accuracy (AC), relative sensitivity (SE) and false positive ratio (FP)

All results were used to calculate the sensitivity for the alternative method and the reference method, the relative trueness and the false positive ratio.

Table 5 presents the results for individual samples and table 6 for pooled samples.

Table 5: values in % of sensitivity for the two methods, relative trueness and false positive ratio for the alternative method for individual samples (SE_{alt} : sensitivity for the alternative method, SE_{ref} : sensitivity for the reference method, RT: relative trueness, FPR: false positive ratio for the alternative method). PPNA are included in NA and PPND are included in ND.

INDIVIDUAL SAMPLES												
Category	Type		PA	NA	PD	ND	PPND	PPNA	SE_{alt} %	SE_{ref} %	AC %	FP %
Composite foods ①	a	Ready-to-eat	2	14	4	2	0	0	75.0	50.0	72.7	0.0
	b	Ready-to-reheat	10	14	3	3	0	1	81.3	81.3	80.0	7.7
	c	Confectionaries, pastries and egg products	6	23	0	2	0	1	75.0	100	93.5	4.5
	Total		18	51	7	7	0	2	78,1	78.1	83.1	3.9
Meat products ②	a	Raw products (frozen or fresh)	13	10	2	3	0	0	83.3	88.9	82.1	0.0
	b	Meat based products ready to reheat	5	14	2	0	0	0	100	71.4	90.5	0.0
	c	Raw and cooked delicatessen	5	14	3	0	0	1	100	62.5	86.4	7.7
	Total		23	38	7	3	0	1	90.9	78.8	85.9	2.6
Milk & Dairy products ③	a	Raw milk cheeses	3	24	4	3	1	0	70.0	60.0	79.4	4.2
	b	Other products based on raw milks	8	13	1	2	0	1	81.8	90.9	87.5	8.3
	c	Heat treated dairy products	5	18	2	2	1	0	77.8	77.8	85.2	5.6
	Total		16	55	7	7	2	1	76.7	76.7	83.5	5.5
Vegetables ④	a	Raw products (fresh and frozen)	8	11	3	1	1	1	91.7	75.0	82.6	20.0
	b	Pre-cooked vegetables, vegetables under modified atmosphere	5	12	3	1	0	0	88.9	66.7	81.0	0.0
	c	RTE	6	10	3	2	0	0	81.8	72.7	76.2	0.0
	Total		19	33	9	4	1	1	87.5	71.9	80.0	6.1
Fish and seafood ⑤	a	Raw products (fresh and frozen)	6	13	1	1	0	0	87.5	87.5	90.5	0.0
	b	Cured & smoked	10	9	1	0	0	0	100	90.9	95.0	0.0
	c	Ready-to-eat, Ready to reheat	10	16	2	1	0	1	92.3	84.6	90.0	6.3
	Total		26	38	4	2	0	1	93.8	87.5	91.4	2.6
Environmental samples ⑥	a	Process & cleaning waters	8	12	3	1	1	1	91.7	75.0	83.3	18.2
	b	Dusts and residus	5	12	1	2	0	1	75.0	87.5	85.0	9.1
	c	Surface sampling	5	20	2	4	1	2	63.6	81.8	80.6	16.7
	Total		18	44	6	7	2	4	77.4	80.6	82.7	13.6
Total			120	259	40	30	5	10	84.2	78.9	84.4	5.8

Table 6: values in % of sensitivity for the two methods, relative trueness and false positive ratio for the alternative method for pooled samples (SE_{alt} : sensitivity for the alternative method, SE_{ref} : sensitivity for the reference method, RT: relative trueness, FPR: false positive ratio for the alternative method). PPNA are included in NA and PPND are included in ND.

POOLED SAMPLES												
Category	Type		PA	NA	PD	ND	PPND	PPNA	SE_{alt} %	SE_{ref} %	AC %	FP %
Composite foods ①	a	Ready-to-eat	2	14	4	2	0	0	75.0	50.0	72.7	0.0
	b	Ready-to-reheat	10	14	3	3	0	0	81.3	81.3	80.0	7.7
	c	Confectionaries, pastries and egg products	6	23	0	2	0	0	75.0	100	93.5	0.0
	Total		18	51	7	7	0	0	78.1	78.1	83.1	0.0
Meat products ②	a	Raw products (frozen or fresh)	15	10	2	1	0	0	94.4	88.9	89.3	0.0
	b	Meat based products ready to reheat	5	14	2	0	0	0	100	71.4	90.5	0.0
	c	Raw and cooked delicatessen	5	14	3	0	0	1	100	62.5	86.4	7.7
	Total		25	38	7	1	0	1	97.0	78.8	88.7	2.6
Milk & Dairy products ③	a	Raw milk cheeses	3	24	4	3	0	2	70.0	60.0	79.4	9.1
	b	Other products based on raw milks	8	13	1	2	0	1	81.8	90.9	87.5	8.3
	c	Heat treated dairy products	5	18	2	2	0	0	77.8	77.8	85.2	0.0
	Total		16	55	7	7	0	3	76.7	76.7	83.5	5.5
Vegetables ④	a	Raw products (fresh and frozen)	7	11	3	2	1	1	83.3	75.0	78.3	20.0
	b	Pre-cooked vegetables, vegetables under modified atmosphere	4	12	3	2	0	0	77.8	66.7	76.2	0.0
	c	RTE	6	10	3	2	0	0	81.8	72.7	76.2	0.0
	Total		17	33	9	6	1	1	81.3	71.9	76.9	6.1
Fish and seafood ⑤	a	Raw products (fresh and frozen)	6	14	0	1	0	0	85.7	100	95.2	0.0
	b	Cured & smoked	10	9	1	0	0	0	100	90.9	95.0	0.0
	c	Ready-to-eat, Ready to reheat	10	16	2	1	0	0	92.3	84.6	89.7	0.0
	Total		26	39	3	2	0	0	93.5	90.3	92.9	0.0
Environmental samples ⑥	a	Process & cleaning waters	8	13	2	1	0	0	90.9	81.8	87.5	0.0
	b	Dusts and residus	5	12	1	2	0	1	75.0	87.5	85.0	9.1
	c	Surface sampling	4	20	2	5	0	1	54.5	81.8	77.4	5.3
	Total		17	45	5	8	0	2	73.3	83.3	82.7	4.4
Total			119	261	38	31	1	7	83.5	79.8	84.6	3.1

Table 7 summarizes the calculated parameters for all categories per kind of samples.

Table 7: parameters for all categories per kind of samples

Parameter	Formula EN ISO 16140-2 :2016	Individual samples	Pooled samples
Sensitivity of the alternative method (SE_{alt})	$SE_{alt} = \frac{(PA + PD)}{(PA + ND + PD)} \times 100 \%$	84.2 %	83.5 %
Sensitivity of the reference method (SE_{ref})	$SE_{ref} = \frac{(PA + ND)}{(PA + ND + PD)} \times 100 \%$	78.9 %	79.8 %
Relative trueness (RT)	$RT = \frac{(PA + NA)}{N} \times 100 \%$	84.4 %	84.6 %
False positive ratio (FPR) False positive results are the sum of PPNA and PPND	$FPR = \frac{FP}{NA} \times 100 \%$	5.8 %	3.1 %

3.1.6. Analysis of discordant results

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

31 negative deviations were observed for the pooling protocol and 30 for the individual protocol, 22 samples with artificially contaminated samples and 11 with naturally contaminated samples. *Listeria* spp was detected only in 5 samples by recovering the strains on selective agars. 26 negative deviations were probably due to the unpaired study design and the related sampling heterogeneity.

Additionally, *Listeria* spp. was recovered from 7 samples with negative agreement results; 2 of them were artificially contaminated and 5 naturally contaminated. In many cases, only few colonies were observed on the selective agars of the confirmation procedures of the alternative method. No additional confirmation was obtained using the ISO method protocol from the LESS Plus broth.

40 positive deviations were observed with the individual protocol and 38 with the pooled samples protocols. 33 concern naturally contaminated samples and 7 artificially contaminated samples.

The number of observed deviations confirms the low levels of the inoculation or natural contamination.

Table 8: summary of negative deviations

#	Product	Strain inoculated	Inoculation level (CFU / sample)	ANSR test result			Agreement		Cat.	Type
				Pooled samples	Individual samples	Confirmation	Pooled samples	Individual samples		
1117	RTRH (cheese ham)	<i>L. monocytogenes</i> Ad1197	1	-	-	-	ND	ND	1	b
3231	RTE Sandwich (tuna)	/	/	-	-	-	ND	ND	1	a
3441	Pasteurized liquid yellow egg	<i>L. monocytogenes</i> Ad1757	1	-	-	-	ND	ND	1	c
3443	RTRH (Pizza)	<i>L. monocytogenes</i> Ad1973/2400	1.6	-	-	-	ND	ND	1	b
3446	RTRH (lasagnes)	<i>L. monocytogenes</i> Ad1218	0.8	-	-	-	ND	ND	1	b
4993	Tortilla	<i>L. welshimeri</i> Ad1270	0.8	-	-	-	ND	ND	1	c
5788	RTRE (salmon)	/	/	-	-	-	ND	ND	1	a
5533	Chicken meat	/	/	-	-	-	ND	ND	2	a
3824	Turkey meat	/	/	+	-	<i>L. monocytogenes</i> / <i>L. welshimeri</i>	PA	ND	2	a
4121	Raw turkey meat	/	/	+	-	<i>L. innocua</i> / <i>L. welshimeri</i>	PA	ND	2	a
1979	Panna cotta	<i>L. monocytogenes</i> Ad260	<1	-	-	-	ND	PPND	3	c
3548	Fermented milk	<i>L. monocytogenes</i> Ad1785	1	-	-	-	ND	ND	3	b
3549	Fermented milk	<i>L. monocytogenes</i> Ad1781	0.6	-	-	-	ND	ND	3	b
4404	Pasteurized cheese	<i>L. seeligeri</i> Ad1782	1	-	-	-	ND	ND	3	c
5000	Raw milk cheese	<i>L. seeligeri</i> Ad1783	0.8	-	-	-	ND	PPND	3	a
5003	Raw milk cheese	<i>L. welshimeri</i> Ad1667	2	-	-	-	ND	ND	3	a
5005	Raw milk cheese	<i>L. ivanovii</i> Ad991	1.6	-	-	-	ND	ND	3	a
3924	Frozen pre-cooked oignon	/	/	-	+	<i>L. innocua</i>	ND	PA	4	b
4408	RTE (Macedoine)	<i>L. seeligeri</i> Ad1293	1	-	-	-	ND	ND	4	c
4413	Mixed vegetables	<i>L. grayi</i> Ad1295	1.4	-	-	-	ND	ND	4	b
4417	Spinach	<i>L. innocua</i> Ad1673	1.4	-	-	-	PPND	PPND	4	a
4418	Spinach	<i>L. seeligeri</i> Ad1754	1.2	-	+	<i>L. seeligeri</i> (Fraser1)	ND	PA	4	a
5013	Deli salad (vegetables mix)	<i>L. welshimeri</i> Ad1175	1.2	-	-	-	ND	ND	4	c
4116	Fish fillet	/	/	-	-	-	ND	ND	5	a
5891	RTRH (saclops)	/	/	-	-	-	ND	ND	5	c
3693	Wipe	<i>L. innocua</i> Ad1677	3	-	+	<i>L. innocua</i>	ND	PA	6	c
3731	Siphon water	<i>L. monocytogenes</i> Ad631	6.6	-	-	-	ND	ND	6	b
4844	Wipe (salmon industry)	/	0.8	-	-	-	ND	PPND	6	c
5896	Wastes (fish industry)	/	/	-	-	-	ND	ND	6	b
5899	Wipe (fish industry)	/	/	-	-	-	ND	ND	6	c
5980	Process water (fish industry)	<i>L. monocytogenes</i> AOOM009	0.8	-	-	-	ND	PPND	6	a
5985	Wipe (fish industry)	<i>L. monocytogenes</i> AOOM032	1	-	-	-	ND	ND	6	c
5986	Wipe (fish industry)	<i>L. monocytogenes</i> AOOM045	1.4	-	-	-	ND	ND	6	c

Table 9: summary of positive deviations

#	Product	Strain inoculated	Inoculation level (CFU/sample)	ANSR test result			Agreement		Category	Type
				Pooled samples	Individual samples	Confirmation	Pooled samples	Individual samples		
2903	Sandwich (bacon)	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	1	a
2904	Sandwich (ham)	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	1	a
3442	RTRH (quiche Lorraine)	/	1,6	+	+	<i>L.monocytogenes</i>	PD	PD	1	b
3444	RTRH (hachis Parmentier)	/	0,6	+	+	<i>L.monocytogenes</i>	PD	PD	1	b
3721	RTRH (Pizza)	/	2,2	+	+	<i>L.monocytogenes</i>	PD	PD	1	b
3735	Sandwich (ham-cheese)	/	2	+	+	<i>L.innocua</i>	PD	PD	1	a
4600	Sandwich (tuna, toamto, egg)	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	1	a
3236	Marinated turkey	/	/	+	+	<i>L.welshimeri</i>	PD	PD	2	c
3720	RTRH (Bourguignon)	/	1,6	+	+	<i>L.monocytogenes</i>	PD	PD	2	b
3796	Frozen pork meat	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	2	a
3802	Ham	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	2	c
3818	Pork meat	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	2	a
3912	Rillettes	/	/	+	+	<i>L.grayi</i>	PD	PD	2	c
4619	Turkey nuggets	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	2	b
3724	Pasteurized cheese	/	3,2	+	+	<i>L.monocytogenes</i>	PD	PD	3	c
3736	Cheese	/	1,2	+	+	<i>L.ivanovii/L.innocua</i>	PD	PD	3	a
3739	Pasteurized cheese	/	1,8	+	+	<i>L.welshimeri</i>	PD	PD	3	c
3832	Ewe milk	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	3	b
4997	Raw milk cheese	/	1,6	+	+	<i>L.innocua</i>	PD	PD	3	a
5511	Raw milk cheese	/	/	+	+	<i>L.innocua</i>	PD	PD	3	a
6246	Raw ewe milk cheese	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	3	a
3232	RTRH vegetables	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	4	b
3691	RTE (Coleslaw)	/	1,8	+	+	<i>L.innocua</i>	PD	PD	4	c
3798	Fried onions	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	4	b
3821	RTRH vegetables	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	4	b
3823	RTE (Spinach-cheese)	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	4	c
3926	Baby leaves	/	/	+	+	<i>L.seeligeri</i>	PD	PD	4	a
4407	RTE (Coleslaw)	<i>L. innocua</i> Ad1176	1	+	+	<i>L.innocua</i>	PD	PD	4	c
5008	Frozen spinach	<i>L. innocua</i> Ad1177	3	+	+	<i>L.innocua</i>	PD	PD	4	a
5011	Frozen RTC vegetables	<i>L. welshimeri</i> Ad1175	1,2	+	+	<i>L.welshimeri</i>	PD	PD	4	a
1112	Fresh raw fish	<i>L. monocytogenes</i> Ad1192	1,6	-	+	<i>L.monocytogenes</i>	NA	PD	5	a
1116	Smoked trout	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	5	b
3233	RTRH (fish)	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	5	c
5890	RTC (salmon)	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	5	c
3692	Wipe	<i>L. innocua</i> Ad1677	3	+	+	<i>L.innocua</i>	PD	PD	6	c
4631	Wastes (salmon)	/	/	+	+	<i>L.innocua</i>	PD	PD	6	b
4842	Wipe (salmon industry)	/	/	+	+	<i>L.monocytogenes</i>	PD	PD	6	c
4851	Process water (vegetables)	/	/	-	+	<i>L.innocua(72h)</i>	NA	PD	6	a
5982	Process water (fish industry)	<i>L. monocytogenes</i> AOOM045	1,4	+	+	<i>L.monocytogenes</i>	PD	PD	6	a
5983	Process water (fish industry)	<i>L. monocytogenes</i> AOOM088	1	+	+	<i>L.monocytogenes</i>	PD	PD	6	a

3.1.7. Calculation and interpretation of data

For each category and for all categories, the difference between ND and PD is calculated. The values obtained are compared to the acceptability limits defined by the ISO 16140-2:2016 standard.

Table 10 shows these results.

Table 10: acceptability limits

Category	Type		Individual samples				Pooled samples			
			PD	ND	ND-PD	AL	PD	ND	ND-PD	AL
①	a	Ready-to-eat	4	2	/	/	4	2	/	/
	b	Ready-to-reheat	3	3			3	3		
	c	Confectionaries, pastries and egg products	0	2			0	2		
	Total		7	7	0	+3	7	7	0	+3
②	a	Raw products (frozen or fresh)	2	3	/	/	2	1	/	/
	b	Meat based products ready to reheat	2	0			2	0		
	c	Raw and cooked delicatessen	3	0			3	0		
	Total		7	3	-4	+3	7	1	-6	+3
③	a	Raw milk cheeses	4	3	/	/	4	3	/	/
	b	Other products based on raw milks	1	2			1	2		
	c	Heat treated dairy products	2	2			2	2		
	Total		7	7	0	+3	7	7	0	+3
④	a	Raw products (fresh and frozen)	3	1	/	/	3	2	/	/
	b	Pre-cooked vegetables, vegetables under modified atmosphere	3	1			3	2		
	c	RTE	3	2			3	2		
	Total		9	4	-5	+3	9	6	-3	+3
⑤	a	Raw products (fresh and frozen)	1	1	/	/	0	1	/	/
	b	Cured & smoked	1	0			1	0		
	c	Ready-to-eat, Ready to reheat	2	1			2	1		
	Total		4	2	-2	+3	3	2	-1	+3
⑥	a	Process & cleaning waters	3	1	/	/	2	1	/	/
	b	Dusts and residus	1	2			1	2		
	c	Surface sampling	2	4			2	5		
	Total		6	7	1	+3	5	8	3	+3
Total			40	30	-10	+6	38	31	-7	+6

For the 2 modalities of analysis, the observed values are below or equal to the acceptability limits for each category and for the combined categories.

The alternative method produces results comparable to the reference method.

3.1.8. Enrichment broth storage at 2 - 8°C for 72 h

A stability study of the enriched broths stored at 5±3°C for 72 hours was performed on all positive and discordant individual samples. After storage, the broths were reanalyzed and confirmed. Table 11 shows the differences between ND and PD and the acceptability limits after storage.

Table 11: acceptability limits for individual samples after storage of the enriched broths

Category	Type	PD	ND	PPND	ND-PD	AL	
①	a	Ready-to-eat	5	2	0	/	/
	b	Ready-to-reheat	3	3	0		
	c	Confectionaries, pastries and egg products	0	1	1		
	Total		8	6	1	-1	+3
②	a	Raw products (frozen or fresh)	2	2	0	/	/
	b	Meat based products ready to reheat	2	0	0		
	c	Raw and cooked delicatessen	4	0	0		
	Total		8	2	0	-6	+3
③	a	Raw milk cheeses	4	2	1	/	/
	b	Other products based on raw milks	1	1	0		
	c	Heat treated dairy products	3	2	0		
	Total		8	5	1	-2	+3
④	a	Raw products (fresh and frozen)	3	0	1	/	/
	b	Pre-cooked vegetables, vegetables under modified atmosphere	3	1	0		
	c	RTE	3	2	0		
	Total		9	3	1	-5	+3
⑤	a	Raw products (fresh and frozen)	1	0	1	/	/
	b	Cured & smoked	0	0	0		
	c	Ready-to-eat, Ready to reheat	2	0	1		
	Total		3	0	2	-1	+3
⑥	a	Process & cleaning waters	2	1	0	/	/
	b	Dusts and residus	1	3	0		
	c	Surface sampling	2	0	4		
	Total		5	4	4	3	+3
All categories		41	20	9	-12	+6	

The observed values are below or equal to the acceptability limits for each category and for the combined categories.

The alternative method produces results comparable to the reference method.

3.1.9. Confirmation

A summary of the differences observed between streaking onto O&A agar and Palcam plates is given in Table 12.

Table 12: Differences observed between streaking onto O&A agar and Palcam plates

Sample n°	O&A agar	Palcam	Complementary confirmatory tests	Strains isolated
4415	-	+	/	<i>L. innocua</i>
1120	+	-	/	<i>L. innocua</i>
3912	+	-	/	<i>L. grayi</i>
3914	+ (2 colonies)	-	/	<i>L. monocytogenes</i>
3926	+ (1 colony)	-	/	<i>L. seeligeri</i>
4418	-	-	Subculture in Fraser 1	<i>L. seeligeri</i>
4421	+	-	/	<i>L. innocua</i>
4851	-	-	After LESS broth storage for 72 h at 2 - 8°C	<i>L. innocua</i>

For two samples (4418 and 4851), complementary confirmatory tests were needed to confirm the presence of *Listeria* strain in the LESS broth.

For one sample (4415), typical colonies were observed only on Palcam plates.

For five samples, typical colonies were observed only on O&A agar plates.

3.1.10. Inhibitions

The following inhibitions were observed (tables 13 to 15).

Table 13: Inhibitions observed on individual samples

Sample N°	Product	Individual samples		
		ANSR result	Final result	Agreement
2917	Custard	i/-*	-	NA
3448	Custard	i/-*	-	NA
3452	Custard	i/-*	-	NA
3453	Custard	i/-*	-	NA
3695	RTRH (turkey)	i/-*	-	NA
3785	RTRH (turkey)	i/-*	-	NA
3807	RTE (Surimi)	i/-*	-	NA
3819	Ham	i/-*	-	NA
3829	Cheese	i/-*	-	NA
3833	Sandwich (ham-cheese)	i/i*/-**	-	NA
3837	Pastries	i/-*	-	NA
6950	Dusts (dairy industry)	i/i/-*	-	NA
6951	Dusts (dairy industry)	i/i/-*	-	NA
6952	Dusts (dairy industry)	i/i/-*	-	NA
6953	Dusts (dairy industry)	i/i/-*	-	NA

Table 14: Inhibitions observed on pooled samples

Sample N°	Product	Pooled samples		
		ANSR result	Final result	Agreement
2917	Custard	i/-*	-	NA
3452	Custard	i/-*	-	NA
3453	Custard	i/-*	-	NA
3695	RTRH (turkey)	i/-*	-	NA
3785	RTRH (turkey)	i/-*	-	NA
3807	RTE (Surimi)	i/-*	-	NA
3833	Sandwich (ham-cheese)	i/i*/-**	-	NA
3837	Pastries	i/-*	-	NA
6950	Dusts (dairy industry)	i/i/-*	-	NA
6951	Dusts (dairy industry)	i/i/-*	-	NA
6952	Dusts (dairy industry)	i/i/-*	-	NA
6953	Dusts (dairy industry)	i/i/-*	-	NA

Table 15: Inhibitions observed after storage of the enriched broths

Sample N°	Product	Individual samples		
		ANSR result	Final result	Agreement
1979	Panna cotta	i/-*/+*/-*	-	ND
3684	RTRH (turkey)	i/+*	+	PA

Just after incubation, 17 inhibitions were observed for pooled samples analysis (3.8 %) and 24 for individual samples analysis (5.3 %). For 9 of them, the test was run again without any dilution. For the 32 other samples, a lysate dilution (1/10 or 1/50) was applied.

After LESS Plus broth storage at 2 - 8°C, 2 inhibitions were observed; a result was obtained by applying a 1/10th dilution.

3.2. Relative level of detection study

3.2.1. Experimental design

Six matrix-strain pairs were analyzed by the reference method and by the alternative method (See Table 16):

Three levels of contamination were prepared consisting of a negative control level, a low level, and a higher level. Only one strain of the target analyte was used to contaminate the low and the high level.

The negative control level shall not produce positive results. Five replicates are tested for this level. The low level shall be the theoretical detection level, it has been contaminated at 0.7 - 1 CFU per test portion to obtain fractional recovery results. Twenty replicates are tested for this level.

The higher level shall be just above the theoretical detection level, it has been contaminated at 2 - 3 CFU per test portion. Five replicates are tested for this level.

Food samples were contaminated using the seeding protocol. Bulk contaminations were performed on the matrix for the different levels of contamination, then the matrix was stored at 4°C for 48 hours before analysis.

An enumeration of the mesophilic aerobic flora was performed on the matrices, as well as a detection of *Listeria* using the ISO 11290-1/A1 standard method to check the absence of *Listeria* in the matrices.

Table 16: matrix-strain pairs used for the determination of the RLOD of the method

Matrix	Strain	Origin
Composite foods: Deli-salad (Piemontese salad)	<i>Listeria seeligeri</i> Ad 1293	Parsley
Meat products: Rillettes	<i>Listeria monocytogenes</i> Ad 669	Rillettes
Milk and Dairy products Raw milk cheese (Brie)	<i>Listeria innocua</i> Ad 636	Cheese
Vegetables: Ready-to-cook vegetables	<i>Listeria monocytogenes</i> Ad 279	Ready-to-cook vegetables
Fish and seafood: Smoked salmon	<i>Listeria welshimeri</i> Ad 1669	Fish
Environmental samples: Process water	<i>Listeria monocytogenes</i> Ad 551	Environmental sample

In the method workflow, the pooled samples are firstly analyzed as a screening step. If positive results are observed, the samples are analyzed individually in order to identify the contaminated one. This part of the study was run in the opposite flow in order to facilitate the experimental process.

In order to validate individual sample analyses and sample pooling analyses, the relative level of detection was determined using:

- individual positive samples,
- individual positive samples pooled with 9 ml of 5 negative samples: to create a pooled positive sample, 9 ml of the positive enrichment is mixed with 9 ml of each negative enrichment (i.e. 5) used for all 5 negative matrices.

3.2.2. Results and calculation of the RLODs

Raw results are shown in Appendix F. The RLOD is defined as the ratio of the LODs of the alternative method and the reference method: $RLOD = \frac{LOD_{alt}}{LOD_{ref}}$.

The RLODs calculations were performed according to the standard ISO 16140-2: 2016 using the Excel spreadsheet available for download at <http://standards.iso.org/iso/16140>. Values of the RLODs are presented in table 17.

For the deli salad, two assays were needed to have the required number of positive samples for the low contamination level (25 to 75 %). The determination of the RLOD was done only with the second assay.

Table 17: RLODs values for the individual samples (RLOD: the estimated relative level of detection value, RLODU: the upper limit of the 95% confidence interval for RLOD, RLODL: the lower limit of the 95% confidence interval for RLOD, $b=\ln(RLOD)$: logarithm of the RLOD value, $sd(b)$: standard deviation of b , z-Test statistic: absolute value of the test statistic of the z-Test with the null hypothesis $H_0: b=0$, p-value: p-value of the z-Test)

Individual samples								
Category	RLOD	RLODL	RLODU	$b=\ln(RLOD)$	$sd(b)$	z-Test statistic	p-value	AL
① Composite foods	0.765	0.280	2 096	-0.267	0.504	0.531	1.404	2.5
② Meat products	0.846	0.317	2 259	-0.167	0.491	0.340	1.266	
③ Milk and dairy prod.	0.282	0.102	0.779	-1 265	0.508	2.493	1.987	
④ Vegetables	0.640	0.248	1 647	-0.447	0.473	0.945	1.655	
⑤ Fish and seafood	1 169	0.409	3 342	0.156	0.525	0.297	0.767	
⑥ Environmental samples	0.794	0.338	1 863	-0.231	0.427	0.542	1.412	

Table 18: RLODs values for the pooled samples (RLOD: the estimated relative level of detection value, RLODU: the upper limit of the 95% confidence interval for RLOD, RLODL: the lower limit of the 95% confidence interval for RLOD, $b=\ln(RLOD)$: logarithm of the RLOD value, $sd(b)$: standard deviation of b , z-Test statistic: absolute value of the test statistic of the z-Test with the null hypothesis $H_0: b=0$, p-value: p-value of the z-Test)

Pooled samples								
Name	RLOD	RLODL	RLODU	$b=\ln(RLOD)$	$sd(b)$	z-Test statistic	p-value	AL
① Composite foods	0.889	0.315	2 508	-0.118	0.519	0.227	1.180	2.5
② Meat products	0.846	0.317	2 259	-0.167	0.491	0.340	1.266	
③ Milk and dairy prod.	0.282	0.102	0.779	-1 265	0.508	2.493	1.987	
④ Vegetables	0.640	0.248	1 647	-0.447	0.473	0.945	1.655	
⑤ Fish and seafood	1 169	0.409	3 342	0.156	0.525	0.297	0.767	
⑥ Environmental samples	0.888	0.372	2 119	-0.118	0.435	0.272	1.214	

The LOD_{50} calculations according to Wilrich & Wilrich POD-LOD calculation program - version 11, are given in Table 19.

Table 19: LOD_{50%} for the alternative and reference method

Matrix	Strain	Individual samples (CFU/25 g)		Pooled samples (CFU/250 g) LOD _{50%} AM
		LOD _{50%} AM	LOD _{50%} RM	
Deli-salad	<i>L. seeligeri</i>	0.473	0.676	0.536
Rillettes	<i>L. monocytogenes</i>	0.385	0.460	0.385
Raw milk cheese	<i>L. innocua</i>	0.444	1.574	0.444
Ready-to-cook veg.	<i>L. monocytogenes</i>	0.620	0.870	0.620
Smoked salmon	<i>L. welshimeri</i>	1.292	1.106	1.292
Process water	<i>L. monocytogenes</i>	0.694	0.874	0.777
Combined results		0.611	0.894	0.636

3.2.3. Interpretation and conclusion

The RLODs values are below the acceptability limit set at 2.5, meaning that, as stated in ISO 16140-2:2016, the maximum increase in LOD of the alternative versus the reference method is not considered as relevant in consideration of the fitness for purpose of the method.

In conclusion, alternative and reference methods show similar LODs values for the detection of *Listeria* in the categories and the protocols tested.

3.3. Inclusivity and exclusivity study

3.3.1. Test protocols

20 *L. monocytogenes* strains, 30 *Listeria* spp strains and 30 non-target strains were tested by the ANSR method and by the reference method.

- **Inclusivity**

30 *Listeria* spp and 20 *L. monocytogenes* strain cultures were performed in BHI medium at 37°C. Dilutions were done in order to inoculate 10 cells/225 ml of LESS Plus broth (the LESS Plus broth was incubated for 22 h at 30°C), prior running the alternative method pooling protocol.

- **Exclusivity**

Negative strain cultures were performed in BHI at 37°C. Dilutions were realized in order to inoculate 10⁵ cells/ml in buffered peptone water. The broths were incubated for 25 h at 30°C. The alternative method single analysis protocol was then performed.

3.3.2. Results

Raw data are given in Appendix G.

- **Inclusivity**

The 50 target strains gave a positive result. *Listeria grayi* strains were not confirmed on Palcam plates.

- **Exclusivity**

Among the 30 non-target tested strains no cross reaction was observed for 27 strains. For 3 *Bacillus* strains (*Bacillus cereus*, *Bacillus pumilus* and *Bacillus weihenstephanensis*) positive results not confirmed were observed for the first test. Retests gave negative results for the three strains. Supplementary tests were carried out internally by the manufacturer and gave negative results.

3.3.3. Conclusion

The selectivity of the method is satisfactory

3.4. Practicability

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

- **Storage conditions, shelf-life and modalities of utilization 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.

- **Common step with the reference method**

No common step

- **Time-to-result**

See table below:

Table 20: Time-to-result (1: rhamnose and xylose tests are realized in tubes)

Steps	Reference method	Alternative method
Negative samples		
Sampling (Half Fraser or LESS Plus broth)	Day 0	Day 0
Fraser 1	Day 1	/
Lysis / ANSR test	/	Day 1
Half Fraser streaking (O1 – P1)	Day 1	/
Fraser 1 streaking (O2 – P2)	Day 3	/
Reading plates (O1 – P1)	Day 2 – Day 3	/
Reading plates (O2 – P2)	Day 4 – Day 5	/
Presumptive positive or positive results		
Sub-culture of typical colonies on TSAYE	Day 2 – Day 3	/
Streaking onto O&A or Palcam plates	/	Day 1
O&A or Palcam plates reading	/	Day 2 – Day 3
Confirmatory tests	Day 3 – Day 6	/
Results	Day 4 – Day 7 Day 8 – Day 11 ⁽¹⁾	/

4. Interlaboratory study

4.1. Organization of the study

Samples were sent to 15 laboratories. Cheese sample (Camembert, fat content: 21%, salt: 1.4 %) was inoculated with a *Listeria monocytogenes* strain.

Samples were prepared and inoculated on Monday 14 December 2015, as described below:

- BLUE LABEL: 24 blind coded samples for the detection of *Listeria monocytogenes* by the reference method (EN ISO 11290-1/A1),
- RED LABEL: 24 blind coded samples for the detection of *Listeria* spp by the ANSR pathogen detection method for a single analysis to a 10-pooling protocol,
- YELLOW LABEL: 3 negative samples for the pooling step (coded “negative sample for pooling”): pâté, beans and fish terrine. These samples were used to generate 24 sample pools (3 ml from each sample combined with 1 ml of each red sample)
- 1 sample for aerobic mesophilic flora enumeration by ISO 4833-1 method,
- 1 water flask labelled “Temperature Control” with a temperature probe for temperature control during transport and storage in the laboratory until the beginning of the analyses.

The targeted inoculation levels were the following:

- Level: 0 CFU/25 ml,
- Level 1: inoculation level close to the RLOD, in order to provide as much as possible fractional positive recovery data,
- Level 2: 8 CFU/25 ml

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 shipping, the package delivery and the 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 shipping, and between 0°C – 8°C in the labs.

Collaborators and the Expert Laboratory carried out the analyses on Tuesday 15 December or Wednesday 16 December 2015 with the alternative and reference methods. The analyses by the reference method and the alternative method were performed on the same day.

The interlaboratory study instructions were sent on 24th November 2015.

4.2. Experimental parameters controls

4.2.1. Sample stability

4.2.1.1. Contamination levels before inoculation

The contamination rates and the estimated precisions are set out in the table below.

Table 21: target and real contamination levels (CFU/25 g)

Level	Samples	Theoretical target level	True level	Low limit	High limit
Level 0 L_0	4-7-9-10-13-18-23-24	0	/	/	/
Low level L_1	2-3-8-12-15-17-19-21	2	2.4	2.0	2.9
High level L_2	1-5-6-11-14-16-20-22	8	9.6	7.8	11.8

4.2.1.2. Strain stability during transport

In order to detect the presence of *Listeria* spp., the reference method was applied on five portions (25 g) before the inoculation. All the results were negative. Three samples inoculated at a high level (100 CFU/g) were tested for enumeration after 24 h and 48 h storage. Three samples inoculated at a low level were tested for detection after 24 h and 48 h storage (See table 22).

Table 22: *Listeria* spp stability in the matrix

Day of analysis	<i>Listeria</i> spp. detection		Mesophilic aerobic flora (CFU/g)
	CFU/g	Detection/25 g	
Day 0	140	+	$6.3 \cdot 10^7$
	100	-	
	140	+	
Day 1	150	+	$1.0 \cdot 10^8$
	90	+	
	170	-	
Day 2	170	+	$1.9 \cdot 10^8$
	180	+	
	270	+	

4.2.1.3. Logistic conditions

The temperatures measured at reception by the Labs, the temperatures registered by the thermo-probe, and the receipt dates are given in Table 23.

Table 23: samples temperature upon receipt ($T^{\circ}\text{C}$: temperature in $^{\circ}\text{C}$)

Laboratories	Probe $T^{\circ}\text{C}$	Receipt $T^{\circ}\text{C}$	Receipt date and time	Analysis date
A	3.0	3.3	15/12/2015 10h30	16/12/2015
B	2.0	4.0	15/12/2015 14h20	16/12/2015
C	2.5	4.2	15/12/2015 13h30	/
D	3.0	3.3	15/12/2015 10h05	15/12/2015
E	3.0	3.4	15/12/2015 09h40	15/12/2015
F	2.5	3.7	15/12/2015 11h30	16/12/2015
G	3.0	2.8	15/12/2015 16h30	15/12/2015
H	2.5	4.3	15/12/2015 13h30	/
I	3.0	6.0	15/12/2015 15h50	16/12/2015
J	Not received	7.8	15/12/2015 12h00	/
K	3.5	4.3	15/12/2015 10h00	16/12/2015
L	3.0	4.2	15/12/2015 14h30	/
M	2.5	3.5	15/12/2015 13h15	16/12/2015
N	2.5	3.8	16/12/2015 11h00	16/12/2015
O	3.0	6.2	15/12/2015 12h20	15/12/2015

All the samples were delivered in appropriate conditions. Temperatures during shipment and at receipt were all correct.

4.3. Results

The raw data are given in Appendix H.

4.3.1. Results obtained by the Expert Laboratory

The results obtained by the Expert Laboratory are the following (see table 24).

Table 24: Results obtained by the Expert Laboratory

Level	Reference method	Alternative method	
		Single protocol	Pooling protocol
L_0	0 / 8	0 / 8	0 / 8
L_1	7 / 8	8 / 8	8 / 8
L_2	8 / 8	8 / 8	8 / 8

4.3.2. Results obtained by the collaborators

- **Mesophilic aerobic flora**

The enumeration of the mesophilic aerobic flora varies from $6.5 \cdot 10^6$ to $4.6 \cdot 10^8$ CFU/g.

- **Reference method**

Table 25 presents the positive results of all collaborators

Table 25: positive results of the collaborators (bc: before confirmation, ac: after confirmation)

Lab	Reference method			Alternative method											
				Single protocol						Pooling protocol					
	L_0	L_1	L_2	L_0		L_1		L_2		L_0		L_1		L_2	
			bc	ac	bc	ac	bc	ac	bc	ac	bc	ac	bc	ac	
A	0	6	8	0	0	7	7	8	8	0	0	7	7	8	8
B	0	7	8	0	0	4	4	8	8	0	0	6	6	8	8
C	0	8	8	0	0	7	7	8	8	0	0	7	7	8	8
D	0	8	8	0	0	8	8	8	8	0	0	8	8	8	8
E	0	7	8	0	0	7	7	8	8	0	0	7	7	8	8
F	0	7	8	0	0	7	7	8	8	0	0	7	7	8	8
G	0	8	8	0	0	8	8	8	8	0	0	8	8	8	8
H	0	7	8	0	0	8	8	8	8	0	0	8	8	8	8
I	0	7	8	0	0	5	5	8	8	0	0	6	6	8	8
J	0	4	8	0	0	7	7	8	8	0	0	7	7	8	8
K	0	6	8	1	1	8	8	8	8	1	1	8	8	8	8
L	0	8	8	0	0	7	6	8	8	0	0	6	6	8	8
M	0	6	8	0	0	8	8	8	8	4	1	8	8	8	8
N	0	7	8	0	0	7	7	8	8	0	0	7	7	8	8
O	0	7	8	0	0	7	7	8	8	0	0	7	7	8	8
Total	0	103	120	1	1	105	104	120	120	5	2	107	107	120	120

The results from 13 Labs were kept: A, B, C, D, E, F, G, H, I, J, L, N and O.

The results obtained by the individual collaborators in the interlaboratory study are summarized in Table 26.

Table 26: positive results of the collaborators after having withdrawn labs K and M (bc: before confirmation, ac: after confirmation)

Lab	Reference method			Alternative method											
				Single protocol						Pooling protocol					
	L ₀	L ₁	L ₂	L ₀		L ₁		L ₂		L ₀		L ₁		L ₂	
bc				ac	bc	ac	bc	ac	bc	ac	bc	ac	bc	ac	bc
A	0	6	8	0	0	7	7	8	8	0	0	7	7	8	8
B	0	7	8	0	0	4	4	8	8	0	0	6	6	8	8
C	0	8	8	0	0	7	7	8	8	0	0	7	7	8	8
D	0	8	8	0	0	8	8	8	8	0	0	8	8	8	8
E	0	7	8	0	0	7	7	8	8	0	0	7	7	8	8
F	0	7	8	0	0	7	7	8	8	0	0	7	7	8	8
G	0	8	8	0	0	8	8	8	8	0	0	8	8	8	8
H	0	7	8	0	0	8	8	8	8	0	0	8	8	8	8
I	0	7	8	0	0	5	5	8	8	0	0	6	6	8	8
J	0	4	8	0	0	7	7	8	8	0	0	7	7	8	8
L	0	8	8	0	0	7	6	8	8	0	0	6	6	8	8
N	0	7	8	0	0	7	7	8	8	0	0	7	7	8	8
O	0	7	8	0	0	7	7	8	8	0	0	7	7	8	8
Total	0	91	104	0	0	89	88	104	104	0	0	91	91	104	104

4.4. Interpretation of the results

4.4.1. Summary of the results

Table 27 details per method, per level and per protocol the results obtained during the study.

Table 27: tests results for the two methods

Protocol	Response	Reference method positive (R+)	Reference method negative (R-)
Single protocol	Alternative method positive (A+)	Positive agreement PA = 79	Positive deviation PD = 9
	Alternative method negative (A-)	Negative deviation ND = 12 including 1 PPND	Negative agreement NA = 4 including 0 PPNA
Pooling protocol	Alternative method positive (A+)	Positive agreement PA = 81	Positive deviation PD = 10
	Alternative method negative (A-)	Negative deviation ND = 10 including 0 PPND	Negative agreement NA = 3 including 0 PPNA

The difference between (ND – PD) for the level where fractional recovery was obtained (L_1) is calculated. The observed value found for (ND – PD) shall not be higher than the acceptability limit (AL). The AL is defined as $[(ND - PD)_{max}]$ and calculated per level where fractional recovery was obtained as described below using the following three parameters:

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

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

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

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

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 laboratories;

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

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

N_x = the total number of samples tested for level x (L_1 or L_2) by all laboratories.

The AL is not met when the observed value is higher than the AL. When the AL is not met, investigations should be made (e.g. root cause analysis) in order to provide an explanation of the observed results.

Based on the AL and the additional information, it is decided whether the alternative method is regarded as not fit for purpose. The reasons for acceptance of the alternative method in case the AL is not met shall be stated in the study report.

In this study, fractional positive results are observed at level L_1 only. The different parameters obtained by the calculation are detailed in the table below:

Table 28: values obtained for the determination of the acceptability limit

Parameter	Value	
	Single protocol	Pooling protocol
N_x	104	104
$(p+)_{ref}$	0.88	0.88
$(p+)_{alt}$	0.85	0.88
Acceptability limit: AL = (ND-PD)_{max}	8.66	8.26
Observed value: ND-PD	3	0

The value (ND-PD) is inferior to the acceptability limit for the two protocols, so the requirements of the standard ISO 16140-2:2016 are fulfilled.

4.4.2. Calculation of sensitivities, relative accuracy and false positive ratio

Based on the data of table 27, the following parameters are calculated:

- Sensitivity for the alternative method: $SE_{alt} = \frac{(PA+PD)}{(PA+ND+PD)} \times 100\%$

- Sensitivity for the reference method: $SE_{ref} = \frac{(PA+ND)}{(PA+ND+PD)} \times 100\%$

- Relative accuracy: $AC = \frac{(PA+NA)}{N} \times 100\%$

- False positive ratio for the alternative method: $FP = \frac{(FP)}{NA} \times 100\%$

where N is the total number of samples (NA + PA + PD + ND) and FP is false positive results.

The results are the following:

Single protocol

SE_{alt} = 88.0%
 SE_{ref} = 91.0%
 AC = 79.8%
 FP = 0%

Pooling protocol

SE_{alt} = 90.1%
 SE_{ref} = 90.1%
 AC = 80.8%
 FP = 0%

4.5. Evaluation of the LOD_{50%}, LOD_{95%} and RLOD

The RLOD, LOD_{50%} and LOD_{95%} are calculated using the Excel spreadsheet called RLOD_interlab_study_16140-2_AnnexF_ver1_28_28-06-2017 available at <http://standards.iso.org/iso/16140>. The values for each method are presented in table 29.

Table 29: values of LOD50% and LOD95% for reference and alternative method and value of RLOD for the alternative method (CFU/25 g, CFU/250 g for the pooling protocol)

Method	LOD _{50%}	LOD _{95%}	RLOD
Reference	0.80 [0.62 ; 1.02]	3.45 [2.69 ; 4.41]	/
Alternative (single protocol)	0.88 [0.69 ; 1.12]	3.82 [3.00 ; 4.85]	1.11 [0.83 ; 1.47]
Alternative (pooling protocol)	0.80 [0.62 ; 1.02]	3.45 [2.69 ; 4.41]	1.00 [0.75 ; 1.33]

5. Conclusion

- **Methods comparison study**

The method comparison study scheme corresponds to an unpaired study design as the alternative and reference methods do have split enrichment procedures.

In the sensitivity study, 6 categories were tested: 5 food categories and the environmental samples. For the overall categories:

- 40 positive deviations (PD) and 30 negative deviations (ND) are observed with the single protocol,
- 38 positive deviations (PD) and 31 negative deviations (ND) are observed with the pooling protocol.

The ND - PD are below or equal to the acceptability limits (AL) whatever the categories and protocols, and as well for the 6 tested categories. Whatever the protocol, i.e. single or pooling, 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 whatever the matrix/strain pairs and the protocol.

The inclusivity and exclusivity testing give the expected results for the 50 target strains and the 30 non target strains.

It is possible to store the primary enrichment broth for 72 h at 2-8°C.

The ANSR method for *Listeria* allows a one-day screening of the negative samples.

The ANSR method for *Listeria* with the single and pooling protocols fulfils all the ISO 16140-2:2016 standard and AFNOR technical rules requirements.

- **Interlaboratory study**

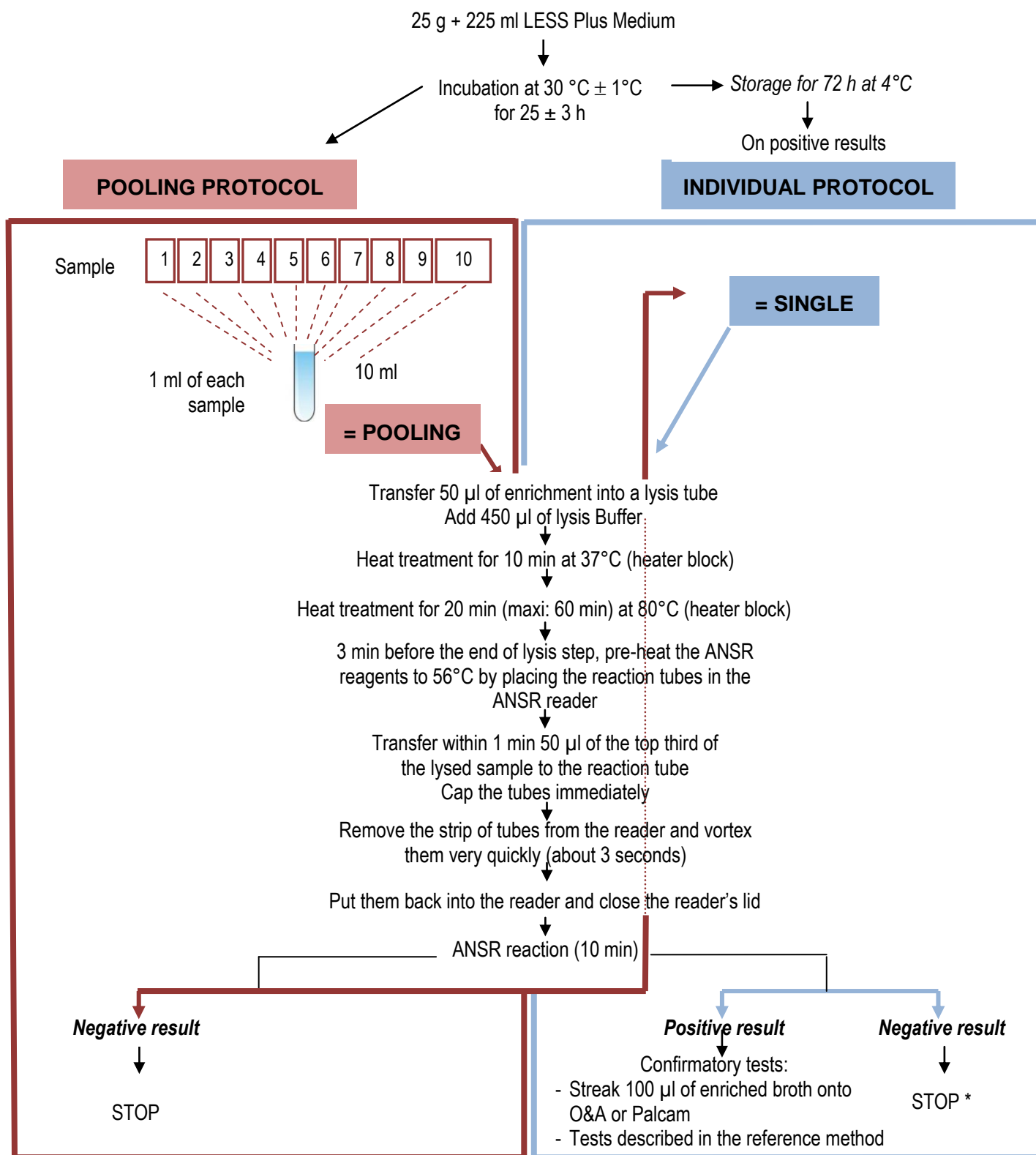
The data and interpretations comply with the ISO 16140-2:2016 standard requirements. The ANSR method for *Listeria* is considered equivalent to the ISO standard.

Le Lion d'Angers, December 18th, 2023
François Le Nestour
Head of the Microbiology Department



APPENDICES

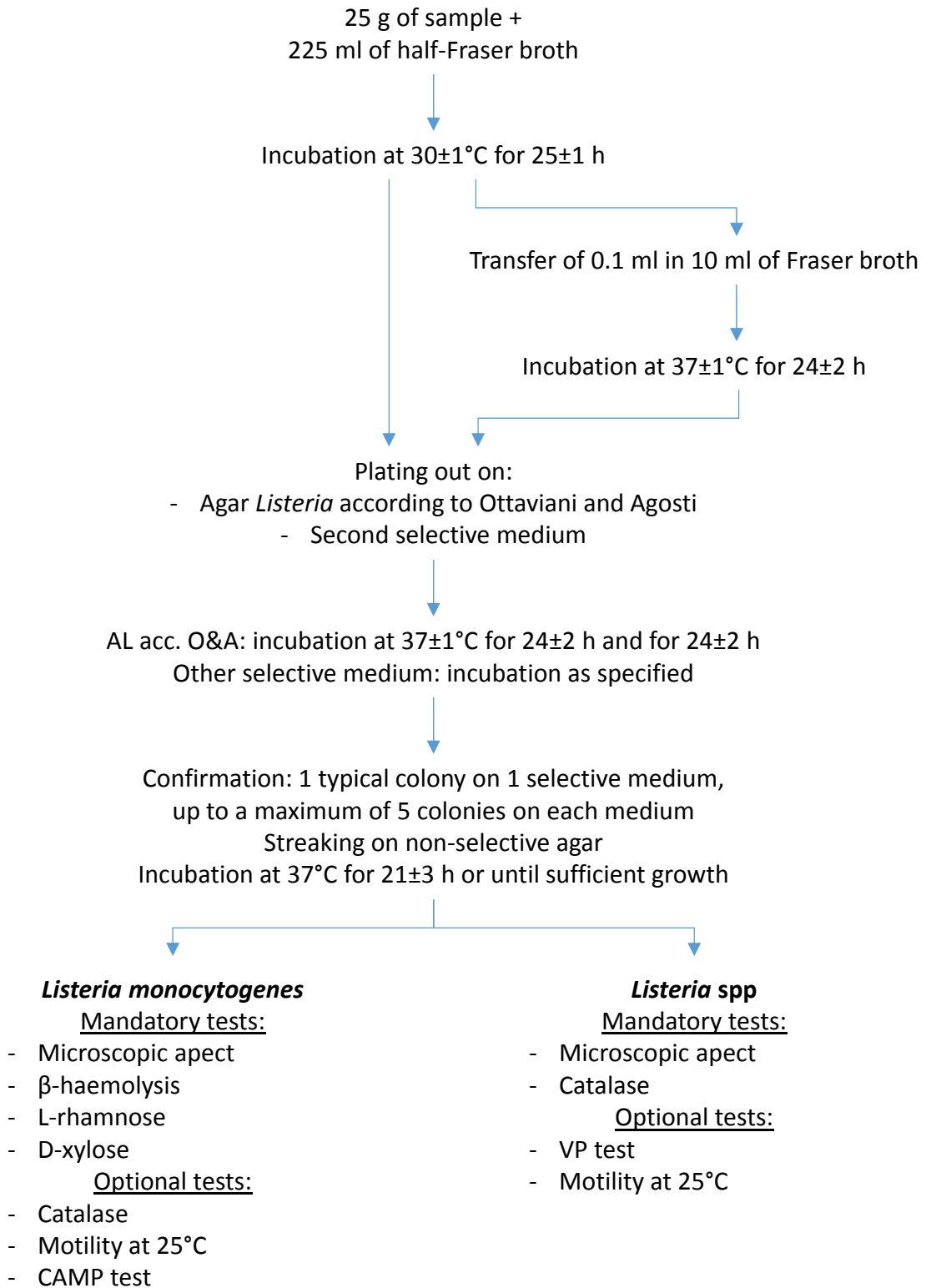
Appendix A – Flow diagram of the alternative method



* During the validation study, all the negative results were confirmed according to the protocol described for the positive results and by proceeding to a subculture in Fraser broth for 48 h at 37°C ± 1°C prior to streaking onto O&A and Palcam plates in order to have a total duration of incubation of the reference method (Half Fraser 24 h ± 3 h + Fraser 48 h ± 3 h).

APPENDIX B
EN ISO 11290-1:2017

Diagram of the procedure as described in the standard



Appendix C – Artificial contamination of samples

Sample number	Product (French name)	Product	Artificial contaminations				Global result Pooling	Global result Individual
			Strain	Origin	Injury protocol	Inoculation level/25g		
4409	Comcombre à la crème	RTE cucumber	<i>L.grayi</i> Ad1295	Spinach	Seeding-48h 2-8°C	3-2-0-2-0 (1.4)	-	-
4413	Mélange de légumes	Mixed vegetables	<i>L.grayi</i> Ad1295	Spinach	Seeding-48h 2-8°C	3-2-0-2-0 (1.4)	+	+
4416	Pousses d'épinards	Spinach	<i>L.grayi</i> Ad1295	Spinach	Seeding-48h 2-8°C	3-2-0-2-0 (1.4)	-	-
4402	Tartelette fraise	Strawberry tart	<i>L.grayi</i> Ad1490	Tart	Seeding-48h 2-8°C	2-2-2-0-1 (1.4)	-	-
4403	Tartelette fruit	Fruit tart	<i>L.grayi</i> Ad1490	Tart	Seeding-48h 2-8°C	2-2-2-0-1 (1.4)	-	-
4407	Coleslaw	RTE (Coleslaw)	<i>L.innocua</i> Ad1176	Spinach	Seeding-48h 2-8°C	2-0-2-1-0 (1.0)	+	+
4411	Salade 4 saveurs	Mixed salads	<i>L.innocua</i> Ad1176	Spinach	Seeding-48h 2-8°C	2-0-2-1-0 (1.0)	-	-
4415	Pousses d'épinards	Spinach	<i>L.innocua</i> Ad1176	Spinach	Seeding-48h 2-8°C	2-0-2-1-0 (1.0)	+	+
5007	Haricots plats surgelés	Frozen flat beans	<i>L.innocua</i> Ad1177	Mushrooms	Seeding-48h 2-8°C	4-3-3-4-1 (3.0)	+	+
5008	Epinards hachés surgelés	Frozen spinach	<i>L.innocua</i> Ad1177	Mushrooms	Seeding-48h 2-8°C	4-3-3-4-1 (3.0)	+	+
5009	Assiette croquante (chou, carottes, poivron)	Vegetable mix	<i>L.innocua</i> Ad1177	Mushrooms	Seeding-48h 2-8°C	4-3-3-4-1 (3.0)	+	+
3684	Cordon bleu de dinde et coquillettes	RTRH (turkey)	<i>L.innocua</i> Ad1227	Turkey meat	Seeding-48h 2-8°C	2-4-5-5-1 (3.4)	+	+
3686	Osso bucco de dinde	RTRH (turkey)	<i>L.innocua</i> Ad1227	Turkey meat	Seeding-48h 2-8°C	2-4-5-5-1 (3.4)	+	+
3742	Eau de rinçage cuve PDL	Rinse water	<i>L.innocua</i> Ad1273	Environment	Seeding-48h 2-8°C	1-5-6-3-2 (3.4)	+	+
3743	Eau de siphon laiterie	Siphon water	<i>L.innocua</i> Ad1273	Environment	Seeding-48h 2-8°C	1-5-6-3-2 (3.4)	+	+
4995	Tortilla oignons	Tortilla with onions	<i>L.innocua</i> Ad1277	Environment (poultry)	Seeding-48h 2-8°C	4-0-3-1-2 (2.0)	+	+
4996	Tortilla nature	Tortilla	<i>L.innocua</i> Ad1277	Environment (poultry)	Seeding-48h 2-8°C	4-0-3-1-2 (2.0)	+	+
4410	Céleri rémoulade	RTE (Celery)	<i>L.innocua</i> Ad1673	Zucchini	Seeding-48h 2-8°C	0-2-3-2-0 (1.4)	+	+
4417	Pousses d'épinards	Spinach	<i>L.innocua</i> Ad1673	Zucchini	Seeding-48h 2-8°C	0-2-3-2-0 (1.4)	+	+
3690	Macédoine de légumes	RTE (Macedoine)	<i>L.innocua</i> Ad1676	RTRH (cheese vegetables)	Seeding-48h 2-8°C	0-3-5-0-1 (1.8)	+	+
3691	Coleslaw	RTE (Coleslaw)	<i>L.innocua</i> Ad1676	RTRH (cheese vegetables)	Seeding-48h 2-8°C	0-3-5-0-1 (1.8)	+	+
3692	Chiffonnette tapis de parage après désinfection	Wipe	<i>L.innocua</i> Ad1677	Environment	Seeding-48h 2-8°C	2-2-4-6-1 (3.0)	+	+
3693	Chiffonnette maille sortie parage	Wipe	<i>L.innocua</i> Ad1677	Environment	Seeding-48h 2-8°C	2-2-4-6-1 (3.0)	+	+
4997	Saint Nectaire au lait cru	Raw milk cheese	<i>L.innocua</i> Ad1789	Raw milk	Seeding-48h 2-8°C	0-3-2-2-1 (1.6)	+	+
4998	Rocamadour au lait cru	Raw milk cheese	<i>L.innocua</i> Ad1789	Raw milk	Seeding-48h 2-8°C	0-3-2-2-1 (1.6)	+	+
4999	Morbier au lait cru	Raw milk cheese	<i>L.innocua</i> Ad1789	Raw milk	Seeding-48h 2-8°C	0-3-2-2-1 (1.6)	-	-
4400	Tarte aux pommes	Apple pie	<i>L.innocua</i> Ad644	Egg product	Seeding-48h 2-8°C	1-1-3-1-0 (1.2)	+	+
4401	Tarte amandine	Almond tart	<i>L.innocua</i> Ad644	Egg product	Seeding-48h 2-8°C	1-1-3-1-0 (1.2)	-	-

Sample number	Product (French name)	Product	Artificial contaminations				Global result Pooling	Global result Individual
			Strain	Origin	Injury protocol	Inoculation level/25g		
3734	Hachis parmentier	RTRH (hachis parmentier)	<i>L.innocua</i> Ad671	Delicatessen	Seeding-48h 2-8°C	1-2-2-1-4 (2.0)	+	+
3735	Sandwich jambon -fromage-salade	Sandwich (ham-cheese)	<i>L.innocua</i> Ad671	Delicatessen	Seeding-48h 2-8°C	1-2-2-1-4 (2.0)	+	+
3736	Leerdammer	Cheese	<i>L.ivanovii</i> Ad 680	Raw milk	Seeding-48h 2-8°C	3-0-0-1-2 (1.2)	+	+
3687	Gorgonzola	Pasteurized cheese	<i>L.ivanovii</i> Ad1288	Ewe milk	Seeding-48h 2-8°C	1-2-3-4-2 (2.4)	-	-
3688	Brie	Pasteurized cheese	<i>L.ivanovii</i> Ad1288	Ewe milk	Seeding-48h 2-8°C	1-2-3-4-2 (2.4)	+	+
3689	Fromage de brebis pasteurisé	Pasteurized cheese	<i>L.ivanovii</i> Ad1288	Ewe milk	Seeding-48h 2-8°C	1-2-3-4-2 (2.4)	+	+
5005	Selles sur cher au lait cru	Raw milk cheese	<i>L.ivanovii</i> Ad991	Raw milk	Seeding-48h 2-8°C	2-3-1-1-1 (1.6)	+	+
1984	Macédoine de légumes	RTE (Macedoine)	<i>L.monocytogenes</i> 1011/1410	Brocolis	Seeding-48h 2-8°C	1-2-1-0-1 (1.0)	+	+
1985	Carottes râpées	RTE (Grated carrots)	<i>L.monocytogenes</i> 1011/1410	Brocolis	Seeding-48h 2-8°C	1-2-1-0-1 (1.0)	+	+
3720	Bœuf bourguignon	RTRH (Bourguignon)	<i>L.monocytogenes</i> 2407/3139	RTE	Seeding-48h 2-8°C	1-1-3-1-2 (1.6)	+	+
1982	Moussaka	RTRHG (Moussaka)	<i>L.monocytogenes</i> 711/7516	Rillettes	Seeding-48h 2-8°C	0-0-3-0-2 (1.0)	+	+
1983	Bacon	Bacon	<i>L.monocytogenes</i> 711/7516	Rillettes	Seeding-48h 2-8°C	0-0-3-0-2 (1.0)	+	+
1108	Terrine de saumon à l'aneth	RTE (Salmon terrin)	<i>L.monocytogenes</i> Ad1192	Ready to teheat fish	Seeding-48h 2-8°C	0-3-0-1-4 (1.6)	+	+
1112	Filet de lieu noir	Fresh raw fish	<i>L.monocytogenes</i> Ad1192	Ready to teheat fish	Seeding-48h 2-8°C	0-3-0-1-4 (1.6)	-	+
3440	Coule d'œuf entier liquide pasteurisé	Pasteurized liquid whole egg	<i>L.monocytogenes</i> Ad1195	Egg product	Seeding-48h 2-8°C	0-1-1-1-1 (0.8)	-	-
3448	Crème anglaise	Custard	<i>L.monocytogenes</i> Ad1195	Egg product	Seeding-48h 2-8°C	0-1-1-1-1 (0.8)	-	-
1105	Piémontaise au jambon	RTE (vegetables ham)	<i>L.monocytogenes</i> Ad1197	Pizza	Seeding-48h 2-8°C	1-0-0-2-2 (1.0)	+	+
1117	Croissant jambon emmental	RTRH (cheese ham)	<i>L.monocytogenes</i> Ad1197	Pizza	Seeding-48h 2-8°C	1-0-0-2-2 (1.0)	+	+
3721	Pizza jambon fromage	RTRH (Pizza)	<i>L.monocytogenes</i> Ad1197	Pizza	Seeding-48h 2-8°C	2-4-0-2-3 (2.2)	+	+
3550	Lait ribot	Fermented milk	<i>L.monocytogenes</i> Ad1201	Cheese	Seeding-48h 2-8°C	2-2-1-3-0 (1.6)	+	+
3725	Brie pasteurisé	Pasteurized cheese	<i>L.monocytogenes</i> Ad1201	Raw milk cheese	Seeding-48h 2-8°C	5-5-7-9-8 (6.8)	+	+
3727	Camembert au lait pasteurisé	Pasteurized cheese	<i>L.monocytogenes</i> Ad1201	Raw milk cheese	Seeding-48h 2-8°C	5-5-7-9-8 (6.8)	+	+
3444	Hachis Parmentier	RTRH (hachis parmentier)	<i>L.monocytogenes</i> Ad1206	Frozen ground beef	Seeding-48h 2-8°C	1-0-1-1-0 (0.6)	+	+
3445	Macaronis tomates boulettes de bœuf	RTRH (macaronis beef)	<i>L.monocytogenes</i> Ad1206	Frozen ground beef	Seeding-48h 2-8°C	1-0-1-1-0 (0.6)	+	+
3446	Lasagnes à la bolognaise	RTRH (lasagnes)	<i>L.monocytogenes</i> Ad1218	Beef	Seeding-48h 2-8°C	1-1-0-0-2 (0.8)	+	+
3447	Bœuf bourguignon	RTRH (beef)	<i>L.monocytogenes</i> Ad1218	Beef	Seeding-48h 2-8°C	1-1-0-0-2 (0.8)	-	-
1119	Carottes en rondelles	Sliced carrots	<i>L.monocytogenes</i> Ad1238	Vegetables	Seeding-48h 2-8°C	1-2-1-1-2 (1.4)	-	-
1122	Jeunes pousses	Baby leaves	<i>L.monocytogenes</i> Ad1238	Vegetables	Seeding-48h 2-8°C	1-2-1-1-2 (1.4)	+	+
3551	Lait ribot fermier	Fermented milk	<i>L.monocytogenes</i> Ad1626	Cheese	Seeding-48h 2-8°C	1-0-2-2-2 (1.4)	-	-
3553	Lingette tapis ligne	Wipe	<i>L.monocytogenes</i> Ad1679	Environment	Seeding-48h 2-8°C	1-0-1-1-0 (0.6)	-	-

Sample number	Product (French name)	Product	Artificial contaminations				Global result Pooling	Global result Individual
			Strain	Origin	Injury protocol	Inoculation level/25g		
3555	Eau de rinçage laveuse	Rinse water	<i>L.monocytogenes</i> Ad1679	Environment	Seeding-48h 2-8°C	1-0-1-1-0 (0.6)	-	-
3441	Jaune d'œuf liquide pasteurisé	Pasteurized liquid yellow egg	<i>L.monocytogenes</i> Ad1757	Egg product	Seeding-48h 2-8°C	1-1-2-1-0 (1.0)	+	+
3549	Lait fermenté	Fermented milk	<i>L.monocytogenes</i> Ad1781	Raw milk	Seeding-48h 2-8°C	0-1-0-1-1 (0.6)	+	+
1110	Lait ribot	Fermented milk	<i>L.monocytogenes</i> Ad1781	Raw milk	Seeding-48h 2-8°C	2-2-1-0-2 (1.4)	+	+
1111	Lait entier pasteurisé	Pasteurized milk	<i>L.monocytogenes</i> Ad1781	Raw milk	Seeding-48h 2-8°C	2-2-1-0-2 (1.4)	+	+
3724	Fromage pasteurisé de vache	Pasteurized cheese	<i>L.monocytogenes</i> Ad1784	Raw milk cheese	Seeding-48h 2-8°C	4-4-2-4-2 (3.2)	+	+
3726	Fromage pasteurisé de vache	Pasteurized cheese	<i>L.monocytogenes</i> Ad1784	Raw milk cheese	Seeding-48h 2-8°C	4-4-2-4-2 (3.2)	-	-
3548	Lait fermenté	Fermented milk	<i>L.monocytogenes</i> Ad1785	Ewe milk	Seeding-48h 2-8°C	0-1-3-1-0 (1.0)	+	+
3547	Maxi Croque-monsieur	RTRH (croque monsieur)	<i>L.monocytogenes</i> 1973/2400	RTRH	Seeding-48h 2-8°C	1-1-1-0-4 (1.4)	+	+
3442	Quiche Lorraine	RTRH (quiche Lorraine)	<i>L.monocytogenes</i> 1973/2400	RTRH	Seeding-48h 2-8°C	3-2-0-1-2 (1.6)	+	+
3443	Pizza chèvre lardons	RTRH (Pizza)	<i>L.monocytogenes</i> 1973/2400	RTRH	Seeding-48h 2-8°C	3-2-0-1-2 (1.6)	+	+
1979	Panna cotta caramel	Panna cotta	<i>L.monocytogenes</i> Ad260	Cheese	Seeding-48h 2-8°C	0-0-0-0-0 (<1)	+	+
1981	Tortilla oignons	RTRH (egg and oignon)	<i>L.monocytogenes</i> Ad544	Oignon	Seeding-48h 2-8°C	2-1-0-0-1 (0.8)	+	+
3728	Eau de rinçage laveuse	Rinse water	<i>L.monocytogenes</i> Ad548	Environment	Seeding-48h 2-8°C	4-5-9-0-0 (3.6)	+	+
3729	Eau d'épineuse	Process water	<i>L.monocytogenes</i> Ad548	Environment	Seeding-48h 2-8°C	4-5-9-0-0 (3.6)	+	+
3552	Lait ribot	Fermented milk	<i>L.monocytogenes</i> Ad611	Milk	Seeding-48h 2-8°C	0-1-1-0-1 (0.6)	-	-
3730	Eau de rinçage cuve PDL	Rinse water	<i>L.monocytogenes</i> Ad631	Environment	Seeding-48h 2-8°C	7-4-6-11-15 (6.6)	+	+
3731	Eau de siphon laiterie	Siphon water	<i>L.monocytogenes</i> Ad631	Environment	Seeding-48h 2-8°C	7-4-6-11-15 (6.6)	+	+
1106	Rillettes de porc	Rillettes	<i>L.monocytogenes</i> Ad645	Pork meat	Seeding-48h 2-8°C	1-2-0-1-3 (1.4)	+	+
1115	Côte de porc	Pork meat	<i>L.monocytogenes</i> Ad645	Pork meat	Seeding-48h 2-8°C	1-2-0-1-3 (1.4)	+	+
3554	Lingette tapis ligne	Wipe	<i>L.monocytogenes</i> AOOE049	Environment	Seeding-48h 2-8°C	3-2-5-0-2 (2.4)	-	-
3556	Eau de rinçage peleuse	Rinse water	<i>L.monocytogenes</i> AOOE049	Environment	Seeding-48h 2-8°C	3-2-5-0-2 (2.4)	+	+
5980	Eau pareuse (industrie poisson)	Process water (fish industry)	<i>L.monocytogenes</i> AOOM009	Smocked salmon	Seeding-48h 2-8°C	0-1-2-1-0 (0.8)	+	+
5984	Chiffonnette tapis déchets peleuse (industrie poisson)	Wipe (fish industry)	<i>L.monocytogenes</i> AOOM009	Smocked salmon	Seeding-48h 2-8°C	0-1-2-1-0 (0.8)	+	+
5981	Eau épineuse (industrie poisson)	Process water (fish industry)	<i>L.monocytogenes</i> AOOM032	Smocked salmon	Seeding-48h 2-8°C	0-0-3-0-2 (1.0)	+	+
5985	Chiffonnette tapis trancheur ligne (industrie poisson)	Wipe (fish industry)	<i>L.monocytogenes</i> AOOM032	Smocked salmon	Seeding-48h 2-8°C	0-0-3-0-2 (1.0)	+	+
5982	Eau peleuse (industrie poisson)	Process water (fish industry)	<i>L.monocytogenes</i> AOOM045	Smocked salmon	Seeding-48h 2-8°C	0-1-1-1-4 (1.4)	+	+

Sample number	Product (French name)	Product	Artificial contaminations				Global result Pooling	Global result Individual
			Strain	Origin	Injury protocol	Inoculation level/25g		
5986	Chiffonnette tapis pareuse (industrie poisson)	Wipe (fish industry)	<i>L.monocytogenes</i> AOOM045	Smocked salmon	Seeding-48h 2-8°C	0-1-1-1-4 (1.4)	+	+
5983	Eau laveuse (industrie poisson)	Process water (fish industry)	<i>L.monocytogenes</i> AOOM088	Smocked salmon	Seeding-48h 2-8°C	0-0-0-3-2 (1.0)	+	+
3740	Eau de rinçage laveuse	Rinse water	<i>L.seeligeri</i> Ad1267	Environment	Seeding-48h 2-8°C	1-1-0-0-2 (0.8)	+	+
3741	Eau épineuse	Process water	<i>L.seeligeri</i> Ad1267	Environment	Seeding-48h 2-8°C	1-1-0-0-2 (0.8)	+	+
4408	Macédoine	RTE (Macedoine)	<i>L.seeligeri</i> Ad1293	Persil	Seeding-48h 2-8°C	1-1-0-2-1 (1.0)	+	+
4412	Carottes râpées fraîches	Fresh grated carrots	<i>L.seeligeri</i> Ad1293	Persil	Seeding-48h 2-8°C	1-1-0-2-1 (1.0)	-	-
4414	Mélange de légumes	Mixed vegetables	<i>L.seeligeri</i> Ad1754	Zucchini	Seeding-48h 2-8°C	1-2-0-3-0 (1.2)	+	+
4418	Pousses d'épinards	Spinach	<i>L.seeligeri</i> Ad1754	Zucchini	Seeding-48h 2-8°C	1-2-0-3-0 (1.2)	+	+
3738	Fromage au lait pasteurisé	Pasteurized cheese	<i>L.seeligeri</i> Ad1782	Raw milk	Seeding-48h 2-8°C	3-3-1-1-1 (1.8)	-	-
3739	Camembert au lait pasteurisé	Pasteurized cheese	<i>L.seeligeri</i> Ad1782	Raw milk	Seeding-48h 2-8°C	3-3-1-1-1 (1.8)	+	+
4404	Camembert pasteurisé	Pasteurized cheese	<i>L.seeligeri</i> Ad1782	Raw milk	Seeding-48h 2-8°C	1-0-2-1-1 (1.0)	+	+
4405	Saint Paulin pasteurisé	Pasteurized cheese	<i>L.seeligeri</i> Ad1782	Raw milk	Seeding-48h 2-8°C	1-0-2-1-1 (1.0)	-	-
4406	Val d'Automne pasteurisé	Pasteurized cheese	<i>L.seeligeri</i> Ad1782	Raw milk	Seeding-48h 2-8°C	1-0-2-1-1 (1.0)	-	-
5000	Selles sur cher au lait cru	Raw milk cheese	<i>L.seeligeri</i> Ad1783	Raw milk	Seeding-48h 2-8°C	1-5-2-2-3 (2.6)	+	+
5011	Poêlée champêtre surgelée	Frozen RTC vegetables	<i>L.welshimeri</i> Ad1175	Cooked rice	Seeding-48h 2-8°C	0-3-2-0-1 (1.2)	+	+
5012	Concombre à la crème	Deli salad (concomber)	<i>L.welshimeri</i> Ad1175	Cooked rice	Seeding-48h 2-8°C	0-3-2-0-1 (1.2)	+	+
5013	Macédoine de légumes	Deli salad (vegetables mix)	<i>L.welshimeri</i> Ad1175	Cooked rice	Seeding-48h 2-8°C	0-3-2-0-1 (1.2)	+	+
3732	Bœuf bourguignon	RTRH (Bourguignon)	<i>L.welshimeri</i> Ad1223	Beef	Seeding-48h 2-8°C	2-6-6-5-4 (4.6)	-	-
3733	Pizza jambon-fromage	RTRH (pizza)	<i>L.welshimeri</i> Ad1223	Beef	Seeding-48h 2-8°C	2-6-6-5-4 (4.6)	+	+
3683	Spaghetti bolognaise	RTRH (seasoned pasta)	<i>L.welshimeri</i> Ad1235	Seasoned meat	Seeding-48h 2-8°C	7-1-6-1-4 (3.8)	+	+
3685	Courgettes farcies	RTRH (zucchini-pork)	<i>L.welshimeri</i> Ad1235	Seasoned meat	Seeding-48h 2-8°C	7-1-6-1-4 (3.8)	+	+
4993	Tortilla nature	Tortilla	<i>L.welshimeri</i> Ad1270	Environment (poultry)	Seeding-48h 2-8°C	0-0-1-2-1 (0.8)	+	+
4994	Tortilla nature	Tortilla	<i>L.welshimeri</i> Ad1270	Environment (poultry)	Seeding-48h 2-8°C	0-0-1-2-1 (0.8)	+	+
5003	Roquefort au lait cru	Raw milk cheese	<i>L.welshimeri</i> Ad1667	Raw milk	Seeding-48h 2-8°C	1-3-3-2-1 (2.0)	+	+
5004	Reblochon au lait cru	Raw milk cheese	<i>L.welshimeri</i> Ad1667	Raw milk	Seeding-48h 2-8°C	1-3-3-2-1 (2.0)	+	+

Appendix D – Sensitivity study: raw data

Bold typing : artificially inoculated samples

Listeria detection results:

H-:	characteristic Listeria colonies without halo
H+:	characteristic Listeria 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
0:	results are not available
NC:	Non characteristic colony on TSYEA
d:	doubtful colony
*:	dilution 1/10ième
**:	dilution 1/50ième
F1:	Fraser 1

COMPOSITE FOODS READY-TO-EAT AND READY-TO-REHEAT

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for Listeria											Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method		
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
1105	Piémontaise au jambon	RTE (vegetables ham)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		a	
2903	Sandwich Bacon Tomate œuf sauce yaourt	Sandwich (bacon)	st	-	-	-	/	-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		a	
2904	Sandwich jambon fumé œuf mimosa crudités	Sandwich (ham)	st	st	-	-	/	-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD	+	a	
3231	Sandwich au thon	RTE Sandwich (tuna)	H+	+(2)	H+	+	<i>L.monocytogenes</i>	+	-	-	-	-		-	-	ND	ND		a	
3333	Piémontaise au jambon	RTE (Deli salad)	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	a	
3735	Sandwich jambon -fromage-salade	Sandwich (ham-cheese)	-	-	-	-		-	+	+	H-	+	<i>L.innocua</i>	+	+	PD	PD		a	
3786	Piémontaise	RTE (Deli salad)	st	st	st	st		-	-	-	st	-		-	-	NA	NA	-	a	
3833	Sandwich jambon emmental	Sandwich (ham-cheese)	-	-	-	-		-	i/i*/-**	i/i*/-**	st	st		-	-	NA	NA	-	a	
3834	Sandwich jambon beurre	Sandwich (ham-butter)	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
3911	Salade niçoise	Deli-salads	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
3914	Sandwich duo de saumon	Sandwich (salmon)	-	-	-	-		-	-	-	H+(2)	-	<i>L.monocytogenes</i>	-	-	NA	NA	+	a	
4114	Sandwich chèvre tomates légumes	Sandwich (cheese, tomatoes)	st	-	-	-		-	i/-/-	-	-	st		-	-	NA	NA	-	a	
4600	Sandwich thon, tomate œuf	Sandwich (tuna, tomato, egg)	st	st	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		a	
4601	Sandwich duo saumon	Sandwich (salmon)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		a	
4602	Sandwich saumon	Sandwich (salmon)	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
4603	Sandwich saumon	Sandwich (salmon)	st	st	-	-		-	-	-	-	st		-	-	NA	NA	-	a	
4604	Sandwich saumon	Sandwich (salmon)	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
4624	Salade niçoise	Deli salad	-	-	-	-		-	-	i/-	-	-		-	-	NA	NA	-	a	
5788	Wraps au saumon	RTRE (salmon)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-				-	-	ND	ND	-	a	
5789	Sandwich poulet	Sandwich (chicken)	st	-	-	-		-	-	-				-	-	NA	NA	-	a	
5922	Sandwich jambon beurre	Sandwich (ham, butter)	-	-	st	-		-	-	-	st	-		-	-	NA	NA	-	a	
5923	Sandwich poulet crudités	Sandwich (chicken, vegetables)	st	-	st	-		-	-	-	-	-		-	-	NA	NA	-	a	
1117	Croissant jambon emmental	RTRH (cheese ham)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	st	st		-	-	ND	ND	-	b	
1118	Pizza au chorizo	RTRH (Pizza)	st	-	-	-	/	-	-	-	-	-		-	-	NA	NA	-	b	
1981	Tortilla oignons	RTRH (egg and onion)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b	
1982	Moussaka	RTRHG (Moussaka)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b	
1989	Pizza jambon emmental	RTRH (Pizza)	-	-	-	-	/	-	-	-	-	-		-	-	NA	NA	-	b	
1990	Quiche Lorraine	RTRH (quiche Lorraine)	st	-	-	-	/	-	-	-	st	st		-	-	NA	NA	-	b	
1991	Moussaka	RTRH (moussaka)	st	st	-	-	/	-	-	-	st	st		-	-	NA	NA	-	b	
2905	Croque 3 fromages	RTRH (cheese)	-	-	-	-	/	-	-	-	-	-		-	-	NA	NA	-	b	

COMPOSITE FOODS READY-TO-EAT AND READY-TO-REHEAT

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for Listeria											Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method		
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
			LESS broth for 22 h at 30°C																	
2913	Hachis parmentier pur bœuf	RTRH (beef)	st	st	st	st	/	-	-	-	st	st		-	-	NA	NA	-	b	
2914	Bœuf bourguignon	RTRH (beef)	st	st	st	st	/	-	-	+(NC)	st	st	-(Fraser 1 x 5)	-	-	NA	PPNA	-	b	
3318	Baguette gratinée jambon emmenthal	RTRH (ham cheese)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b	
3321	Mélange poulet tomates marinées	RTRH (chicken tomatoes)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b	
3323	Nugget emmenthal	RTRH (chicken cheese)	-	-	-	-		-	-	-	st	st		-	-	NA	NA	-	b	
3325	Croque Monsieur	RTRH (croque monsieur)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b	
3442	Quiche Lorraine	RTRH (quiche Lorraine)	st	st	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		b	
3443	Pizza chèvre lardons	RTRH (Pizza)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	st	-		-	-	ND	ND	-	b	
3444	Hachis Parmentier	RTRH (hachis parmentier)	st	st	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		b	
3445	Macaronis tomates boulettes de bœuf	RTRH (macaronis beef)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b	
3446	Lasagnes à la bolognaise	RTRH (lasagnes)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	st	st		-	-	ND	ND	-	b	
3447	Bœuf bourguignon	RTRH (beef)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
3454	Quiche Lorraine	RTRH (quiche Lorraine)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
3455	Pizza chèvre lardons	RTRH (Pizza)	-	-	-	-		-	-	-	st	st		-	-	NA	NA	-	b	
3458	Hachis Parmentier	RTRH (hachis parmentier)	st	st	-	-		-	i/-	i/-	st	st		-	-	NA	NA	-	b	
3459	Macaronis tomates boulettes de bœuf	RTRH (macaronis beef)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
3547	Maxi Croque-monsieur	RTRH (croque monsieur)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b	
3721	Pizza jambon fromage	RTRH (Pizza)	H-d	+d	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		b	
3733	Pizza jambon-fromage	RTRH (pizza)	-	+d	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.welshimeri</i>	+	+	PA	PA		b	
4599	Panier chèvre épinards	RTRH	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA		b	
4613	Pizza au saumon	Pizza	H-	+(2)	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.welshimeri</i>	+	+	PA	PA		b	
5924	Croque-Monsieur Comté au jambon	RTRH	-	-	-	-		-	i/-	i/-	-	-		-	-	NA	NA	-	b	
2916	Crème anglaise	Custard	st	st	st	st	/	-	-	-	st	st		-	-	NA	NA	-	c	
2917	Crème anglaise	Custard	st	st	st	st	/	-	i/*	i/*	st	st		-	-	NA	NA	-	c	
3322	Flan	Pastries	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c	
3330	Religieuses au chocolat	Pastries	-	-	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
3331	Eclair à la vanille	Pastries	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
3334	Œuf entier liquide pasteurisé	Pasteurized liquid whole egg	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3335	Jaune d'œuf liquide pasteurisé	Pasteurized liquid yellow egg	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	

COMPOSITE FOODS READY-TO-EAT AND READY-TO-REHEAT

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for Listeria											Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method		
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
3440	Coule d'œuf entier liquide pasteurisé	Pasteurized liquid whole egg	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3441	Jaune d'œuf liquide pasteurisé	Pasteurized liquid yellow egg	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	st	st		-	-	ND	ND	-	c	
3448	Crème anglaise	Custard	st	st	st	st		-	-	i/-*	st	st		-	-	NA	NA	-	c	
3450	Coule d'œuf entier liquide pasteurisé	Pasteurized liquid whole egg	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3451	Jaune d'œuf liquide pasteurisé	Pasteurized liquid yellow egg	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3452	Crème anglaise	Custard	st	st	st	st		-	i/-*	i/-*	st	st		-	-	NA	NA	-	c	
3453	Crème anglaise	Custard	st	st	st	st		-	i/-*	i/-*	st	st		-	-	NA	NA	-	c	
3789	Coule de jaune d'œuf pasteurisé	Pasteurized liquid yellow egg	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3790	Coule d'œuf entier pasteurisé	Pasteurized liquid whole egg	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3799	Crêpes sucrées	Pancakes	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	c	
3836	Crème anglaise	Custard	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
3837	Flan pâtissier	Pastries	st	st	st	st		-	i/-*	i/-*	st	st		-	-	NA	NA	-	c	
4112	Flan pâtissier	Custard (dessert)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c	
4400	Tarte aux pommes	Apple pie	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA		c	
4401	Tarte amandine	Almond pie	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
4402	Tartelette fraise	Strawberry pie	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
4403	Tartelette fruit	Fruit tart	-	-	-	-		-	-/-	+	+d (1) (X5)	-(X5)	NC	-	-	NA	PPNA	-	c	
4993	Tortilla nature	Tortilla	H-	+	H-	+	<i>L.welshimeri</i>	+	-	-	st	st		-	-	ND	ND	-	c	
4994	Tortilla nature	Tortilla	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.welshimeri</i>	+	+	PA	PA	+	c	
4995	Tortilla oignons	Tortilla with onions	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA	+	c	
4996	Tortilla nature	Tortilla	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA	+	c	
5791	Tortilla nature	Tortilla	-	-	-	-		-	-	-				-	-	NA	NA	-	c	
5792	Mayonnaise	Mayonnaise	st	st	st	st		-	-	-				-	-	NA	NA	-	c	
5793	Mayonnaise	Mayonnaise	st	st	st	st		-	-	-				-	-	NA	NA	-	c	

MEAT PRODUCTS

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for Listeria											Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method		
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
1113	Viande de dinde	Turkey meat	st	-	st	st	/	-	-	-	H-	+	<i>L.innocua</i>	-	-	NA	NA	-	a	
1114	Viande bovine	Beef meat	st	-	st	st	/	-	-	-	st	st		-	-	NA	NA	-	a	
1115	Côte de porc	Pork meat	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		a	
2906	Viande de poulet congelée	Frozen poultry meat	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+/H-	+	<i>L.monocytogenes</i>	+	+	PA	PA		a	
2907	Viande rouge cuise de dinde	Turkey meat	H+/H-	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA		a	
2908	Viande de poulet congelée	Frozen poultry meat	H+/H-	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	PA	PA		a	
3227	Rôti de dinde	Turkey meat	H+/H-	+	H+	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA		a	
3228	Viande de poulet congelée	Frozen chicken meat	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	PA	PA		a	
3239	Haché de bœuf surgelé	Frozen ground beef	st	st	st	st		-	-	-	-	-		-	-	NA	NA	-	a	
3240	Egréné de bœuf surgelé	Frozen ground beef	-	st	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
3796	Filets mignon congelés	Frozen pork meat	-	-	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		a	
3818	Filet de porc	Pork meat	-	-	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		a	
3824	Sauté de dinde cru	Turkey meat	H-d	+d	H-	+d	<i>L.welshimeri</i>	+	+	-/-	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	-	PA	ND		a	
3830	Viande de poulet congelée	Chicken meat	H+/H-	+	H+/H-	+d	<i>L.monocytogenes/ L.innocua</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	PA	PA		a	
4118	Viande de blanc de poulet	Raw chicken meat	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA		a	
4121	Sauté de dinde nature	Raw turkey meat	H+/H-	+	H+	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	-	H-	+	<i>L.innocua/ L.welshimeri</i>	+	-	PA	ND	-(H-)	a	
4627	Steak haché	Ground beef	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA		a	
4628	Faux filet	Beef trim	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.welshimeri</i>	+	+	PA	PA		a	
4629	Carpaccio	Carpaccio	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	a	
4630	Carpaccio	Carpaccio	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	a	
5014	Carpaccio pur bœuf	Beef Carpaccio	st	st	-	-		-	-	-	st	-		-	-	NA	NA	-	a	
5015	Steak haché	Ground beef	-	st	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
5532	Hachés de veau	Ground veal	H-	+	H-	+	<i>L.innocua/ L.welshimeri</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA	H+/H-	a	
5533	Escalope fine de poulet	Chicken meat	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	st	-		-	-	ND	ND	st	a	
5534	Viande bovine rumsteak	Beef trim	H-	+	H-	+	<i>L.innocua/ L.welshimeri</i>	+	+	+	H-	+	<i>L.welshimeri/L.innocua</i>	+	+	PA	PA	H-	a	
5535	Viande de porc	Pork meat	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.welshimeri</i>	+	+	PA	PA	H-	a	
6117	Bavette d'Aloyau surgelée	Frozen beef trim	-	st	st	-		-	-	-	-	-		-	-	NA	NA	-	a	
6118	Steak haché surgelé	Frozen ground beef	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
3246	Blanquette de veau	RTRH (veal meat)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
3247	Poulet Basquaise	RTRH (chicken)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	

MEAT PRODUCTS

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			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method		
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
			LESS broth for 22 h at 30°C																	
3683	Spaghetti bolognaise	RTRH (seasoned pasta)	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.welshimeri</i>	+	+	PA	PA		b	
3684	Cordon bleu de dinde et coquillettes	RTRH (turkey)	H-	+	H-	+	<i>L.innocua</i>	+	+	i/+*	H-	+	<i>L.innocua</i>	+	+	PA	PA		b	
3685	Courgettes farcies	RTRH (zucchini-pork)	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA		b	
3686	Osso bucco de dinde	RTRH (turkey)	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA		b	
3694	Spaghetti bolognaise	RTRH (seasoned pasta)	st	st	st	st		-	-	-	H-	st		-	-	NA	NA	-	b	
3695	Cordon bleu de dinde et coquillettes	RTRH (turkey)	st	st	-	-		-	i/-*	i/-*	-	st		-	-	NA	NA	-	b	
3696	Courgettes farcies	RTRH (zucchini-pork)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
3697	Osso bucco de dinde	RTRH (turkey)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
3720	Bœuf bourguignon	RTRH (Bourguignon)	st	st	st	st		-	+	+	H+d	+	<i>L.monocytogenes</i>	+	+	PD	PD		b	
3732	Bœuf bourguignon	RTRH (Bourguignon)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
3734	Hachis Parmentier	RTRH (hachis parmentier)	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA		b	
3783	Spaghetti bolognaise	RTRH (Spaghetti bolognese)	st	st	-	st		-	-	-	-	st		-	-	NA	NA	-	b	
3784	Courgettes farcies	RTRH (vegetables-pork)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
3785	Cordon bleu de dinde et coquillettes	RTRH (turkey)	st	st	st	st		-	i/-*	i/-*	st	st		-	-	NA	NA	-	b	
4619	Nuggets de dinde	Turkey nuggets	st	-	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		b	
4620	Cordons bleus de dinde	RTC turkey	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	b	
5790	Lasagnes	RTRH (pasta)	st	st	st	st		-	-	-				-	-	NA	NA	-	b	
5925	Nuggets au poulet	Chicken nuggets	-	-	-	-		-	-	-	st	st		-	-	NA	NA	-	b	
5926	Cordons bleus de dinde	RTRH (turkey)	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	b	
1106	Rillettes de porc	Rillettes	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	i/+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c	
1983	Bacon	Bacon	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c	
2915	Jambon cuit supérieur	Ham	st	st	st	st	/	-	-	-	st	st		-	-	NA	NA	-	c	
3235	Chair à saucisse	Delicatessen	st	st	H-d	st		-	-	-	-	-		-	-	NA	NA	-	c	
3236	Emincés de dinde marinés	Marinated turkey	-	-	-	-		-	+	+	H-d	+d	<i>L.welshimeri</i>	+	+	PD	PD	+	c	
3245	Rillettes du Mans	Rillettes	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3332	Museau de porc	Delicatessen	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
3795	Pâté de veau	Veal pâté	st	st	st	st		-	-	-	H+(1)	+(3)	<i>L.monocytogenes</i>	-	-	NA	NA	-	c	
3797	Côte de porc thym romarin	Seasoned pork	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c	
3800	Fromage de tête aux herbes	Cooked delicatessen	st	-	st	-		-	-	-	st	st		-	-	NA	NA	-	c	
3801	Saucisses	Sausages	st	-	st	-		-	-	-	-	-		-	-	NA	NA	-	c	
3802	Jambon à l'ancienne	Ham	st	st	st	st		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		c	
3806	Jambon à l'ancienne	Ham	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c	

MEAT PRODUCTS

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			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method		
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
3819	Jambon	Ham	st	st	st	st		-	-	i/-*	st	-		-	-	NA	NA	-	c	
3825	Saucisse de Toulouse	Sausages	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
3912	Rillettes	Rillettes	-	st	st	st		-	+	+	H-d	-	<i>L.grayi</i>	+	+	PD	PD	-	c	
4115	Merguez	Merguez	-	st	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
4614	Terrine de campagne	Pâté	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
4615	Chipolatas nature	Sausages	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H+	+d	<i>L.monocytogenes</i>	+	+	PA	PA		c	
4616	Rillettes	Rillettes	-	st	st	st		-	+(NC)	+(NC)	-(X5)	st (X5)		-	-	PPNA	PPNA	-	c	
4617	Rillettes	Rillettes	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
4618	Allumettes jambon	Sliced ham	st	st	st	st		-	-	-	-	st		-	-	NA	NA	-	c	

MILK AND DAIRY PRODUCTS

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for Listeria											Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method		
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
			LESS broth for 22 h at 30°C																	
1107	Camembert	Cheese	-	st	st	st	/	-	-	-	st	st		-	-	NA	NA	-	a	
3736	Leerdammer	Cheese	st	-	st	-		-	+	+	H+	+d	<i>L.ivanovii</i> / <i>L.innocua</i>	+	+	PD	PD		a	
3829	Fourme d'Ambert	Cheese	-	-	-	-		-	-	i/-*	st	st		-	-	NA	NA	-	a	
4605	Reblochon au lait cru	Raw milk cheese	-	-	st	-		-	-	-	-	-		-	-	NA	NA	-	a	
4607	Saint Nectaire au lait cru	Raw milk cheese	st	st	st	st		-	-	-	-	st		-	-	NA	NA	-	a	
4608	Fromage non affiné au lait cru de vache	Raw milk cheese	-	-	st	-		-	-	-	H-d (cat -)	-		-	-	NA	NA	-	a	
4609	Reblochon au lait cru	Raw milk cheese	st	st	-	-		-	-	-	-	st		-	-	NA	NA	-	a	
4610	Reblochon au lait cru	Raw milk cheese	H-d(1)	-	-	-	NC	-	-	-	-	-		-	-	NA	NA	-	a	
4611	Fromage non affiné au lait cru de vache	Raw milk cheese	st	st	st	st		-	-	-	H-d (cat-)	-		-	-	NA	NA	-	a	
4612	Fromage non affiné au lait cru de vache	Raw milk cheese	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	a	
4625	Bethmal au lait cru de vache	Raw milk cheese	st	st	st	st		-	-	-	-	-		-	-	NA	NA	-	a	
4626	Tomme de montagne au lait cru	Raw milk cheese	-	st	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
4997	Saint Nectaire au lait cru	Raw milk cheese	-	-	st	st		-	+	+	H-	+	<i>L.innocua</i>	+	+	PD	PD	+	a	
4998	Rocamadour au lait cru	Raw milk cheese	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA	+	a	
4999	Morbier au lait cru	Raw milk cheese	-	-	st	st		-	-	-	-	-		-	-	NA	NA	-	a	
5000	Selles sur cher au lait cru	Raw milk cheese	H-	+	H-	+d	<i>L.seeligeri</i>	+	-	+	-	-	- (Fraser 1 x 5, BHI x 5)	-	-	ND	PPND	-	a	
5003	Roquefort au lait cru	Raw milk cheese	H-(1)	+(3)	H-	+	<i>L.welshimeri</i>	+	-	-	H-d	-		-	-	ND	ND	-	a	
5004	Reblochon au lait cru	Raw milk cheese	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA	+	a	
5005	Selles sur cher au lait cru	Raw milk cheese	H+	-	H+	-	<i>L.ivanovii</i>	+	-	-	-	-		-	-	ND	ND	-	a	
5511	Maroilles au lait cru	Raw milk cheese	st	-	st	-		-	+	+	H-	+	<i>L.innocua</i>	+	+	PD	PD	H-	a	
5512	Tomme au lait cru	Raw milk cheese	st	-	st	-		-	-	-	st	-		-	-	NA	NA	-	a	
5513	Munster au lait cru	Raw milk cheese	st	-	st	st		-	-	-	-	-		-	-	NA	NA	st	a	
5514	Brie de Meaux au lait cru	Raw milk cheese	st	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
5515	Morbier au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
5516	Fromage à pâte pressée au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
5517	Fromage à pâte molle au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
5518	Fromage à pâte pressée au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
5519	Fromage à pâte pressée au lait cru	Raw milk cheese	-	-	st	-		-	-	-	-	-		-	-	NA	NA	-	a	
5520	Fromage à pâte pressée au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
6243	Fromage non affiné au lait cru de vache	Raw milk cheese	-	-	-	-		-	+/-	-	-	-		-	-	PPNA	NA	-	a	
6244	Fromage non affiné au lait cru de vache	Raw milk cheese	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	

MILK AND DAIRY PRODUCTS

Sample number	Product (French name)	Product	ISO 11290-1/A1 method							ANSR for Listeria											Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method			
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)								
			LESS broth for 22 h at 30°C																		
6245	Fromage affiné au lait cru de brebis	Raw ewe milk cheese	st	-	-	-		-	+(NC)	-	-	-	-	-	-	PPNA	NA	-	a		
6246	Fromage affiné au lait cru de brebis	Raw ewe milk cheese	-	-	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		a		
6247	Fromage affiné au lait cru de brebis	Raw ewe milk cheese	H+(5)	+(1)	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	+	a		
1110	Lait ribot	Fermented milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b		
1986	Lait de brebis	Sheep milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b		
1987	Lait de brebis	Sheep milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b		
1988	Lait de brebis	Sheep milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	i/+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b		
2918	Lait ribot	Fermented milk	st	st	-	-	/	-	-	-	st	st		-	-	NA	NA	-	b		
2919	Lait ribot	Fermented milk	st	st	-	-	/	-	-	-	-	-		-	-	NA	NA	-	b		
3326	Lait de brebis	Sheep milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b		
3327	Lait de brebis	Sheep milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b		
3548	Lait fermenté	Fermented milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	st	st		-	-	ND	ND	-	b		
3549	Lait fermenté	Fermented milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	st	st		-	-	ND	ND	-	b		
3550	Lait ribot	Fermented milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b		
3551	Lait ribot fermier	Fermented milk	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	b		
3552	Lait ribot	Fermented milk	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	b		
3557	Lait ribot	Fermented milk	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b		
3558	Lait ribot fermier	Fermented milk	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	b		
3559	Lait ribot	Fermented milk	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	b		
3560	Gros lait fermier	Fermented milk	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	b		
3561	Gros lait fermier	Fermented milk	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	b		
3792	Lait ribot	Fermented milk	st	st	-	-		-	-	-	st	-		-	-	NA	NA	-	b		
3831	Lait cru entier	Raw milk	st	-	-	-		-	-	-	st	-		-	-	NA	NA		b		
3832	lait de brebis	Ewe milk	st	-	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		b		
4122	Lait cru de brebis	Raw ewe milk	st	-	-	-		-	+	+	-	st		-	-	PPNA	PPNA	-	b		
4123	Lait cru de brebis	Raw ewe milk	H+/H-	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b		
5521	Lait cru de brebis	Raw ewe milk	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	b		
1109	Fromage pasteurisé de vache	Pasteurized cheese	st	st	st	st	/	-	-	-	st	st		-	-	NA	NA	-	c		
1111	Lait entier pasteurisé	Pasteurized milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c		
1979	Panna cotta caramel	Panna cotta	H+	+	H+	+	<i>L.monocytogenes</i>	+	i/-*	i/+*	st	st		-	-	ND	PPND	-	c		
1992	Glace crème brûlée	Ice cream	st	-	-	-	/	-	-	-	st	st		-	-	NA	NA	-	c		
1993	Glace noisette	Ice cream	st	-	-	-	/	-	-	-	st	st		-	-	NA	NA	-	c		
1994	Tomme au moine pasteurisé	Pasteurized cheese	-	st	-	-	/	-	-	-	st	st		-	-	NA	NA	-	c		
1995	Fromage de brebis pasteurisé	Pasteurized cheese	-	-	-	-	/	-	-	-	st	st		-	-	NA	NA	-	c		

MILK AND DAIRY PRODUCTS

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									LESS broth for 22 h at 30°C											
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			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
3319	Sauce	Sauce	-	st	-	-		-	-	-	st		-	-	NA	NA	-	c		
3320	Sauce fromage blanc ciboulette	Sauce (cheese vegetables)	-	-	-	-		-	-	st	-		-	-	NA	NA	-	c		
3460	Camembert au lait pasteurisé	Pasteurized cheese	st	st	st	st		-	-	-	st		-	-	NA	NA	-	c		
3687	Gorgonzola	Pasteurized cheese	-	st	H-d	+d	Gram-	-	-	-	st		-	-	NA	NA	-	c		
3688	Brie	Pasteurized cheese	H+d	+	H+	+	<i>L.ivanovii</i>	+	+	+	H+	+	<i>L.ivanovii</i>	+	+	PA	PA	-	c	
3689	Fromage de brebis pasteurisé	Pasteurized cheese	st	-	H+	+	<i>L.innocua</i>	+	+	+	H+	+	<i>L.ivanovii</i>	+	+	PA	PA	-	c	
3698	Gorgonzola	Pasteurized cheese	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
3699	Fromage de vache pasteurisé	Pasteurized cheese	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	c	
3700	Fromage de brebis pasteurisé	Pasteurized cheese	st	-	-	-		-	-	-	-	-		-	-	NA	NA	-	c	
3724	Fromage pasteurisé de vache	Pasteurized cheese	-	-	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD	-	c	
3725	Brie pasteurisé	Pasteurized cheese	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	c	
3726	Fromage pasteurisé de vache	Pasteurized cheese	st	-	-	-		-	-	-	H+	+	<i>L.monocytogenes</i>	-	-	NA	NA	+	c	
3727	Camembert au lait pasteurisé	Pasteurized cheese	st	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	c	
3738	Fromage au lait pasteurisé	Pasteurized cheese	st	-	-	-		-	-	-	st	-		-	-	NA	NA	-	c	
3739	Camembert au lait pasteurisé	Pasteurized cheese	st	st	st	st		-	+	+	H-	+	<i>L.welshimeri</i>	+	+	PD	PD	-	c	
3791	Lait demi-écrémé pasteurisé	Pasteurized milk	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3835	Crème glacée à la vanille	Vanilla ice-cream	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
4404	Camembert pasteurisé	Pasteurized cheese	H-d	+d	H-	+	<i>L.seeligeri</i>	+	-	-	-	-		-	-	ND	ND	-	c	
4405	Saint Paulin pasteurisé	Pasteurized cheese	-	-	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
4406	Val d'Automne pasteurisé	Pasteurized cheese	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	c	

VEGETABLES

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			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
1120	Epinards en branches	Spinach	-	-	-	-	/	-	-	-	H-	-	<i>L.innocua</i>	-	-	NA	NA	-	a	
1122	Jeunes pousses	Baby leaves	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		a	
1996	Carottes en rondelles surgelées	Frozen sliced carrots	st	st	st	st	/	-	-	-	st	st		-	-	NA	NA	-	a	
1997	Epinards en branches surgelés	Frozen spinach	-	-	-	-	/	-	-	-	-	st		-	-	NA	NA	-	a	
1998	Terrine de saumon à l'aneth	Salmon terrine	st	st	st	st	/	-	-	-	st	st		-	-	NA	NA	-	a	
2910	Persil plat	Persil	st	-	-	-	/	-	-	-	-	-		-	-	NA	NA	-	a	
3234	Persil plat	Persil	st	st	-	-		-	-	-	-	st		-	-	NA	NA	-	a	
3328	Pousses d'épinards	Baby leaves	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA	+	a	
3329	Jeunes pousses corsées	Baby leaves	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
3917	Fenouil	Fenouil	H+	+d	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+(1)	<i>L.monocytogenes</i>	+	+	PA	PA	+	a	
3926	Tendres pousses	Baby leaves	-	-	-	-		-	+	+	H-(1)	-	<i>L.seeligeri</i>	+	+	PD	PD	+	a	
3927	Jeunes pousses	Baby leaves	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
4111	Petits pois très fins	Peas	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA	H-	a	
4415	Pousses d'épinards	Spinach	H-	+	H-	+	<i>L.innocua</i>	+	+	+	-	+	<i>L.innocua</i>	+	+	PA	PA		a	
4416	Pousses d'épinards	Spinach	-	-	-	-		-	+	+	-(X5)	-(X5)		-	-	PPNA	PPNA	-	a	
4417	Pousses d'épinards	Spinach	H-d	+	H-	+	<i>L.innocua</i>	+	+	+	-(X5)	-(X5)		-	-	PPND	PPND	-	a	
4418	Pousses d'épinards	Spinach	-	-	H-d	+d	<i>L.seeligeri</i>	+	-/(NC)/-	+/+	-	-	<i>L.seeligeri (Fraser1)</i>	-	+	ND	PA	+	a	
4423	Pousses d'épinards	Spinach	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
4621	Poivrons jaunes en cubes	Yellow peppers	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	a	
4622	Dés de courgettes crues	Zucchini cubes	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		a	
5007	Haricots plats surgelés	Frozen flat beans	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H+	+	<i>L.innocua</i>	+	+	PA	PA	+	a	
5008	Epinards hachés surgelés	Frozen spinach	-	-	-	-		-	+	+	H+	+	<i>L.innocua</i>	+	+	PD	PD	+	a	
5011	Poêlée champêtre surgelée	Frozen RTC vegetables	-	-	-	-		-	+	+	H+	+	<i>L.welshimeri</i>	+	+	PD	PD	+	a	
1119	Carottes en rondelles	Sliced carrots	st	st	st	st	/	-	-	i/-	st	st		-	-	NA	NA	-	b	
2909	Poêlée de pommes de terre aux oignons	RTRH vegetables	st	-	-	-	/	-	-	-	-	-		-	-	NA	NA	-	b	
3232	Pommes de terre à la saladaise	RTRH vegetables	-	-	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		b	
3243	Carottes râpées	RTE (Grated carrots)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
3244	Crudités en mélange	Mixed vegetables	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	b	
3324	Palets courgette légumes	RTRH vegetables	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	b	
3457	Salade croquante	Salad	st	st	-	-		-	-	-	-	-		-	-	NA	NA	-	b	
3798	Oignons frits	Fried onions	st	-	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		b	
3821	Poêlée de pommes de terre aux oignons	RTRH vegetables	st	-	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		b	
3924	Oignons pré-frits surgelés	Frozen pre-cooked oignon	st	st	H-	+	<i>L.innocua</i>	+	-/i/-	+	H-(1)	+	<i>L.innocua</i>	-	+	ND	PA	+	b	

VEGETABLES

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									LESS broth for 22 h at 30°C											
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			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
3925	Champignons émincés surgelés	Frozen pre-cooked mushrooms	st	-	H-	+	<i>L.innocua</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	PA	PA	-	b	
3928	Baby carrots	Baby carrots	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
4411	Salade 4 saveurs	Mixed salads	-	-	-	-		-	-	-	-	st		-	-	NA	NA	-	b	
4412	Carottes râpées fraîches	Fresh grated carrots	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
4413	Mélange de légumes	Mixed vegetables	H-	+	H-	+	<i>L.innocua</i>	+	-	-	st	st		-	-	ND	ND	-	b	
4414	Mélange de légumes	Mixed vegetables	st	+d	H-d	+d	<i>L.seeligeri</i>	+	+	+	H-d	+d	<i>L.seeligeri</i>	+	+	PA	PA	-	b	
4419	Salade 4 saveurs	Mixed salads	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	b	
4420	Carottes râpées fraîches	Fresh grated carrots	st	st	st	st		-	-	+(NC)/-/-	st	st		-	-	NA	PPNA	-	b	
4421	Mélange de légumes	Mixed vegetables	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	-	<i>L.innocua</i>	+	+	PA	PA	-	b	
4422	Mélange de légumes	Mixed vegetables	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	b	
5009	Assiette croquante (chou, carottes, poivron)	Vegetable mix	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H+	+	<i>L.innocua</i>	+	+	PA	PA	+	b	
1104	Macédoine de légumes	RTE (Macedoine)	st	st	-	-	/	-	-	-	st	st		-	-	NA	NA	-	c	
1984	Macédoine de légumes	RTE (Macedoine)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	c	
1985	Carottes râpées	RTE (Grated carrots)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	c	
2920	Macédoine de légumes	RTE (Macedoine)	st	st	-	-	/	-	-	-	-	-		-	-	NA	NA	-	c	
2921	Céleri rémoulade	RTE (Vegetables)	st	st	st	st	/	-	-	-	st	st		-	-	NA	NA	-	c	
3456	Carottes râpées	RTE (Sliced carrots)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3690	Macédoine de légumes	RTE (Macedoine)	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA	-	c	
3691	Coleslaw	RTE (Coleslaw)	st	-	-	-		-	+	+	H-	+	<i>L.innocua</i>	+	+	PD	PD	-	c	
3701	Macédoine de légumes	RTE (Macedoine)	-	-	-	-		-	-	-	st	-		-	-	NA	NA	-	c	
3702	Coleslaw	RTE (Coleslaw)	st	st	st	st		-	-	-	-	st		-	-	NA	NA	-	c	
3787	Coleslaw	RTE (Coleslaw)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3788	Macédoine	RTE (Macedoine)	st	st	-	-		-	-	-	-	-		-	-	NA	NA	-	c	
3823	Palets épinards chèvre	RTE (Spinach-cheese)	st	-	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD	-	c	
3918	Galette de blé noir	RTE galette	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes/ L.innocua</i>	+	+	PA	PA	-	c	
4407	Coleslaw	RTE (Coleslaw)	st	-	-	-		-	+	+	H-	+	<i>L.innocua</i>	+	+	PD	PD	-	c	
4408	Macédoine	RTE (Macedoine)	H-	+	H-	+d	<i>L.seeligeri</i>	+	-	-	-	-		-	-	ND	ND	-	c	
4409	Comcombre à la crème	RTE cucumber	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	c	
4410	Céleri rémoulade	RTE (Celery)	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA	-	c	
4623	Mélange de crudités	Vegetables mix	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
5012	Concombre à la crème	Deli salad (concomber)	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H+	+	<i>L.welshimeri</i>	+	+	PA	PA	+	c	
5013	Macédoine de légumes	Deli salad (vegetables mix)	H-	+	H-	+	<i>L.welshimeri</i>	+	-	-	-	-		-	-	ND	ND	-	c	

FISH AND SEAFOOD

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for Listeria											Type
									LESS broth for 22 h at 30°C											
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method		
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
1112	Filet de lieu noir	Fresh raw fish	st	-	st	-	/	-	-	+	H+	+	<i>L.monocytogenes</i>	-	+	NA	PD	-	a	
3241	Filet de cabillaud surgelé	Frozen fish	-	-	st	st		-	-	-	-	-		-	-	NA	NA	-	a	
3242	Pavés de saumon d'Atlantique	Frozen fish	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	a	
3809	Crevettes décortiquées	Shrimp	st	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
3810	Filet de Flétan	Fish fillet	st	st	st	st		-	-	-	-	-		-	-	NA	NA	-	a	
3811	Filet de julienne	Fish fillet	st	-	st	st		-	-	-	-	-		-	-	NA	NA	-	a	
3827	Palets de julienne	Fish fillet	-	-	-	-		-	-	-	st	st		-	-	NA	NA	-	a	
3828	Aiguillettes de Cabillaud	Fish fillet	H+d/H-	+	H+d/H-	+	<i>L.innocua</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	PA	PA		a	
3913	Paupiette de saumon	RTRH salmon	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	PA	PA		a	
3915	Croquettes de saumon	RTRH salmon	st	st	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
4116	Filet de bar	Fish fillet	-	st	H+	+	<i>L.monocytogenes</i>	+	-	-	-	-		-	-	ND	ND	-	a	
4119	Paupiette de saumon	RTRH salmon	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		a	
4124	Filet de Flétan surgelé	Frozen fish fillet	H+/H-d	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	PA	PA	+	a	
4125	Cocktail de fruit de mer	Seafood cocktail	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
4126	Filet de Colin surgelé	Frozen hake fillet	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	a	
5522	Filet de panga	Fish fillet	H+/H-	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	PA	PA		a	
5530	Filet de colin	Fish fillet	st	-	st	st		-	-	-	-	-		-	-	NA	NA	st	a	
5531	Filet de flétan	Fish fillet	H-	+	H-	+	<i>L.innocua/ L.welshimeri/ L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		a	
5784	Filet de Zinger	Fish fillet	st	st	st	st		-	-	-				-	-	NA	NA	-	a	
5785	Chair de saumon	Salmon	st	st	st	st		-	-	-				-	-	NA	NA	-	a	
5888	Filets de sardine	Pilchards filets	st	st	-	-		-	-	-	st	-		-	-	NA	NA	-	a	
1116	Truite fumée	Smoked trout	st	st	st	st	/	-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD	-	b	
2922	Harengs fumés	Smoked herrings	st	st	st	-	/	-	-	-	st	st		-	-	NA	NA	-	b	
3793	Saumon fumé	Smoked salmon	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b	
3794	Saumon fumé	Smoked salmon	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		b	
3803	Saumon fumé	Smoked salmon	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA		b	
3804	Truite fumée	Smoked trout	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H+d/H-	+	<i>L.welshimeri</i>	+	+	PA	PA		b	
3805	Truite fumée	Smoked trout	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA		b	
3812	Truite fumée	Smoked trout	-	-	-	-		-	-	-	-	-		-	-	NA	NA	-	b	
3813	Saumon fumé	Smoked salmon	st	st	st	st		-	-	-	-	-		-	-	NA	NA	-	b	
3919	Truite de mer fumée	Smoked trout	H+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA		b	

FISH AND SEAFOOD

Sample number	Product (French name)	Product	ISO 11290-1/A1 method							ANSR for Listeria											Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method			
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)								
			LESS broth for 22 h at 30°C																		
3920	Saumon fumé d'Atlantique	Smoked salmon	H+/H-	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA		b		
3921	Saumon fumé bio	Smoked salmon	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA		b		
3922	Saumon fumé supérieur	Smoked salmon	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA		b		
3923	Truite de mer fumée	Smoked trout	H+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	+	H+	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA		b		
3929	Saumon fumé	Smoked salmon	st	st	-	-		-	-	-	-	-		-	-	NA	NA	-	b		
3930	Saumon fumé salé	Smoked salmon	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b		
5016	Saumon fumé	Smoked salmon	st	st	st	st		-	-	-	-	st		-	-	NA	NA	-	b		
5017	Harengs fumés au naturel	Smoked herrings	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b		
6954	Saumon fumé	Smoked salmon	st	st				-	-	-	-	-		-	-	NA	NA	-	b		
6955	Filets de harengs fumés	Smoked herring fillets	st	st				-	-	-	st	st		-	-	NA	NA	-	b		
1108	Terrine de saumon à l'aneth	RTE (Salmon terrine)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c		
1121	Batonnets saveur crabe	RTE (Surimi)	st	st	st	st	/	-	-	-	st	st		-	-	NA	NA	-	c		
2911	Colin d'Alaska en sauce	RTRH (fish)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c		
2912	Filet de bar sauce iodée	RTRH (fish)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c		
2923	Bâtonnets de surimi	RTE (Surimi)	st	st	st	st	/	-	-	-	st	st		-	-	NA	NA	-	c		
3229	Filet de cabillaud pané	RTRH (fish)	st	st	-	-		-	-	-	-	-		-	-	NA	NA	-	c		
3230	Boulette de saumon	RTRH (salmon)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c		
3233	Meunière de poisson blanc	RTRH (fish)	st	-	-	-		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		c		
3807	Surimi saveur crabe	RTE (Surimi)	st	st	-	-		-	i/-*	i/-*	-	-		-	-	NA	NA	-	c		
3808	Terrine de Saint Jacques	Scallops terrine	-	-	-	-		-	-	-	st	st		-	-	NA	NA	-	c		
3820	Merlu blanc pané	RTRH (fish)	-	-	H-/H+d	-	Gramm-	-	-	-	st	-		-	-	NA	NA	-	c		
3822	Paupiette de saumon	RTRH (salmon)	st	-	-	-		-	-	-	-	-		-	-	NA	NA	-	c		
3826	Sublime de Hoki	RTRH (fish)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c		
3916	Filet de bar cuisiné	RTRH fish	st	st	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	+	c		
4110	Tranche de colin pané	RTRH hake	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.welshimeri</i>	+	+	PA	PA	H-	c		
4113	Coquille de crabe	RTE crab	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	c		
4117	Brochette poisson pané cru	RTRH fish	H+/H-	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.innocua</i>	+	+	PA	PA		c		
4120	Filet de cabillaud en croute	RTRH cod	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c		
4127	Pavé de lieu sauce citron riz	RTRH fish	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c		
4128	Pavé de saumon purée de brocolis	RTRH salmon	st	-	-	-		-	-	-	st	st		-	-	NA	NA	-	c		
5782	Canapés au saumon	RTE (salmon)	-	-	-	-		-	-	-				-	-	NA	NA	-	c		
5783	Mini choux escargot	RTE (snails)	-	-	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c		
5786	Sole meunière au beurre	RTRH fish	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c		

FISH AND SEAFOOD

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for Listeria											Type
									LESS broth for 22 h at 30°C											
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method		
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
5787	Mini choux escargot	RTE (snails)	H+(1)	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	c		
5889	Salade du pêcheur	Deli salad (seafood)	-	-	-	-		-	-	st	-		-	-	NA	NA	-	c		
5890	Paupiette de saumon	RTC (salmon)	H-d(1)	-	-	-	Gram-	-	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD	-	c		
5891	Coquille bretonne	RTRH (scallops)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	H-d	+	-(Gram-)	-	-	ND	ND	-	c		
5892	Crevettes aromatisées	Seasoned shrimps	-	-	-	-		-	-	+(NC)/-	-		-	-	NA	PPNA	-	c		
5893	Brins de surimi	Surimi	st	st	st	st		-	-	st	st		-	-	NA	NA	-	c		

ENVIRONMENTAL SAMPLES

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for Listeria											Type
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			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
3237	Eau de process (végétaux)	Process water (vegetables)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	a	
3338	Eau de process (madeleine)	Process water (madeleine)	st	st	st	st		-	-	-	st	-		-	-	NA	NA	-	a	
3555	Eau de rinçage laveuse	Rinse water	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	a	
3556	Eau de rinçage peleuse	Rinse water	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	a	
3566	Eau de process épineuse	Process water	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	a	
3728	Eau de rinçage laveuse	Rinse water	H+/H-	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	a	
3729	Eau d'épineuse	Process water	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	a	
3730	Eau de rinçage cuve PDL	Rinse water	H+(3)	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	a	
3740	Eau de rinçage laveuse	Rinse water	H+/H-	+	H+/H-	+	<i>L.monocytogenes/ L.seeligeri</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	a	
3741	Eau épineuse	Process water	st	st	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	a	
3742	Eau de rinçage cuve PDL	Rinse water	H-	+	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA	-	a	
4845	Eau de rinçage filets peleuse (industrie poisson)	Process water (Salmon industry)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	a	
4846	Eau rampe de dessalage (industrie poisson)	Process water (Salmon industry)	st	st	st	st		-	-	+	st	st		-	-	NA	PPNA	-	a	
4847	Eau rinçage après décaissage (industrie poisson)	Process water (Salmon industry)	st	st	-	-		-	-	-	st	-		-	-	NA	NA	-	a	
4848	Eau fémia en cours de production (industrie légumes)	Process water (Salmon industry)	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	a	
4849	Eau rinçage entre 2 recettes (industrie légumes)	Process water (Salmon industry)	st	st	st	st		-	-	-	-	-		-	-	NA	NA	-	a	
4851	Eau rinçage entre 2 recettes (industrie légumes)	Process water (vegetables industry)	st	st	st	st		-	-	+	st	st	<i>L.innocua(72h)</i>	-	+	NA	PD	-	a	
5980	Eau pareuse (industrie poisson)	Process water (fish industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	+(NC)	-	st		-	-	ND	PPND	-	a	
5981	Eau épineuse (industrie poisson)	Process water (fish industry)	st	st	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	a	
5982	Eau peleuse (industrie poisson)	Process water (fish industry)	st	st	st	st		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD	-	a	
5983	Eau laveuse (industrie poisson)	Process water (fish industry)	st	st	st	st		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD	-	a	
6320	Eau de rinçage filets peleuse (industrie poisson)	Process water (fish industry)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	a	
6321	Eau rampe de dessalage (industrie poisson)	Process water (fish industry)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	a	
6322	Eau de rinçage après décaissage (industrie poisson)	Process water (fish industry)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	a	
3238	Déchets (végétaux)	Dusts (vegetables)	st	-	-	-		-	-	-	-	-		-	-	NA	NA	-	b	
3567	Déchets atelier filetage	Dusts	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
3731	Eau de siphon laiterie	Siphon water	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	st	st		-	-	ND	ND	-	b	
3743	Eau de siphon laiterie	Siphon water	H-(2)	+(1)	H-	+	<i>L.innocua</i>	+	+	+	H-	+	<i>L.innocua</i>	+	+	PA	PA	-	b	

ENVIRONMENTAL SAMPLES

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			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
4631	Filet en sortie de baadre (déchets saumon)	Wastes (salmon)	st	st	st	st		-	+	+	H-	+	<i>L.innocua</i>	+	+	PD	PD	-	b	
4632	Filets en sortie de désarêtage (déchets saumon)	Wastes (salmon)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	b	
4850	Matière sortie prélèvement (industrie légumes)	Wastes (vegetables industry)	-	-	-	-		-	-	-	st	st		-	-	NA	NA	-	b	
5018	Eau de siphon	Siphon water	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
5894	Déchets au sol haut filetage (industrie poisson)	Wastes (fish industry)	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.welshimeri</i>	+	+	PA	PA	-	b	
5895	Eau de siphon maturation/salage (industrie poisson)	Siphon water (fish industry)	-	-	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA	-	b	
5896	Déchets au sol bas filetage (industrie poisson)	Wastes (fish industry)	H-(2)	+	H-	+	<i>L.welshimeri</i>	+	-	-	-	-		-	-	ND	ND	-	b	
5897	Eau de siphon bas filetage (industrie poisson)	Siphon water (fish industry)	H+/H-	+	H+/H-	+	<i>L.innocua/ L.welshimeri/ L.monocytogenes</i>	+	+	+	H+/H-	+	<i>L.monocytogenes/ L.welshimeri</i>	+	+	PA	PA	-	b	
6121	Chiffonnette égout (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
6122	Chiffonnette égout sous balance (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	b	
6948	Déchets végétaux (industrie salades)	Wastes (vegetables industry)	-	-				-	-	-	-	-		-	-	NA	NA	-	b	
6949	Déchets végétaux (industrie salades)	Wastes (vegetables industry)	st	st				-	+(NC)-	+(NC)-	-	-		-	-	PPNA	PPNA	-	b	
6950	Poussières laiteries	Dusts (dairy industry)	-	-				-	i/i/-*	i/i/-*	-	-		-	-	NA	NA	-	b	
6951	Poussières laiteries	Dusts (dairy industry)	-	-				-	i/i/-*	i/i/-*	-	-		-	-	NA	NA	-	b	
6952	Poussières laiteries	Dusts (dairy industry)	-	-				-	i/i/-*	i/i/-*	-	-		-	-	NA	NA	-	b	
6953	Poussières laiteries	Dusts (dairy industry)	-	-				-	i/i/-*	i/i/-*	st	-		-	-	NA	NA	-	b	
3336	Chiffonnette avant rinçage (végétaux)	Wipe	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3337	Chiffonnette plan de travail (madeleine)	Wipe	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
3553	Lingette tapis ligne	Wipe	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3554	Lingette tapis ligne	Wipe	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3562	Lingette tapis parage	Wipe	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3563	Lingette tapis parage	Wipe	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3564	Lingette tapis déchets peulse	Wipe	st	st	st	st		-	i/i/-	i/i/-	st	st		-	-	NA	NA	-	c	
3565	Lingette atelier poussée tranchage	Wipe	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
3692	Chiffonnette tapis de parage après désinfection	Wipe	st	st	st	st		-	+	+	H-	+	<i>L.innocua</i>	+	+	PD	PD	-	c	
3693	Chiffonnette maille sortie parage	Wipe	H-(3)	+(4)	H-	+	<i>L.innocua</i>	+	-/-	+	H-	+	<i>L.innocua</i>	-	+	ND	PA	+	c	

ENVIRONMENTAL SAMPLES

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for Listeria											Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result		Confirmation			Final result Pooled samples	Final result Individual sample	Agreement Ref/Alt pooled	Agreement Ref/Alt individual	Reference method on Less broth of the alternative method		
			O&A agar	Palcam	O&A agar	Palcam			Pooled samples	Individual sample	O&A agar	Palcam	Confirmation tests (ISO)							
4841	Chiffonnette tapis sortie baadre (industrie poisson)	Wipe (salmon industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c	
4842	Chiffonnette égout sous balance (industrie poisson)	Wipe (salmon industry)	st	st	st	st		-	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PD	PD		c	
4843	Chiffonnette sol frigo (industrie poisson)	Wipe (salmon industry)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
4844	Chiffonnette peau saumon (industrie poisson)	Wipe (salmon industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	+(NC)	st	st		-	-	ND	PPND	-	c	
4852	Chiffonnette passe plat taboulé (industrie légumes)	Wipe (vegetables industry)	st	st	-	-		-	+(NC)	+(NC)	-	st		-	-	PPNA	PPNA	-	c	
4853	Chiffonnette intérieur chariot oignons surgelés (industrie légumes)	Wipe (vegetables industry)	st	st	-	-		-	-	-	-	-		-	-	NA	NA	-	c	
4854	Chiffonnette sol (industrie légumes)	Wipe (vegetables industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H+	+	<i>L.monocytogenes</i>	+	+	PA	PA		c	
4855	Chiffonnette sol (industrie légumes)	Wipe (vegetables industry)	st	st	-	-		-	-	-	st	st		-	-	NA	NA	-	c	
5019	Lingette après nettoyage	Wipe after cleaning	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
5898	Chiffonnette tapis déchets fileteuse (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	-	-	-		-	-	NA	NA	-	c	
5899	Chiffonnette tapis parage P1+ (industrie poisson)	Wipe (fish industry)	H-	+	H-	+	<i>L.welshimeri</i>	+	-	-	-	-		-	-	ND	ND	-	c	
5900	Chiffonnette tapis parage n°2 (industrie poisson)	Wipe (fish industry)	st	-	st	st		-	-	-	-	-		-	-	NA	NA	-	c	
5901	Chiffonnette tapis épineuse (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	+(NC)/+(NC)/-	st	st		-	-	NA	PPNA	-	c	
5902	Chiffonnette tapis parage n°1 (industrie poisson)	Wipe (fish industry)	H-	+	H-	+	<i>L.welshimeri</i>	+	+	+	H-	+	<i>L.welshimeri</i>	+	+	PA	PA		c	
5984	Chiffonnette tapis déchets peuseuse (industrie poisson)	Wipe (fish industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	+	H-	+	<i>L.welshimeri</i>	+	+	PA	PA		c	
5985	Chiffonnette tapis trancheur ligne (industrie poisson)	Wipe (fish industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	st	st		-	-	ND	ND	-	c	
5986	Chiffonnette tapis pareuse (industrie poisson)	Wipe (fish industry)	H+(2)	+(1)	H+	+	<i>L.monocytogenes</i>	+	-	-	st	st		-	-	ND	ND	-	c	
6119	Chiffonnette réservoir inox (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
6120	Chiffonnette grille inox entêteuse	Wipe (fish industry)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
6318	Chiffonnette atelier plan de travail (fabrication madeleine)	Wipe (pastry industry)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	
6319	Chiffonnette égout sous balance (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	-	st	st		-	-	NA	NA	-	c	

COMPOSITE FOODS READY-TO-EAT AND READY-TO-REHEAT

Sample number	Product (French name)	Product	ISO 11290-1/A1 method					ANSR for <i>Listeria</i>					Type	
			Half Fraser		Fraser 1		Identification	Listeria spp result	After enrichment broth storage for 72h at 2-8°C					
			O&A agar	Palcam	O&A agar	Palcam			ANSR result Individual sample	Confirmation		Final result 72h		Agreement Ref/Alt 72h
							O&A agar	Palcam						
1105	Piémontaise au jambon	RTE (vegetables ham)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
2903	Sandwich Bacon Tomate œuf sauce yaourt	Sandwich (bacon)	st	-	-	-	/	-	+	H+	+	+	PD	a
2904	Sandwich jambon fumé œuf mimosa crudités	Sandwich (ham)	st	st	-	-	/	-	+	H+	+	+	PD	a
3231	Sandwich au thon	RTE Sandwich (tuna)	H+	+(2)	H+	+	<i>L.monocytogenes</i>	+	i/-	-	-	-	ND	a
3735	Sandwich jambon -fromage-salade	Sandwich (ham-cheese)	-	-	-	-		-	+	H-	+	+	PD	a
3914	Sandwich duo de saumon	Sandwich (salmon)	-	-	-	-		-	+/+/+	H+	+	+	PD	a
4600	Sandwich thon, tomate œuf	Sandwich (tuna, tomato, egg)	st	st	-	-		-	+	H+	+	+	PD	a
4601	Sandwich duo saumon	Sandwich (salmon)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
5788	Wraps au saumon	RTE (salmon)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	st	st	-	ND	a
1117	Croissant jambon emmental	RTRH (cheese ham)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	st	st	-	ND	b
1981	Tortilla oignons	RTRH (egg and onion)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	b
1982	Moussaka	RTRHG (Moussaka)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	b
1989	Pizza jambon emmental	RTRH (Pizza)	-	-	-	-	/	-		st	st	-	NA	b
2914	Bœuf bourguignon	RTRH (beef)	st	st	st	st	/	-	+	st	st	-	NA	b
3318	Baguette gratinée jambon emmental	RTRH (ham cheese)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	b
3321	Mélange poulet tomates marinées	RTRH (chicken tomatoes)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	b
3325	Croque Monsieur	RTRH (croque monsieur)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	b
3442	Quiche Lorraine	RTRH (quiche Lorraine)	st	st	-	-		-	+	H+	+	+	PD	b
3443	Pizza chèvre lardons	RTRH (Pizza)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	st	-	-	ND	b
3444	Hachis Parmentier	RTRH (hachis parmentier)	st	st	-	-		-	+	H+	+	+	PD	b
3445	Macaronis tomates boulettes de bœuf	RTRH (macaronis beef)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	b
3446	Lasagnes à la bolognaise	RTRH (lasagnes)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	st	st	-	ND	b
3547	Maxi Croque-monsieur	RTRH (croque monsieur)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	b
3721	Pizza jambon fromage	RTRH (Pizza)	H-d	+d	-	-		-	+	H+	+	+	PD	b
3733	Pizza jambon-fromage	RTRH (pizza)	-	+d	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	b
4599	Panier chèvre épinards	RTRH	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	b
4613	Pizza au saumon	Pizza	H-	+(2)	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	b
2916	Crème anglaise	Custard	st	st	st	st	/	-		st	st	-	NA	c
2917	Crème anglaise	Custard	st	st	st	st	/	-		st	st	-	NA	c
3322	Flan	Pastries	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
3441	Jaune d'œuf liquide pasteurisé	Pasteurized liquid yellow egg	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	st	st	-	ND	c
3799	Crêpes sucrées	Pancakes	-	-	-	-		-	-	st	st	-	NA	c
4112	Flan pâtissier	Custard (dessert)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
4400	Tarte aux pommes	Apple pie	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	c
4403	Tartelette fruit	Fruit tart	-	-	-	-		-	+	+d(2) (NC)	-	-	PPNA	c
4993	Tortilla nature	Tortilla	H-	+	H-	+	<i>L.welshimeri</i>	+	+	st	st	-	PPND	c
4994	Tortilla nature	Tortilla	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	c
4995	Tortilla oignons	Tortilla with onions	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	c
4996	Tortilla nature	Tortilla	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	c

MEAT PRODUCTS

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for <i>Listeria</i>					Type
									After enrichment broth storage for 72h at 2-8°C					
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result Individual sample	Confirmation		Final result 72h	Agreement Ref/Alt 72h	
			O&A agar	Palcam	O&A agar	Palcam				O&A agar	Palcam			
1115	Côte de porc	Pork meat	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
2906	Viande de poulet congelée	Frozen poultry meat	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+/H-	+	+	PA	a
2907	Viande rouge cuisée de dinde	Turkey meat	H+/H-	+	H+/H-	+	<i>L.monocytogenes/L.welshimeri</i>	+	+	H+/H-	+	+	PA	a
2908	Viande de poulet congelée	Frozen poultry meat	H+/H-	+	H+/H-	+	<i>L.monocytogenes/L.welshimeri</i>	+	+	H+/H-	+	+	PA	a
3227	Rôti de dinde	Turkey meat	H+/H-	+	H+	+	<i>L.monocytogenes/L.welshimeri</i>	+	+	H+	+	+	PA	a
3228	Viande de poulet congelée	Frozen chicken meat	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+/H-	+	+	PA	a
3796	Filets mignon congelés	Frozen pork meat	-	-	-	-		-	+	H+	+	+	PD	a
3824	Sauté de dinde cru	Turkey meat	H-d	+d	H-	+d	<i>L.welshimeri</i>	+	+	H+	+	+	PA	a
3830	Viande de poulet congelée	Chicken meat	H+/H-	+	H+/H-	+d	<i>L.monocytogenes/L.innocua</i>	+	+	H+/H-	+	+	PA	a
4118	Viande de blanc de poulet	Raw chicken meat	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+/H-	+	+	PA	a
4121	Sauté de dinde nature	Raw turkey meat	H+/H-	+	H+	+	<i>L.monocytogenes/L.welshimeri</i>	+	-/+	H-	+	-	ND	a
4627	Steak haché	Ground beef	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	a
4628	Faux filet	Beef trim	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	a
5532	Hachés de veau	Ground veal	H-	+	H-	+	<i>L.innocua/L.welshimeri</i>	+	+	H+/H-	+	+	PA	a
5533	Escalope fine de poulet	Chicken meat	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	st	st	-	ND	a
5534	Viande bovine rumsteak	Beef trim	H-	+	H-	+	<i>L.innocua/L.welshimeri</i>	+	+	H-	+	+	PA	a
5535	Viande de porc	Pork meat	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	a
3683	Spaghetti bolognaise	RTRH (seasoned pasta)	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	b
3684	Cordon bleu de dinde et coquillettes	RTRH (turkey)	H-	+	H-	+	<i>L.innocua</i>	+	i/+*	H-	+	+	PA	b
3685	Courgettes farcies	RTRH (zucchini-pork)	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	b
3686	Osso bucco de dinde	RTRH (turkey)	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	b
3720	Bœuf bourguignon	RTRH (Bourguignon)	st	st	st	st		-	+	H+	+	+	PD	b
3734	Hachis Parmentier	RTRH (hachis parmentier)	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	b
4619	Nuggets de dinde	Turkey nuggets	st	-	-	-		-	+	H+	+	+	PD	b
1106	Rillettes de porc	Rillettes	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
1983	Bacon	Bacon	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
2915	Jambon cuit supérieur	Ham	st	st	st	st	/	-		st	st	-	NA	c
3236	Emincés de dinde marinés	Marinated turkey	-	-	-	-		-	+	H-	+	+	PD	c
3795	Pâté de veau	Veal pâté	st	st	st	st		-	+	st	st	+	PD	c
3797	Côte de porc thym romarin	Seasoned pork	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
3800	Fromage de tête aux herbes	Cooked delicatessen	st	-	st	-		-	-	st	st	-	NA	c
3801	Saucisses	Sausages	st	-	st	-		-	-	st	-	-	NA	c
3802	Jambon à l'ancienne	Ham	st	st	st	st		-	i/+	H+	+	+	PD	c
3806	Jambon à l'ancienne	Ham	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
3912	Rillettes	Rillettes	-	st	st	st		-	+	H-d	-	+	PD	c
4616	Rillettes	Rillettes	-	st	st	st		-	+	-	-	-	PPNA	c

MILK AND DAIRY PRODUCTS

Sample number	Product (French name)	Product	ISO 11290-1/A1 method					ANSR for <i>Listeria</i>					Type	
								After enrichment broth storage for 72h at 2-8°C						
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result Individual sample	Confirmation		Final result 72h		Agreement Ref/Alt 72h
			O&A agar	Palcam	O&A agar	Palcam				O&A agar	Palcam			
3736	Leerdammer	Cheese	st	-	st	-	-	+	H+	+	+	PD	a	
3829	Fourme d'Ambert	Cheese	-	-	-	-	-	-	st	st	-	NA	a	
4997	Saint Nectaire au lait cru	Raw milk cheese	-	-	st	st	-	+	H-	+	+	PD	a	
4998	Rocamadour au lait cru	Raw milk cheese	H-	+	H-	+	<i>L.innocua</i>	+	H-	+	+	PA	a	
5000	Selles sur cher au lait cru	Raw milk cheese	H-	+	H-	+d	<i>L.seeligeri</i>	+	-	-	-	PPND	a	
5003	Roquefort au lait cru	Raw milk cheese	H-(1)	+(3)	H-	+	<i>L.welshimeri</i>	+	-	-	-	ND	a	
5004	Reblochon au lait cru	Raw milk cheese	H-	+	H-	+	<i>L.innocua</i>	+	H-	+	+	PA	a	
5005	Selles sur cher au lait cru	Raw milk cheese	H+	-	H+	-	<i>L.ivanovii</i>	+	-	-	-	ND	a	
5511	Maroilles au lait cru	Raw milk cheese	st	-	st	-	-	+	H-	+	+	PD	a	
6246	Fromage affiné au lait cru de brebis	Raw ewe milk cheese	-	-	-	-	-	+	H+	+	+	PD	a	
6247	Fromage affiné au lait cru de brebis	Raw ewe milk cheese	H+(5)	+(1)	H+	+	<i>L.monocytogenes</i>	+	H+	+	+	PA	a	
1110	Lait ribot	Fermented milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	H+	+	+	PA	b	
1986	Lait de brebis	Sheep milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	H+	+	+	PA	b	
1987	Lait de brebis	Sheep milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	H+	+	+	PA	b	
1988	Lait de brebis	Sheep milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	H+	+	+	PA	b	
3326	Lait de brebis	Sheep milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	H+	+	+	PA	b	
3327	Lait de brebis	Sheep milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	H+	+	+	PA	b	
3548	Lait fermenté	Fermented milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	st	st	-	ND	b	
3549	Lait fermenté	Fermented milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	H+(3)	+(3)	+	PA	b	
3550	Lait ribot	Fermented milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	H+	+	+	PA	b	
3832	lait de brebis	Ewe milk	st	-	-	-	-	+	H+	+	+	PD	b	
4122	Lait cru de brebis	Raw ewe milk	st	-	-	-	-	+/i/+	-	st	-	NA	b	
4123	Lait cru de brebis	Raw ewe milk	H+/H-	+	H+/H-	+	<i>L.monocytogenes/L.innocua</i>	+	i+/+	H+	+	PA	b	
1111	Lait entier pasteurisé	Pasteurized milk	H+	+	H+	+	<i>L.monocytogenes</i>	+	H+	+	+	PA	c	
1979	Panna cotta caramel	Panna cotta	H+	+	H+	+	<i>L.monocytogenes</i>	+	i/*/*/*/*	st	st	-	ND	c
3688	Brie	Pasteurized cheese	H+d	+	H+	+	<i>L.ivanovii</i>	+	H+	+	+	PA	c	
3689	Fromage de brebis pasteurisé	Pasteurized cheese	st	-	H+	+	<i>L.innocua</i>	+	H+	+	+	PA	c	
3724	Fromage pasteurisé de vache	Pasteurized cheese	-	-	-	-	-	+	H+	+	+	PD	c	
3725	Brie pasteurisé	Pasteurized cheese	H+	+	H+	+	<i>L.monocytogenes</i>	+	H+	+	+	PA	c	
3726	Fromage pasteurisé de vache	Pasteurized cheese	st	-	-	-	-	+	H+	+	+	PD	c	
3727	Camembert au lait pasteurisé	Pasteurized cheese	st	+	H+	+	<i>L.monocytogenes</i>	+	H+	+	+	PA	c	
3739	Camembert au lait pasteurisé	Pasteurized cheese	st	st	st	st	-	+	H-d	+	+	PD	c	
4404	Camembert pasteurisé	Pasteurized cheese	H-d	+d	H-	+	<i>L.seeligeri</i>	+	st	-	-	ND	c	

VEGETABLES

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for <i>Listeria</i>					Type
									After enrichment broth storage for 72h at 2-8°C					
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result Individual sample	Confirmation		Final result 72h	Agreement Ref/Alt 72h	
			O&A agar	Palcam	O&A agar	Palcam				O&A agar	Palcam			
1122	Jeunes pousses	Baby leaves	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
3328	Pousses d'épinards	Baby leaves	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	a
3917	Fenouil	Fenouil	H+	+d	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
3926	Tendres pousses	Baby leaves	-	-	-	-		-	+	H- d(<i>L.seeligeri</i>)	+d	+	PD	a
4111	Petits pois très fins	Peas	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	a
4415	Pousses d'épinards	Spinach	H-	+	H-	+	<i>L.innocua</i>	+	+	H-d	+	+	PA	a
4416	Pousses d'épinards	Spinach	-	-	-	-		-	+	-	-	-	PPNA	a
4417	Pousses d'épinards	Spinach	H-d	+	H-	+	<i>L.innocua</i>	+	+	-	-	-	PPND	a
4418	Pousses d'épinards	Spinach	-	-	H-d	+d	<i>L.seeligeri</i>	+	+	-	-	+	PA	a
4622	Dés de courgettes crues	Zucchini cubes	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
5007	Haricots plats surgelés	Frozen flat beans	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	a
5008	Épinards hachés surgelés	Frozen spinach	-	-	-	-		-	+	H-	+	+	PD	a
5011	Poêlée champêtre surgelée	Frozen RTC vegetables	-	-	-	-		-	+	H-	+	+	PD	a
1119	Carottes en rondelles	Sliced carrots	st	st	st	st	/	-	-	st	st	-	NA	b
3232	Pommes de terre à la salaraise	RTRH vegetables	-	-	-	-		-	+	H+	+	+	PD	b
3798	Oignons frits	Fried onions	st	-	-	-		-	+	H+d	+	+	PD	b
3821	Poêlée de pommes de terre aux oignons	RTRH vegetables	st	-	-	-		-	+	H+	+	+	PD	b
3924	Oignons pré-frits surgelés	Frozen pre-cooked oignon	st	st	H-	+	<i>L.innocua</i>	+	+	-	+	+	PA	b
3925	Champignons émincés surgelés	Frozen pre-cooked mushrooms	st	-	H-	+	<i>L.innocua</i>	+	+	H+/H-	+	+	PA	b
4413	Mélange de légumes	Mixed vegetables	H-	+	H-	+	<i>L.innocua</i>	+	-	st	st	-	ND	b
4414	Mélange de légumes	Mixed vegetables	st	+d	H-d	+d	<i>L.seeligeri</i>	+	+	H-	+	+	PA	b
4421	Mélange de légumes	Mixed vegetables	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	b
5009	Assiette croquante (chou, carottes, poivron)	Vegetable mix	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	b
1984	Macédoine de légumes	RTE (Macedoine)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
1985	Carottes râpées	RTE (Grated carrots)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
2920	Macédoine de légumes	RTE (Macedoine)	st	st	-	-	/	-		-	-	-	NA	c
3690	Macédoine de légumes	RTE (Macedoine)	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	c
3691	Coleslaw	RTE (Coleslaw)	st	-	-	-		-	+	H-	+	+	PD	c
3823	Palets épinards chèvre	RTE (Spinach-cheese)	st	-	-	-		-	+	H+	+	+	PD	c
3918	Galette de blé noir	RTE galette	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
4407	Coleslaw	RTE (Coleslaw)	st	-	-	-		-	+	H-	+	+	PD	c
4408	Macédoine	RTE (Macedoine)	H-	+	H-	+d	<i>L.seeligeri</i>	+	-	-	-	-	ND	c
4410	Céleri rémoulade	RTE (Celery)	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	c
5012	Concombre à la crème	Deli salad (concomber)	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	c
5013	Macédoine de légumes	Deli salad (vegetables mix)	H-	+	H-	+	<i>L.welshimeri</i>	+	-	-	-	-	ND	c

FISH AND SEAFOOD

Sample number	Product (French name)	Product	ISO 11290-1/A1 method					ANSR for <i>Listeria</i>					Type	
								After enrichment broth storage for 72h at 2-8°C						
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result Individual sample	Confirmation		Final result 72h		Agreement Ref/Alt 72h
			O&A agar	Palcam	O&A agar	Palcam				O&A agar	Palcam			
1112	Filet de lieu noir	Fresh raw fish	st	-	st	-	/	-	+	H+	+	+	PD	a
3828	Aiguillettes de Cabillaud	Fish fillet	H+d/H-	+	H+d/H-	+	<i>L.innocua</i>	+	+	H+/H-	+	+	PA	a
3913	Paupiette de saumon	RTRH salmon	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+/H-	+	+	PA	a
4116	Filet de bar	Fish fillet	-	st	H+	+	<i>L.monocytogenes</i>	+	+	-	-	-	PPND	a
4119	Paupiette de saumon	RTRH salmon	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
4124	Filet de Flétan surgelé	Frozen fish fillet	H+/H-d	+	H+/H-	+	<i>L.monocytogenes/L.innocua</i>	+	+	H+/H-	+	+	PA	a
5522	Filet de panga	Fish fillet	H+/H-	+	H+/H-	+	<i>L.monocytogenes/L.innocua</i>	+	+	H+/H-	+	+	PA	a
5531	Filet de flétan	Fish fillet	H-	+	H-	+	<i>L.innocua/L.welshimeri/L.monocytogenes</i>	+	+	H+	+	+	PA	a
1116	Truite fumée	Smoked trout	st	st	st	st	/	-	+/+/+	st	st	-	PPNA	b
2922	Harengs fumés	Smoked herrings	st	st	st	-	/	-		st	st	-	NA	b
3793	Saumon fumé	Smoked salmon	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	b
3794	Saumon fumé	Smoked salmon	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	b
3803	Saumon fumé	Smoked salmon	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H+/H-	+	+	PA	b
3804	Truite fumée	Smoked trout	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	b
3805	Truite fumée	Smoked trout	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	b
3919	Truite de mer fumée	Smoked trout	H+	+	H+/H-	+	<i>L.monocytogenes/L.welshimeri</i>	+	+	H+(1)	st	+	PA	b
3920	Saumon fumé d'Atlantique	Smoked salmon	H+/H-	+	H+/H-	+	<i>L.monocytogenes/L.welshimeri</i>	+	+	H+/H-	+	+	PA	b
3921	Saumon fumé bio	Smoked salmon	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	b
3922	Saumon fumé supérieur	Smoked salmon	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H+(1)	+(2)	+	PA	b
3923	Truite de mer fumée	Smoked trout	H+	+	H+/H-	+	<i>L.monocytogenes/L.welshimeri</i>	+	+	H+/H-	+	+	PA	b
1108	Terrine de saumon à l'aneth	RTE (Salmon terrine)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
2911	Colin d'Alaska en sauce	RTRH (fish)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
2912	Filet de bar sauce iodée	RTRH (fish)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+/H-	+	+	PA	c
3233	Meunière de poisson blanc	RTRH (fish)	st	-	-	-		-	+	H+	+	+	PD	c
3916	Filet de bar cuisiné	RTRH fish	st	st	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
4110	Tranche de colin pané	RTRH hake	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	c
4117	Brochette poisson pané cru	RTRH fish	H+/H-	+	H+/H-	+	<i>L.monocytogenes/L.innocua</i>	+	+	H+/H-	+	+	PA	c
4120	Filet de cabillaud en croute	RTRH cod	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
5783	Mini choux escargot	RTE (snails)	-	-	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
5786	Sole meunière au beurre	RTRH fish	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
5787	Mini choux escargot	RTE (snails)	H+(1)	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
5890	Paupiette de saumon	RTC (salmon)	H-d(1)	-	-	-	Gram-	-	+	H+	+	+	PD	c
5891	Coquille bretonne	RTRH (scallops)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+/--	-	-	-	PPND	c

ENVIRONMENTAL SAMPLES

Sample number	Product (French name)	Product	ISO 11290-1/A1 method						ANSR for <i>Listeria</i>					Type
									After enrichment broth storage for 72h at 2-8°C					
			Half Fraser		Fraser 1		Identification	Listeria spp result	ANSR result Individual sample	Confirmation		Final result 72h	Agreement Ref/Alt 72h	
			O&A agar	Palcam	O&A agar	Palcam				O&A agar	Palcam			
3556	Eau de rinçage peleuse	Rinse water	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
3728	Eau de rinçage laveuse	Rinse water	H+/H-	+	H+/H-	+	<i>L.monocytogenes/L.welshimeri</i>	+	+	H+/H- (<i>L.welshimerii</i>)	+	+	PA	a
3729	Eau d'épineuse	Process water	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
3730	Eau de rinçage cuve PDL	Rinse water	H+(3)	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
3740	Eau de rinçage laveuse	Rinse water	H+/H-	+	H+/H-	+	<i>L.monocytogenes/L.seeligeri</i>	+	+	H+/H- (<i>L.welshimerii</i>)	+	+	PA	a
3741	Eau épineuse	Process water	st	st	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
3742	Eau de rinçage cuve PDL	Rinse water	H-	+	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	a
4846	Eau rampe de dessalage (industrie poisson)	Process water (Salmon industry)	st	st	st	st		-	+	st	st	-	PPNA	a
4851	Eau rinçage entre 2 recettes (industrie légumes)	Process water (vegetables industry)	st	st	st	st		-	-	st	st	-	NA	a
5980	Eau pareuse (industrie poisson)	Process water (fish industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	-	-	-	-	ND	a
5981	Eau épineuse (industrie poisson)	Process water (fish industry)	st	st	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	a
5982	Eau peleuse (industrie poisson)	Process water (fish industry)	st	st	st	st		-	+	H+	+	+	PD	a
5983	Eau laveuse (industrie poisson)	Process water (fish industry)	st	st	st	st		-	+	H+	+	+	PD	a
3731	Eau de siphon laiterie	Siphon water	H+	+	H+	+	<i>L.monocytogenes</i>	+	i/-/	st	st	-	ND	b
3743	Eau de siphon laiterie	Siphon water	H-(2)	+(1)	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	b
4631	Filet en sortie de baadre (déchets saumon)	Wastes (salmon)	st	st	st	st		-	+	H-	+	+	PD	b
4632	Filets en sortie de désarêtage (déchets saumon)	Wastes (salmon)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	b
5894	Déchets au sol haut filetage (industrie poisson)	Wastes (fish industry)	H-	+	H-	+	<i>L.welshimeri</i>	+	-/+	H-	+	-	ND	b
5895	Eau de siphon maturation/salage (industrie poisson)	Siphon water (fish industry)	-	-	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	b
5896	Déchets au sol bas filetage (industrie poisson)	Wastes (fish industry)	H-(2)	+	H-	+	<i>L.welshimeri</i>	+	-	st	st	-	ND	b
5897	Eau de siphon bas filetage (industrie poisson)	Siphon water (fish industry)	H+/H-	+	H+/H-	+	<i>L.innocua/L.welshimeri/L.monocytogenes</i>	+	+	H+/H-	+	+	PA	b
3692	Chiffonnette tapis de parage après désinfection	Wipe	st	st	st	st		-	+	H-	+	+	PD	c
3693	Chiffonnette maille sortie parage	Wipe	H-(3)	+(4)	H-	+	<i>L.innocua</i>	+	+	H-	+	+	PA	c
4841	Chiffonnette tapis sortie baadre (industrie poisson)	Wipe (salmon industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
4842	Chiffonnette égout sous balance (industrie poisson)	Wipe (salmon industry)	st	st	st	st		-	+	H+	+	+	PD	c
4844	Chiffonnette peau saumon (industrie poisson)	Wipe (salmon industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	st	st	-	PPND	c
4852	Chiffonnette passe plat taboulé (industrie légumes)	Wipe (vegetables industry)	st	st	-	-		-	-	st	st	-	NA	c
4854	Chiffonnette sol (industrie légumes)	Wipe (vegetables industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H+	+	+	PA	c
5899	Chiffonnette tapis parage P1+ (industrie poisson)	Wipe (fish industry)	H-	+	H-	+	<i>L.welshimeri</i>	+	+	-	-	-	PPND	c
5902	Chiffonnette tapis parage n°1 (industrie poisson)	Wipe (fish industry)	H-	+	H-	+	<i>L.welshimeri</i>	+	+	H-	+	+	PA	c
5984	Chiffonnette tapis déchets peleuse (industrie poisson)	Wipe (fish industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+	H-	+	+	PA	c
5985	Chiffonnette tapis trancheur ligne (industrie poisson)	Wipe (fish industry)	H+	+	H+	+	<i>L.monocytogenes</i>	+	+(NC)	st	st	-	PPND	c
5986	Chiffonnette tapis pareuse (industrie poisson)	Wipe (fish industry)	H+(2)	+(1)	H+	+	<i>L.monocytogenes</i>	+	+(NC)	st	st	-	PPND	c

Appendix E - Pooled samples

Category		Type
1	Composite foods ready-to-eat and ready-to-reheat	a Ready-to-eat b Ready-to-reheat c Confectionaries, pastries and egg products
2	Meat products	a Raw products (frozen or fresh) b Meat based products ready-to-reheat c Raw and cooked delicatessen
3	Milk and dairy products	a Raw milk cheeses b Other products based on raw milks c Heat treated dairy products
4	Vegetables	a Raw products (fresh and frozen) b Pre-cooked vegetables, vegetables under modified atmosphere c Ready-to-eat
5	Fish and seafood	a Raw products (fresh and frozen) b Cured and smoked c Ready-to-eat, ready-to-reheat
6	Environmental samples	a Process & cleaning water b Dusts and residues c Surface sampling

N° Positive sample	N° negative samples								
	1	2	3	4	5	6	7	8	9
1105	1104 (c)	1107 (a)	1109 (c)	1113 (a)	1114 (a)	1118 (b)	1119 (b)	1120 (a)	1121 (c)
1106	1104 (c)	1107 (a)	1109 (c)	1113 (a)	1114 (a)	1118 (b)	1119 (b)	1120 (a)	1121 (c)
1108	1104 (c)	1107 (a)	1109 (c)	1113 (a)	1114 (a)	1118 (b)	1119 (b)	1120 (a)	1121 (c)
1110	1104 (c)	1107 (a)	1109 (c)	1113 (a)	1114 (a)	1118 (b)	1119 (b)	1120 (a)	1121 (c)
1111	1104 (c)	1107 (a)	1109 (c)	1113 (a)	1114 (a)	1118 (b)	1119 (b)	1120 (a)	1121 (c)
1112	1104 (c)	1107 (a)	1109 (c)	1113 (a)	1114 (a)	1118 (b)	1119 (b)	1120 (a)	1121 (c)
1115	1104 (c)	1107 (a)	1109 (c)	1113 (a)	1114 (a)	1118 (b)	1119 (b)	1120 (a)	1121 (c)
1116	1104 (c)	1107 (a)	1109 (c)	1113 (a)	1114 (a)	1118 (b)	1119 (b)	1120 (a)	1121 (c)
1122	1104 (c)	1107 (a)	1109 (c)	1113 (a)	1114 (a)	1118 (b)	1119 (b)	1120 (a)	1121 (c)
1981	1989 (b)	1990 (b)	1991 (b)	1992 (c)	1993 (c)	1994 (c)	1995 (c)	1996 (a)	1997 (a)
1982	1989 (b)	1990 (b)	1991 (b)	1992 (c)	1993 (c)	1994 (c)	1995 (c)	1996 (a)	1997 (a)
1983	1989 (b)	1990 (b)	1991 (b)	1992 (c)	1993 (c)	1994 (c)	1995 (c)	1996 (a)	1997 (a)
1984	1989 (b)	1990 (b)	1991 (b)	1992 (c)	1993 (c)	1994 (c)	1995 (c)	1996 (a)	1997 (a)
1985	1989 (b)	1990 (b)	1991 (b)	1992 (c)	1993 (c)	1994 (c)	1995 (c)	1996 (a)	1997 (a)
1986	1989 (b)	1990 (b)	1991 (b)	1992 (c)	1993 (c)	1994 (c)	1995 (c)	1996 (a)	1997 (a)
1987	1989 (b)	1990 (b)	1991 (b)	1992 (c)	1993 (c)	1994 (c)	1995 (c)	1996 (a)	1997 (a)
1988	1989 (b)	1990 (b)	1991 (b)	1992 (c)	1993 (c)	1994 (c)	1995 (c)	1996 (a)	1997 (a)
2903	2913 (b)	2915 (c)	2916 (c)	2918 (b)	2919 (b)	2920 (c)	2921 (c)	2922 (b)	2923 (c)
2904	2913 (b)	2915 (c)	2916 (c)	2918 (b)	2919 (b)	2920 (c)	2921 (c)	2922 (b)	2923 (c)
2906	2913 (b)	2915 (c)	2916 (c)	2918 (b)	2919 (b)	2920 (c)	2921 (c)	2922 (b)	2923 (c)
2907	2913 (b)	2915 (c)	2916 (c)	2918 (b)	2919 (b)	2920 (c)	2921 (c)	2922 (b)	2923 (c)
2908	2913 (b)	2915 (c)	2916 (c)	2918 (b)	2919 (b)	2920 (c)	2921 (c)	2922 (b)	2923 (c)
2911	2913 (b)	2915 (c)	2916 (c)	2918 (b)	2919 (b)	2920 (c)	2921 (c)	2922 (b)	2923 (c)
2912	2913 (b)	2915 (c)	2916 (c)	2918 (b)	2919 (b)	2920 (c)	2921 (c)	2922 (b)	2923 (c)

N° Positive sample	N° negative samples								
	1	2	3	4	5	6	7	8	9
3227	3237 (a)	3238 (b)	3239 (a)	3240 (a)	3241 (a)	3242 (a)	3243 (b)	3244 (b)	3245 (c)
3228	3237 (a)	3238 (b)	3239 (a)	3240 (a)	3241 (a)	3242 (a)	3243 (b)	3244 (b)	3245 (c)
3232	3237 (a)	3238 (b)	3239 (a)	3240 (a)	3241 (a)	3242 (a)	3243 (b)	3244 (b)	3245 (c)
3233	3237 (a)	3238 (b)	3239 (a)	3240 (a)	3241 (a)	3242 (a)	3243 (b)	3244 (b)	3245 (c)
3236	3237 (a)	3238 (b)	3239 (a)	3240 (a)	3241 (a)	3242 (a)	3243 (b)	3244 (b)	3245 (c)
3318	3329 (a)	3330 (c)	3331 (c)	3332 (c)	3333 (a)	3334 (c)	3335 (c)	3336 (c)	3337 (c)
3321	3329 (a)	3330 (c)	3331 (c)	3332 (c)	3333 (a)	3334 (c)	3335 (c)	3336 (c)	3337 (c)
3322	3329 (a)	3330 (c)	3331 (c)	3332 (c)	3333 (a)	3334 (c)	3335 (c)	3336 (c)	3337 (c)
3325	3329 (a)	3330 (c)	3331 (c)	3332 (c)	3333 (a)	3334 (c)	3335 (c)	3336 (c)	3337 (c)
3326	3329 (a)	3330 (c)	3331 (c)	3332 (c)	3333 (a)	3334 (c)	3335 (c)	3336 (c)	3337 (c)
3327	3329 (a)	3330 (c)	3331 (c)	3332 (c)	3333 (a)	3334 (c)	3335 (c)	3336 (c)	3337 (c)
3328	3329 (a)	3330 (c)	3331 (c)	3332 (c)	3333 (a)	3334 (c)	3335 (c)	3336 (c)	3337 (c)
3442	3450 (c)	3451 (c)	3454 (b)	3455 (b)	3456 (c)	3457 (b)	3458 (b)	3459 (b)	3460 (c)
3444	3450 (c)	3451 (c)	3454 (b)	3455 (b)	3456 (c)	3457 (b)	3458 (b)	3459 (b)	3460 (c)
3445	3450 (c)	3451 (c)	3454 (b)	3455 (b)	3456 (c)	3457 (b)	3458 (b)	3459 (b)	3460 (c)
3547	3557 (b)	3558 (b)	3559 (b)	3560 (b)	3561 (b)	3562 (c)	3563 (c)	3565 (c)	3566 (c)
3550	3557 (b)	3558 (b)	3559 (b)	3560 (b)	3561 (b)	3562 (c)	3563 (c)	3565 (c)	3566 (c)
3556	3557 (b)	3558 (b)	3559 (b)	3560 (b)	3561 (b)	3562 (c)	3563 (c)	3565 (c)	3566 (c)
3683	3695 (b)	3696 (b)	3696 (b)	3697 (b)	3698 (c)	3699 (c)	3700 (c)	3701 (c)	3702 (c)
3684	3695 (b)	3696 (b)	3696 (b)	3697 (b)	3698 (c)	3699 (c)	3700 (c)	3701 (c)	3702 (c)
3685	3695 (b)	3696 (b)	3696 (b)	3697 (b)	3698 (c)	3699 (c)	3700 (c)	3701 (c)	3702 (c)
3686	3695 (b)	3696 (b)	3696 (b)	3697 (b)	3698 (c)	3699 (c)	3700 (c)	3701 (c)	3702 (c)
3688	3695 (b)	3696 (b)	3696 (b)	3697 (b)	3698 (c)	3699 (c)	3700 (c)	3701 (c)	3702 (c)
3689	3695 (b)	3696 (b)	3696 (b)	3697 (b)	3698 (c)	3699 (c)	3700 (c)	3701 (c)	3702 (c)
3690	3695 (b)	3696 (b)	3696 (b)	3697 (b)	3698 (c)	3699 (c)	3700 (c)	3701 (c)	3702 (c)
3691	3695 (b)	3696 (b)	3696 (b)	3697 (b)	3698 (c)	3699 (c)	3700 (c)	3701 (c)	3702 (c)
3692	3695 (b)	3696 (b)	3696 (b)	3697 (b)	3698 (c)	3699 (c)	3700 (c)	3701 (c)	3702 (c)
3693	3695 (b)	3696 (b)	3696 (b)	3697 (b)	3698 (c)	3699 (c)	3700 (c)	3701 (c)	3702 (c)
3720	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3721	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3724	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3725	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3727	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3728	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3729	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3730	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3733	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3734	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3735	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3736	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3739	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3740	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3741	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3742	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3743	3783 (b)	3784 (b)	3786 (a)	3787 (c)	3788 (c)	3789 (c)	3790 (c)	3791 (c)	3792 (b)
3793	3799 (c)	3800 (c)	3801 (c)	3808 (c)	3809 (a)	3810 (a)	3811 (a)	3812 (b)	3813 (b)

N° Positive sample	N° negative samples								
	1	2	3	4	5	6	7	8	9
3794	3799 (c)	3800 (c)	3801 (c)	3808 (c)	3809 (a)	3810 (a)	3811 (a)	3812 (b)	3813 (b)
3796	3799 (c)	3800 (c)	3801 (c)	3808 (c)	3809 (a)	3810 (a)	3811 (a)	3812 (b)	3813 (b)
3797	3799 (c)	3800 (c)	3801 (c)	3808 (c)	3809 (a)	3810 (a)	3811 (a)	3812 (b)	3813 (b)
3798	3799 (c)	3800 (c)	3801 (c)	3808 (c)	3809 (a)	3810 (a)	3811 (a)	3812 (b)	3813 (b)
3802	3799 (c)	3800 (c)	3801 (c)	3808 (c)	3809 (a)	3810 (a)	3811 (a)	3812 (b)	3813 (b)
3803	3799 (c)	3800 (c)	3801 (c)	3808 (c)	3809 (a)	3810 (a)	3811 (a)	3812 (b)	3813 (b)
3804	3799 (c)	3800 (c)	3801 (c)	3808 (c)	3809 (a)	3810 (a)	3811 (a)	3812 (b)	3813 (b)
3805	3799 (c)	3800 (c)	3801 (c)	3808 (c)	3809 (a)	3810 (a)	3811 (a)	3812 (b)	3813 (b)
3806	3799 (c)	3800 (c)	3801 (c)	3808 (c)	3809 (a)	3810 (a)	3811 (a)	3812 (b)	3813 (b)
3818	3820 (c)	3822 (c)	3825 (c)	3826 (c)	3827 (a)	3831 (b)	3834 (a)	3835 (c)	3836 (c)
3821	3820 (c)	3822 (c)	3825 (c)	3826 (c)	3827 (a)	3831 (b)	3834 (a)	3835 (c)	3836 (c)
3823	3820 (c)	3822 (c)	3825 (c)	3826 (c)	3827 (a)	3831 (b)	3834 (a)	3835 (c)	3836 (c)
3828	3820 (c)	3822 (c)	3825 (c)	3826 (c)	3827 (a)	3831 (b)	3834 (a)	3835 (c)	3836 (c)
3830	3820 (c)	3822 (c)	3825 (c)	3826 (c)	3827 (a)	3831 (b)	3834 (a)	3835 (c)	3836 (c)
3832	3820 (c)	3822 (c)	3825 (c)	3826 (c)	3827 (a)	3831 (b)	3834 (a)	3835 (c)	3836 (c)
3912	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3913	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3916	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3917	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3918	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3919	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3920	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3921	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3922	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3923	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3924	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3925	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
3926	3911 (a)	3914 (a)	3915 (a)	3927 (a)	3928 (a)	3928 (b)	3929 (b)	3929 (b)	3930 (b)
4110	4113 (c)	4114 (a)	4115 (c)	4116 (a)	4125 (a)	4126 (a)	4127 (a)	4128 (c)	4128 (c)
4111	4113 (c)	4114 (a)	4115 (c)	4116 (a)	4125 (a)	4126 (a)	4127 (a)	4128 (c)	4128 (c)
4112	4113 (c)	4114 (a)	4115 (c)	4116 (a)	4125 (a)	4126 (a)	4127 (a)	4128 (c)	4128 (c)
4117	4113 (c)	4114 (a)	4115 (c)	4116 (a)	4125 (a)	4126 (a)	4127 (a)	4128 (c)	4128 (c)
4118	4113 (c)	4114 (a)	4115 (c)	4116 (a)	4125 (a)	4126 (a)	4127 (a)	4128 (c)	4128 (c)
4119	4113 (c)	4114 (a)	4115 (c)	4116 (a)	4125 (a)	4126 (a)	4127 (a)	4128 (c)	4128 (c)
4120	4113 (c)	4114 (a)	4115 (c)	4116 (a)	4125 (a)	4126 (a)	4127 (a)	4128 (c)	4128 (c)
4123	4113 (c)	4114 (a)	4115 (c)	4116 (a)	4125 (a)	4126 (a)	4127 (a)	4128 (c)	4128 (c)
4124	4113 (c)	4114 (a)	4115 (c)	4116 (a)	4125 (a)	4126 (a)	4127 (a)	4128 (c)	4128 (c)
4400	4406 (c)	4408 (c)	4409 (c)	44111 (b)	4412 (b)	4413 (b)	4419 (b)	4422 (b)	4423 (a)
4407 (c)	4406 (c)	4408 (c)	4409 (c)	44111 (b)	4412 (b)	4413 (b)	4419 (b)	4422 (b)	4423 (a)
4410 (c)	4406 (c)	4408 (c)	4409 (c)	44111 (b)	4412 (b)	4413 (b)	4419 (b)	4422 (b)	4423 (a)
4414 (b)	4406 (c)	4408 (c)	4409 (c)	44111 (b)	4412 (b)	4413 (b)	4419 (b)	4422 (b)	4423 (a)
4415 (a)	4406 (c)	4408 (c)	4409 (c)	44111 (b)	4412 (b)	4413 (b)	4419 (b)	4422 (b)	4423 (a)
4418 (a)	4406 (c)	4408 (c)	4409 (c)	44111 (b)	4412 (b)	4413 (b)	4419 (b)	4422 (b)	4423 (a)
4421 (b)	4406 (c)	4408 (c)	4409 (c)	44111 (b)	4412 (b)	4413 (b)	4419 (b)	4422 (b)	4423 (a)
4599	4617 (c)	4618 (c)	4620 (b)	4621 (a)	4623 (c)	4625 (a)	4626 (a)	4629 (a)	4630 (a)
4600	4617 (c)	4618 (c)	4620 (b)	4621 (a)	4623 (c)	4625 (a)	4626 (a)	4629 (a)	4630 (a)

N° Positive sample	N° negative samples								
	1	2	3	4	5	6	7	8	9
4601	4617 (c)	4618 (c)	4620 (b)	4621 (a)	4623 (c)	4625 (a)	4626 (a)	4629 (a)	4630 (a)
4613	4617 (c)	4618 (c)	4620 (b)	4621 (a)	4623 (c)	4625 (a)	4626 (a)	4629 (a)	4630 (a)
4615	4617 (c)	4618 (c)	4620 (b)	4621 (a)	4623 (c)	4625 (a)	4626 (a)	4629 (a)	4630 (a)
4619	4617 (c)	4618 (c)	4620 (b)	4621 (a)	4623 (c)	4625 (a)	4626 (a)	4629 (a)	4630 (a)
4622	4617 (c)	4618 (c)	4620 (b)	4621 (a)	4623 (c)	4625 (a)	4626 (a)	4629 (a)	4630 (a)
4627	4617 (c)	4618 (c)	4620 (b)	4621 (a)	4623 (c)	4625 (a)	4626 (a)	4629 (a)	4630 (a)
4628	4617 (c)	4618 (c)	4620 (b)	4621 (a)	4623 (c)	4625 (a)	4626 (a)	4629 (a)	4630 (a)
4631	4617 (c)	4618 (c)	4620 (b)	4621 (a)	4623 (c)	4625 (a)	4626 (a)	4629 (a)	4630 (a)
4632	4617 (c)	4618 (c)	4620 (b)	4621 (a)	4623 (c)	4625 (a)	4626 (a)	4629 (a)	4630 (a)
4841 (c)	4843 (a)	4845 (a)	4846 (a)	4847 (a)	4848 (a)	4849 (a)	4850 (b)	4853 (c)	4855 (c)
4842 (c)	4843 (a)	4845 (a)	4846 (a)	4847 (a)	4848 (a)	4849 (a)	4850 (b)	4853 (c)	4855 (c)
4851 (a)	4843 (a)	4845 (a)	4846 (a)	4847 (a)	4848 (a)	4849 (a)	4850 (b)	4853 (c)	4855 (c)
4854 (c)	4843 (a)	4845 (a)	4846 (a)	4847 (a)	4848 (a)	4849 (a)	4850 (b)	4853 (c)	4855 (c)
4994	5005 (a)	5005 (a)	5013 (c)	5014 (a)	5015 (a)	5016 (b)	5017 (b)	5018 (b)	5019 (c)
4995	5005 (a)	5005 (a)	5013 (c)	5014 (a)	5015 (a)	5016 (b)	5017 (b)	5018 (b)	5019 (c)
4996	5005 (a)	5005 (a)	5013 (c)	5014 (a)	5015 (a)	5016 (b)	5017 (b)	5018 (b)	5019 (c)
4997	5005 (a)	5005 (a)	5013 (c)	5014 (a)	5015 (a)	5016 (b)	5017 (b)	5018 (b)	5019 (c)
4998	5005 (a)	5005 (a)	5013 (c)	5014 (a)	5015 (a)	5016 (b)	5017 (b)	5018 (b)	5019 (c)
5004	5005 (a)	5005 (a)	5013 (c)	5014 (a)	5015 (a)	5016 (b)	5017 (b)	5018 (b)	5019 (c)
5007	5005 (a)	5005 (a)	5013 (c)	5014 (a)	5015 (a)	5016 (b)	5017 (b)	5018 (b)	5019 (c)
5008	5005 (a)	5005 (a)	5013 (c)	5014 (a)	5015 (a)	5016 (b)	5017 (b)	5018 (b)	5019 (c)
5009	5005 (a)	5005 (a)	5013 (c)	5014 (a)	5015 (a)	5016 (b)	5017 (b)	5018 (b)	5019 (c)
5011	5005 (a)	5005 (a)	5013 (c)	5014 (a)	5015 (a)	5016 (b)	5017 (b)	5018 (b)	5019 (c)
5012	5005 (a)	5005 (a)	5013 (c)	5014 (a)	5015 (a)	5016 (b)	5017 (b)	5018 (b)	5019 (c)
5511 (a)	5512 (a)	5513 (a)	5514 (a)	5515 (a)	5516 (a)	5517 (a)	5518 (a)	5519 (a)	5520 (a)
5522	5512 (a)	5513 (a)	5514 (a)	5515 (a)	5516 (a)	5517 (a)	5518 (a)	5519 (a)	5520 (a)
5531	5512 (a)	5513 (a)	5514 (a)	5515 (a)	5516 (a)	5517 (a)	5518 (a)	5519 (a)	5520 (a)
5532	5512 (a)	5513 (a)	5514 (a)	5515 (a)	5516 (a)	5517 (a)	5518 (a)	5519 (a)	5520 (a)
5534	5512 (a)	5513 (a)	5514 (a)	5515 (a)	5516 (a)	5517 (a)	5518 (a)	5519 (a)	5520 (a)
5535	5512 (a)	5513 (a)	5514 (a)	5515 (a)	5516 (a)	5517 (a)	5518 (a)	5519 (a)	5520 (a)
5783	5782 (c)	5784 (a)	5785 (a)	5788 (a)	5789 (a)	5790 (b)	5791 (c)	5792 (c)	5793 (c)
5786	5782 (c)	5784 (a)	5785 (a)	5788 (a)	5789 (a)	5790 (b)	5791 (c)	5792 (c)	5793 (c)
5787	5782 (c)	5784 (a)	5785 (a)	5788 (a)	5789 (a)	5790 (b)	5791 (c)	5792 (c)	5793 (c)
5890	5893 (c)	5896 (b)	5898 (c)	5899 (c)	5900 (c)	5922 (a)	5923 (a)	5925 (b)	5926 (b)
5894	5893 (c)	5896 (b)	5898 (c)	5899 (c)	5900 (c)	5922 (a)	5923 (a)	5925 (b)	5926 (b)
5895	5893 (c)	5896 (b)	5898 (c)	5899 (c)	5900 (c)	5922 (a)	5923 (a)	5925 (b)	5926 (b)
5897	5893 (c)	5896 (b)	5898 (c)	5899 (c)	5900 (c)	5922 (a)	5923 (a)	5925 (b)	5926 (b)
5902	5893 (c)	5896 (b)	5898 (c)	5899 (c)	5900 (c)	5922 (a)	5923 (a)	5925 (b)	5926 (b)
5980 (a)	5985 (c)	5986 (c)	6117 (a)	6118 (a)	6119 (c)	6120 (c)	6121 (b)	6121 (b)	6122 (b)
5981 (a)	5985 (c)	5986 (c)	6117 (a)	6118 (a)	6119 (c)	6120 (c)	6121 (b)	6121 (b)	6122 (b)
5982 (a)	5985 (c)	5986 (c)	6117 (a)	6118 (a)	6119 (c)	6120 (c)	6121 (b)	6121 (b)	6122 (b)
5983 (a)	5985 (c)	5986 (c)	6117 (a)	6118 (a)	6119 (c)	6120 (c)	6121 (b)	6121 (b)	6122 (b)
5984 (a)	5985 (c)	5986 (c)	6117 (a)	6118 (a)	6119 (c)	6120 (c)	6121 (b)	6121 (b)	6122 (b)
6246 (a)	6243 (a)	6244 (a)	6245 (a)	6318 (c)	6319 (c)	6320 (a)	6321 (a)	6322 (a)	6322 (a)
6247 (a)	6243 (a)	6244 (a)	6245 (a)	6318 (c)	6319 (c)	6320 (a)	6321 (a)	6322 (a)	6322 (a)

Appendix F– Relative level of detection study: raw data

Piémontaise (aerobic mesophilic flora: 1.0 10⁴cfu/g) No1 (not used for RLOD determination)

L.seeligeri Ad 1293

N°Sample	Level	Inoculation (cfu/25g)	ISO 11290-1/A1 method					ANSR for <i>Listeria</i> - LESS BROTH for 22h at 30°C								
			Half Fraser		Fraser 1		Result	Positive/total	N° of pooled samples (1)	ANSR result		Confirmation	Result Pooled samples	Result Individual samples	Positive/total pooled	Positive/total individual
			O&A agar	Palcam	O&A agar	Palcam				Pooled samples	Individual sample					
5734	0	0	-	-	-	-	-	0/5	5734	-	-	-	-	-	0/5	0/5
5735			-	-	-	-	-		5735	-	-	-	-	-		
5736			-	-	-	-	-		5736	-	-	-	-	-		
5737			-	-	-	-	-		5737	-	-	-	-	-		
5738			st	-	-	-	-		5738	-	-	-	-	-		
5739			-	st	-	-	-		5734 to 5735	-	-	-	-	-		
5740	1	0,39	-	-	-	-	-	4/20	5734 to 5735	-	-	-	-	-	4/20	4/20
5741			H-	+	H-	+	+		5734 to 5735	-	-	-	-	-		
5742			-	-	-	-	-		5734 to 5735	-	-	-	-	-		
5743			H-	+	H-	+	+		5734 to 5735	+	+	+	+	+		
5744			st	st	-	-	-		5734 to 5735	-	-	-	-	-		
5745			st	st	-	-	-		5734 to 5735	-	-	-	-	-		
5746			H-	+	H-	+	+		5734 to 5735	+	+	+	+	+		
5747			H-	+	H-	+	+		5734 to 5735	-	-	-	-	-		
5748			st	st	-	-	-		5734 to 5735	-	+/+/+ (NC)	-	-	-		
5749			-	-	-	-	-		5734 to 5735	-	-	-	-	-		
5750			-	-	-	-	-		5734 to 5735	-	-	-	-	-		
5751			-	-	-	-	-		5734 to 5735	-	-	-	-	-		
5752			-	-	-	-	-		5734 to 5735	-	-	-	-	-		
5753			-	-	-	-	-		5734 to 5735	-	-	-	-	-		
5754			st	-	-	-	-		5734 to 5735	+	+	+	+	+		
5755			-	-	-	-	-		5734 to 5735	-	-	-	-	-		
5756			st	-	-	-	-		5734 to 5735	-	-	-	-	-		
5757			-	-	-	-	-		5734 to 5735	-	-	-	-	-		
5758			st	st	-	-	-		5734 to 5735	-	-	-	-	-		
5759			2	1,11	st	st	-		-	-	2/5	5734 to 5735	-	-		
5760	-	st			-	-	-	5734 to 5735	+	+		+	+	+		
5761	H-	+			H-	+	+	5734 to 5735	+	+		+	+	+		
5762	H-	+			H-	+	+	5734 to 5735	-	-		-	-	-		
5763	-	-			-	-	-	5734 to 5735	-	-		-	-	-		

Piémontaise (aerobic mesophilic flora: 1.2 10⁶cfu/g) No 2
***L.seeligeri* Ad1293**

N° Sample	Level	Inoculation (cfu/25g)	ISO 11290-1/A1 method					ANSR for <i>Listeria</i> - LESS BROTH for 22h at 30°C								
			Half Fraser		Fraser 1		Result	Positive/total	N° of pooled samples	ANSR result		Confirmation	Result Pooled samples	Result Individual samples	Positive/total pooled	Positive/total individual
			O&A agar	Palcam	O&A agar	Palcam				Pooled samples	Individual sample					
6449	0	0	st	st	st	-	-	0/5	6449	-	-	-	-	0/5	0/5	
6450			st	st	st	st	-		6450	-	-	-	-			
6451			st	st	st	st	-		6451	-	-	-	-			
6452			st	st	st	st	-		6452	-	-	-	-			
6453			st	st	st	st	-		6453	-	-	-	-			
6454	1	0,32	st	st	st	st	-	3/20	6449 to 6453	+	+	+	+	6/20	7/20	
6455			st	st	st	st	-		6449 to 6453	+	+	+	+			
6456			st	st	st	st	-		6449 to 6453	-/-/	+ /+ /+	+	-			+
6457			H-	+	H-	+	+		6457	-	-	-	-			-
6458			H-	+	H-	+	+		6458	-	-	-	-			-
6459			st	st	st	st	-		6459	-	-	-	-			-
6460			st	st	st	-	-		6460	-	-	-	-			-
6461			st	st	H-(NC)	+(NC)	-		6449 to 6453	+	+	+	+			+
6462			st	st	st	st	-		6462	-	-	-	-			-
6463			st	st	st	st	-		6463	-	-	-	-			-
6464			st	st	st	st	-		6464	-	-	-	-			-
6465			st	st	st	-	-		6449 to 6453	+	+	+	+			+
6466			st	st	st	st	-		6466	-	-	-	-			-
6467			st	st	H-(NC)	+(NC)	-		6449 to 6453	+	+	+	+			+
6468			st	st	st	st	-		6468	-	-	-	-			-
6469	H-	+	H-	+	+	6469	-	-	-	-	-					
6470	st	st	st	st	-	6449 to 6453	+	+	+	+	+					
6471	st	st	st	st	-	6471	-	-	-	-	-					
6472	st	st	st	st	-	6472	-	-	-	-	-					
6473	st	st	st	st	-	6473	-	-	-	-	-					
6474	2	0,9	H-	+	H-	+	+	5/5	6449 to 6453	+	+	+	+	4/5	4/5	
6475			H-	+	H-	+	+		6475	-	-	-	-			
6476			H-	+	H-	+	+		6449 to 6453	+	+	+	+			
6477			H-	+	H-	+	+		6449 to 6453	+	+	+	+			
6478			H-	+	H-	+	+		6449 to 6453	+	+	+	+			

Rillettes (aerobic mesophilic flora: 1.6 10²cfu/g)
L.monocytogenes Ad669

N° Sample	Level	Inoculation (cfu/25g)	ISO 11290-1/A1 method						ANSR for <i>Listeria</i> - LESS BROTH for 22h at 30°C							
			Half fraser		Fraser 1		Result	Positive /total	N° of pooled samples	ANSR result		Confirmation	Result Pooled samples	Result Individual samples	Positive/ total pooled	Positive/ total individual
			O&A agar	Palcam	O&A agar	Palcam				Pooled samples	Individual sample					
5800	0	0	st	st	st	st	-	0/5	5800	-	-	-	-	-	0/5	0/5
5801			st	st	-	-	-		5801	-	-	-	-	-		
5802			st	st	st	st	-		5802	-	-	-	-	-		
5803			st	st	st	st	-		5803	-	-	-	-	-		
5804			st	st	st	-	-		5804	-	-	-	-	-		
5805	1	0,2	st	st	st	-	-	6/20	5805	-	-	-	-	-	6/20	6/20
5806			st	st	st	-	-		5800 to 5804	+	+	+	+	+		
5807			st	st	st	st	-		5807	-	-	-	-	-		
5808			st	st	st	-	-		5808	-	-	-	-	-		
5809			H+	+	H+	+	+		5800 to 5804	+	+	+	+	+		
5810			st	st	st	-	-		5800 to 5804	+	+	+	+	+		
5811			st	st	st	-	-		5800	-	-	-	-	-		
5812			st	st	st	-	-		5812	-	-	-	-	-		
5813			st	st	st	st	-		5813	-	-	-	-	-		
5814			st	st	st	st	-		5814	-	-	-	-	-		
5815			H+	+	H+	+	+		5800 to 5804	+	+	+	+	+		
5816			H+	+	H+	+	+		5816	-	-	-	-	-		
5817			H+	+	H+	+	+		5817	-	-	-	-	-		
5818			H+	+	H+	+	+		5818	-	-	-	-	-		
5819			st	st	-	-	-		5819	-	-	-	-	-		
5820			H+	+	H+	+	+		5800 to 5804	+	+	+	+	+		
5821			st	st	st	-	-		5821	-	-	-	-	-		
5822			st	st	st	st	-		5822	-	-	-	-	-		
5823			st	st	st	-	-		5823	-	-	-	-	-		
5824			st	st	st	st	-		5800 to 5804	+	+	+	+	+		
5825	2	0,5	st	st	st	-	-	2/5	5800 to 5804	+	+	+	+	+	3/5	3/5
5826			H+	+	H+	+	+		5800 to 5804	+	+	+	+	+		
5827			st	st	st	-	-		5802	-	+	(NC)	-	-		
5828			st	st	st	-	-		5800 to 5804	+	+	+	+	+		
5829			H+	+	H+	+	+		5829	-	-	-	-	-		

Raw milk cheese -Brie de Meaux- (aerobic mesophilic flora: 2.4 10⁸ cfu/g)
L.innocua Ad636

N° Sample	Level	Inoculation (cfu/25g)	ISO 11290-1/A1 method					ANSR for <i>Listeria</i> - LESS BROTH for 22h at 30°C								
			Half fraser		Fraser 1		Result	Positive/ total	N° of pooled samples	ANSR result		Confirmation	Result Pooled samples	Result Individual samples	Positive/ total pooled	Positive/ total individual
			O&A agar	Palcam	O&A agar	Palcam				Pooled samples	Individual sample					
5830	0	0	st	-	-	-	-	0/5	5830	-	-	-	-	-	0/5	0/5
5831			st	-	st	-	-		5831	-	-	-	-	-		
5832			-	-	-	-	-		5832	-	-	-	-	-		
5833			-	-	st	-	-		5833	-	-	-	-	-		
5834			-	-	st	-	-		5834	-	-	-	-	-		
5835	1	0,45	H-	+	H-	+	+	5/20	5830 to 5834	+	+	+	+	+	09/20	09/20
5836			-	-	st	-	-		5836	-	-	-	-	-		
5837			-	-	st	-	-		5837	-	-	-	-	-		
5838			-	-	-	-	-		5830 to 5834	+	+	+	+	+		
5839			-	-	-	-	-		5830 to 5834	+	+	+	+	+		
5840			-	-	-	-	-		5830 to 5834	+	+	+	+	+		
5841			st	-	st	-	-		5841	-	-	-	-	-		
5842			st	-	-	-	-		5830 to 5834	+	+	+	+	+		
5843			-	-	-	-	-		5843	-	-	-	-	-		
5844			-	-	-	-	-		5830 to 5834	+	+	+	+	+		
5845			H-	+	H-	+	+		5845	-	-	-	-	-		
5846			H-	+	H-	+	+		5830 to 5834	+	+	+	+	+		
5847			H-	+	H-	+	+		5847	-	-	-	-	-		
5848			-	-	st	st	-		5848	-	-	-	-	-		
5849			-	-	-	-	-		5849	-	-	-	-	-		
5850			st	-	-	-	-		5830 to 5834	+	+	+	+	+		
5851			H-	+	H-	+	+		5851	-	-	-	-	-		
5852			st	-	st	-	-		5830 to 5834	+	+	+	+	+		
5853			st	-	-	-	-		5853	-	-	-	-	-		
5854			H-	+	H-	+	+		5854	-	-	-	-	-		
5855	2	1,3	st	-	-	-	-	1/5	5830 to 5834	+	+	+	+	+	5/5	5/5
5856			H-	+	H-	+	+		5830 to 5834	+	+	+	+	+		
5857			-	-	-	-	-		5830 to 5834	+	+	+	+	+		
5858			-	-	-	-	-		5830 to 5834	+	+	+	+	+		
5859			-	-	-	-	-		5830 to 5834	+	+	+	+	+		

Vegetables mix (aerobic mesophilic flora: 6.0 10² cfu/g)
L.monocytogenes Ad279

N° Sample	Level	Inoculation (cfu/25g)	ISO 11290-1/A1 method					ANSR for <i>Listeria</i> - LESS BROTH for 24h at 30°C								
			Half fraser		Fraser 1		Result	Positive/ total	N° of pooled samples	ANSR result		Confirmation	Result Pooled samples	Result Individual samples	Positive/ total pooled	Positive/ total individual
			O&A agar	Palcam	O&A agar	Palcam				Pooled samples	Individual sample					
6624	0	0	st	st	st	st	-	0/5	6624	-	-	-	-	-	0/5	0/5
6625			st	st	st	st	-		6625	-	-	-	-	-		
6626			-	-	-	-	-		6626	-	-	-	-	-		
6627			st	st	st	st	-		6627	-	-	-	-	-		
6628			st	st	st	st	-		6628	-	-	-	-	-		
6629			st	st	st	st	-		6629	-	-	-	-	-		
6630	1	0,8	st	st	st	st	-	8/20	6630	-	-	-	-	-	11/20	11/20
6631			st	st	st	st	-		6631	+	+	+	+	+		
6632			H+	+	H+	+	+		6632	+ (NC)/-/-	+ (NC)/-/-	-	-	-		
6633			st	st	st	st	-		6633	+	+	+	+	+		
6634			st	st	st	st	-		6634	+	+	+	+	+		
6635			st	st	st	st	-		6635	+	+	+	+	+		
6636			H+	+	H+	+	+		6636	+	+	+	+	+		
6637			H+	+	H+	+	+		6637	+	+	+	+	+		
6638			H+	+	H+	+	+		6638	-	-	-	-	-		
6639			H+	+	H+	+	+		6639	+	+	+	+	+		
6640			H+	+	H+	+	+		6640	-	-	-	-	-		
6641			st	st	st	st	-		6641	+	+	+	+	+		
6642			st	st	st	st	-		6642	+	+	+	+	+		
6643			st	st	st	st	-		6643	-	-	-	-	-		
6644			st	st	st	st	-		6644	+	+	+	+	+		
6645			H+	+	H+	+	+		6645	-	-	-	-	-		
6646			st	st	st	st	-		6646	-	-	-	-	-		
6647			H+	+	H+	+	+		6647	+	+	+	+	+		
6648	st	st	st	st	-	6648	-	-	-	-	-					
6649	2	2,1	H+	+	H+	+	+	5/5	6649	+	+	+	+	+	5/5	5/5
6650			H+	+	H+	+	+		6650	+	+	+	+	+		
6651			H+	+	H+	+	+		6651	+	+	+	+	+		
6652			H+	+	H+	+	+		6652	+	+	+	+	+		
6653			H+	+	H+	+	+		6653	+	+	+	+	+		

Smoked salmon fish (aerobic mesophilic flora:1.2.10³ cfu/g)
***L.welshimeri* Ad1669**

N° Sample	Level	Inoculation (cfu/25g)	ISO 11290-1/A1 method					ANSR for <i>Listeria</i> - LESS BROTH for 24h at 30°C								
			Half fraser		Fraser 1		Result	Positive/ total	N° of pooled samples	ANSR result		Confirmation	Result Pooled samples	Result Individual samples	Positive/ total pooled	Positive/ total individual
			O&A agar	Palcam	O&A agar	Palcam				Pooled samples	Individual sample					
6793	0	0	st	st	-	-	-	0/5	6793	-	-	-	-	-	0/5	0/5
6794			st	-	-	-	-		6794	-	-	-	-	-		
6795			-	-	-	-	-		6795	-	-	-	-	-		
6796			-	-	-	-	-		6796	-	-	-	-	-		
6797			-	-	-	-	-		6797	-	-	-	-	-		
6768	1	0,4	st	-	st	st	-	5/20	6793 to 6797	+	+	+	+	+	4/20	4/20
6769			-	-	-	-	-		6769	-	-	-	-	-		
6770			st	st	-	-	-		6770	-	-	-	-	-		
6771			st	-	-	-	-		6771	-	-	-	-	-		
6772			st	st	st	-	-		6772	-	-	-	-	-		
6773			st	st	-	-	-		6773	-	-	-	-	-		
6774			st	-	-	-	-		6774	-	-	-	-	-		
6775			st	-	-	-	-		6775	-	-	-	-	-		
6776			-	-	-	-	-		6776	-	-	-	-	-		
6777			H-	+	/	/	+		6777	-	-	-	-	-		
6778			H-	+	/	/	+		6778	-	-	-	-	-		
6779			st	st	-	-	-		6779	-	-	-	-	-		
6780			st	st	-	-	-		6780	-	-	-	-	-		
6781			st	st	-	-	-		6781	-	-	-	-	-		
6782			H-	+	/	/	+		6793 to 6797	+	+	+	+	+		
6783			H-	+	/	/	+		6783	-	-	-	-	-		
6784			H-	+	/	/	+		6793 to 6797	+	+	+	+	+		
6785			st	st	-	-	-		6793 to 6797	+	+	+	+	+		
6786			st	st	-	-	-		6786	-	-	-	-	-		
6787			-	st	-	-	-		6787	-	-	-	-	-		
6788	2	1,8	H-	+	/	/	+	3/5	6793 to 6797	+	+	+	+	+	3/5	3/5
6789			st	st	-	-	-		6789	-	-	-	-	-		
6790			H-	+	/	/	+		6793 to 6797	+	+	+	+	+		
6791			H-	+	/	/	+		6793 to 6797	+	+	+	+	+		
6792			st	st	st	st	-		6792	-	-	-	-	-		

Process water (aerobic mesophilic flora: 1.4.10³ cfu/g)
L.monocytogenes Ad551

N° Sample	Level	Inoculation (cfu/25g)	ISO 11290-1/A1 method					Positive/ total	ANSR for <i>Listeria</i> - LESS BROTH for 24h at 30°C							
			Half fraser		Fraser 1		Result		N° of pooled samples	ANSR result		Confirmation	Result Pooled samples	Result Individual samples	Positive/ total pooled	Positive/ total individual
			O&A agar	Palcam	O&A agar	Palcam				Pooled samples	Individual sample					
6914	0	0	st	st	-	-	-	0/5	6914	-	-	-	-	-	0/5	0/5
6915			st	st	st	st	-		6915	-	-	-	-	-		
6916			st	st	st	st	-		6916	-	-	-	-	-		
6917			st	st	st	st	-		6917	+(NC)/-	-	-	-	-		
6918			st	st	st	st	-		6918	-	-	-	-	-		
6919	1	0,6	st	st	st	st	-	7/20	6914 to 6918	+	+	+	+	+	8/20	9/20
6920			st	st	st	st	-		6920	+(NC)/-	-	-	-	-		
6921			st	st	st	st	-		6921	-	-	-	-	-		
6922			st	st	-	-	-		6914 to 6918	+	+	+	+	+		
6923			H+	+(3)	/	/	+		6923	-	-	-	-	-		
6924			st	st	st	st	-		6924	-/+	+	+	-	+		
6925			st	st	st	st	-		6925	-	-	-	-	-		
6926			H+	+	/	/	+		6926	+(NC)/-	-	-	-	-		
6927			st	st	st	-	-		6927	-	-	-	-	-		
6928			st	st	st	st	-		6914 to 6918	+	+	+	+	+		
6929			st	st	st	st	-		6914 to 6918	+	+	+	+	+		
6930			H+(1)	st	/	st	+		6930	+(NC)/-	-	-	-	-		
6931			st	st	st	st	-		6931	-	-	-	-	-		
6932			H+	+	/	/	+		6932	+(NC)/-	-	-	-	-		
6933			st	st	st	st	-		6914 to 6918	+	+	+	+	+		
6934			H+	+	/	/	+		6914 to 6918	+	+	+	+	+		
6935			H+(4)	+	/	/	+		6914 to 6918	+	+	+	+	+		
6936	st	st	st	st	-	6936	+(NC)/-	-	-	-	-					
6937	H+	+	/	/	+	6914 to 6918	+	+	+	+	+					
6938	st	st	st	st	-	6938	+(NC)/-	-	-	-	-					
6939	2	1,6	H+	+	/	/	+	4/5	6914 to 6918	+	+	+	+	+	4/5	4/5
6940			H+	+	/	/	+		6914 to 6918	+	+	+	+	+		
6941			H+	+	/	/	+		6941	+(NC)/-	-	-	-	-		
6942			st	st	st	st	-		6914 to 6918	+	+	+	+	+		
6943			H+	+	/	/	+		6914 to 6918	+	+	+	+	+		

Appendix G – Inclusivity and exclusivity study: raw data

INCLUSIVITY								
ANSR <i>Listeria</i> spp 22h 30° C LESS PLUS								
N°	Strain	Species	Reference	Origin	Inoculation level (CFU/225ml)	ANSR for <i>Listeria</i>	O&A agar	Palcam
1	<i>Listeria</i>	<i>grayi</i>	Ad 1198	Smoked salmon	33	+	H-	-
2	<i>Listeria</i>	<i>grayi</i>	Ad 1443	Pork meat sausages	62	+	H-	-
3	<i>Listeria</i>	<i>innocua</i>	1	Smoked salmon	32	+	H-	+
4	<i>Listeria</i>	<i>innocua</i>	Ad 658	Gorgonzola	57	+	H-	+
5	<i>Listeria</i>	<i>innocua</i>	Ad 655	Brine	5	+	H-	+
6	<i>Listeria</i>	<i>innocua</i>	Ad 660	Bread crumbs	5	+	H-	+
7	<i>Listeria</i>	<i>innocua</i>	Ad 663	Environment (dairy industry)	12	+	H-	+
8	<i>Listeria</i>	<i>innocua</i>	Ad 671	Smoked bacon	16	+	H-	+
9	<i>Listeria</i>	<i>innocua</i>	Ad 661	Soft cheese (Pont L'Evêque)	48	+	H-	+
10	<i>Listeria</i>	<i>innocua</i>	Ad 659	Environment (dairy industry)	58	+	H-	+
11	<i>Listeria</i>	<i>ivanovii</i>	Ad 466	Raw veal meat	23	+	H+	+
12	<i>Listeria</i>	<i>ivanovii</i>	Ad 662	Environment (dairy industry)	26	+	H+	+
13	<i>Listeria</i>	<i>ivanovii</i>	BR11	Environment (fish)	50	+	H+	+
14	<i>Listeria</i>	<i>ivanovii londoniensis</i>	CIP103466	/	63	+	H+	+
15	<i>Listeria</i>	<i>ivanovii</i>	Ad 1289	Raw milk cheese	62	+	H+	+
16	<i>Listeria</i>	<i>ivanovii</i>	Ad 1290	Milk powder	56	+	H+	+
17	<i>Listeria</i>	<i>ivanovii</i>	Ad 1291	Poultry	87	+	H+	+
18	<i>Listeria</i>	<i>ivanovii</i>	Ad 1288	Sheep milk	28	+	H+	+
19	<i>Listeria</i>	<i>seeligeri</i>	Ad 649	Cheese	63	+	H-	+
20	<i>Listeria</i>	<i>seeligeri</i>	Ad 651	Environment	41	+	H-	+
21	<i>Listeria</i>	<i>seeligeri</i>	Ad 652	Environment (dairy industry)	59	+	H-	+
22	<i>Listeria</i>	<i>seeligeri</i>	Ad 674	Soft cheese (Munster)	36	+	H-	+
23	<i>Listeria</i>	<i>seeligeri</i>	BR1	Trout	47	+	H-	+
24	<i>Listeria</i>	<i>seeligeri</i>	BR18	Environment (fish)	38	+	H-	+
25	<i>Listeria</i>	<i>seeligeri</i>	CIP100100	/	20	+	H-	+
26	<i>Listeria</i>	<i>welshimeri</i>	Ad1276	Environment (Slaughterhouse)	100	+	H-	+
27	<i>Listeria</i>	<i>welshimeri</i>	Ad1235	Beef meat	71	+	H-	+
28	<i>Listeria</i>	<i>welshimeri</i>	191424	Poultry	80	+	H-	+
29	<i>Listeria</i>	<i>welshimeri</i>	Ad 1175	Ready-to-eat-food	62	+	H-	+
30	<i>Listeria</i>	<i>welshimeri</i>	Ad 650	Poultry	44	+	H-	+
31	<i>Listeria</i>	<i>monocytogenes</i>	1011/1410	Frozen broccoli	33	+	H+	+
32	<i>Listeria</i>	<i>monocytogenes</i>	153	Soft cheese (Munster)	48	+	H+	+
33	<i>Listeria</i>	<i>monocytogenes</i>	1973/2400	Egg and ham pastry (Quiche Lorraine)	49	+	H+	+
34	<i>Listeria</i>	<i>monocytogenes</i>	38/181	Toulouse sausages	43	+	H+	+
35	<i>Listeria</i>	<i>monocytogenes</i>	7111/7516	Pâté (Rillettes)	74	+	H+	+
36	<i>Listeria</i>	<i>monocytogenes</i>	913/1048	Black pudding	41	+	H+	+

INCLUSIVITY								
ANSR <i>Listeria</i> spp 22h 30° C LESS PLUS								
N°	Strain	Species	Reference	Origin	Inoculation level (CFU/225ml)	ANSR for <i>Listeria</i>	O&A agar	Palcam
37	<i>Listeria</i>	<i>monocytogenes</i>	A00C036	Poultry (guinea)	86	+	H+	+
38	<i>Listeria</i>	<i>monocytogenes</i>	A00C041	Sausage	54	+	H+	+
39	<i>Listeria</i>	<i>monocytogenes</i>	A00C044	Poultry (Duck)	32	+	H+	+
40	<i>Listeria</i>	<i>monocytogenes</i>	A00L097	Milk	45	+	H+	+
41	<i>Listeria</i>	<i>monocytogenes</i>	A00M009	Smoked salmon	35	+	H+	+
42	<i>Listeria</i>	<i>monocytogenes</i>	Ad 253	Semi-hard cheese	42	+	H+	+
43	<i>Listeria</i>	<i>monocytogenes</i>	Ad 266	Poultry	34	+	H+	+
44	<i>Listeria</i>	<i>monocytogenes</i>	Ad 270	Fermented sausage	33	+	H+	+
45	<i>Listeria</i>	<i>monocytogenes</i>	Ad 273	Cured delicatessen	25	+	H+	+
46	<i>Listeria</i>	<i>monocytogenes</i>	Ad 274	Ready-to-eat food (Asiatic meal)	29	+	H+	+
47	<i>Listeria</i>	<i>monocytogenes</i>	Ad 534	Fruits	31	+	H+	+
48	<i>Listeria</i>	<i>monocytogenes</i>	Ad 548	Environment (Seafood)	49	+	H+	+
49	<i>Listeria</i>	<i>monocytogenes</i>	Ad 623	Bread crumbs	19	+	H+	+
50	<i>Listeria</i>	<i>monocytogenes</i>	Ad 665	Raw milk	64	+	H+	+

Negative strains: Strains not belonging to <i>Listeria</i> genus						
	Strain	Species	Reference	Origin	Inoculation level (CFU/ml)	ANSR for <i>Listeria</i>
1	<i>Bacillus</i>	<i>cereus</i>	Ad 465	Salmon Terrine	6.0 10 ³	+ (NC)/+ (NC)/-
2	<i>Bacillus</i>	<i>circulans</i>	Ad 760	Vegetables	2.0 10 ³	-
3	<i>Bacillus</i>	<i>coagulans</i>	Ad 731	Dairy product	2.0 10 ³	-
4	<i>Bacillus</i>	<i>licheniformis</i>	Ad 978	Dairy product	2.0 10 ³	-
5	<i>Bacillus</i>	<i>mycoïdes</i>	Ad 762	Milk	5.1 10 ⁵	-
6	<i>Bacillus</i>	<i>pseudomycoïdes</i>	Ad 765	Vegetables	2.0 10 ³	-
7	<i>Bacillus</i>	<i>pumilus</i>	Ad 284	Ready-to-eat	3.4 10 ⁴	+/-/-
8	<i>Bacillus</i>	<i>weihenstephanensis</i>	Ad 726	Egg product	2.0 10 ³	+ (NC)/-/-
9	<i>Brochothrix</i>	<i>thermosphacta</i>	EN 15129	Trout	4.0 10 ⁴	-
10	<i>Brochothrix</i>	<i>compessis</i>	CIP 102920 ^T	Environment	4.6 10 ⁵	-
11	<i>Carnobacterium</i>	<i>divergens</i>	CIP 101029 ^T		2.0 10 ⁵	-
12	<i>Carnobacterium</i>	<i>piscicola</i>	Ad 369	Raw milk	2.0 10 ⁵	-
13	<i>Enterococcus</i>	<i>durans</i>	Ad 149	Ham	2.0 10 ⁵	-
14	<i>Enterococcus</i>	<i>faecalis</i>	89L326	Soft cheese (Vacherin)	2.8 10 ⁵	-
15	<i>Lactobacillus</i>	<i>brevis</i>	86L126	Ham	2.4 10 ⁵	-
16	<i>Lactobacillus</i>	<i>curvatus</i>	Ad 380	Delicatessen	1.4 10 ⁵	-
17	<i>Lactobacillus</i>	<i>fermentum</i>	Ad 482	Tomatoes juice	3.9 10 ⁵	-
18	<i>Lactobacillus</i>	<i>sakei</i>	Ad 473	Ham	1.0 10 ⁵	-
19	<i>Lactococcus</i>	<i>lactis subsp cremoris</i>	Ad 137	Dairy product	2.0 10 ⁵	-
20	<i>Leuconostoc</i>	<i>carosum</i>	Ad 411	Ham	3.2 10 ⁴	-
21	<i>Leuconostoc</i>	<i>citreum</i>	Ad 396	Ham	4.0 10 ³	-
22	<i>Micrococcus</i>	<i>luteus</i>	Ad 432	Cocktail	2.0 10 ³	-
23	<i>Pediococcus</i>	<i>pentosaceus</i>	ATCC 33316		4.4 10 ⁴	-
24	<i>Propionibacterium</i>	<i>freundenreichii</i>	CNRZ 725	Dairy product	5.2 10 ⁴	-
25	<i>Staphylococcus</i>	<i>aureus</i>	Ad 165	Smoked delicatessen	4.0 10 ⁵	-
26	<i>Staphylococcus</i>	<i>aureus</i>	Ad 902	Nems	4.0 10 ⁵	-
27	<i>Staphylococcus</i>	<i>epidermidis</i>	Ad 931	Fruits	6.0 10 ⁵	-
28	<i>Staphylococcus</i>	<i>haemoliticus</i>	Ad 989	Dairy product	2.0 10 ⁴	-
29	<i>Streptococcus</i>	<i>bovis</i>	92L622	Dairy product	1.6 10 ⁵	-
30	<i>Streptococcus</i>	<i>salivarius sps thermophilus</i>	Ad 441	Dairy product	6.0 10 ³	-

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

Laboratory

A

Aerobic mesophilic flora: 2,7.10⁸/g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
A4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
A7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
A9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
A10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
A13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
A18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
A23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
A24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
A2	-	+	+	+	+	+	+	+	+	+	+	PA	PA
A3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A8	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A12	-	-	-	-	-	-	-	-	-	-	-	NA	NA
A15	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A17	-	-	-	-	-	+	+	+	+	+	+	PD	PD
A19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A21	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
A22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

B

Aerobic mesophilic flora: 2,0.10⁸/g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
B4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
B7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
B9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
B10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
B13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
B18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
B23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
B24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
B2	+	+	+	+	+	-	-	+	+	-	-	ND	ND
B3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
B8	-	-	-	-	-	+	-	+	+	+	-	PD	NA
B12	+	+	+	+	+	+	-	+	+	+	-	PA	ND
B15	+	+	+	+	+	-	-	-	-	-	-	ND	ND
B17	+	+	+	+	+	+	+	+	+	+	+	PA	PA
B19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
B21	+	+	+	+	+	+	+	+	+	+	+	PA	PA
B1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
B5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
B6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
B11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
B14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
B16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
B20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
B22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

C

Aerobic mesophilic flora: 6,5.10⁶/g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
C4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
C7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
C9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
C10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
C13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
C18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
C23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
C24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
C2	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C8	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C12	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C15	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C17	+	+	+	+	+	-	-	-	-	-	-	ND	ND
C19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C21	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
C22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

D

Aerobic mesophilic flora:2,3.10⁸ /g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
D4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
D7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
D9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
D10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
D13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
D18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
D23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
D24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
D2	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D8	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D12	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D15	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D17	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D21	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
D22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

E

Aerobic mesophilic flora: 2,1.10⁸/g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
E4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
E7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
E9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
E10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
E13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
E18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
E23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
E24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
E2	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E3	-	-	-	-	-	+	+	+	+	+	+	PD	PD
E8	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E12	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E15	+	+	+	+	+	-	-	-	-	-	-	ND	ND
E17	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E21	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
E22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

F

Aerobic mesophilic flora: 2,6.10⁸/g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
F4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
F7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
F9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
F10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
F13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
F18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
F23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
F24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
F2	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F8	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F12	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F15	+	+	+	+	+	-	-	-	-	-	-	ND	ND
F17	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F21	-	-	-	-	-	+	+	+	+	+	+	PD	PD
F1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
F22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

G

Aerobic mesophilic flora: 4,6.10⁸/g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
G4	-	-	-	-	-	-	i/-	-	-	-	-	NA	NA
G7	-	-	-	-	-	-	i/-	-	-	-	-	NA	NA
G9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
G10	-	-	-	-	-	-	i/-	-	-	-	-	NA	NA
G13	-	-	-	-	-	-	i/-	-	-	-	-	NA	NA
G18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
G23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
G24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
G2	+	+	+	+	+	+	i/+	+	+	+	+	PA	PA
G3	-	-	+	+	+	+	i/+	+	+	+	+	PA	PA
G8	+	+	+	+	+	+	+	+	+	+	+	PA	PA
G12	+	+	+	+	+	+	+	+	+	+	+	PA	PA
G15	+	+	+	+	+	+	i/+	+	+	+	+	PA	PA
G17	+	+	+	+	+	+	+	+	+	+	+	PA	PA
G19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
G21	+	+	+	+	+	+	+	+	+	+	+	PA	PA
G1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
G5	+	+	+	+	+	+	i/+	+	+	+	+	PA	PA
G6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
G11	+	+	+	+	+	+	i/+	+	+	+	+	PA	PA
G14	+	+	+	+	+	+	i/+	+	+	+	+	PA	PA
G16	+	+	+	+	+	+	i/+	+	+	+	+	PA	PA
G20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
G22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

H

Aerobic mesophilic flora: $2,7 \cdot 10^6$ /g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
H4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
H7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
H9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
H10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
H13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
H18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
H23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
H24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
H2	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H8	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H12	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H15	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H17	-	-	-	-	-	+	+	+	+	+	+	PD	PD
H19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H21	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
H22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

I

Aerobic mesophilic flora: 1,1.10⁸/g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
I4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
I7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
I9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
I10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
I13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
I18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
I23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
I24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
I2	+	+	+	+	+	+	+	+	+	+	+	PA	PA
I3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
I8	+	+	+	+	+	+/+	-/+	+	-	+	-	PA	ND
I12	+	+	+	+	+	+	+	+	+	+	+	PA	PA
I15	-	-	-	-	-	+	+	+	+	+	+	PD	PD
I17	-	-	+	+	+	+	+	+	+	+	+	PA	PA
I19	+	+	+	+	+	-	-	-	-	-	-	ND	ND
I21	-	-	+	+	+	-	-	-	-	-	-	ND	ND
I1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
I5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
I6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
I11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
I14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
I16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
I20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
I22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

J

Aerobic mesophilic flora: 2,5.10⁸/g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
J4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
J7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
J9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
J10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
J13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
J18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
J23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
J24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
J2	+	+	+	+	+	+	+	+	+	+	+	PA	PA
J3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
J8	+	+	+	+	+	+	+	+	+	+	+	PA	PA
J12	-	-	-	-	-	+	+	+	+	+	+	PD	PD
J15	-	-	-	-	-	+	+	+	+	+	+	PD	PD
J17	-	-	-	-	-	-	-	-	-	-	-	NA	NA
J19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
J21	-	-	-	-	-	+	+	+	+	+	+	PD	PD
J1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
J5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
J6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
J11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
J14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
J16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
J20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
J22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

K

Aerobic mesophilic flora:8,5.10⁷ /g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
K4	-	-	-	-	-	+	+	+	+	+	+	PD	PD
K7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
K9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
K10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
K13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
K18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
K23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
K24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
K2	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K8	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K12	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K15	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K17	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K19	-	-	-	-	-	+	+	+	+	+	+	PD	PD
K21	-	-	-	-	-	+	+	+	+	+	+	PD	PD
K1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
K22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

L

Aerobic mesophilic flora: 9,7.10⁷ /g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
L4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
L7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
L9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
L10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
L13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
L18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
L23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
L24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
L2	+	-	+	+	+	+	+	+	+	+	+	PA	PA
L3	+	+	+	+	+	-	-	-	-	-	-	ND	ND
L8	+	-	+	+	+	+	+	+	+	+	+	PA	PA
L12	+	+	+	+	+	+	+	+	+	+	+	PA	PA
L15	-	+	+	+	+	+	+	+	+	+	+	PA	PA
L17	+	+	+	+	+	+	+	+	+	+	+	PA	PA
L19	+	+	+	+	+	-	+	-	-	-	-	ND	PPND
L21	+	+	+	+	+	+	+	+	+	+	+	PA	PA
L1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
L5	-	+	+	+	+	+	+	+	+	+	+	PA	PA
L6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
L11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
L14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
L16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
L20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
L22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

M

Aerobic mesophilic flora: 1,3.10⁸/g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
M4	-	-	-	-	-	+	-	-	-	-	-	NA	NA
M7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
M9	-	-	-	-	-	+	-	-	-	-	-	NA	NA
M10	-	-	-	-	-	+	-	+	-	+	-	PD	NA
M13	-	-	-	-	-	+	-	-	-	-	-	NA	NA
M18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
M23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
M24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
M2	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M8	-	-	-	-	-	+	+	+	+	+	+	PD	PD
M12	-	-	-	-	-	+	+	+	+	+	+	PD	PD
M15	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M17	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M21	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
M22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

N

Aerobic mesophilic flora:2,5.10⁸ /g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
N4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
N7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
N9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
N10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
N13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
N18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
N23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
N24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
N2	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N8	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N12	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N15	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N17	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N21	-	-	-	-	-	-	-	-	-	-	-	NA	NA
N1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
N22	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

0

Aerobic mesophilic flora: 4,2.10⁷/g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
04	-	-	-	-	-	-	-	-	-	-	-	NA	NA
07	-	-	-	-	-	-	-	-	-	-	-	NA	NA
09	-	-	-	-	-	-	-	-	-	-	-	NA	NA
010	-	-	-	-	-	-	-	-	-	-	-	NA	NA
013	-	-	-	-	-	-	-	-	-	-	-	NA	NA
018	-	-	-	-	-	-	-	-	-	-	-	NA	NA
023	-	-	-	-	-	-	-	-	-	-	-	NA	NA
024	-	-	-	-	-	-	-	-	-	-	-	NA	NA
02	-	-	+	+	+	+	+	+	+	+	+	PA	PA
03	+	+	+	+	+	+	+	+	+	+	+	PA	PA
08	+	+	+	+	+	+	+	+	+	+	+	PA	PA
012	+	+	+	+	+	+	+	+	+	+	+	PA	PA
015	-	-	+	+	+	+	+	+	+	+	+	PA	PA
017	+	+	+	+	+	+	+	+	+	+	+	PA	PA
019	+	-	+	+	+	-	-	-	-	-	-	ND	ND
021	-	-	-	-	-	+	+	+	+	+	+	PD	PD
01	+	+	+	+	+	+	+	+	+	+	+	PA	PA
05	+	+	+	+	+	+	+	+	+	+	+	PA	PA
06	+	+	+	+	+	+	+	+	+	+	+	PA	PA
011	+	+	+	+	+	+	+	+	+	+	+	PA	PA
014	+	+	+	+	+	+	+	+	+	+	+	PA	PA
016	+	+	+	+	+	+	+	+	+	+	+	PA	PA
020	+	+	+	+	+	+	+	+	+	+	+	PA	PA
022	+	+	+	+	+	+	+	+	+	+	+	PA	PA

Laboratory

P (ADRIA)

Aerobic mesophilic flora: 2,1.10⁸/g

N°Sample	Reference method: ISO 11290-1					Alternative method: ANSR method for Listeria detection						Agreement Pooled	Agreement Individual
	Half Fraser		Fraser		Final result	Pooled samples	Individual sample	O&A	Palcam	Final result Pooled	Final result Individual		
	O&A	Palcam	O&A	Palcam									
P4	-	-	-	-	-	-	-	-	-	-	-	NA	NA
P7	-	-	-	-	-	-	-	-	-	-	-	NA	NA
P9	-	-	-	-	-	-	-	-	-	-	-	NA	NA
P10	-	-	-	-	-	-	-	-	-	-	-	NA	NA
P13	-	-	-	-	-	-	-	-	-	-	-	NA	NA
P18	-	-	-	-	-	-	-	-	-	-	-	NA	NA
P23	-	-	-	-	-	-	-	-	-	-	-	NA	NA
P24	-	-	-	-	-	-	-	-	-	-	-	NA	NA
P2	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P3	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P8	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P12	-	-	-	-	-	+	+	+	+	+	+	PD	PD
P15	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P17	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P19	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P21	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P1	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P5	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P6	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P11	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P14	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P16	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P20	+	+	+	+	+	+	+	+	+	+	+	PA	PA
P22	+	+	+	+	+	+	+	+	+	+	+	PA	PA