microsept
VALIDATION & EXPERTISE

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 monocytogenes*
(certificate # NEO 35/04-03/16)
for the detection of *Listeria monocytogenes* in human food products and in environmental samples

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This report contains 87 pages, including 54 pages of appendices.

Version 0 December 18th , 2023

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% (LOD_{50}) 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 (LOD_{50}) of the alternative method divided by the level of detection at P = 0,50 (LOD_{50}) 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

1. Introduction

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

The ANSR for *Listeria monocytogenes* method is certified NF VALIDATION for a validation according to the ISO 16140-2:2016 standard under the certification number NEO 35/04-03/16 for the detection of *Listeria monocytogenes* in a broad range of foods and in environmental samples.

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

Table 1: validation history

Date	Study	Expert Laboratory	Standards
March 2016	Initial validation for the detection of *Listeria monocytogenes*	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 monocytogenes* is an isothermal, amplified nucleic acid assay. The ANSR for *Listeria monocytogenes* method is based on nicking enzyme amplification reaction (NEAR™) technology. Target 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 two-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 10 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 27±3 h at 30±1°C
- Lysis step:
  - 50 µl enrichment broth + 450 µl lysis buffer,
  - Incubation at 37°C for 10 min in a heater block,
  - Heat treatment at 80°C for 20 min.
- Polymerization step,
- Confirmation tests by streaking 100 µl of LESS Plus broth onto Ottaviani & Agosti or RAPID'*L.mono* agar media.

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

The protocol of the method is 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 monocytogenes* 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

542 samples contaminated and non-contaminated with *Listeria monocytogenes* were tested using both the EN ISO 11290-1/A1:2004 reference method and the ANSR for *Listeria monocytogenes* 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 ❶	a	Ready-to-eat	10	19	29
	b	Ready-to-reheat	14	14	28
	c	Confectionaries, pastries and egg prod	13	27	40
	Total		**37**	**60**	**97**
Meat products ❷	a	Raw products (frozen or fresh)	16	13	29
	b	Meat based products ready to reheat	10	14	24
	c	Raw and cooked delicatessen	9	21	30
	Total		**35**	**48**	**83**
Milk & dairy products ❸	a	Raw milk cheeses	10	23	33
	b	Other products based on raw milks	15	13	28
	c	Heat treated dairy products	9	16	25
	Total		**34**	**52**	**86**
Vegetables ❹	a	Raw products (fresh and frozen)	12	20	32
	b	Pre-cooked vegetables, vegetables under modified atmosphere	12	23	35
	c	RTE	13	16	29
	Total		**37**	**59**	**96**
Fish and seafood ❺	a	Raw products (fresh and frozen)	17	18	35
	b	Cured & smoked	17	8	25
	c	Ready-to-eat, Ready to reheat	14	22	36
	Total		**48**	**48**	**96**
Environmental samples ❻	a	Process & cleaning waters	12	15	27
	b	Dusts and residus	8	13	21
	c	Surface sampling	11	25	36
	Total		**31**	**53**	**84**
TOTAL			**222**	**320**	**542**

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 112 samples were artificially contaminated, using 56 different strains:

- 81 gave a positive result, among which:
  - 68 samples were inoculated at level ≤ 3 CFU / test portion,
  - 13 samples were inoculated between 3.2 and 7.2 CFU / test portion.

In total, 141 positive results out of 222 were obtained following artificial contaminations, i.e. 63.5%.

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 µl of the LESS broth onto Ottaviani & Agosti and RAPID'*L.mono* 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.

Table 4: results of the sensitivity study for both methods (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. PPND are included in ND.

Category	Response	R+	R-
Composite foods ❶	A+	PA = 22	PD = 8
	A-	ND = 7 Incl. 0 PPND	NA = 60 Incl 0 PPNA
Meat products ❷	A+	PA = 20	PD = 6
	A-	ND = 9 Incl 0 PPND	NA = 48 Incl 0 PPNA
Milk and dairy products ❸	A+	PA = 24	PD = 4
	A-	ND = 6 Incl 0 PPND	NA = 52 Incl 1 PPNA
Vegetables ❹	A+	PA = 22	PD = 8
	A-	ND = 7 Incl 0 PPND	NA = 59 Incl 0 PPNA
Fish and seafood ❺	A+	PA = 31	PD = 11
	A-	ND = 6 Incl 0 PPND	NA = 48 Incl 0 PPNA
Environmental samples ❻	A+	PA = 18	PD = 6
	A-	ND = 7 Incl 0 PPND	NA = 53 Incl 0 PPNA
All categories	A+	**PA = 137**	**PD = 43**
	A-	**ND = 42 Incl. 0 PPND**	**NA = 320 Incl. 1 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.

Table 5: values in % of sensitivity for the two methods, relative trueness and false positive ratio for the alternative method (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. PPND are included in ND.

Category		Type	PA	NA	PD	ND	PPND	PPNA	SE_{alt} %	SE_{ref} %	AC %	FP %
Composite foods ❶	a	Ready-to-eat	5	19	3	2	0	0	80.0	70.0	82.8	0.0
	b	Ready-to-reheat	7	14	3	4	0	0	71.4	78.6	75.0	0.0
	c	Confectionaries, pastries and egg products	10	27	2	1	0	0	92.3	84.6	92.5	0.0
		Total	**22**	**60**	**8**	**7**	**0**	**0**	**81.1**	**78.4**	**84.5**	**0.0**
Meat products ❷	a	Raw products (frozen or fresh)	10	13	3	3	0	0	81.3	81.3	79.3	0.0
	b	Meat based products ready to reheat	5	14	2	3	0	0	70.0	80.0	79.2	0.0
	c	Raw and cooked delicatessen	5	21	1	3	0	0	66.7	88.9	86.7	0.0
		Total	**20**	**48**	**6**	**9**	**0**	**0**	**74.3**	**82.9**	**81.9**	**0.0**
Milk & Dairy products ❸	a	Raw milk cheeses	6	23	2	2	0	0	80.0	80.0	87.9	0.0
	b	Other products based on raw milks	11	13	1	3	0	1	80.0	93.3	85.7	8.3
	c	Heat treated dairy products	7	16	1	1	0	0	88.9	88.9	92.0	0.0
		Total	**24**	**52**	**4**	**6**	**0**	**1**	**82.4**	**88.2**	**88.4**	**1.9**
Vegetables ❹	a	Raw products (fresh and frozen)	8	20	2	2	0	0	83.3	83.3	87.5	0.0
	b	Pre-cooked vegetables, vegetables under modified atmosphere	7	23	3	2	0	0	83.3	75.0	85.7	0.0
	c	RTE	7	16	3	3	0	0	76.9	76.9	79.3	0.0
		Total	**22**	**59**	**8**	**7**	**0**	**0**	**81.1**	**78.4**	**84.4**	**0.0**
Fish and seafood ❺	a	Raw products (fresh and frozen)	10	18	3	4	0	0	76.5	82.4	80.0	0.0
	b	Cured & smoked	11	8	6	0	0	0	100.0	64.7	76.0	0.0
	c	Ready-to-eat, Ready to reheat	10	22	2	2	0	0	85.7	85.7	88.9	0.0
		Total	**31**	**48**	**11**	**6**	**0**	**0**	**87.5**	**77.1**	**82.3**	**0.0**
Environmental samples ❻	a	Process & cleaning waters	9	15	2	1	0	0	91.7	83.3	88.9	0.0
	b	Dusts and residus	4	13	2	2	0	0	75.0	75.0	81.0	0.0
	c	Surface sampling	5	25	2	4	0	0	63.6	81.8	83.3	0.0
		Total	**18**	**53**	**6**	**7**	**0**	**0**	**77.4**	**80.6**	**84.5**	**0.0**
Total			**137**	**320**	**43**	**42**	**0**	**1**	**81.1**	**80.6**	**84.3**	**0.3**

Table 6 summarizes the calculated parameters for all categories per kind of samples.

Table 6: parameters for all categories per kind of samples (ND=ND+PPND, NA=NA+PPNA)

Parameter	Formula EN ISO 16140-2 :2016	Value
Sensitivity of the alternative method (SE_{alt})	$SE_{alt} = \frac{(PA + PD)}{(PA + ND + PD)} \times 100\ \%$	**81.1 %**
Sensitivity of the reference method (SE_{ref})	$SE_{ref} = \frac{(PA + ND)}{(PA + ND + PD)} \times 100\ \%$	**80.6 %**
Relative trueness (RT)	$RT = \frac{(PA + NA)}{N} \times 100\ \%$	**84.3 %**
False positive ratio (FPR) False positive results are the sum of PPNA and PPND	$FPR = \frac{FP}{NA} \times 100\ \%$	**0.3 %**

3.1.6. Analysis of discordant results

The negative deviations are given in table 7, the negative agreements recovered from the alternative method broth in table 8 and the positive deviations in table 9.

42 negative deviations were observed, 18 from artificially contaminated samples and 24 from naturally contaminated samples. For 8 samples, the presence of *Listeria monocytogenes* was detected in the LESS Plus Broth by the confirmation tests; one additional sample (5621) was confirmed by applying a subculture of LESS Plus Broth in Fraser prior streaking onto selective agar plates. 33 negative deviations were probably due to the unpaired study design and the related sampling heterogeneity.

43 positive deviations were observed. 28 concern naturally contaminated samples and 15 artificially contaminated samples.

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

Table 7: summary of negative deviations

Sample N°	Product	Strain inoculated	Inoculation level (CFU/sample)	ANSR for *L. monocytogenes*		Reference method on LESS Plus broth	Category	Type
				ANSR test	Confirmation			
3231	RTE Sandwich (tuna)	/	/	-	-	-	1	a
5788	Wrap (salmon)	/	/	-	-	-	1	a
1117	**RTRH (cheese ham)**	*L.monocytogenes Ad 1197*	1.0	i/-	-	-	1	b
3443	**RTRH (Pizza)**	*L.monocytogenes Ad 1973/2400*	1.6	-	-	-	1	b
3446	**RTRH (lasagnes)**	*L.monocytogenes Ad 1218*	0.8	-	-	-	1	b
4837	RTE (ham)	/	/	-	*L.monocytogenes*	+	1	b
3441	**Pasteurized liquid yellow egg**	*L.monocytogenes Ad 1757*	1.0	-	-	-	1	c
4765	Raw ham	/	/	-	-	-	2	a
5431	Raw turkey meat	/	/	-	-	-	2	a
5533	Chicken meat	/	/	-	-	-	2	a
4299	**RTRH meat (beef)**	L.monocytogenes Ad 1218	1.4	-	-	-	2	b
5884	Nuggets	/	/	-	-	-	2	b
5961	**Ready to reheat (chicken, curry)**	L.monocytogenes AOOC036	2.4	-	-	-	2	b
4756	Delicatessen	/	/	-	-	-	2	c
5410	Rillettes	/	/	-	-	-	2	c
5621	Chorizo	/	/	-	-	+	2	c
5970	**Raw milk cheese**	L.monocytogenes Ad 253	0.6	-	-	-	3	a
6247	Raw ewe milk cheese	/	/	i/-	*L.monocytogenes*	+	3	a
3548	**Fermented milk**	*L.monocytogenes Ad 1785*	1.0	-	-	-	3	b
3549	**Fermented milk**	*L.monocytogenes Ad 1781*	0.6	-	-	-	3	b
7982	**Raw milk**	*L.monocytogenes* Ad1784 / *L.ivanovii* Ad680	2.6	-	*L.ivanovii*	-	3	b
1979	**Panna cotta**	*L.monocytogenes Ad 260*	<1	i/i/-*	-	-	3	c
3917	Fenouil	/	/	-	*L.monocytogenes*	+	4	a
5772	Spinaches	/	/	-	-	-	4	a
4172	Pre-cooked vegetables	/	/	-	-	-	4	b
4748	Pre-cooked vegetables (onions)	/	/	-	*L.monocytogenes*	+	4	b
1985	**RTE (Grated carrots)**	*L.monocytogenes 1011/1410*	1.0	i/-	*L.monocytogenes*	/	4	c
4282	**RTE vegetables (beets)**	*L.monocytogenes Ad 1238*	1.8	-	-	-	4	c
5529	Roasted onions	/	/	-	-	-	4	c
4116	Fish fillet	/	/	-	-	-	5	a
4124	Frozen fish filet	/	/	-	*L.monocytogenes / L.innocua*	+	5	a
4184	Raw fish	/	/	-	-	-	5	a
4750	RTE salmon	/	/	-	*L.monocytogenes*	+	5	a
3916	RTRH fish	/	/	-	*L.monocytogenes*	+	5	c
5891	Ready to reheat (scallops)	/	/	-	-	-	5	c
5980	**Process water (fish industry)**	*L.monocytogenes* AOOM009	0.8	-	-	-	6	a
3731	Siphon water	*L.monocytogenes Ad 631*	6.6	-	-	-	6	b
4392	Dusts (fish industry)	/	/	-	-	-	6	b
4844	Wipe (fish industry)	/	/	-	-	-	6	c
5985	**Wipe (fish industry)**	*L.monocytogenes* AOOM032	1.0	-	-	-	6	c
5986	**Wipe (fish industry)**	*L.monocytogenes* AOOM045	1.4	-	-	-	6	c
8013	Wipe (pastry)	*L.monocytogenes* Ad634	7.2	-	-	-	6	c

Table 8: Strains recovered from samples with NA results

Sample N°	Product	Confirmation procedures of the ANSR method		Reference method	Confirmation
		O&A	RAPID'L. mono		
1116	Smoked trout	H+	+	+	*L.monocytogenes*
2904	Sandwich (ham)	H+	+	+	*L.monocytogenes*
3726	Pasteurized cheese	H+	+(2 colonies)	+	*L.monocytogenes*
3795	Veal pâté	H+(1 colony)	+(1 colony)	+	*L.monocytogenes*
3798	Fried onions	H+	+	/	*L.monocytogenes*
3821	RTRH vegetables	H+	+	/	*L.monocytogenes*
3914	Sandwich (salmon)	H+(2 colonies)	+(6 colonies)	+	*L.monocytogenes*
4283	**RTE vegetables (sliced carrots)**	st	+(2 doubtful colonies)	+	*L.monocytogenes*
4284	**RTE vegetables (celery)**	H+	+	+	*L.monocytogenes*
4389	Dusts (fish industry)	H+ (doubtful colonies)	No colony	+	*L.monocytogenes*
4741	RTE fruits	st	st	+	*L.monocytogenes*
4759	Delicatessen	H+/H-	+	+	*L.monocytogenes*
5416	RTE food (Macedoine deli-salad)	-	-	+	*L.monocytogenes*
5424	Sandwich with salmon	-	-	+	*L.monocytogenes*
5425	RTRH (cheese)	H+	+	/	*L.monocytogenes*
5432	Raw chicken meat	H+	+	/	*L.monocytogenes*
5532	Ground veal	H+/H-	+	+	*L.monocytogenes*
5642	**Vanilla ice cream**	H+	+	+	*L.monocytogenes*
7984	**Raw milk cheese**	H+	+	+	*L.monocytogenes*

Table 9: summary of positive deviations

Sample N°	Product	Strain inoculated	Inoculation level (CFU/sample)	ANSR for *L. monocytogenes*		Category	Type
				ANSR test	Confirmation		
2903	Sandwich (bacon)	/	/	+	*L.monocytogenes*	1	a
5774	toasts (meat and vegetables)	/	/	+	*L.monocytogenes*	1	a
5778	Sandwich (fish)	/	/	+	*L.monocytogenes*	1	a
3442	**RTRH (quiche Lorraine)**	*L.monocytogenes Ad 1973/2400*	1.6	+	*L.monocytogenes*	1	b
3444	**RTRH (hachis Parmentier)**	*L.monocytogenes Ad 1206*	0.6	+	*L.monocytogenes*	1	b
3721	RTRH (Pizza)	*L.monocytogenes Ad 1197*	2.2	+	*L.monocytogenes*	1	b
4286	**RTE vegetables (celery)**	*L.monocytogenes Ad 1672*	1.6	+	*L.monocytogenes*	1	c
4288	**Omelettes onion**	*L.monocytogenes Ad 1757*	2.0	+	*L.monocytogenes*	1	c
3796	Frozen pork meat	/	/	+	*L.monocytogenes*	2	a
3818	Pork meat	/	/	+	*L.monocytogenes*	2	a
3824	Turkey meat	/	/	+	*L.monocytogenes/L.welshimeri*	2	a
3720	RTRH (Bourguignon)	*L.monocytogenes 2407/3139*	1.6	+	*L.monocytogenes*	2	b
4301	**RTRH meat (veal)**	*L.monocytogenes Ad 1218*	1.4	+	*L.monocytogenes*	2	b
3802	Ham	/	/	+	*L.monocytogenes*	2	c
5968	**Raw milk cheese**	*L.monocytogenes* 153	0.8	+	*L.monocytogenes*	3	a
6246	Raw milk cheese	/	/	+	*L.monocytogenes*	3	a
3832	Ewe milk	/	/	+	*L.monocytogenes*	3	b
3724	Pasteurized cheese	*L.monocytogenes Ad 1784*	3.2	+	*L.monocytogenes*	3	c
4175	Broccoli	/	/	+	*L.monocytogenes*	4	a
5527	Zucchini	/	/	+	*L.monocytogenes*	4	a
3232	RTRH vegetables	/	/	+	*L.monocytogenes*	4	b
4740	Pre-cooked vegetables (onions)	/	/	+	*L.monocytogenes*	4	b
5781	Frozen seasoned vegetables	/	/	+	*L.monocytogenes*	4	b
3823	RTE (Spinach-cheese)	/	/	+	*L.monocytogenes*	4	c
5614	Roasted onions	/	/	+	*L.monocytogenes*	4	c
5977	**Vegetables mix**	*L.monocytogenes* Ad 546	2.0	+	*L.monocytogenes*	4	c
1112	**Fresh raw fish**	*L.monocytogenes Ad 1192*	1.6	+	*L.monocytogenes*	5	a
3828	Fish fillet	/	/	+	*L.monocytogenes/L.innocua*	5	a
5531	Fish fillet	/	/	+	*L.monocytogenes*	5	a
3803	Smoked salmon	/	/	+	*L.monocytogenes/L.welshimeri*	5	b
3804	Smoked trout	/	/	+	*L.monocytogenes/L.welshimeri*	5	b
3805	Smoked trout	/	/	+	*L.monocytogenes/L.welshimeri*	5	b
3921	Smoked salmon	/	/	+	*L.monocytogenes/L.welshimeri*	5	b
3922	Smoked salmon	/	/	+	*L.monocytogenes/L.welshimeri*	5	b
5610	Smoked salmon	/	/	+	*L.monocytogenes*	5	b
3233	RTRH (fish)	/	/	+	*L.monocytogenes*	5	c
5890	Ready to cook (salmon)	/	/	+	*L.monocytogenes*	5	c
5982	**Process water (fish industry)**	*L.monocytogenes* AOOM045	1.4	+	*L.monocytogenes*	6	a
5983	**Process water (fish industry)**	*L.monocytogenes* AOOM088	1.0	+	*L.monocytogenes*	6	a
4393	Dusts (fish industry)	/	/	+	*L.monocytogenes*	6	b
4842	Wipe dusts (fish industry)	/	/	+	*L.monocytogenes*	6	b
8001	Wipe (pastry)	*L.monocytogenes* Ad1271	6.4	+	*L.monocytogenes*	6	c
8007	Wipe after cleaning process	*L.monocytogenes* Ad1255	7.8	+	*L.monocytogenes*	6	c

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

Cate-gory	Type		Values				
			PD	ND	PPND	ND+PPND-PD	AL
❶	a	Ready-to-eat	3	2	0	/	/
	b	Ready-to-reheat	3	4	0		
	c	Confectionaries, pastries and egg products	2	1	0		
	Total		**8**	**7**	**0**	**-1**	**3**
❷	a	Raw products (frozen or fresh)	3	3	0	/	/
	b	Meat based products ready to reheat	2	3	0		
	c	Raw and cooked delicatessen	1	3	0		
	Total		**6**	**9**	**0**	**3**	**3**
❸	a	Raw milk cheeses	2	2	0	/	/
	b	Other products based on raw milks	1	3	0		
	c	Heat treated dairy products	1	1	0		
	Total		**4**	**6**	**0**	**2**	**3**
❹	a	Raw products (fresh and frozen)	2	2	0	/	/
	b	Pre-cooked vegetables, vegetables under modified atmosphere	3	2	0		
	c	RTE	3	3	0		
	Total		**8**	**7**	**0**	**-1**	**3**
❺	a	Raw products (fresh and frozen)	3	4	0	/	/
	b	Cured & smoked	6	0	0		
	c	Ready-to-eat, Ready to reheat	2	2	0		
	Total		**11**	**6**	**0**	**-5**	**3**
❻	a	Process & cleaning waters	2	1	0	/	/
	b	Dusts and residus	2	2	0		
	c	Surface sampling	2	4	0		
	Total		**6**	**7**	**0**	**1**	**3**
Total			**43**	**42**	**0**	**-1**	**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.

3.1.8. 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 samples. After storage, the broths were reanalyzed and confirmed.
The following changes are observed (cf. table 11).

Table 11: results modifications after storage of the broth at 2-8°C

Category	Sample N°	Before storage	After storage
4	3917	ND	PA
1	2904	NA	PD
4	3821	NA	PD
5	3913	PA	ND
5	3921	PD	NA
5	4124	ND	PA
5	4750	ND	PA
4	4284	NA	PD
6	4389	NA	PD
6	4397	PA	ND
4	1985	ND	PA
5	3916	ND	PA
1	4837	ND	PA
2	5432	NA	PD
3	5642	NA	PD
3	5669	PA	ND
3	7984	NA	PD

Table 12 shows the differences between ND and PD and the acceptability limits after storage.

Table 12: acceptability limits after storage of the enriched broths

Cate-gory	Type		Values				
			PD	ND	PPND	ND+PPND-PD	AL
❶	a	Ready-to-eat	4	1	0	/	/
	b	Ready-to-reheat	3	3	0		
	c	Confectionaries, pastries and egg products	2	1	0		
	Total		9	5	0	**-4**	**3**
❷	a	Raw products (frozen or fresh)	4	3	0	/	/
	b	Meat based products ready to reheat	2	2	0		
	c	Raw and cooked delicatessen	1	3	0		
	Total		7	8	0	**1**	**3**
❸	a	Raw milk cheeses	3	3	0	/	/
	b	Other products based on raw milks	1	3	0		
	c	Heat treated dairy products	2	1	0		
	Total		6	7	0	**1**	**3**
❹	a	Raw products (fresh and frozen)	2	1	0	/	/
	b	Pre-cooked vegetables, vegetables under modified atmosphere	4	2	0		
	c	RTE	4	2	0		
	Total		10	5	0	**-5**	**3**
❺	a	Raw products (fresh and frozen)	3	3	0	/	/
	b	Cured & smoked	4	0	0		
	c	Ready-to-eat, Ready to reheat	2	1	0		
	Total		9	4	0	**-5**	**3**
❻	a	Process & cleaning waters	2	1	0	/	/
	b	Dusts and residus	3	3	0		
	c	Surface sampling	2	4	0		
	Total		7	8	0	**1**	**3**
Total			**48**	**37**	**0**	**-11**	**6**

The observed values are below 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

For 19 samples in negative agreement, *Listeria monocytogenes* strains were recovered by the confirmation procedure. Four of them were artificially inoculated; all the other ones were naturally contaminated. In many cases, only few colonies were observed on the selective agars of the confirmation procedures of the alternative methods. 3 isolates were only recovered using the ISO

method protocol from the LESS Plus broth. This detection of *Listeria monocytogenes* only by confirmation tests may be due to the difference in volume used between detection (50 µl) and confirmation (100 µl).

Some differences were observed between streaking onto O&A agar and RAPID'*L.mono* plates and are given in Table 13.

*Table 13: Differences observed between streaking onto O&A agar and RAPID'*L.mono *plates*

Sample n°	O&A agar	RAPID'*L.mono*
3804	+	-
3913	+	-
3918	+	-
4117	+	-
4119	+	-
4394	-	+
4397	-	+
5420	+	-
5890	+	-

For 7 samples, typical colonies were observed on O&A plates while no typical colony was observed on RAPID'*L.mono*. For 2 samples, typical colonies were observed on RAPID'*L.mono* and not on O&A plates.

3.1.10. Inhibitions

The following inhibitions were observed:
- after enrichment: table 14,
- after storage of the broth at 2-8°C: table 15.

Table 14: Inhibitions observed LESS Plus broth incubation

Sample N°	Product	ANSR Result	Final result	Agreement
1106	**Rillettes**	i/+	+	PA
1982	**RTRHG (Moussaka)**	i/+	+	PA
1983	**Baccon**	i/+	+	PA
1984	**RTE (Macedoine)**	i/+	+	PA
2916	Custard	i/-*	-	NA
2917	Custard	i/-*	-	NA
1117	**RTRH (cheese ham)**	i/-	-	ND
6247	Raw ewe milk cheese	i/-	-	ND
3807	RTE (Surimi)	i/-*	-	NA
4397	Dusts (fish industry)	i/+/-	+	PA
1985	**RTE (Grated carrots)**	i/-	-	ND

5639	**Ice cream (apricot, white chocolate)**	i/i/-*	-	NA
5640	**Ice cream (caramel)**	i/-	-	NA
5641	**Ice cream (caramel)**	i/-	-	NA
5924	Croque monsieur	i/-	-	NA
4393	Dusts (fish industry)	i/+/+	+	PD
1979	**Panna cotta**	i/i/-*	-	ND

Table 15: Inhibitions observed LESS Plus broth storage at 2-8°C

Sample N°	Product	ANSR Result	Final result	Agreement
3450	Pasteurized liquid whole egg	i/-*	-	NA
6247	Raw ewe milk cheese	i/-*	-	ND
4282	**RTE vegetables (beets)**	i/-/-	-	ND
4286	**RTE vegetables (celery)**	i/+/+	+	PD
5786	Ready to reheat fish	i/+	+	PA
5410	Rillettes	i/-	-	ND
5979	**Beets**	i/+	+	PA
1979	**Panna cotta**	i/-*/+*/-*	-	ND

Just after incubation of the LESS Plus broth, 17 inhibitions were observed; for 12 of them, the test was run again without any dilution. For 5 samples, a 1/10 dilution was applied.

After LESS Plus broth storage at 2 – 8°C, 8 inhibitions were observed; a result was obtained without applying any dilution for 5 samples, and with a 1/10 dilution for 3 samples.

25 inhibitions were observed for 790 tests applied; this represents 3.2 %.

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 monocytogenes* 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)**	*Listeria monocytogenes* Ad494	Deli salad
Meat products: **Pâté**	*Listeria monocytogenes* Ad669	Rillettes
Milk and Dairy products **Raw milk cheese (Brie)**	*Listeria monocytogenes* Ad618	Cheese
Vegetables: **Ready-to-cook vegetables**	*Listeria monocytogenes* Ad279	Ready-to-cook vegetables
Fish and seafood: **Smoked salmon**	*Listeria monocytogenes* Ad670	Smoked salmon
Environmental samples: **Process water**	*Listeria monocytogenes* Ad551	Environmental sample

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= 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 (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 H0: b=0, p-value: p-value of the z-Test)

Category	RLOD	RLODL	RLODU	b=ln(RLOD)	sd(b)	z-Test statistic	p-value	AL
❶ **Composite foods**	0,7	0,2	1,9	-0,4	0,5	0,7	1,5	2.5
❷ **Meat products**	0,8	0,3	2,3	-0,2	0,5	0,3	1,3	
❸ **Milk and dairy products**	0,9	0,3	2,5	-0,1	0,5	0,2	1,2	
❹ **Vegetables**	0,6	0,2	1,6	-0,4	0,5	0,9	1,7	
❺ **Fish and seafood**	1,9	0,7	5,0	0,6	0,5	1,3	0,2	
❻ **Environmental samples**	0,8	0,3	1,9	-0,2	0,4	0,5	1,4	

The LOD_{50} calculations according to Wilrich & Wilrich POD-LOD calculation program - version 11, are given in Table 18.

Table 18: $LOD_{50\%}$ for the alternative and reference method (CFU/25 g)

Matrix	Strain	Reference method	Alternative method
Deli-salad	*L. monocytogenes*	0.764	0.547
Rillettes	*L. monocytogenes*	0.460	0.385
Raw milk cheese	*L. monocytogenes*	0.859	0.772
Ready-to-cook veg.	*L. monocytogenes*	0.870	0.620
Smoked salmon	*L. monocytogenes*	0.588	1.153
Process water	*L. monocytogenes*	0.874	0.694
Combined results		0.741	0.672

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 monocytogenes* in the categories tested.

3.3. Inclusivity and exclusivity study

3.3.1. Test protocols

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

- **Inclusivity**

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 24 h at 30°C), prior running the alternative method protocol.

- **Exclusivity**

Negative strain cultures were performed in BHI at 37°C. Dilutions were realized in order to inoculate 10^5 cells/ml in buffered peptone water. The broths were incubated for 24 h at 37°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.

- **Exclusivity**

No cross reaction was observed among the 50 non-target tested strains.

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 19: 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 RAPID'*L.mono* plates	/	Day 1
O&A or RAPID'*L.mono* 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 monocytogenes* by the ANSR method ,
- 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 g,
- Level 1: 2 CFU/25 g,,
- 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 20: 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 monocytogenes*., 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 21).

Table 21: Listeria monocytogenes stability in the matrix

Day of analysis	***Listeria* spp. detection**		**Mesophilic aerobic flora (CFU/g)**
	CFU/g	Detection/25 g	
Day 0	140	+	$6.3\ 10^{7}$
	100	-	
	140	+	
Day 1	150	+	$1.0\ 10^{8}$
	90	+	
	170	-	
Day 2	170	+	$1.9\ 10^{8}$
	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 22.

Table 22: samples temperature upon receipt (T°C: temperature in °C)

Laboratories	Probe T°C	Receipt T°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 23).

Table 23: Results obtained by the Expert Laboratory

Level	Reference method	Alternative method
		Single protocol
L_0	0 / 8	0 / 8
L_1	7 / 8	8 / 8
L_2	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 10^6 to 4.6 10^8 CFU/g.

- **Reference method**

Table 24 presents the positive results of all collaborators

Table 24: positive results of the collaborators (bc: before confirmation, ac: after confirmation)

Lab	Reference method			Alternative method					
	L_0	L_1	L_2	L_0		L_1		L_2	
				bc	ac	bc	ac	bc	ac
A	0	6	8	0	0	7	7	8	8
B	0	7	8	0	0	3	3	3	3
C	0	8	8	0	0	7	7	8	8
D	0	8	8	0	0	8	8	8	8
E	0	7	8	0	0	7	7	8	8
F	0	7	8	0	0	7	7	8	8
G	0	8	8	0	0	8	8	8	8
H	0	7	8	0	0	5	5	8	8
I	0	7	8	0	0	5	5	8	8
J	0	4	8	0	0	7	7	8	8
K	0	6	8	1	1	8	8	8	8
L	0	8	8	0	0	7	6	8	8
M	0	6	8	0	0	8	8	8	8
N	0	7	8	0	0	7	7	8	8
O	0	7	8	0	0	7	7	8	8
Total	**0**	**103**	**120**	**1**	**1**	**101**	**100**	**120**	**120**

According to the AFNOR technical rules, it is possible to include the results from a collaborator with maximum one cross contamination at Level 0. For this study, this rule was not applied.
Two labs were not retained for interpretation:

- Lab B did not respect the incubation time for the LESS Plus broth (24 h at 30°C);
- Lab K found a control sample positive by the alternative method.

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

The results obtained by the collaborators in the interlaboratory study are summarized in Table 25.

Table 25: positive results of the collaborators after having withdrawn labs B and K (bc: before confirmation, ac: after confirmation)

Lab	Reference method			Alternative method					
	L_0	L_1	L_2	L_0		L_1		L_2	
				bc	ac	bc	ac	bc	ac
A	0	6	8	0	0	7	7	8	8
C	0	8	8	0	0	7	7	8	8
D	0	8	8	0	0	8	8	8	8
E	0	7	8	0	0	7	7	8	8
F	0	7	8	0	0	7	7	8	8
G	0	8	8	0	0	8	8	8	8
H	0	7	8	0	0	5	5	8	8
I	0	7	8	0	0	5	5	8	8
J	0	4	8	0	0	7	7	8	8
L	0	8	8	0	0	7	6	8	8
M	0	6	8	0	0	8	8	8	8
N	0	7	8	0	0	7	7	8	8
O	0	7	8	0	0	7	7	8	8
Total	**0**	**90**	**104**	**0**	**0**	**90**	**89**	**104**	**104**

4.4. Interpretation of the results

4.4.1. Summary of the results

Table 26 details per method, per level and per protocol the results obtained during the study.

Table 26: tests results for the two methods

Response	Reference method positive (R+)	Reference method negative (R-)
Alternative method positive (A+)	Positive agreement PA = 77	Positive deviation PD = 11
Alternative method negative (A-)	Negative deviation ND = 13 including 1 PPND	Negative agreement NA = 3 including 0 PPNA

For Level 1, the negative deviations are listed in Table 27 and the positive deviations in Table 28.
For 5 samples, the confirmatory tests concluded to the presence of *Listeria monocytogenes* in the enrichment broth, while the ANSR test was negative. Note that for Lab I (sample I8), the test was repeated and finally gave a positive result. For 7 samples, the ANSR tests and the confirmatory tests were negative. For one sample (L19), the ANSR test was positive but the Lab did not confirm the presence of *Listeria monocytogenes* in the enrichment broth.

Table 27: negative deviations

Lab.	Sample No	ANSR test	Confirmation
A	A21	-	+
C	C17	-	-
E	E15	-	-
F	F15	-	-
H	H3 H12 H19	- - -	+ + +
I	I8 I19 I21	-/+ - -	+ - -
L	L3 L19	- +	- -
O	O19	-	-

Table 28: positive deviations

Lab.	Sample No
A	A17
E	E3
F	F21
H	H17
I	I15
J	J12 J15 J21
M	M8 M12
O	O21

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:

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

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

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

N_x = the total number of samples tested for level x (L1 or L2) 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 29: values obtained for the determination of the acceptability limit

Parameter	Value
N_x	104
$(p+)_{ref}$	0.87
$(p+)_{alt}$	0.86
Acceptability limit: AL = $(ND\text{-}PD)_{max}$	8.65
Observed value: ND-PD	2

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:

SE_{alt} = 87%
SE_{ref} = 89%
AC = 77%
FP = 33%

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

This evaluation is performed according to Annex F of ISO 16140-2:2016 and using the excel spreadsheet as described in this standard. As there is limited experience with the interpretation of this approach, the results are used only for information. Results are shown in the table 30.

Table 30: values obtained for the determination of the relative level of detection

Method	$LOD_{50\%}$	$LOD_{95\%}$	RLOD
Reference	0.83 [0.65 ; 1.05]	3.57 [2.80 ; 4.56]	1.03 [0.78 ; 1.37]
Alternative	0.85 [0.67 ; 1.09]	3.69 [2.90 ; 4.71]	

5. Conclusion

- **Methods comparison study**

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

In the sensitivity study, 6 categories were tested: 5 food categories and the environmental samples. The alternative method shows 42 positive deviations (PD) and 42 negative deviations (ND) for the overall categories. The values for ((ND + PPND) – PD) are below or equal to the acceptability limits (AL) whatever the categories, and as well for the 6 tested categories.

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 did give the expected results for the 50 target strains and the 50 non target strains.

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

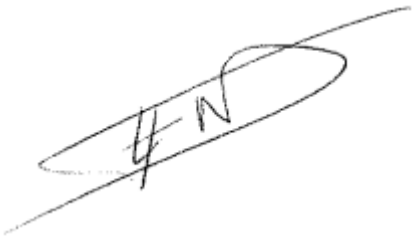
The ANSR for *Listeria monocytogenes* allows a one-day screening of the negative samples.

The ANSR method for *Listeria monocytogenes* with the single protocol fulfils all the ISO 16140-2 and AFNOR technical rules requirements.

- **Interlaboratory study**

The data and interpretations comply with the ISO 16140-2:2016 requirements. The ANSR method for *Listeria monocytogenes* 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

25 g + 225 ml LESS Plus Broth

↓

Incubation at 30 °C ± 1°C
for 27 h ± 3 h

↓

Transfer 50 µl of enrichment into a lysis tube
Add 450 µl of lysis Buffer

↓

Heat treatment for 10 min at 37°C (heater block)

↓

Heat treatment for 20 min (maxi: 60 min) at 80°C (heater block)

↓

3 min before the end of lysis step, pre-heat the ANSR reagents to 56°C by placing the reaction tubes in the ANSR reader

↓

Transfer within 1 min 50 µl of the top third of the lysed sample to the reaction tube
Cap the tubes immediately

↓

Remove the strip of tubes from the reader and vortex them very quickly (about 3 seconds)

↓

Put them back into the reader and close the reader's lid

↓

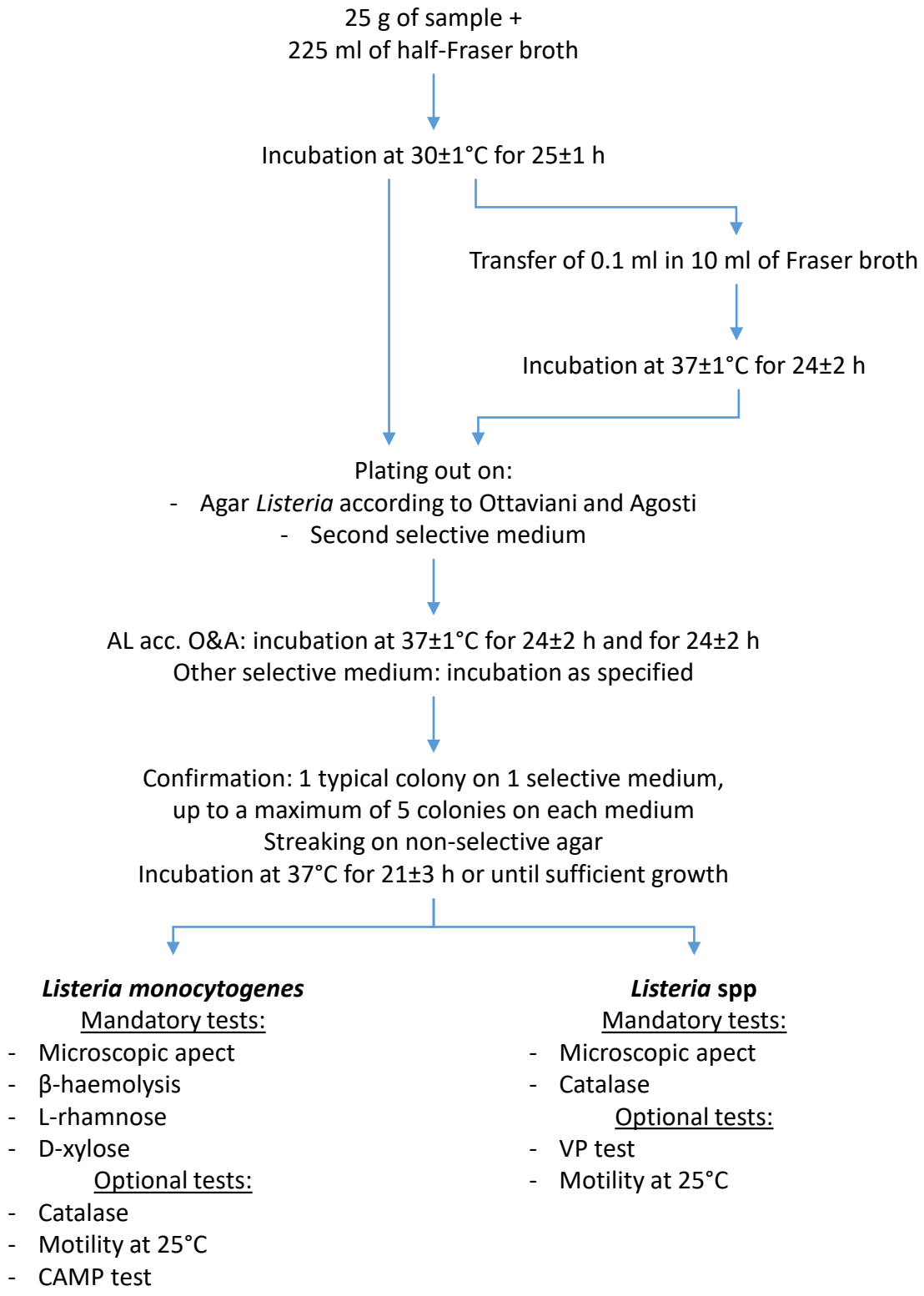
ANSR for *Listeria* reaction (18 min)

↓

Confirmatory tests:
Streak 100 µl of enriched broth onto O&A or RAPID'L.mono

APPENDIX B
EN ISO 11290-1:2017

Diagram of the procedure as described in the standard



Appendix C – Artificial contamination of samples

Sample No	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
3547	**Maxi Croque-monsieur**	**RTRH (croque monsieur)**	*L.monocytogenes 1973/2400*	RTRH	Seeding-48h 2-8°C	1-1-1-0-4 (1.4)	+
3550	**Lait ribot**	**Fermented milk**	*L.monocytogenes Ad 1201*	Cheese	Seeding-48h 2-8°C	2-2-1-3-0 (1.6)	+
3551	**Lait ribot fermier**	**Fermented milk**	*L.monocytogenes Ad 1626*	Cheese	Seeding-48h 2-8°C	1-0-2-2-2 (1.4)	-
3553	**Lingette tapis ligne**	**Wipe**	*L.monocytogenes Ad 1679*	Environment	Seeding-48h 2-8°C	1-0-1-1-0 (0.6)	-
3555	**Eau de rinçage laveuse**	**Rinse water**	*L.monocytogenes Ad 1679*	Environment	Seeding-48h 2-8°C	1-0-1-1-0 (0.6)	-
3549	**Lait fermenté**	**Fermented milk**	*L.monocytogenes Ad 1781*	Raw milk	Seeding-48h 2-8°C	0-1-0-1-1 (0.6)	+
3548	**Lait fermenté**	**Fermented milk**	*L.monocytogenes Ad 1785*	Ewe milk	Seeding-48h 2-8°C	0-1-3-1-0 (1.0)	+
3552	**Lait ribot**	**Fermented milk**	*L.monocytogenes Ad 611*	Milk	Seeding-48h 2-8°C	0-1-1-0-1 (0.6)	-
3554	**Lingette tapis ligne**	**Wipe**	*L.monocytogenes AOOE049*	Environment	Seeding-48h 2-8°C	3-2-5-0-2 (2.4)	-
3556	**Eau de rinçage peleuse**	**Rinse water**	*L.monocytogenes AOOE049*	Environment	Seeding-48h 2-8°C	3-2-5-0-2 (2.4)	+
1984	**Macédoine de légumes**	**RTE (Macedoine)**	*L.monocytogenes 1011/1410*	Broccolis	Seeding-48h 2-8°C	1-2-1-0-1 (1.0)	+
1985	**Carottes râpées**	**RTE (Grated carrots)**	*L.monocytogenes 1011/1410*	Broccolis	Seeding-48h 2-8°C	1-2-1-0-1 (1.0)	+
5968	**Roquefort au lait cru**	**Raw milk cheese**	L.monocytogenes 153	Cheese	Seeding-48h 2-8°C	2-0-1-1-0 (0.8)	+
5972	**Fromage au lait cru de brebis**	**Raw milk cheese**	L.monocytogenes 153	Cheese	Seeding-48h 2-8°C	2-0-1-1-0 (0.8)	-
3720	**Bœuf bourguignon**	RTRH (Bourguignon)	*L.monocytogenes 2407/3139*	RTE	Seeding-48h 2-8°C	1-1-3-1-2 (1.6)	+
1982	**Moussaka**	**RTRHG (Moussaka)**	*L.monocytogenes 711/7516*	Rillettes	Seeding-48h 2-8°C	0-0-3-0-2 (1.0)	+
1983	**Bacon**	**Bacon**	*L.monocytogenes 711/7516*	Rillettes	Seeding-48h 2-8°C	0-0-3-0-2 (1.0)	+
5640	**Glace caramel beurre salé**	**Ice cream (caramel)**	L.monocytogenes 917	Milk	Seeding- -20°C	2-1-2-3-0 (1.6)	-
5642	**Glace vanille**	**Vanilla ice cream**	L.monocytogenes 917	Milk	Seeding- -20°C	2-1-2-3-0 (1.6)	-
5974	**Macédoine de légumes**	**Vegetables mix**	L.monocytogenes Ad 1011/1410	Frozen broccolis	Seeding-48h 2-8°C	1-2-0-2-0 (1.0)	-
5979	**Betteraves**	**Beets**	L.monocytogenes Ad 1011/1410	Frozen broccolis	Seeding-48h 2-8°C	1-2-0-2-0 (1.0)	+
1108	**Terrine de saumon à l'aneth**	**RTE (Salmon terrine)**	*L.monocytogenes Ad 1192*	Ready to reheat fish	Seeding-48h 2-8°C	0-3-0-1-4 (1.6)	+
1112	**Filet de lieu noir**	**Fresh raw fish**	*L.monocytogenes Ad 1192*	Ready to reheat fish	Seeding-48h 2-8°C	0-3-0-1-4 (1.6)	+
3440	**Coule d'œuf entier liquide pasteurisé**	**Pasteurized liquid whole egg**	*L.monocytogenes Ad 1195*	Egg product	Seeding-48h 2-8°C	0-1-1-1-1 (0.8)	-
3448	**Crème anglaise**	**Custard**	*L.monocytogenes Ad 1195*	Egg product	Seeding-48h 2-8°C	0-1-1-1-1 (0.8)	-
4287	**Tortilla nature**	**Omelettes**	*L.monocytogenes Ad 1195*	Omelettes	Seeding-48h 2-8°C	0-0-3-0-0 (0.6)	-
4290	**Eclairs chocolat**	**Pastries (chocolate)**	*L.monocytogenes Ad 1195*	Egg product	Seeding-48h 2-8°C	0-0-3-0-0 (0.6)	-

Sample No	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
1105	**Piémontaise au jambon**	**RTE (vegetables ham)**	*L.monocytogenes Ad 1197*	Pizza	Seeding-48h 2-8°C	1-0-0-2-2 (1.0)	+
1117	**Croissant jambon emmental**	**RTRH (cheese ham)**	*L.monocytogenes Ad 1197*	Pizza	Seeding-48h 2-8°C	1-0-0-2-2 (1.0)	+
3721	**Pizza jambon fromage**	RTRH (Pizza)	*L.monocytogenes Ad 1197*	Pizza	Seeding-48h 2-8°C	2-4-0-2-3 (2.2)	+
3725	**Brie pasteurisé**	Pasteurized cheese	*L.monocytogenes Ad 1201*	Raw milk cheese	Seeding-48h 2-8°C	5-5-7-9-8 (6.8)	+
3727	**Camembert au lait pasteurisé**	Pasteurized cheese	*L.monocytogenes Ad 1201*	Raw milk cheese	Seeding-48h 2-8°C	5-5-7-9-8 (6.8)	+
3445	**Macaronis tomates boulettes de bœuf**	**RTRH (macaronis beef)**	*L.monocytogenes Ad 1206*	Frozen ground beef	Seeding-48h 2-8°C	1-0-1-1-0 (0.6)	+
3444	**Hachis Parmentier**	**RTRH (hachis parmentier)**	*L.monocytogenes Ad 1206*	Frozen ground beef	Seeding-48h 2-8°C	1-0-1-1-0 (0.6)	+
3446	**Lasagnes à la bolognaise**	**RTRH (lasagnes)**	*L.monocytogenes Ad 1218*	Ground beef	Seeding-48h 2-8°C	1-1-0-0-2 (0.8)	+
3447	**Bœuf bourguignon**	**RTRH (beef)**	*L.monocytogenes Ad 1218*	Ground beef	Seeding-48h 2-8°C	1-1-0-0-2 (0.8)	-
4301	**Blanquette de veau**	**RTRH meat (veal)**	*L.monocytogenes Ad 1218*	Ground beef	Seeding-48h 2-8°C	2-1-1-3-0 (1.4)	+
4300	**Hachis Parmentier**	**RTRH meat (beef)**	*L.monocytogenes Ad 1218*	Ground beef	Seeding-48h 2-8°C	2-1-1-3-0 (1.4)	+
4299	**Bœuf bourguignon pommes de terre**	**RTRH meat (beef)**	L.monocytogenes Ad 1218	Ground beef	Seeding-48h 2-8°C	2-1-1-3-0 (1.4)	+
1119	**Carottes en rondelles**	**Sliced carrots**	*L.monocytogenes Ad 1238*	Vegetables	Seeding-48h 2-8°C	1-2-1-1-2 (1.4)	-
1122	**Jeunes pousses**	**Baby leaves**	*L.monocytogenes Ad 1238*	Vegetables	Seeding-48h 2-8°C	1-2-1-1-2 (1.4)	+
4283	**Carottes râpées**	**RTE vegetables (sliced carrots)**	*L.monocytogenes Ad 1238*	Vegetables	Seeding-48h 2-8°C	2-3-1-2-1 (1.8)	-
4284	**Céleri rémoulade**	**RTE vegetables (celery)**	*L.monocytogenes Ad 1238*	Vegetables	Seeding-48h 2-8°C	2-3-1-2-1 (1.8)	-
4282	**Betteraves rouges**	**RTE vegetables (beets)**	*L.monocytogenes Ad 1238*	Vegetables	Seeding-48h 2-8°C	2-3-1-2-1 (1.8)	+
4285	**Macédoine de légumes**	**RTE vegetables (macédoine)**	*L.monocytogenes Ad 1672*	Zucchini	Seeding-48h 2-8°C	1-1-2-2-2 (1.6)	+
4286	**Céleri rémoulade**	**RTE vegetables (celery)**	*L.monocytogenes Ad 1672*	Zucchini	Seeding-48h 2-8°C	1-1-2-2-2 (1.6)	+
4291	**Religieuses au café**	**Pastries coffee)**	*L.monocytogenes Ad 1757*	Egg product	Seeding-48h 2-8°C	2-3-1-3-1 (2.0)	+
4288	**Tortilla oignons**	**Omelettes onion**	*L.monocytogenes Ad 1757*	Egg product	Seeding-48h 2-8°C	2-3-1-3-1 (2.0)	+
3441	**Jaune d'œuf liquide pasteurisé**	**Pasteurized liquid yellow egg**	*L.monocytogenes Ad 1757*	Egg product	Seeding-48h 2-8°C	1-1-2-1-0 (1.0)	+
1110	**Lait ribot**	**Fermented milk**	*L.monocytogenes Ad 1781*	Raw milk	Seeding-48h 2-8°C	2-2-1-0-2 (1.4)	+
1111	**Lait entier pasteurisé**	**Pasteurized milk**	*L.monocytogenes Ad 1781*	Raw milk	Seeding-48h 2-8°C	2-2-1-0-2 (1.4)	+
3726	**Fromage pasteurisé de vache**	Pasteurized cheese	*L.monocytogenes Ad 1784*	Raw milk cheese	Seeding-48h 2-8°C	4-4-2-4-2 (3.2)	-
3724	**Fromage pasteurisé de vache**	Pasteurized cheese	*L.monocytogenes Ad 1784*	Raw milk cheese	Seeding-48h 2-8°C	4-4-2-4-2 (3.2)	+
3443	**Pizza chèvre lardons**	**RTRH (Pizza)**	*L.monocytogenes Ad 1973/2400*	RTRH	Seeding-48h 2-8°C	3-2-0-1-2 (1.6)	+

Sample No	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
3442	**Quiche Lorraine**	**RTRH (quiche Lorraine)**	*L.monocytogenes Ad 1973/2400*	RTRH	Seeding-48h 2-8°C	3-2-0-1-2 (1.6)	+
5962	**Coq au vin**	**Ready to reheat (rooster, wine)**	L.monocytogenes Ad 235	Poultry	Seeding-48h 2-8°C	1-1-0-1-0 (0.6)	-
5970	**Morbier au lait cru**	**Raw milk cheese**	L.monocytogenes Ad 253	Cheese	Seeding-48h 2-8°C	0-1-1-1-0 (0.6)	+
5971	**Tomme au lait cru**	**Raw milk cheese**	L.monocytogenes Ad 260	Cheese	Seeding-48h 2-8°C	1-1-0-0-0 (0.4)	-
1979	**Panna cotta caramel**	**Panna cotta**	*L.monocytogenes Ad 260*	Cheese	Seeding-48h 2-8°C	0-0-0-0-0 (<1)	+
4297	**Blanquette de veau**	**RTRH meat (veal)**	*L.monocytogenes Ad 291*	Bacon	Seeding-48h 2-8°C	2-2-2-2-1 (1.8)	+
5964	**Porc au caramel**	**Ready to reheat pork**	L.monocytogenes Ad 38/181	Sausages	Seeding-48h 2-8°C	3-1-6-1-2 (2.6)	-
5966	**Bœuf bourguignon**	**Ready to reheat beef (Bourguignon)**	L.monocytogenes Ad 38/181	Sausages	Seeding-48h 2-8°C	3-1-6-1-2 (2.6)	-
1981	**Tortilla oignons**	**RTRH (egg and onion)**	*L.monocytogenes Ad 544*	Onion	Seeding-48h 2-8°C	2-1-0-0-1 (0.8)	+
5975	**Céleri rémoulade**	**Deli salad (celery)**	L.monocytogenes Ad 544	Onion	Seeding-48h 2-8°C	4-2-0-2-4 (2.4)	-
5976	**Betteraves**	**Beets**	L.monocytogenes Ad 544	Onion	Seeding-48h 2-8°C	4-2-0-2-4 (2.4)	+
5977	**Macédoine de légumes**	**Vegetables mix**	L.monocytogenes Ad 546	Flour	Seeding-48h 2-8°C	3-0-2-0-5 (2.0)	+
5978	**Céleri rémoulade**	**Deli salad (celery)**	L.monocytogenes Ad 546	Flour	Seeding-48h 2-8°C	3-0-2-0-5 (2.0)	+
3728	**Eau de rinçage laveuse**	Rinse water	*L.monocytogenes Ad 548*	Environment	Seeding-48h 2-8°C	4-5-9-0-0 (3.6)	+
3729	**Eau d'épineuse**	Process water	*L.monocytogenes Ad 548*	Environment	Seeding-48h 2-8°C	4-5-9-0-0 (3.6)	+
4293	**Lait entier pasteurisé**	**Pasteurized milk**	*L.monocytogenes Ad 629*	Cheese	Seeding-48h 2-8°C	1-2-1-2-0 (1.2)	+
4295	**Tomme noire au lait pasteurisé**	**Pasteurized cheese**	*L.monocytogenes Ad 629*	Cheese	Seeding-48h 2-8°C	1-2-1-2-0 (1.2)	+
3730	**Eau de rinçage cuve PDL**	Rinse water	*L.monocytogenes Ad 631*	Environment	Seeding-48h 2-8°C	7-4-6-11-15 (6.6)	+
3731	**Eau de siphon laiterie**	Siphon water	*L.monocytogenes Ad 631*	Environment	Seeding-48h 2-8°C	7-4-6-11-15 (6.6)	+
5639	**Glace abricot chocolat blanc**	**Ice cream (apricot, white chocolate)**	L.monocytogenes Ad 637	Milk	Seeding- -20°C	0-0-1-0-0 (0.2)	-
5641	**Glace caramel beurre salé**	**Ice cream (caramel)**	L.monocytogenes Ad 637	Milk	Seeding- -20°C	0-0-1-0-0 (0.2)	-
1106	**Rillettes de porc**	**Rillettes**	*L.monocytogenes Ad 645*	Pork meat	Seeding-48h 2-8°C	1-2-0-1-3 (1.4)	+
1115	**Côte de porc**	**Pork meat**	*L.monocytogenes Ad 645*	Pork meat	Seeding-48h 2-8°C	1-2-0-1-3 (1.4)	+
4292	**Lait 1/2 écrémé pasteurisé**	**Pasteurized milk**	*L.monocytogenes Ad 665*	Raw milk	Seeding-48h 2-8°C	4-1-0-3-2 (2.0)	+
4294	**Fromage de chèvre pasteurisé**	**Pasteurized cheese**	*L.monocytogenes Ad 665*	Raw milk	Seeding-48h 2-8°C	4-1-0-3-2 (2.0)	+
4298	**Poulet rôti purée**	**RTRH meat (chicken)**	*L.monocytogenes Ad 668*	Chicken	Seeding-48h 2-8°C	4-3-3-3-4 (3.4)	+
8006	**Chiffonnette poussoir après nettoyage**	**Wipe after cleaning process**	L.monocytogenes Ad1255	Pork environment	Seeding-48h 2-8°C	10-7-7-6-9 (7.8)	-
8007	**Chiffonnette mélangeur après nettoyage**	**Wipe after cleaning process**	L.monocytogenes Ad1255	Pork environment	Seeding-48h 2-8°C	10-7-7-6-9 (7.8)	+

Sample No	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
8011	**Eau de rinçage mélangeur**	**Rinsing water**	L.monocytogenes Ad1255	Pork environment	Seeding-48h 2-8°C	10-7-7-6-9 (7.8)	+
8004	**Chiffonnette hachoir viande**	**Wipe (meat industry)**	L.monocytogenes Ad1265	Pork environment	Seeding-48h 2-8°C	10-6-7-5-7 (7.0)	+
8005	**Chiffonnette mélangeur saucisson sec**	**Wipe (meat industry)**	L.monocytogenes Ad1265	Pork environment	Seeding-48h 2-8°C	10-6-7-5-7 (7.0)	+
8010	**Eau de rinçage cutter**	**Rinsing water (meat)**	L.monocytogenes Ad1265	Pork environment	Seeding-48h 2-8°C	10-6-7-5-7 (7.0)	+
8001	**Chiffonnette plan de travail (patisserie))**	**Wipe (pastry)**	L.monocytogenes Ad1271	Environmental sample	Seeding-48h 2-8°C	8-7-4-8-5 (6.4)	+
8002	**Chiffonnette mélangeur avant nettoyage**	**Wipe**	L.monocytogenes Ad1271	Environmental sample	Seeding-48h 2-8°C	8-7-4-8-5 (6.4)	+
8009	**Eau de rinçage mélangeur pâte biscuit**	**Rinsing water (pastry)**	L.monocytogenes Ad1271	Environmental sample	Seeding-48h 2-8°C	8-7-4-8-5 (6.4)	+
7982	**Lait cru**	**Raw milk**	L.monocytogenes Ad1784 / L.ivanovii Ad680	Raw milk	Seeding-48h 2-8°C	2-4-4-1-2 (2.6) 1-11-2-1 (1.2)	+
8003	**Chiffonnette poussoir après nettoyage**	**Wipe after cleaning process**	L.monocytogenes Ad634	Dairy environmental sample	Seeding-48h 2-8°C	4-8-8-10-6 (7.2)	-
8008	**Eau de rinçage fourrage biscuit**	**Rinsing water (pastry)**	L.monocytogenes Ad634	Dairy environmental sample	Seeding-48h 2-8°C	4-8-8-10-6 (7.2)	+
8012	**Chiffonnette poussoir biscuit**	**Wipe (pastry)**	L.monocytogenes Ad634	Dairy environmental sample	Seeding-48h 2-8°C	4-8-8-10-6 (7.2)	-
8013	**Chiffonnette mélangeur biscuit**	**Wipe (pastry)**	L.monocytogenes Ad634	Dairy environmental sample	Seeding-48h 2-8°C	4-8-8-10-6 (7.2)	+
8113	**Brie au lait cru**	**Raw milk cheese**	L.monocytogenes Ad634 / L.ivanovii Ad1769	Dairy environmental sample	Seeding-48h 2-8°C	1-2-3-1-2 (1.8) 3-2-2-3-9 (3.8)	+
8114	**Emmental au lait cru**	**Raw milk cheese**	L.monocytogenes Ad634 / L.ivanovii Ad1769	Dairy environmental sample	Seeding-48h 2-8°C	1-2-3-1-2 (1.8) 3-2-2-3-9 (3.8)	+
8111	**Tomme de montagne au lait cru**	**Raw milk cheese**	L.monocytogenes Ad634 / L.ivanovii Ad680	Dairy environmental sample	Seeding-48h 2-8°C	1-2-3-1-2 (1.8) 8-10-10-9-8 (9.0)	+
8112	**Comté au lait cru**	**Raw milk cheese**	L.monocytogenes Ad634 / L.ivanovii Ad680	Dairy environmental sample	Seeding-48h 2-8°C	1-2-3-1-2 (1.8) 8-10-10-9-8 (9.0)	+
7983	**Lait cru**	**Raw milk**	L.monocytogenes Ad665 / L.ivanovii Ad1769	Raw milk	Seeding-48h 2-8°C	2-1-2-6-0 (2.2) 2-5-3-0-1 (2.2)	+
7984	**Roquefort au lait cru**	**Raw milk cheese**	L.monocytogenes Ad665 / L.ivanovii Ad1769	Raw milk	Seeding-48h 2-8°C	2-1-2-6-0 (2.2) 2-5-3-0-1 (2.2)	-

Sample No	Product (French name)	Product	Artificial contaminations				Global result
			Strain	Origin	Injury protocol	Inoculation level/sample	
5961	**Poulet au curry**	**Ready to reheat (chicken, curry)**	L.monocytogenes AOOC036	Poultry	Seeding-48h 2-8°C	1-5-3-1-2 (2.4)	+
5969	**Fromage de chèvre au lait cru**	**Raw milk cheese**	L.monocytogenes AOOL097	Milk	Seeding-48h 2-8°C	4-2-6-1-0 (2.6)	+
5973	**Comté fruité au lait cru**	**Raw milk cheese**	L.monocytogenes AOOL097	Milk	Seeding-48h 2-8°C	4-2-6-1-0 (2.6)	+
5980	**Eau pareuse (industrie poisson)**	**Process water (fish industry)**	L.monocytogenes AOOM009	Smoked salmon	Seeding-48h 2-8°C	0-1-2-1-0 (0.8)	+
5981	**Eau épineuse (industrie poisson)**	**Process water (fish industry)**	L.monocytogenes AOOM032	Smoked salmon	Seeding-48h 2-8°C	0-0-3-0-2 (1.0)	+
5985	**Chiffonnette tapis trancheur ligne (industrie poisson)**	**Wipe (fish industry)**	L.monocytogenes AOOM032	Smoked salmon	Seeding-48h 2-8°C	0-0-3-0-2 (1.0)	+
5982	**Eau peleuse (industrie poisson)**	**Process water (fish industry)**	L.monocytogenes AOOM045	Smoked salmon	Seeding-48h 2-8°C	0-1-1-1-4 (1.4)	+
5986	**Chiffonnette tapis pareuse (industrie poisson)**	**Wipe (fish industry)**	L.monocytogenes AOOM045	Smoked salmon	Seeding-48h 2-8°C	0-1-1-1-4 (1.4)	+
5983	**Eau laveuse (industrie poisson)**	**Process water (fish industry)**	L.monocytogenes AOOM088	Smoked salmon	Seeding-48h 2-8°C	0-0-0-3-2 (1.0)	+
4289	**Tartelettes fraises**	**Pastries (strawberries)**	*L.monocytogenes JL2862*	Egg product	Seeding-48h 2-8°C	1-1-0-0-1 (0.6)	+
8015	**Eau de siphon**	**Siphon water**	L.monocytogens Ad1265	Pork environment	Seeding-48h 2-8°C	10-6-7-5-7 (7.0)	-
8014	**Eau de siphon**	**Siphon water**	L.monocytogens Ad1271	Environmental sample	Seeding-48h 2-8°C	2-4-4-1-2 (2.6)	-

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
NC:	Non characteristic colony on TSYEA
d:	doubtful colony
*:	1/10 dilution
**:	1/100 dilution
F1:	Fraser 1

COMPOSITE FOODS, READY TO EAT AND READY TO REHEAT

Sample No	Product (French name)	Product	Reference method : ISO 11290-1/A1						Alternative method: ANSR for Listeria monocytogenes												Type
									After enrichment step 24h at 30°C							*After enrichment broth storage 72h at 2-8°C*					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
1105	**Piémontaise au jambon**	**RTE (vegetables ham)**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
3231	Sandwich au thon	RTE Sandwich (tuna)	H+	+(2)	H+	+	*L.monocytogenes*	+	-	-	-		-	**ND**	-	-	-	-	-	**ND**	a
2903	Sandwich Bacon Tomate œuf sauce yaourt	Sandwich (bacon)	st	-	-	-	/	-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
2904	Sandwich jambon fumé œuf mimosa crudités	Sandwich (ham)	st	st	-	-	/	-	-	H+	+	*L.monocytogenes*	-	**NA**	+	+	H+	+	+	**PD**	a
5788	Wraps au saumon	Wrap (salmon)	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	st	st	-	**ND**	a
3333	Piémontaise au jambon	RTE (Deli salad)	st	st	-	-		-	-	st	st		-	**NA**	-						a
5774	Canapés viande et légumes	toasts (meat and vegetables)	st	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
5778	Sandwich au poisson	Sandwich (fish)	-	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
3786	Piémontaise	RTE (Deli salad)	st	st	st	st		-	-	st	st		-	**NA**	-						a
3833	Sandwich jambon emmental	Sandwich (ham-cheese)	-	-	-	-		-	-	st	st		-	**NA**	-						a
3834	Sandwich jambon beurre	Sandwich (ham-butter)	-	-	-	-		-	-	-	-		-	**NA**	-						a
3911	Salade niçoise	Deli-salads	-	-	-	-		-	-	-	-		-	**NA**	-						a
3914	Sandwich duo de saumon	Sandwich (salmon)	-	-	-	-		-	-	H+(2)	+(6)	*L.monocytogenes*	-	**NA**	+	-	H+	+	-	**NA**	a
4114	Sandwich chèvre tomates légumes	Sandwich (cheese, tomatoes)	st	-	-	-		-	-	-	st		-	**NA**	-						a
4173	Piémontaise	RTE vegetables (piémontaise)	st	st	-	-		-	-	st	st		-	**NA**	-						a
4744	Riz au thon	RTE tuna	-	-	-	-		-	-	-	st		-	**NA**	-						a
4751	Wrap saumon	RTE salmon	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
4834	Baguette pizza	Pizza	H+/H-	-	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
4835	Wrap bacon, tomate, œuf	Sandwich	st	-	-	-		-	-	-	-		-	**NA**	-						a
4836	Toast chèvre lardons	RTE (cheese ham)	st	-	-	-		-	-	-	-		-	**NA**	-						a
4838	Sandwich jambon beurre	Sandwich (butter ham)	st	st	st	st		-	-	st	st		-	**NA**	-						a
4839	Sandwich poulet tomate	Sandwich (chicken tomatoes)	st	st	-	-		-	-	st	st		-	**NA**	-						a
5424	Sandwich duo de saumon	Sandwich (salmon)	-	-	-	-		-	-	-	-		-	**NA**	+						a
5523	Wraps de saumon fumé	Wrap (smoked salmon)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5775	Sandwich au poisson	Sandwich (fish)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5789	Sandwich poulet	Sandwich (chicken)	st	-	-	-		-	-	st	st		-	**NA**	-						a
5881	Piémontaise	Deli salad (piémontaise)	st	-	-	-		-	-	-	-		-	**NA**	-						a
5922	Sandwich jambon beurre	Sandwich (ham, butter)	-	-	st	-		-	-	st	-		-	**NA**	-						a

COMPOSITE FOODS, READY TO EAT AND READY TO REHEAT

Sample No	Product (French name)	Product	Reference method : ISO 11290-1/A1						Alternative method: ANSR for Listeria monocytogenes												Type
									After enrichment step 24h at 30°C							After enrichment broth storage 72h at 2-8°C					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
5923	Sandwich poulet crudités	Sandwich (chicken, vegetables)	st	-	st	-		-	-	-	-		-	**NA**	-						a
1118	Pizza au chorizo	RTRH (Pizza)	st	-	-	-	/	-	-	-	st		-	**NA**	-						b
1981	**Tortilla oignons**	**RTRH (egg and onion)**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
1982	**Moussaka**	**RTRHG (Moussaka)**	H+	+	H+	+	*L.monocytogenes*	+	i/+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
1989	Pizza jambon emmenthal	RTRH (Pizza)	-	-	-	-	/	-	-	-	-		-	**NA**	-	-	st	st	-	**NA**	b
1990	Quiche Lorraine	RTRH (quiche Lorraine)	st	-	-	-	/	-	-	st	st		-	**NA**	-						b
1991	Moussaka	RTRH (moussaka)	st	st	-	-	/	-	-	st	st		-	**NA**	-						b
2905	Croque 3 fromages	RTRH (cheese)	-	-	-	-	/	-	-	-	-		-	**NA**	-						b
2913	Hachis parmentier pur bœuf	RTRH (beef)	st	st	st	st	/	-	-	st	st		-	**NA**	-						b
2914	Bœuf bourguignon	RTRH (beef)	st	st	st	st	/	-	-	st	st	*- (Fraser1 x5)*	-	**NA**	-						b
3318	Baguette gratinée jambon emmenthal	RTRH (ham cheese)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
3321	Mélange poulet tomates marinées	RTRH (chicken tomatoes)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
3323	Nugget emmenthal	RTRH (chicken cheese)	-	-	-	-		-	-	st	st		-	**NA**	-						b
3325	Croque Monsieur	RTRH (croque monsieur)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
1117	**Croissant jambon emmental**	**RTRH (cheese ham)**	H+	+	H+	+	*L.monocytogenes*	+	i/-	st	st		-	**ND**	-	-	st	st	-	**ND**	b
3443	**Pizza chèvre lardons**	**RTRH (Pizza)**	H+	+	H+	+	*L.monocytogenes*	+	-	st	-		-	**ND**	-	-	st	st	-	**ND**	b
3445	**Macaronis tomates boulettes de bœuf**	**RTRH (macaronis beef)**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
3446	**Lasagnes à la bolognaise**	**RTRH (lasagnes)**	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	st	st	-	**ND**	b
3447	**Bœuf bourguignon**	**RTRH (beef)**	st	st	st	st		-	-	st	st		-	**NA**	-						b
3454	Quiche Lorraine	RTRH (quiche Lorraine)	st	st	st	st		-	-	st	st		-	**NA**	-						b
3455	Pizza chèvre lardons	RTRH (Pizza)	-	-	-	-		-	-	st	st		-	**NA**	-						b
3458	Hachis parmentier	RTRH (hachis parmentier)	st	st	-	-		-	-	st	st		-	**NA**	-						b
3459	Macaronis tomates boulettes de bœuf	RTRH (macaronis beef)	st	st	st	st		-	-	st	st		-	**NA**	-						b
3547	**Maxi Croque-monsieur**	**RTRH (croque monsieur)**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
3442	**Quiche Lorraine**	**RTRH (quiche Lorraine)**	st	st	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	b
3444	**Hachis parmentier**	**RTRH (hachis parmentier)**	st	st	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	b
3721	**Pizza jambon fromage**	RTRH (Pizza)	H-d	+d	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	b
4837	Croissant jambon	RTE (ham)	-	-	H+	+	*L.monocytogenes*	+	-	H+	+	*L.monocytogenes*	-	**ND**	+	+	H+	+	+	**PA**	b
5924	Croque-Monsieur Comté au jambon	Croque monsieur	-	-	-	-		-	i/-	-	-		-	**NA**	-						b
2916	Crème anglaise	Custard	st	st	st	st	/	-	i/-*	st	st		-	**NA**	-						c
2917	Crème anglaise	Custard	st	st	st	st	/	-	i/-*	st	st		-	**NA**	-						c
3322	Flan	Pastries	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c

COMPOSITE FOODS, READY TO EAT AND READY TO REHEAT

Sample No	Product (French name)	Product	Reference method : ISO 11290-1/A1						Alternative method: ANSR for Listeria monocytogenes												Type
									After enrichment step 24h at 30°C							After enrichment broth storage 72h at 2-8°C					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
3330	Religieuses au chocolat	Pastries	-	-	-	-		-	-	st	st		-	**NA**	-						c
3331	Eclair à la vanille	Pastries	st	-	-	-		-	-	st	st		-	**NA**	-						c
3334	Œuf entier liquide pasteurisé	Pasteurized liquid whole egg	st	st	st	st		-	-	st	st		-	**NA**	-						c
3335	Jaune d'œuf liquide pasteurisé	Pasteurized liquid yellow egg	st	st	st	st		-	-	st	st		-	**NA**	-						c
3440	**Coule d'œuf entier liquide pasteurisé**	**Pasteurized liquid whole egg**	st	st	st	st		-	-	st	st		-	**NA**	-						c
3448	**Crème anglaise**	**Custard**	st	st	st	st		-	-	st	st		-	**NA**	-						c
3450	Coule d'œuf entier liquide pasteurisé	Pasteurized liquid whole egg	st	st	st	st		-	-	st	st		-	**NA**	-	i/-*	st	st	-	**NA**	c
3450	Coule d'œuf entier liquide pasteurisé	Pasteurized liquid whole egg	st	st	st	st		-	-	st	st		-	**NA**	-						c
3451	Jaune d'œuf liquide pasteurisé	Pasteurized liquid yellow egg	st	st	st	st		-	-	st	st		-	**NA**	-						c
3452	Crème anglaise	Custard	st	st	st	st		-	-	st	st		-	**NA**	-						c
3453	Crème anglaise	Custard	st	st	st	st		-	-	st	st		-	**NA**	-						c
3789	Coule de jaune d'œuf pasteurisé	Pasteurized liquid yellow egg	st	st	st	st		-	-	st	st		-	**NA**	-						c
3790	Coule d'œuf entier pasteurisé	Pasteurized liquid whole egg	st	st	st	st		-	-	st	st		-	**NA**	-						c
3799	Crêpes sucrées	Pancakes	-	-	-	-		-	-	-	st		-	**NA**	-	-	st	st	-	**NA**	c
3836	Crème anglaise	Custard	st	-	-	-		-	-	st	st		-	**NA**	-						c
3837	Flan pâtissier	Pastries	st	st	st	st		-	-	st	st		-	**NA**	-						c
4112	Flan pâtissier	Custard (dessert)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
4176	Rouleaux de pâte sablée	Puff pastries	-	-	-	-		-	-	st	st		-	**NA**	-						c
4179	Charlotte aux poires	Pastries	st	st	st	st		-	-	-	-		-	**NA**	-						c
4186	Pâte feuilletée au beurre	Puff pastries	-	-	-	-		-	-	st	st		-	**NA**	-						c
4287	**Tortilla nature**	**Omelettes**	-	-	-	-		-	-	st	st		-	**NA**	-						c
4289	**Tartelettes fraises**	**Pastries (strawberries)**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
4290	**Eclairs chocolat**	**Pastries (chocolate)**	-	-	-	-		-	-	-	-		-	**NA**	-						c
4291	**Religieuses au café**	**Pastries coffee)**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
5528	Flan pâtissier	Cooked custard	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
4286	**Céleri rémoulade**	**RTE vegetables (célery)**	st	st	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		i/+/+	H+	+	+	**PD**	c
5777	Pépites d'œufs durs cuits	Cooked eggs	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
4288	**Tortilla oignons**	**Omelettes oignon**	st	st	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	c
5779	Crêpes froment	Pancakes	st	-	-	-		-	-	st	st		-	**NA**	-						c
3441	**Jaune d'œuf liquide pasteurisé**	**Pasteurized liquid yellow egg**	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	st	st	-	**ND**	c
5791	Tortilla nature	Tortilla	-	-	-	-		-	-	-	-		-	**NA**	-						c
5792	Mayonnaise	Mayonnaise	st	st	st	st		-	-	st	st		-	**NA**	-						c
5793	Mayonnaise	Mayonnaise	st	st	st	st		-	-	st	st		-	**NA**	-						c
5875	Pâte feuilletée	Puff pastry	H+/H-d	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
5876	Pâte feuilletée	Puff pastry	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
5877	Pâte feuilletée	Puff pastry	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
5878	Pâte feuilletée	Puff pastry	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c

MEAT PRODUCTS

Sample No	Product (French name)	Product	Reference method : ISO 11290-1/A1						Alternative method: ANSR for Listeria monocytogenes												Type
									After enrichment step 24h at 30°C							*After enrichment broth storage 72h at 2-8°C*					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
1113	Viande de dinde	Turkey meat	st	-	st	st	/	-	-	H-	-	*L.innocua*	-	**NA**	-						a
1114	Viande bovine	Beef meat	st	-	st	st	/	-	-	st	st		-	**NA**	-						a
1115	**Côte de porc**	**Pork meat**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
2906	Viande de poulet congelée	Frozen poultry meat	H+	+	H+	+	*L.monocytogenes*	+	+	H+/H-	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	a
2907	Viande rouge cuisse de dinde	Turkey meat	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	+	H+/H-	+d	*L.monocytogenes/ L.welshimeri*	+	**PA**		+	H+/H-	+d	+	**PA**	a
2908	Viande de poulet congelée	Frozen poultry meat	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	**PA**		+	H+/H-	+d	+	**PA**	a
3227	Rôti de dinde	Turkey meat	H+/H-	+	H+	+	*L.monocytogenes/ L.welshimeri*	+	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	**PA**		+	H+	+	+	**PA**	a
3228	Viande de poulet congelée	Frozen chicken meat	H+	+	H+	+	*L.monocytogenes*	+	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	**PA**		+	H+/H-	+	+	**PA**	a
3239	Haché de bœuf surgelé	Frozen ground beef	st	st	st	st		-	-	-	-		-	**NA**	-						a
3240	Egréné de bœuf surgelé	Frozen ground beef	-	st	-	-		-	-	-	-		-	**NA**	-						a
3796	Filets mignon congelés	Frozen pork meat	-	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
3818	Filet de porc	Pork meat	-	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
3824	Sauté de dinde cru	Turkey meat	H-d	+d	H-	+d	*L.welshimeri*	-	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	**PD**		+	H+	+	+	**PD**	a
3830	Viande de poulet congelée	Chicken meat	H+/H-	+	H+/H-	+d	*L.monocytogenes/ L.innocua*	+	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	**PA**		+	H+/H-	+	+	**PA**	a
4118	Viande de blanc de poulet	Raw chicken meat	H+	+	H+	+	*L.monocytogenes*	+	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	**PA**		+	H+/H-	+	+	**PA**	a
4121	Sauté de dinde nature	Raw turkey meat	H+/H-	+	H+	+	*L.monocytogenes/ L.welshimeri*	-	-	H-	-	*L.innocua/ L.welshimeri*	-	**NA**	-	-/-/-	H-	-	-	**NA**	a
4169	Sauté de dinde	RTRH turkey	st	st	st	st		-	-	-	st		-	**NA**	-						a
4765	Epaule crue	Raw ham	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	-	-	st		-	**ND**	-	-	st	st	-	**ND**	a
4738	Hampe	Beef meat	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	+	H+/H-	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	a
5431	Escalope de dinde	Raw turkey meat	H-	+	H+	+	*L.monocytogenes*	+	-	H-	-		-	**ND**	-	-	H-	-	-	**ND**	a
4758	Hampe	Beef meat	H+	+	H+	+	*L.monocytogenes*	+	+	H+/H-	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	a
5533	Escalope fine de poulet	Chicken meat	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	st	st	-	**ND**	a
5432	Escalope de poulet	Raw chicken meat	st	st	st	st		-	-	H+	+	*L.monocytogenes*	-	**NA**		+/-/+	H+	+	+	**PD**	a
5532	Hachés de veau	Ground veal	H-	+	H-	+	*L.innocua/ L.welshimeri*	-	-	H+/H-	+	*L.monocytogenes*	-	**NA**	+	-	H+/H-	+	-	**NA**	a
5534	Viande bovine rumsteak	Beef meat	H-	+	H-	+	*L.innocua/ L.welshimeri*	-	-	H-	-		-	**NA**	-						a
5535	Viande de porc	Pork meat	H-	+	H-	+	*L.welshimeri*	-	-	H-	-		-	**NA**	-						a
5613	Filet de poulet blanc sans peau	Chicken meat	st	st	st	st		-	-	-	-		-	**NA**	-						a
6117	Bavette d'Aloyau surgelée	Beef meat	-	st	st	-		-	-	-	st		-	**NA**	-						a
6118	Steak haché surgelé	Frozen ground beef	-	-	-	-		-	-	-	-		-	**NA**	-						a
3246	Blanquette de veau	RTRH (veal meat)	st	st	st	st		-	-	st	st		-	**NA**	-						b
3247	Poulet Basquaise	RTRH (chicken)	st	st	st	st		-	-	st	st		-	**NA**	-						b

MEAT PRODUCTS

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									After enrichment step 24h at 30°C							*After enrichment broth storage 72h at 2-8°C*					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
3783	Spaghetti bolognaise	RTRH (Spaghetti bolognese)	st	st	-	st		-	-	-	st		-	**NA**	-						b
3784	Courgettes farcies	RTRH (vegetables-pork)	st	st	st	st		-	-	st	st		-	**NA**	-						b
3785	Cordon bleu de dinde et coquillettes	RTRH (turkey)	st	st	st	st		-	-	st	st		-	**NA**	-						b
3720	**Bœuf bourguignon**	RTRH (Bourguignon)	st	st	st	st		-	+	H+d	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	b
4301	**Blanquette de veau**	**RTRH meat (veal)**	st	st	st	st		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	b
4297	**Blanquette de veau**	**RTRH meat (veal)**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
4298	**Poulet rôti purée**	**RTRH meat (chicken)**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
4300	**Hachis parmentier**	**RTRH meat (beef)**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
5409	Pavé au poivre	RTRH beef	-	-	-	-		-	-	-	-		-	**NA**	-						b
4299	**Bœuf bourguignon pommes de terre**	**RTRH meat (beef)**	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-						b
5421	Cordon bleu de dinde	RTRH (turkey)	H+	+(1)	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
5429	Poulet au curry	RTE (chicken)	st	st	st	-		-	-	st	st		-	**NA**	-						b
5430	Lasagne bolognaise	RTRH (bolognese)	-	-	-	-		-	-	st	-		-	**NA**	-						b
5884	Nuggets	Nuggets	H+	+	H+	+	*L.monocytogenes*	+	-	H-	-		-	**ND**	-	-	H-	-	-	**ND**	b
5961	**Poulet au curry**	**Ready to reheat (chicken, curry)**	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	st	st	-	**ND**	b
5790	Lasagnes	Ready to reheat pasta	st	st	st	st		-	-	st	st		-	**NA**	-						b
5883	Marinade de viande de canard	Marinated duck meat	H+(1)	+(3)	H+	+		+	+	H+	+	*L.monocytogenes*	+	**PA**	+	+	H+	+	+	**PA**	b
5925	Nuggets au poulet	Chicken nuggets	-	-	-	-		-	-	st	-		-	**NA**	-						b
5926	Cordons bleus de dinde	Ready to cook (turkey)	st	-	-	-		-	-	st	st		-	**NA**	-						b
5962	**Coq au vin**	**Ready to reheat (rooster, wine)**	st	st	-	-		-	-	st	st		-	**NA**	-						b
5964	**Porc au caramel**	**Ready to reheat pork**	st	st	st	st		-	-	st	st		-	**NA**	-						b
5966	**Bœuf bourguignon**	**Ready to reheat beef (Bourguignon)**	st	st	st	st		-	-	st	st		-	**NA**	-						b
1106	**Rillettes de porc**	**Rillettes**	H+	+	H+	+	*L.monocytogenes*	+	i/+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
1983	**Baccon**	**Baccon**	H+	+	H+	+	*L.monocytogenes*	+	i/+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
2915	Jambon cuit supérieur	Ham	st	st	st	st	/	-	-	st	st		-	**NA**	-						c
3235	Chair à saucisse	Delicatessen	st	st	H-d	st		-	-	-	-		-	**NA**	-						c
3236	Emincés de dinde marinés	Marinated turkey	-	-	-	-		-	-	H-d	-	*L.welshimeri*	-	**NA**	-						c
3245	Rillettes du Mans	Rillettes	st	st	st	st		-	-	st	st		-	**NA**	-						c
3332	Museau de porc	Delicatessen	st	-	-	-		-	-	st	st		-	**NA**	-						c
3795	Pâté de veau	Veal pâté	st	st	st	st		-	-	H+(1)	+(1)	*L.monocytogenes*	-	**NA**	-	-	st	+(3)	-	**NA**	c
3797	Côte de porc thym romarin	Seasoned pork	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
3800	Fromage de tête aux herbes	Cooked delicatessen	st	-	st	-		-	-	st	st		-	**NA**	-	-	st	st	-	**NA**	c
3801	Saucisses	Sausages	st	-	st	-		-	-	-	st		-	**NA**	-	-	st	st	-	**NA**	c
3806	Jambon à l'ancienne	Ham	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
3819	Jambon	Ham	st	st	st	st		-	-	st	st		-	**NA**	-						c
3825	Saucisse de Toulouse	Sausages	st	st	-	-		-	-	st	st		-	**NA**	-						c
3912	Rillettes	Rillettes	-	st	st	st		-	-	H-d	-	*L.grayi*	-	**NA**	-						c
4115	Merguez	Merguez	-	st	-	-		-	-	st	st		-	**NA**	-						c
4187	Pâté de porc	Delicatessen (pork pâté)	st	st	st	st		-	-	-	st		-	**NA**	-						c

MEAT PRODUCTS

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			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
4220	Jambon à l'ancienne	Delicatessen (ham)	st	st	st	st		-	-	st	st		-	**NA**	-						c
3802	Jambon à l'ancienne	Ham	st	st	st	st		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	c
4754	Rosette	Delicatessen	-	-	-	-		-	-	-	-		-	**NA**	-						c
4759	Lardons	Delicatessen	H-	+	H-	+		-	-	H+/H-	+	*L.monocytogenes*	-	**NA**	-	-	H+/H-	+	-	**NA**	c
4764	Saucisson	Sausages	H-	+	H-	+		-	-	H-	-		-	**NA**	-						c
5408	Jambon	Ham	st	-	-	-		-	-	-	-		-	**NA**	-						c
5620	Rillettes d'oies	Goose rillettes	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
4756	Rosette	Delicatessen	-	st	H+/H-	-	*L.monocytogenes*	+	-	st	-		-	**ND**	-	-	-	-	-	**ND**	c
5410	Rillettes	Rillettes	st	st	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	i/-	st	st	-	**ND**	c
5885	Boudin	Pudding	-	-	-	-		-	-	-	-		-	**NA**	-						c
5886	Jambon à l'ancienne	Cooked ham	-	st	st	st		-	-	st	st		-	**NA**	-						c
5887	Jambon à l'ancienne	Cooked ham	st	st	st	st		-	-	st	st		-	**NA**	-						c
5621	Chorizette	Chorizo	H+(2)	+(4)	H+	+	*L.monocytogenes*	+	-	-	-		-	**ND**	+	-	H+	+	-	**ND**	c

MILK AND DAIRY PRODUCTS

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									After enrichment step 24h at 30°C							*After enrichment broth storage 72h at 2-8°C*					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
1107	Camembert	Cheese	-	st	st	st	/	-	-	st	st		-	**NA**	-						a
5970	**Morbier au lait cru**	**Raw milk cheese**	-	-	H+	+	*L.monocytogenes*	+	-	-	-		-	**ND**	-	-	-	-	-	**ND**	a
6247	Fromage affiné au lait cru de brebis	Raw ewe milk cheese	H+(5)	+(1)	H+	+	*L.monocytogenes*	+	i/-	H+	+	*L.monocytogenes*	-	**ND**	+	i/-*	H+	+	-	**ND**	a
5968	**Roquefort au lait cru**	**Raw milk cheese**	st	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
3829	Fourme d'Ambert	Cheese	-	-	-	-		-	-	st	st		-	**NA**	-	-	st	st	-	**NA**	a
6246	Fromage affiné au lait cru de brebis	Raw milk chhese	-	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
4170	Fourme d'Ambert	Raw milk cheese	-	-	-	-		-	-	st	st		-	**NA**	-						a
4189	Fourme d'Ambert	Raw milk cheese	-	-	-	-		-	-	st	st		-	**NA**	-						a
5426	Reblochon au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-		-	**NA**	-						a
5427	Reblochon au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-		-	**NA**	-						a
5428	Emmenthal au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-		-	**NA**	-						a
5511	Maroilles au lait cru	Raw milk cheese	st	-	st	-		-	-	H-	-		-	**NA**	-						a
5512	Tomme au lait cru	Raw milk cheese	st	-	st	-		-	-	-	-		-	**NA**	-						a
5513	Munster au lait cru	Raw milk cheese	st	-	st	st		-	-	-	st		-	**NA**	-						a
5514	Brie de Meaux au lait cru	Raw milk cheese	st	-	-	-		-	-	-	st		-	**NA**	-						a
5515	Morbier au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-		-	**NA**	-						a
5516	Fromage à pâte pressée au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-		-	**NA**	-						a
5517	Fromage à pâte molle au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-		-	**NA**	-						a
5518	Fromage à pâte pressée au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-		-	**NA**	-						a
5519	Fromage à pâte pressée au lait cru	Raw milk cheese	-	-	st	-		-	-	-	-		-	**NA**	-						a
5520	Fromage à pâte pressée au lait cru	Raw milk cheese	-	-	-	-		-	-	-	-		-	**NA**	-						a
5969	**Fromage de chèvre au lait cru**	**Raw milk cheese**	st	st	H+	+	*L.monocytogenes*	+	+	H+	+(1)	*L.monocytogenes*	+	**PA**		-/-/-	H+	-	-	**ND**	a
5971	**Tomme au lait cru**	**Raw milk cheese**	st	-	-	-		-	-	-	-		-	**NA**	-						a
5972	**Fromage au lait cru de brebis**	**Raw milk cheese**	-	-	-	-		-	+(NC)/-/-	-	st		-	**NA**	-						a
5973	**Comté fruité au lait cru**	**Raw milk cheese**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
6243	Fromage non affiné au lait cru de vache	Raw milk cheese	-	-	-	-		-	-	-	-		-	**NA**	-						a
6244	Fromage non affiné au lait cru de vache	Raw milk cheese	-	-	-	-		-	-	-	-		-	**NA**	-						a
6245	Fromage affiné au lait cru de brebis	Raw milk cheese	st	-	-	-		-	-	-	-		-	**NA**	-						a
7984	**Roquefort au lait cru**	**Raw milk cheese**	st	st	st	-		-	-	H+	+	*L.monocytogenes*	-	**NA**	+	+	H+ (L.monocy-togenes)	+	+	**PD**	a
8111	Tomme de montagne au lait cru	Raw milk cheese	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
8112	Comté au lait cru	Raw milk cheese	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes/ L.ivanovii*	+	**PA**		+	H+	+	+	**PA**	a

MILK AND DAIRY PRODUCTS

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			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
8113	Brie au lait cru	Raw milk cheese	H+(1)	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
8114	Emmental au lait cru	Raw milk cheese	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
1110	**Lait ribot**	**Fermented milk**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
1986	Lait de brebis	Sheep milk	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
1987	Lait de brebis	Sheep milk	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
1988	Lait de brebis	Sheep milk	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
2918	Lait ribot	Fermented milk	st	st	-	-	/	-	-	st	st		-	**NA**	-						b
2919	Lait ribot	Fermented milk	st	st	-	-	/	-	-	-	-		-	**NA**	-						b
3326	Lait de brebis	Sheep milk	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
3327	Lait de brebis	Sheep milk	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
3548	**Lait fermenté**	**Fermented milk**	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	st	st	-	**ND**	b
3550	**Lait ribot**	**Fermented milk**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
3551	**Lait ribot fermier**	**Fermented milk**	st	st	-	-		-	-	st	st		-	**NA**	-						b
3552	**Lait ribot**	**Fermented milk**	st	st	-	-		-	-	st	st		-	**NA**	-						b
3557	Lait ribot	Fermented milk	st	st	st	st		-	-	st	st		-	**NA**	-						b
3558	Lait ribot fermier	Fermented milk	st	-	-	-		-	-	st	st		-	**NA**	-						b
3559	Lait ribot	Fermented milk	st	-	-	-		-	-	st	st		-	**NA**	-						b
3560	Gros lait fermier	Fermented milk	st	st	-	-		-	-	st	st		-	**NA**	-						b
3561	Gros lait fermier	Fermented milk	st	st	-	-		-	+/-/-	st	st		-	**PPNA**	-	-	st	st	-	**NA**	b
3792	Lait ribot	Fermented milk	st	st	-	-		-	-	st	-		-	**NA**	-						b
3831	Lait cru entier	Raw milk	st	-	-	-		-	-	st	st		-	**NA**	-						b
4122	Lait cru de brebis	Raw ewe milk	st	-	-	-		-	-	-	st		-	**NA**	-						b
4123	Lait cru de brebis	Raw ewe milk	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
5521	Lait cru de brebis	Raw ewe milk	st	-	-	-		-	-	st	st		-	**NA**	-						b
3832	lait de brebis	Ewe milk	st	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	b
3549	**Lait fermenté**	**Fermented milk**	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	H+(3)	+(2)	-	**ND**	b
7982	**Lait cru**	**Raw milk**	H+	+	H+	+	*L.Monocytogenes / L.ivanovii*	+	-	H+/H-	+	*L.ivanovii*	-	**ND**	-	-	H+ (L.ivanovii)/ H-	+ (L.ivanovii)	-	**ND**	b
6248	Lait cru de brebis	Raw ewe milk	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
6249	Lait cru de brebis	Raw ewe milk	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
7983	**Lait cru**	**Raw milk**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
1109	Fromage pasteurisé de vache	Pasteurized cheese	st	st	st	st	/	-	-	st	st		-	**NA**	-						c
1111	**Lait entier pasteurisé**	**Pasteurized milk**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
1992	Glace crème brûlée	Ice cream	st	-	-	-	/	-	-	st	st		-	**NA**	-						c
1993	Glace noisette	Ice cream	st	-	-	-	/	-	-	st	st		-	**NA**	-						c
1994	Tomme au moine pasteurisé	Pasteurized cheese	-	st	-	-	/	-	-	st	st		-	**NA**	-						c
1995	Fromage de brebis pasteurisé	Pasteurized cheese	-	-	-	-	/	-	-	st	st		-	**NA**	-						c
3319	Sauce	Sauce	-	st	-	-		-	-	-	-		-	**NA**	-						c
3320	Sauce fromage blanc ciboulette	Sauce (cheese vegetables)	-	-	-	-		-	-	st	-		-	**NA**	-						c
3460	Camembert au lait pasteurisé	Pasteurized cheese	st	st	st	st		-	-	-	-		-	**NA**	-						c
3725	**Brie pasteurisé**	Pasteurized cheese	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
3726	**Fromage pasteurisé de vache**	Pasteurized cheese	st	-	-	-		-	-	H+	+(2)	*L.monocytogenes*	-	**NA**	+	-	H+	+	-	**NA**	c
3727	**Camembert au lait pasteurisé**	Pasteurized cheese	st	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c

MILK AND DAIRY PRODUCTS

Sample No	Product (French name)	Product	Reference method : ISO 11290-1/A1						Alternative method: ANSR for Listeria monocytogenes												Type
									After enrichment step 24h at 30°C							After enrichment broth storage 72h at 2-8°C					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
3791	Lait demi-écrémé pasteurisé	Pasteurized milk	st	st	st	st		-	-	st	st		-	**NA**	-						c
3835	Crème glacée à la vanille	Vanilla ice-cream	st	-	-	-		-	-	st	st		-	**NA**	-						c
4292	**Lait 1/2 écrémé pasteurisé**	**Pasteurized milk**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
4293	**Lait entier pasteurisé**	**Pasteurized milk**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
4294	**Fromage de chèvre pasteurisé**	**Pasteurized cheese**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
4295	**Tomme noire au lait pasteurisé**	**Pasteurized cheese**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
5425	Croque 3 fromages	RTRH (cheese)	-	-	-	-		-	-	H+	+	*L.monocytogenes*	-	**NA**		-/-/-	H+	+	-	**NA**	c
5639	**Glace abricot chocolat blanc**	**Ice cream (apricot, white chocolate)**	st	-	-	-		-	i/i/-*	-	-		-	**NA**	-						c
5640	**Glace caramel beurre salé**	**Ice cream (caramel)**	-	-	-	-		-	i/-	-	-		-	**NA**	-						c
5641	**Glace caramel beurre salé**	**Ice cream (caramel)**	-	-	-	-		-	i/-	-	-		-	**NA**	-						c
5642	**Glace vanille**	**Vanilmla ice cream**	st	-	-	-		-	-	H+	+	*L.monocytogenes*	-	**NA**	+	+/+/+	H+	+	+	**PD**	c
3724	**Fromage pasteurisé de vache**	Pasteurized cheese	-	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	c
1979	**Panna cotta caramel**	**Panna cotta**	H+	+	H+	+	*L.monocytogenes*	+	i/i/-*	st	st		-	**ND**	-	i/-*/+*/-*	st	st	-	**ND**	c

VEGETABLES

Sample No	Product (French name)	Product	Reference method : ISO 11290-1/A1						Alternative method: ANSR for Listeria monocytogenes												Type
									After enrichment step 24h at 30°C							*After enrichment broth storage 72h at 2-8°C*					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
1120	Epinards en branches	Spinach	-	-	-	-	/	-	-	H-	-	*L.innocua*	-	**NA**	-						a
1122	**Jeunes pousses**	**Baby leaves**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
3917	Fenouil	Fenouil	H+	+d	H+	+	*L.monocytogenes*	+	-	H+	+	*L.monocytogenes*	-	**ND**	+	+/+/-	H+	+	+	**PA**	a
1996	Carottes en rondelles surgelées	Frozen sliced carrots	st	st	st	st	/	-	-	st	st		-	**NA**	-						a
1997	Epinards en branches surgelés	Frozen spinach	-	-	-	-	/	-	-	-	-		-	**NA**	-						a
1998	Terrine de saumon à l'aneth	Salmon terrine	st	st	st	st	/	-	-	st	st		-	**NA**	-						a
2910	Persil plat	Persil	st	-	-	-	/	-	-	-	-		-	**NA**	-						a
4175	Brocolis	Broccoli	st	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
3234	Persil plat	Persil	st	st	-	-		-	-	-	-		-	**NA**	-						a
3328	Pousses d'épinards	Baby leaves	H-	+	H-	+	*L.innocua*	-	-	H-	-(white colonies)	*L.innocua*	-	**NA**	-						a
3329	Jeunes pousses corsées	Baby leaves	-	-	-	-		-	-	-	-		-	**NA**	-						a
5527	Courgettes	Zucchini	H-	-	H-	+	*L.innocua*	-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+/H-	+	+	**PD**	a
5772	Epinards en branche	Spinaches	H+	+	H+	+	*L.monocytogenes*	+	-	-	-		-	**ND**	-	-	-	-	-	**ND**	a
3926	Tendres pousses	Baby leaves	-	-	-	-		-	-	H-(1)	-	*L.seeligeri*	-	**NA**	-						a
3927	Jeunes pousses	Baby leaves	-	-	-	-		-	-	-	-		-	**NA**	-						a
4111	Petits pois très fins	Peas	H-	+	H-	+	*L.innocua*	-	-	H-	-	*L.innocua*	-	**NA**	-						a
4745	Pousses de haricots mungo	Raw beans	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	+	H+/H-	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	a
4761	Jeunes carottes surgelées	Frozen carrots	-	-	-	-		-	-	-	-		-	**NA**	-						a
5412	Ciboulette	Ciboulette	-	-	-	-		-	-	-	-		-	**NA**	-						a
5413	Persil plat	Persil	st	st	-	-		-	-	st	st		-	**NA**	-						a
5414	Fenouil	Fenouil	H+(2)	+(3)	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5524	Pousses de haricots mungo	Sprouts	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	a
5525	Jeunes carottes surgelées	Frozen carrots	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5617	Champignons émincés surgelés	Frozen sliced mushrooms	st	-	-	-		-	-	-	st		-	**NA**	-						a
5618	Pousses de haricots mungo	Sprouts	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	a
5619	Châtaignes surgelées	Frozen chestnuts	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5629	Fines pousses radis roses	Sprouts	H-	+	H-	+		-	-	H-	-		-	**NA**	-						a
5630	Fines pousses roquette	Sprouts	-	-	-	-		-	-	-	-		-	**NA**	-						a
5631	Fines pousses poireaux	Sprouts	H-	+	H-	+		-	-	-	-		-	**NA**	-						a
5764	Courgettes bio	Zucchini	H-	+	H+(1)/H-	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	a
5767	Pommes	Apples	st	st	st	st		-	-	st	-		-	**NA**	-						a
5880	Ciboulette	Chives	-	-	-	-		-	-	-	-		-	**NA**	-						a
1119	**Carottes en rondelles**	**Sliced carrots**	st	st	st	st	/	-	-	st	st		-	**NA**	-	-	st	st	-	**NA**	b

VEGETABLES

Sample No	Product (French name)	Product	Reference method : ISO 11290-1/A1						Alternative method: ANSR for Listeria monocytogenes												Type
									After enrichment step 24h at 30°C							*After enrichment broth storage 72h at 2-8°C*					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
2909	Poêlée de pommes de terre aux oignons	RTRH vegetables	st	-	-	-	/	-	-	-	-		-	**NA**	-						b
3243	Carottes râpées	RTE (Grated carrots)	st	st	st	st		-	-	st	st		-	**NA**	-						b
3244	Crudités en mélange	Mixed vegetables	st	-	-	-		-	-	st	-		-	**NA**	-						b
3324	Palets courgette légumes	RTRH vegetables	-	-	-	-		-	-	-	-		-	**NA**	-						b
3457	Salade croquante	Salad	st	st	-	-		-	-	-	-		-	**NA**	-						b
3798	Oignons frits	Fried onions	st	-	-	-		-	-	H+	+	*L.monocytogenes*	-	**NA**		-	H+	+	-	**NA**	b
3821	Poêlée de pommes de terre aux oignons	RTRH vegetables	st	-	-	-		-	-	H+	+	*L.monocytogenes*	-	**NA**		+	H+	+	+	**PD**	b
3924	Oignons préfrits surgelés	Frozen pre-cooked oignon	st	st	H-	+	*L.innocua*	-	-	H-(1)	-	*L.innocua*	-	**NA**	-						b
3928	Baby carrots	Baby carrots	st	st	st	st		-	-	st	st		-	**NA**	-						b
4172	Poëlée à la bretonne	Pre-cooked vegetables	H+	+	H+/H-	+	*L.monocytogenes*	+	-	-	-		-	**ND**	-	-	-	-	-	**ND**	b
4174	Purée de petits pois cassés	Peas puree	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
3232	Pommes de terre à la salardaise	RTRH vegetables	-	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	b
4180	Poêlée de pommes de terre crues	Pre-cooked vegetables	st	-	-	-		-	-	-	-		-	**NA**	-						b
4181	Palets de légumes	Pre-cooked vegetables	-	-	-	-		-	-	-	st		-	**NA**	-						b
4182	Purée de carottes	Carrots puree	st	-	-	-		-	-	st	st		-	**NA**	-						b
4188	Potage	RTE vegetables (soup)	st	-	-	-		-	-	st	st		-	**NA**	-						b
4221	Ratatouille	Pre-cooked vegetables (ratatouille)	-	-	-	-		-	-	-	-		-	**NA**	-						b
4748	Oignons préfrits surgelés	Pre-cooked vegetables (onions)	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	-	H+	+	*L.monocytogenes*	-	**ND**	+	-	H+	+	-	**ND**	b
4740	Oignons préfrits surgelés	Pre-cooked vegetables (onions)	st	st	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	b
4741	Salade de fruits exotiques	RTE fruits	st	-	st	st		-	-	st	st		-	**NA**	+	-	H+(3) (L.monocy-togenes)	+	-	**NA**	b
4749	Macédoine de légumes surgelés	Frozen vegetables (macédoine)	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	+	H+/H-	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	b
4760	Sauce ratatouille	Pre-cooked vegetables (ratatouille)	st	-	-	-		-	-	st	st		-	**NA**	-						b
4763	Purée d'artichauts	Artichaud puree	H-	+	H-	+		-	-	-	-		-	**NA**	-						b
5411	Pommes de terre grenaille	RTRH (potatoes)	-	-	-	-		-	-	-	-		-	**NA**	-						b
5781	Légumes à la parisienne	Frozen seasoned vegetables	-	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	b
5625	Légumes pour couscous	Vegetables for couscous	-	-	H-	+		-	-	H-	-		-	**NA**	-						b
5765	Courgettes en cubes	Cubes of zucchini	H-d	+	H+(1)/H-	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	b
5766	Courgettes en cubes	Cubes of zucchini	H-d	+	H+/H-	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	b
5768	Oignons préfrits	Roasted onions	st	-	-	-		-	-	-	-		-	**NA**	-						b
5769	Oignons préfrits	Roasted onions	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
5770	Oignons préfrits	Roasted onions	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
5771	Poëlée champêtre enrobée	Processed vegetables	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
5773	Brocolis	Broccoli	st	-	-	-		-	-	-	-		-	**NA**	-						b

VEGETABLES

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									After enrichment step 24h at 30°C							After enrichment broth storage 72h at 2-8°C					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
5780	Jardinières de légumes surgelées	Frozen vegetable mix	-	-	-	-		-	-	H-	-		-	**NA**	-						b
1104	Macédoine de légumes	RTE (Macedoine)	st	st	-	-	/	-	-	st	st		-	**NA**	-						c
1984	**Macédoine de légumes**	**RTE (Macedoine)**	H+	+	H+	+	*L.monocytogenes*	+	i/+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
2920	Macédoine de légumes	RTE (Macedoine)	st	st	-	-	/	-	-	-	-		-	**NA**	-						c
2921	Céleri rémoulade	RTE (Vegetables)	st	st	st	st	/	-	-	st	-		-	**NA**	-						c
3456	Carottes râpées	RTE (Sliced carrots)	st	st	st	st		-	-	st	st		-	**NA**	-						c
3787	Coleslaw	RTE (Coleslaw)	st	st	st	st		-	-	st	st		-	**NA**	-						c
3788	Macédoine	RTE (Macedoine)	st	st	-	-		-	-	-	-		-	**NA**	-						c
3918	Galette de blé noir	RTE gallette	H+	+	H+	+	*L.monocytogenes*	+	+	H+	-	*L.monocytogenes/ L.innocua*	+	**PA**		+	H+	-	+	**PA**	c
4178	Légumes pour potages	Pre-cooked vegetables	-	-	-	-		-	-	-	-		-	**NA**	-						c
4185	Salade de betterave	RTE vegetables (beets)	-	-	-	-		-	-	st	-		-	**NA**	-						c
4283	**Carottes râpées**	**RTE vegetables (sliced carotts)**	st	st	-	-		-	-	st	+d(2)	*L.monocytogenes*	-	**NA**	+						c
4284	**Céleri rémoulade**	**RTE vegetables (celery)**	st	st	-	-		-	-	H+	+	*L.monocytogenes*	-	**NA**	+	+	H+	+	+	**PD**	c
4285	**Macédoine de légumes**	**RTE vegetables (macédoine)**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
1985	**Carottes râpées**	**RTE (Grated carrots)**	**H+**	**+**	**H+**	+	L.monocytogenes	+	i/-	H+	+	*L.monocytogenes*	-	**ND**		+	H+	+	+	**PA**	c
5415	Macédoine	RTE (Macedoine)	-	-	-	-		-	-	-	-		-	**NA**	-						c
5416	Macédoine mayonnaise	RTE (Macedoine)	st	-	-	-		-	-	-	-		-	**NA**	+	-	H+	+	-	**NA**	c
5420	Galette de blé noir	Galette	H+	+	H+	+	*L.monocytogenes*	+	+	H+	-	*L.monocytogenes*	+	**PA**		+	H+	-	+	**PA**	c
4282	**Betteraves rouges**	**RTE vegetables (beets)**	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	i/-/-	st	st	-	**ND**	c
3823	Palets épinards chèvre	RTE (Spinach-cheese)	st	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	c
5626	Bol de soupe	Soup	st	st	-	-		-	-	-	st		-	**NA**	-						c
5529	Oignons préfrits	Roasted onions	H+(4)	+	H+	+	*L.monocytogenes*	+	-	-	-		-	**ND**	-	-	-	st	-	**ND**	c
5614	Oignons préfrits	Roasted onions	st	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	c
5882	Salade carottes râpées vinaigrette	Deli salad (carrots with dressing)	st	-	st	st		-	-	st	-		-	**NA**	-						c
5974	**Macédoine de légumes**	**Vegetables mix**	-	st	-	-		-	-	-	-		-	**NA**	-						c
5975	**Céleri rémoulade**	**Deli salad (celery)**	st	st	st	st		-	-	st	st		-	**NA**	-						c
5976	**Betteraves**	**Beets**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
5977	**Macédoine de légumes**	**Vegetables mix**	-	st	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	c
5978	**Céleri rémoulade**	**Deli salad (celery)**	H+(1)	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
5979	**Betteraves**	**Beets**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		i/+	H+	+	+	**PA**	c

FISH AND SEAFOOD

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			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
1112	**Filet de lieu noir**	**Fresh raw fish**	st	-	st	-	/	-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
3828	Aiguillettes de Cabillaud	Fish fillet	H+d/H-	+	H+d/H-	+	*L.innocua*	-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	**PD**		+	H+/H-	+	+	**PD**	a
3241	Filet de cabillaud surgelé	Frozen fish	-	-	st	st		-	-	-	-		-	**NA**	-						a
3242	Pavés de saumon d'Atlantique	Frozen fish	st	st	st	st		-	-	st	st		-	**NA**	-						a
5531	Filet de flétan	Fish fillet	H-	+	H-	+	*L.innocua/ L.welshimeri/ L.monocytogenes*	-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
3809	Crevettes décortiquées	Shrimp	st	-	-	-		-	-	-	-		-	**NA**	-						a
3810	Filet de Flétan	Fish fillet	st	st	st	st		-	-	-	-		-	**NA**	-						a
3811	Filet de julienne	Fish fillet	st	-	st	st		-	-	-	-		-	**NA**	-						a
3827	Palets de julienne	Fish fillet	-	-	-	-		-	-	st	st		-	**NA**	-						a
3913	Paupiette de saumon	RTRH salmon	H+	+	H+	+	*L.monocytogenes*	+	+	H+/H-	-	*L.monocytogenes/ L.innocua*	+	**PA**		+	H+d/H-	-	-	**ND**	a
3915	Croquettes de saumon	RTRH salmon	st	st	-	-		-	-	-	-		-	**NA**	-						a
4116	Filet de bar	Fish fillet	-	st	H+	+	*L.monocytogenes*	+	-	-	st		-	**ND**	-	-	-	st	-	**ND**	a
4124	Filet de Flétan surgelé	Frozen fish filet	H+/H-d	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	-	H+/H-	+	*L.monocytogenes/ L.innocua*	-	**ND**	+	+	H+/H-	+	+	**PA**	a
4119	Paupiette de saumon	RTRH salmon	H+	+	H+	+	*L.monocytogenes*	+	+	H+	-	*L.monocytogenes*	+	**PA**		+	H+	-	+	**PA**	a
4184	Sublime de Hoki	Raw fish	H+(2)	+(3)	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	H+(1)	st	-	**ND**	a
4125	Cocktail de fruit de mer	Seafood cocktail	-	-	-	-		-	-	-	-		-	**NA**	-						a
4126	Filet de Colin surgelé	Frozen hake fillet	-	-	-	-		-	-	-	-		-	**NA**	-						a
4171	Tranche nature de Hoki	Raw fish	st	st	-	-		-	-	st	st		-	**NA**	-						a
4177	Surimi	RTE surimi	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	+	H+/H-	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
4183	Filet de saumon	Salmon filets	st	st	st	st		-	-	st	st		-	**NA**	-						a
4750	Trime saumon	RTE salmon	H+	+	H+	+	*L.monocytogenes*	+	-	H+	+	*L.monocytogenes*	-	**ND**	+	+	H+	+	+	**PA**	a
4739	Panga	Raw fish	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	+	H+/H-	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	a
5522	Filet de panga	Fish fillet	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+	H+/H-	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5526	Filet de saumon	Salmon fillet	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5530	Filet de colin	Cod fillet	st	-	st	st		-	-	-	-		-	**NA**	-						a
5622	Chutes de poisson blanc	White fish (wastes)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5624	Pavé de lieu jaune	Fish piece	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5627	Pavé de lieu jaune	Fish piece	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5628	Pavé de lieu jaune	Fish piece	H+	+	H+/H-	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5632	Cabillaud surgelé	Frozen cod	st	st	st	st		-	-	st	st		-	**NA**	-						a
5633	Tacaud surgelé	Frozen fish	st	st	st	st		-	-	st	st		-	**NA**	-						a
5634	Thon blanc surgelé	Frozen tuna	st	st	st	st		-	-	st	st		-	**NA**	-						a
5784	Filet de Zinger	Fish fillet	st	st	st	st		-	-	-	-		-	**NA**	-						a
5785	Chair de saumon	Salmon	st	st	st	st		-	-	st	st		-	**NA**	-						a
5888	Filets de sardine	Pilchard fillets	st	st	-	-		-	-	st	st		-	**NA**	-						a
1116	Truite fumée	Smoked trout	st	st	st	st	/	-	-	H+	+	*L.monocytogenes*	-	**NA**	-	+	st	st	-	**PPNA**	b

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			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
2922	Harengs fumés	Smoked herrings	st	st	st	-	/	-	-	st	-		-	**NA**	-						b
3793	Saumon fumé	Smoked salmon	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
3794	Saumon fumé	Smoked salmon	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
3803	Saumon fumé	Smoked salmon	H-	+	H-	+	*L.welshimeri*	-	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	**PD**		+	H+/H-	+	+	**PD**	b
3804	Truite fumée	Smoked trout	H-	+	H-	+	*L.welshimeri*	-	+	H+d/H-	-	*L.monocytogenes/ L.welshimeri*	+	**PD**	-	+	H-	- (X5:+)	+	**PD**	b
3812	Truite fumée	Smoked trout	-	-	-	-		-	-	-	-		-	**NA**	-						b
3813	Saumon fumé	Smoked salmon	st	st	st	st		-	-	-	-		-	**NA**	-						b
3805	Truite fumée	Smoked trout	H-	+	H-	+	*L.welshimeri*	-	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	**PD**		+	H-	+	+	**PD**	b
3919	Truite de mer fumée	Smoked trout	H+	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	**PA**		+	H+(1)	-	+	**PA**	b
3920	Saumon fumé d'Atlantique	Smoked salmon	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	**PA**		+	H+/H-	+	+	**PA**	b
3921	Saumon fumé bio	Smoked salmon	H-	+	H-	+	*L.welshimeri*	-	+	H-	+d	*L.monocytogenes/ L.welshimeri*	+	**PD**		+	H-	-	-	**NA**	b
3922	Saumon fumé supérieur	Smoked salmon	H-	+	H-	+	*L.welshimeri*	-	+	H-	+d	*L.monocytogenes/ L.welshimeri*	+	**PD**		+	H+(1)	-	+	**PD**	b
3923	Truite de mer fumée	Smoked trout	H+	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	+	H+	+	*L.monocytogenes/ L.welshimeri*	+	**PA**		+	H+/H-	+	+	**PA**	b
3929	Saumon fumé	Smoked salmon	st	st	-	-		-	-	-	st		-	**NA**	-						b
3930	Saumon fumé salé	Smoked salmon	st	st	st	st		-	-	st	st		-	**NA**	-						b
4755	Saumon fumé	Smoked salmon	st	st	st	-		-	-	st	st		-	**NA**	-						b
4762	Truite fumée	Smoked truit	H-	+	H-	+		-	-	H-	-		-	**NA**	-						b
5608	Truite fumée	Smoked trout	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	b
5609	Truite fumée	Smoked trout	H+	+	H+/H-	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	b
5610	Saumon fumé	Smoked salmon	H-	+	H-	+	/	-	+	H+/H-	+	*L.monocytogenes*	+	**PD**		-/-/+	H+/H-	+	-	**NA**	b
5611	Saumon fumé	Smoked salmon	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
5612	Truite fumée	Smoked trout	H+/H-	+	H-	+	*L.monocytogenes*	+	+	H+/H-	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	b
5615	Truite fumée	Smoked trout	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
5879	Chutes de saumon fumé	Smoked salmon (wastes)	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	b
1108	**Terrine de saumon à l'aneth**	**RTE (Salmon terrin)**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
1121	Batonnets saveur crabe	RTE (Surimi)	st	st	st	st	/	-	-	st	st		-	**NA**	-						c
2911	Colin d'Alaska en sauce	RTRH (fish)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	-	*L.monocytogenes*	+	**PA**		+	H+	-	+	**PA**	c
2912	Filet de bar sauce iodée	RTRH (fish)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	c
2923	Bâtonnets de surimi	RTE (Surimi)	st	st	st	st	/	-	-	st	st		-	**NA**	-						c
3229	Filet de cabillaud pâné	RTRH (fish)	st	st	-	-		-	-	-	-		-	**NA**	-						c
3230	Boulette de saumon	RTRH (salmon)	st	st	st	st		-	-	st	st		-	**NA**	-						c
3807	Surimi saveur crabe	RTE (Surimi)	st	st	-	-		-	i/-*	-	-		-	**NA**	-						c
3808	Terrine de Saint Jacques	Scallops terrine	-	-	-	-		-	-	st	st		-	**NA**	-						c
3820	Merlu blanc pâné	RTRH (fish)	-	-	H-/H+d	-	gram-	-	-	st	-		-	**NA**	-						c
3822	Paupiette de saumon	RTRH (salmon)	st	-	-	-		-	-	-	st		-	**NA**	-						c
3826	Sublime de Hoki	RTRH (fish)	st	st	st	st		-	-	st	st		-	**NA**	-						c
4110	Tranche de colin pané	RTRH hake	H-	+	H-	+	*L.welshimeri*	-	-	H-	-	*L.welshimeri*	-	**NA**	-						c

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			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
4113	Coquille de crabe	RTE crab	st	st	-	-		-	-	st	-		-	**NA**	-						c
4117	Brochette poisson pané cru	RTRH fish	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+	H+/H-	-	*L.monocytogenes/ L.innocua*	+	**PA**		+	H+/H-	-	+	**PA**	c
4120	Filet de cabillaud en croute	RTRH cod	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
4127	Pavé de lieu sauce citron riz	RTRH fish	st	st	st	st		-	-	st	st		-	**NA**	-						c
4128	Pavé de saumon purée de brocolis	RTRH salmon	st	-	-	-		-	-	st	st		-	**NA**	-						c
3916	Filet de bar cuisiné	RTRH fish	st	st	H+	+	*L.monocytogenes*	+	-	H+	+	*L.monocytogenes*	-	**ND**	+	+/-/-	H+	+	+	**PA**	c
5417	Macédoine surimi crevette	RTE (Macedoine)	-	-	-	-		-	-	-	-		-	**NA**	-						c
5418	Paupiette du pêcheur	RTRH (salmon)	st	-	-	-		-	-	st	st		-	**NA**	-						c
5419	Steak de colin à la provençale	RTRH (hake)	st	-	-	-		-	-	st	st		-	**NA**	-						c
5422	Salade de pommes de terre au thon	RTE (tuna)	st	st	st	st		-	-	st	st		-	**NA**	-						c
5423	Filet de bar sauce iodée	RTRH (fish)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
3233	Meunière de poisson blanc	RTRH (fish)	st	-	-	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	c
5623	Saumon à farcir	Salmon	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
5776	Verrines au saumon	Salmon verrines	-	-	-	-		-	-	-	-		-	**NA**	-						c
5782	Canapés au saumon	Toasts (salmon)	-	-	-	-		-	-	st	st		-	**NA**	-						c
5783	Mini choux escargot	Ready to reheat	-	-	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
5786	Sole meunière au beurre	Ready to reheat fish	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		i/+	H+	+	+	**PA**	c
5787	Mini choux escargot	ready to reheat	H+(1)	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
5889	Salade du pêcheur	Deli salad (seafood)	-	-	-	-		-	-	st	-		-	**NA**	-						c
5890	Paupiette de saumon	Ready to cook (salmon)	H-d(1)	-	-	-	Gram-	-	+	H+	-	*L.monocytogenes*	+	**PD**		+	H+	-	+	**PD**	c
5891	Coquille bretonne	Ready to reheat (scallops)	H+	+	H+	+	*L.monocytogenes*	+	-	H-d	-	-(Gram-)	-	**ND**	-	-	-	-	-	**ND**	c
5892	Crevettes aromatisées	Seasoned shrimps	-	-	-	-		-	-	-	-		-	**NA**	-						c
5893	Brins de surimi	Surimi	st	st	st	st		-	-	st	st		-	**NA**	-						c

ENVIRONMENTAL SAMPLES

Sample No	Product (French name)	Product	Reference method : ISO 11290-1/A1						Alternative method: ANSR for Listeria monocytogenes												Type
									After enrichment step 24h at 30°C							*After enrichment broth storage 72h at 2-8°C*					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
3237	Eau de process (végétaux)	Process water (vegetables)	st	st	st	st		-	-	st	st		-	**NA**	-						a
3338	Eau de process (madeleine)	Process water (madeleine)	st	st	st	st		-	-	st	st		-	**NA**	-						a
3555	**Eau de rinçage laveuse**	**Rinse water**	st	st	st	st		-	-	st	st		-	**NA**	-						a
3556	**Eau de rinçage peleuse**	**Rinse water**	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
3566	Eau de process épineuse	Process water	st	st	st	st		-	-	st	-		-	**NA**	-						a
3728	**Eau de rinçage laveuse**	Rinse water	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	a
3729	**Eau d'épineuse**	Process water	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
3730	**Eau de rinçage cuve PDL**	Rinse water	H+(3)	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
5980	**Eau pareuse (industrie poisson)**	**Process water (fish industry)**	H+	+	H+	+	*L.monocytogenes*	+	-	-	-		-	**ND**	-	-	-	-	-	**ND**	a
4388	Eau laveuse chariot (industrie poisson)	Cleaning water (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						a
5982	**Eau peleuse (industrie poisson)**	**Process water (fish industry)**	st	st	st	st		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
4395	Eau de rinçage bac inox P2 (industrie poisson)	Rinced water (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						a
5983	**Eau laveuse (industrie poisson)**	**Process water (fish industry)**	st	st	st	st		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	a
4845	Eau de rinçage filets peleuse	Rinced water (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						a
4846	Eau rampe de désallage (industrie poisson)	Rinced water (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						a
4847	Eau rinçage après décaissage (industrie poisson)	Rinced water (fish industry)	st	st	-	-		-	-	st	-		-	**NA**	-						a
4848	Eau fémia en cours de production (industrie légumes)	Process water (vegetables industry)	st	st	-	-		-	-	st	st		-	**NA**	-						a
4849	Eau rinçage entre 2 recettes (industrie légumes)	Rinced water (vegetables industry)	st	st	st	st		-	-	-	st		-	**NA**	-						a
4851	Eau rinçage entre 2 recettes (industrie légumes)	Rinced water (vegetables industry)	st	st	st	st		-	-	st	st		-	**NA**	-						a
5981	**Eau épineuse (industrie poisson)**	**Process water (fish industry)**	st	st	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
6320	Eau de rinçage filets peleuse (industrie poisson)	Process water (Fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						a
6321	Eau rampe de désallage (industrie poisson)	Process water (Fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						a

ENVIRONMENTAL SAMPLES

Sample No	Product (French name)	Product	Reference method : ISO 11290-1/A1						Alternative method: ANSR for Listeria monocytogenes												Type
									After enrichment step 24h at 30°C							*After enrichment broth storage 72h at 2-8°C*					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
6322	Eau de rinçage après décaissage (industrie poisson)	Process water (Fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						a
8008	Eau de rinçage fourrage biscuit	Rinsing water (pastry)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
8009	Eau de rinçage mélangeur pâte biscuit	Rinsing water (pastry)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
8010	Eau de rinçage cutter	Rinsing water (meat)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
8011	Eau de rinçage mélangeur	Rinsing water	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	a
3238	Déchets (végétaux)	Dusts (vegetables)	st	-	-	-		-	-	-	-		-	**NA**	-						b
3567	Déchets atelier filetage	Dusts	st	st	st	st		-	-	st	st		-	**NA**	-						b
4389	Déchets sol P2 (industrie poisson)	Dusts (fish industry)	st	st	-	-		-	-	H+d	st	*L.monocytogenes*	-	**NA**	+	+	H+ (3)	-	+	**PD**	b
4390	Matière première à réception (industrie poisson)	Dusts (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						b
4391	Filets en sortie de Baader (industrie poisson)	Dusts (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						b
3731	**Eau de siphon laiterie**	Siphon water	H+	+	H+	+	*L.monocytogenes*	+	-	st	-		-	**ND**	-	-	st	st	-	**ND**	b
4394	Déchets sol étêteuse (industrie poisson)	Dusts (fish industry)	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+	H-	+mni/+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	b
4396	Déchets parage toasts (industrie poisson)	Dusts (fish industry)	H-d(1)	st	H-	+	*L.welshimeri*	-	-	H-	-		-	**NA**	-						b
4397	Déchets égout topping (industrie poisson)	Dusts (fish industry)	H+	+	H+	+	*L.monocytogenes*	+	i/+/-	H-	+mni/+	*L.monocytogenes*	+	**PA**	-	-	H-	+	-	**ND**	b
4392	Filets en sortie de désarrêteuse(industrie poisson)	Dusts (fish industry)	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	-	-	-	**ND**	b
4850	Matière sortie prélèvement (indsutrie légumes)	Dusts (vegetables industry)	-	-	-	-		-	-	st	st		-	**NA**	-						b
5894	Déchets au sol haut filetage (industrie poisson)	Wastes (fish industry)	H-	+	H-	+	*L.welshimeri*	-	-	H-	+d(1)		-	**NA**	-	+/+/+	H-	-	-	**NA**	b
5895	Eau de siphon maturation/salage (industrie poisson)	Siphon water (fish industry)	-	-	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**	+	+	H+	+	+	**PA**	b
5896	Déchets au sol bas filetage (industrie poisson)	Wastes (fish industry)	H-(2)	+	H-	+	*L.welshimeri*	-	-	-	-		-	**NA**	-						b
5897	Eau de siphon bas filetage (industrie poisson)	Siphon water (fish industry)	H+/H-	+	H+/H-	+	*L.innocua/ L.welshimeri/ L.monocytogenes*	+	+	H+/H-	+	*L.monocytogenes*	+	**PA**		+	H+/H-	+	+	**PA**	b
4393	Filets en sortie de peleuse (industrie poisson)	Dusts (fish industry)	st	st	st	st		-	i/+/+	H+/H-	+	*L.monocytogenes*	+	**PD**		+	H+/H-	+	+	**PD**	b

ENVIRONMENTAL SAMPLES

Sample No	Product (French name)	Product	Reference method : ISO 11290-1/A1						Alternative method: ANSR for Listeria monocytogenes												Type
									After enrichment step 24h at 30°C							*After enrichment broth storage 72h at 2-8°C*					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
4842	Chiffonnette égoût sous balance (industrie poisson)	Wipe dusts (fish industry)	st	st	st	st		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	b
6121	Chiffonnette égout (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						b
6122	Chiffonnette égout sous balance (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						b
8014	Eau de siphon	Siphon water	st	st	st	st		-	-	st	st		-	**NA**	-						b
8015	Eau de siphon	Siphon water	st	st	st	st		-	-	st	st		-	**NA**	-						b
3336	Chiffonnette avant rinçage (végétaux)	Wipe	st	st	st	st		-	-	st	st		-	**NA**	-						c
3337	Chiffonnette plan de travail (madeleine)	Wipe	st	st	-	-		-	-	st	st		-	**NA**	-						c
3553	**Lingette tapis ligne**	**Wipe**	st	st	st	st		-	-	st	st		-	**NA**	-						c
3554	**Lingette tapis ligne**	**Wipe**	st	st	st	st		-	-	st	st		-	**NA**	-						c
3562	Lingette tapis parage	Wipe	st	st	st	st		-	-	st	st		-	**NA**	-						c
3563	Lingette tapis parage	Wipe	st	st	st	st		-	-	st	st		-	**NA**	-						c
3564	Lingette tapis déchets peleuse	Wipe	st	st	st	st		-	-	st	st		-	**NA**	-						c
3565	Lingette atelier poussée tranchage	Wipe	st	st	st	st		-	-	st	st		-	**NA**	-						c
4840	Chiffonnette roue chariot (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	-	-		-	**NA**	-						c
4841	Chiffonnette tapis sortie baadre (industrie poisson)	Wipe (fish industry)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
4843	Chiffonnette sol frigo (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						c
4852	Chiffonnette passe plat taboulé (industrie légumes)	Wipe (vegetables industry)	st	st	-	-		-	-	-	st		-	**NA**	-						c
4853	Chiffonnette intérieur chariot oignons surgelés (indsutrie légumes)	Wipe (vegetables industry)	st	st	-	-		-	-	-	st		-	**NA**	-						c
4854	Chiffonnette sol (industrie légumes)	Wipe (vegetables industry)	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
4855	Chiffonnette sol (industrie légumes)	Wipe (vegetables industry)	st	st	-	-		-	-	st	st		-	**NA**	-						c
5898	Chiffonnette tapis déchets fileteuse (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	-	-		-	**NA**	-						c
5899	Chiffonnette tapis parage P1+ (industrie poisson)	Wipe (fish industry)	H-	+	H-	+	*L.welshimeri*	-	-	-	-		-	**NA**	-						c
5900	Chiffonnette tapis parage n°2 (industrie poisson)	Wipe (fish industry)	st	-	st	st		-	-	-	-		-	**NA**	-						c
5901	Chiffonnette tapis épineuse (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						c

ENVIRONMENTAL SAMPLES

Sample No	Product (French name)	Product	Reference method : ISO 11290-1/A1						Alternative method: ANSR for Listeria monocytogenes												Type
									After enrichment step 24h at 30°C							*After enrichment broth storage 72h at 2-8°C*					
			Half Fraser		Fraser 1		Identification	L.mono result	ANSR L.mono	Confirmation			Final result	Agreement Ref/Alt	Reference method on LESS Plus broth	ANSR L.mono			Final result 72h	Agreement Ref/Alt 72h	
			O&A	Palcam	O&A	Palcam				O&A	RAPID' L. mono	Confirmation tests (ISO)					O&A	RAPID L.mono			
5902	Chiffonnette tapis parage n°1 (industrie poisson)	Wipe (fish industry)	H-	+	H-	+	*L.welshimeri*	-	-	H-	-		-	**NA**	-	-	H-	-	-	**NA**	c
4844	Chiffonnette peau saumon (industrie poisson)	Wipe (fish industry)	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	st	st	-	**ND**	c
5985	**Chiffonnette tapis trancheur ligne (industrie poisson)**	**Wipe (fish industry)**	H+	+	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	st	-	-	**ND**	c
5986	**Chiffonnette tapis pareuse (industrie poisson)**	**Wipe (fish industry)**	H+(2)	+(1)	H+	+	*L.monocytogenes*	+	-	st	st		-	**ND**	-	-	st	-	-	**ND**	c
6119	Chiffonnette réservoir inox (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						c
6120	Chiffonnette grille inox entêteuse (industrie poisson)	Wipe (fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						c
6318	Chiffonnette atelier plan de travail (fabrication madeleine)	Wipe (pastry industry)	st	st	st	st		-	-	st	st		-	**NA**	-						c
6319	Chiffonnette égout sous balance (industrie poisson)	Wipe (Fish industry)	st	st	st	st		-	-	st	st		-	**NA**	-						c
8001	Chiffonnette plan de travail (patisserie))	Wipe (pastry)	st	st	st	-		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	c
8002	Chiffonnette mélangeur avant nettoyage	Wipe	H+	+	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
8003	Chiffonnette poussoir après nettoyage	Wipe after cleaning process	st	st	st	st		-	-	st	st		-	**NA**	-						c
8004	Chiffonnette hachoir viande	Wipe (meat industry)	st	st	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
8005	Chiffonnette mélangeur saucisson sec	Wipe (meat industry)	H+(4)	+(4)	H+	+	*L.monocytogenes*	+	+	H+	+	*L.monocytogenes*	+	**PA**		+	H+	+	+	**PA**	c
8006	Chiffonnette poussoir après nettoyage	Wipe after cleaning process	st	st	st	st		-	-	st	st		-	**NA**	-						c
8007	Chiffonnette mélangeur après nettoyage	Wipe after cleaning process	st	st	st	st		-	+	H+	+	*L.monocytogenes*	+	**PD**		+	H+	+	+	**PD**	c
8012	Chiffonnette poussoir biscuit	Wipe (pastry)	st	st	st	st		-	-	st	st		-	**NA**	-						c
8013	Chiffonnette mélangeur biscuit	Wipe (pastry)	H+	+	H+	+	*L.monocytogenes*	+	-	-	st		-	**ND**		-	-	-	-	**ND**	c

Appendix E – Relative level of detection study: raw data

Piemontaise
***L.monocytogenes* Ad 494**
Aerobic mesophilic flora:3.3 10^5/g

Sample N°	Level	Inoculation (cfu/25g)	Reference method:ISO 11290-1/A1						Alternative method: ANSR for *Listeria monocytogenes*			
			Half fraser		Fraser 1		Result	Positive/ total	Test result	Confirmation	Final result	Positive / Total
			O&A	Palcam	O&A	Palcam						
5689	0	0	*st*	*st*	*st*	*st*	-	0/5	-	-	-	0/5
5690			st	st	st	st	-		-	-	-	
5691			st	st	st	st	-		-	-	-	
5692			st	st	st	st	-		-	-	-	
5693			st	st	-	-	-		-	-	-	
5694	1	0.3	H+	+	H+	+	+	4/20	-	-	-	5/20
5695			st	st	-	-	-		-	-	-	
5696			H+	+	H+	+	+		+	+	+	
5697			st	st	st	st	-		-	-	-	
5698			H+	+	H+	+	+		+	+	+	
5699			st	st	st	st	-		+	+	+	
5700			st	-	-	-	-		-	-	-	
5701			st	-	-	-	-		-	-	-	
5702			st	st	st	st	-		-	-	-	
5703			st	st	st	st	-		-	-	-	
5704			st	st	st	st	-		+	+	+	
5705			st	st	st	st	-		-	-	-	
5706			st	st	st	st	-		-	-	-	
5707			st	st	st	st	-		-	-	-	
5708			st	st	st	st	-		-	-	-	
5709			st	st	st	st	-		-	-	-	
5710			st	st	st	st	-		-	-	-	
5711			-	-	-	-	-		+	+	+	
5712			st	-	-	-	-		-	-	-	
5713			H+	+	H+	+	+		-	-	-	
5714	2	0.7	st	st	st	st	-	3/5	-	-	-	4/5
5715			H+	+	H+	+	+		+	+	+	
5716			H+	+	H+	+	+		+	+	+	
5717			H+	+	H+	+	+		+	+	+	
5718			st	st	st	st	-		+	+	+	

Rillettes
***L.monocytogenes* Ad669**
Aerobic mesophilic flora:1.6 10^2/g

Sample N°	Level	Inoculation (cfu/25g)	Reference method: ISO 11290-1/A1						Alternative method: ANSR for *Listeria monocytogenes*			
			Half fraser		Fraser 1		Result	Positive/total	Test result	Confirmation	Final result	Positive / Total
			O&A	Palcam	O&A	Palcam						
5800	0	0	st	st	st	st	-	0/5	-		-	0/5
5801			st	st	-	-	-		-		-	
5802			st	st	st	st	-		-		-	
5803			st	st	st	st	-		-		-	
5804			st	st	st	-	-		-		-	
5805	1	0.2	st	st	st	-	-	6/20	-		-	6/20
5806			st	st	st	-	-		+	+	+	
5807			st	st	st	st	-		-		-	
5808			st	st	st	-	-		-		-	
5809			H+	+	H+	+	+		+	+	+	
5810			st	st	st	-	-		+	+	+	
5811			st	st	st	-	-		-		-	
5812			st	st	st	-	-		-		-	
5813			st	st	st	st	-		-		-	
5814			st	st	st	st	-		-		-	
5815			H+	+	H+	+	+		+	+	+	
5816			H+	+	H+	+	+		-		-	
5817			H+	+	H+	+	+		-		-	
5818			H+	+	H+	+	+		-		-	
5819			st	st	-	-	-		-		-	
5820			H+	+	H+	+	+		+	+	+	
5821			st	st	st	-	-		-		-	
5822			st	st	st	st	-		-		-	
5823			st	st	st	-	-		-		-	
5824			st	st	st	st	-		+	+	+	
5825	2	0.5	st	st	st	-	-	2/5	+	+w	+	3/5
5826			H+	+	H+	+	+		+	+	+	
5827			st	st	st	-	-		-	-	-	
5828			st	st	st	-	-		+	+	+	
5829			H+	+	H+	+	+		-		-	

Raw milk cheese (Brie de meaux)
***L.monocytogenes* Ad618**
Aerobic mesophilic flora:1.3 10^8/g

Sample N°	Level	Inoculation (cfu/25g)	Reference method: ISO 11290-1/A1						Alternative method: ANSR for *Listeria monocytogenes*			
			Half fraser		Fraser 1		Result	Positive/total				
			O&A	Palcam	O&A	Palcam			Test result	Confirmation	Final result	Positive / Total
7817	0	0	-	st	-	-	-	0/5	-	-	-	0/5
7818			-	st	-	-	-		-	-	-	
7819			-	st	-	st	-		-	-	-	
7820			-	-	-	-	-		-	-	-	
7821			-	-	-	-	-		-	-	-	
7892	1	0.3	-	-	-	-	-	4/20	-	-	-	6/20
7893			st	-	-	-	-		-	-	-	
7894			st	-	st	-	-		-	-	-	
7895			-	-	-	-	-		-	-	-	
7896			-	-	-	-	-		-	-	-	
7897			H+	+	H+	+	+		-	-	-	
7898			st	-	st	st	-		-	-	-	
7899			H+	+	H+	+	+		-	-	-	
7900			st	-	st	-	-		+	+	+	
7901			H+	+	H+	+	+		-	-	-	
7902			-	-	-	-	-		+	+	+	
7903			st	st	-	-	-		+	+	+	
7904			H-	-	st	st	-		-	-	-	
7905			st	st	st	-	-		+	+	+	
7906			st	-	-	-	-		-	-	-	
7907			-	-	-	-	-		-	-	-	
7908			-	st	-	-	-		+	+	+	
7909			st	-	-	-	-		+	+	+	
7910			H+	+	H+	+	+		-	-	-	
7911			-	-	-	-	-		-	-	-	
7912	2	1	st	-	-	-	-	3/5	-	-	-	2/5
7913			st	-	H+	+	+		+	+	+	
7914			st	-	-	-	-		+	+	+	
7915			H+	-	H+	+	+		-	-	-	
7916			H+	+	H+	+	+		-	-	-	

Vegetables mix
***L.monocytogenes* Ad279**
Aerobic mesophilic flora:6.0 10^2/g

N°Sample	Level	Inoculation (cfu/25g)	Reference method: ISO 11290-1/A1						Alternative method: ANSR for *Listeria monocytogenes*			
			Half fraser		Fraser 1		Result	Positive/total				
			O&A	Palcam	O&A	Palcam			Test result	Confirmation	Final result	Positive/total
6624	0	0	st	st	st	st	-	0/5	-	-	-	0/5
6625			st	st	st	st	-		-	-	-	
6626			-	-	-	-	-		-	-	-	
6627			st	st	st	st	-		-	-	-	
6628			st	st	st	st	-		-	-	-	
6629	1	0.8	st	st	st	st	-	8/20	-	-	-	11/20
6630			st	st	st	st	-		-	-	-	
6631			st	st	st	st	-		+	+	+	
6632			H+	+	H+	+	+		-	-	-	
6633			st	st	st	st	-		+	+	+	
6634			st	st	st	st	-		+	+	+	
6635			st	st	st	st	-		+	+	+	
6636			H+	+	H+	+	+		+	+	+	
6637			H+	+	H+	+	+		+	+	+	
6638			H+	+	H+	+	+		-	-	-	
6639			H+	+	H+	+	+		+	+	+	
6640			H+	+	H+	+	+		-	-	-	
6641			st	st	st	st	-		+	+	+	
6642			st	st	st	st	-		+	+	+	
6643			st	st	st	st	-		-	-	-	
6644			st	st	st	st	-		+	+	+	
6645			H+	+	H+	+	+		-	-	-	
6646			st	st	st	st	-		-	-	-	
6647			H+	+	H+	+	+		+	+	+	
6648			st	st	st	st	-		-	-	-	
6649	2	2.1	H+	+	H+	+	+	5/5	+	+	+	5/5
6650			H+	+	H+	+	+		+	+	+	
6651			H+	+	H+	+	+		+	+	+	
6652			H+	+	H+	+	+		+	+	+	
6653			H+	+	H+	+	+		+	+	+	

Smoked salmon
***L.monocytogenes* Ad670**
Aerobic mesophilic flora:1.1 10^3/g

N°Sample	Level	Inoculation (cfu/25g)	Reference method: ISO 11290-1/A1						Alternative method: ANSR for *Listeria monocytogenes*			
			Half fraser		Fraser 1		Result	Positive/total	Test result	Confirmation	Final result	Positive/total
			O&A	Palcam	O&A	Palcam						
6020	0	0	H-	+ (Camp -)	H-	+ (Camp -)	-	0/5	-	-	-	0/5
6021			H-	+ (Camp -)	H-	+ (Camp -)	-		-	-	-	
6022			st	st	s	-	-		-	-	-	
6023			st	st	s	st	-		-	-	-	
6024			st	st	H-	+	-		-	-	-	
6025	1	0.4	H+	+	H+	+	+	7/20	-	-	-	6/20
6026			H+	+	H+	+	+		-	-	-	
6027			st	st	s	st	-		+	+	+	
6028			H-	+ (Camp -)	H-	+ (Camp -)	-		+	+	+	
6029			st	st	st	st	-		-	-	-	
6030			H-	+ (Camp -)	H-	+ (Camp -)	-		-	-	-	
6031			st	st	st	st	-		-	-	-	
6032			st	st	st	st	-		-	-	-	
6033			st	st	st	st	-		+	+	+	
6034			st	st	st	-	-		+	+	+	
6035			H+/H-	+	H+	+	+		-	-	-	
6036			H+/H-	+	H+	+	+		-	-	-	
6037			st	st	-	-	-		-	-	-	
6038			-	st	st	st	-		-	-	-	
6039			H+	+	H+	+	+		+	+	+	
6040			H-	+ (Camp -)	H-	+ (Camp -)	-		-	-	-	
6041			H-	+ (Camp -)	H-	+ (Camp -)	-		-/+/+	+	-	
6042			H+	+	H+	+	+		+	+	+	
6043			st	st	st	-	-		-	-	-	
6044			H+	+	H+	+	+		-	-	-	
6045	2	1.1	st	st	st	st	-	4/5	-	-	-	1/5
6046			st	+(2)	H+	+	+		-/-/-	+	-	
6047			H+	+	H+	+	+		+	+	+	
6048			H+/H-	+	H+	+	+		-	-	-	
6049			H+	+	H+	+	+		-	-	-	

Process water
***L.monocytogenes* Ad551**
Aerobic mesophilic flora:1.4 10^3/g

N°Sample	Level	Inoculation (cfu/25g)	Reference method: ISO 11290-1/A1						Alternative method: ANSR for *Listeria monocytogenes*			
			Half fraser		Fraser 1		Result	Positive/total				
			O&A	Palcam	O&A	Palcam			Test result	Confirmation	Final result	Positive/tota
6914	0	0	st	st	-	-	-	0/5	-	-	-	0/5
6915			st	st	st	st	-		-	-	-	
6916			st	st	st	st	-		-	-	-	
6917			st	st	st	st	-		-	-	-	
6918			st	st	st	st	-		-	-	-	
6919	1	0.6	st	st	st	st	-	7/20	+	+	+	9/20
6920			st	st	st	st	-		-	-	-	
6921			st	st	st	st	-		-	-	-	
6922			st	st	-	-	-		+	+	+	
6923			H+	+(3)	/	/	+		-	-	-	
6924			st	st	st	st	-		+	+	+	
6925			st	st	st	st	-		-	-	-	
6926			H+	+	/	/	+		-	-	-	
6927			st	st	st	-	-		-	-	-	
6928			st	st	st	st	-		+	+	+	
6929			st	st	st	st	-		+	+	+	
6930			H+(1)	st	/	st	+		-	-	-	
6931			st	st	st	st	-		-	-	-	
6932			H+	+	/	/	+		-	-	-	
6933			st	st	st	st	-		+	+	+	
6934			H+	+	/	/	+		+	+	+	
6935			H+(4)	+	/	/	+		+	+	+	
6936			st	st	st	st	-		-	-	-	
6937			H+	+	/	/	+		+	+	+	
6938			st	st	st	st	-		-	-	-	
6939	2	1.6	H+	+	/	/	+	4/5	+	+	+	4/5
6940			H+	+	/	/	+		+	+	+	
6941			H+	+	/	/	+		-	-	-	
6942			st	st	st	st	-		+	+	+	
6943			H+	+	/	/	+		+	+	+	

Appendix F – Inclusivity and exclusivity study: raw data

INCLUSIVITY									
ANSR L.monocytogenes 24h 30°C LESS PLUS									
Strain		**Species**	**Reference**	**Molecular serotypes**	**Origin**	**Inoculation level (CFU /225ml)**	**ANSR for L.mono-cytogenes**	**O&A**	**RLM**
1	*Listeria*	*monocytogenes*	153	VI b	Soft cheese (Munster)	48	+	H+	+
2	*Listeria*	*monocytogenes*	1011/1410	II a	Frozen broccoli	33	+	H+	+
3	*Listeria*	*monocytogenes*	1972/2399	VI b	Puff pastry with mushrooms	49	+	H+	+
4	*Listeria*	*monocytogenes*	1973/2400	VI b	Puff pastry egg and ham (Quiche lorraine)	49	+	H+	+
5	*Listeria*	*monocytogenes*	2407/3139	IV b	Tripes with tomatoes	50	+	H+	+
6	*Listeria*	*monocytogenes*	2760/3145	II a	Raw bacon	60	+	H+	+
7	*Listeria*	*monocytogenes*	32.183	II b	Croque-Monsieur	52	+	H+	+
8	*Listeria*	*monocytogenes*	38/181	II a	Toulouse sausages	43	+	H+	+
9	*Listeria*	*monocytogenes*	5721/6179	IV b	Smoked bacon	67	+	H+	+
10	*Listeria*	*monocytogenes*	7111/7516	IV b	Pâté (Rillettes)	74	+	H+	+
11	*Listeria*	*monocytogenes*	850/109	II a	RTE food (deli salad with seafood)	72	+	H+	+
12	*Listeria*	*monocytogenes*	877/113	II a	Environmental sample (pastry)	44	+	H+	+
13	*Listeria*	*monocytogenes*	913/1048	IV b	Black pudding	41	+	H+	+
14	*Listeria*	*monocytogenes*	A00C014	II a	Sausage	28	+	H+	+
15	*Listeria*	*monocytogenes*	A00C022	II a	Merguez	53	+	H+	+
16	*Listeria*	*monocytogenes*	A00C024	II a	Sausage	21	+	H+	+
17	*Listeria*	*monocytogenes*	A00C036	II a	Poultry (guinea)	86	+	H+	+
18	*Listeria*	*monocytogenes*	A00C039	II a	Sausages	54	+	H+	+
19	*Listeria*	*monocytogenes*	A00C040	IV b	Cooked delicatessen (Museau)	46	+	H+	+
20	*Listeria*	*monocytogenes*	A00C041	La	Sausage	54	+	H+	+
21	*Listeria*	*monocytogenes*	A00C042	IV b	Raw sausage	22	+	H+	+
22	*Listeria*	*monocytogenes*	A00C043	II a	Smoked Bacon	31	+	H+	+
23	*Listeria*	*monocytogenes*	A00C044	II b	Poultry (duck)	32	+	H+	+
24	*Listeria*	*monocytogenes*	A00C052	II b	RTE food (Osso bucco with turkey)	28	+	H+	+
25	*Listeria*	*monocytogenes*	A00C053	II a	Gizzards	94	+	H+	+
26	*Listeria*	*monocytogenes*	A00C054	IV b	Beef hart	90	+	H+	+
27	*Listeria*	*monocytogenes*	A00C055	II a	Raw sausages	57	+	H+	+
28	*Listeria*	*monocytogenes*	A00E008	II a	Environmental sample	40	+	H+	+
29	*Listeria*	*monocytogenes*	A00E049	II a	Environmental sample (smoked salmon)	31	+	H+	+
30	*Listeria*	*monocytogenes*	A00E082	II a	Environmental sample (smoked salmon)	35	+	H+	+
31	*Listeria*	*monocytogenes*	A00L097	II a	Milk	45	+	H+	+
32	*Listeria*	*monocytogenes*	A00M009	II a	Smoked salmon	35	+	H+	+
33	*Listeria*	*monocytogenes*	A00M032	IV b	Smoked salmon	56	+	H+	+
34	*Listeria*	*monocytogenes*	A00M045	II a	Smoked salmon	44	+	H+	+

INCLUSIVITY									
ANSR L.monocytogenes 24h 30°C LESS PLUS									
Strain		**Species**	**Reference**	**Molecular serotypes**	**Origin**	**Inoculation level (CFU /225ml)**	**ANSR for L.mono-cytogenes**	**O&A**	**RLM**
35	*Listeria*	*monocytogenes*	A00M088	II a	Smoked salmon	58	+	H+	+
36	*Listeria*	*monocytogenes*	Ad235	II b	Poultry	48	+	H+	+
37	*Listeria*	*monocytogenes*	Ad253	II b	Hard cheese	42	+	H+	+
38	*Listeria*	*monocytogenes*	Ad260	II a	Semi hard cheese	22	+	H+	+
39	*Listeria*	*monocytogenes*	Ad265	II b	Tong	27	+	H+	+
40	*Listeria*	*monocytogenes*	Ad266	II a	Poultry	34	+	H+	+
41	*Listeria*	*monocytogenes*	Ad267	II b	Dry sausage	26	+	H+	+
42	*Listeria*	*monocytogenes*	Ad268	IV b	Cured ham	29	+	H+	+
43	*Listeria*	*monocytogenes*	Ad270	IV b	Fermented sausage	33	+	H+	+
44	*Listeria*	*monocytogenes*	Ad272	IV b	Fermented sausage	23	+	H+	+
45	*Listeria*	*monocytogenes*	Ad273	II b	Cured delicatessen	25	+	H+	+
46	*Listeria*	*monocytogenes*	Ad274	II a	Ready-to-eat food (Asiatic meal)	29	+	H+	+
47	*Listeria*	*monocytogenes*	Ad534	II b	Fruits	31	+	H+	+
48	*Listeria*	*monocytogenes*	Ad544	II a	Onion	32	+	H+	+
49	*Listeria*	*monocytogenes*	Ad546	II a	Flour	17	+	H+	+
50	*Listeria*	*monocytogenes*	Ad623	II b	Bread crumbs	19	+	H+	+

EXCLUSIVITY						
Strain		Species	Reference	Origin	Inoculation level (CFU/ml)	ANSR for L.monocytogenes
1	*Bacillus*	*cereus*	Ad 465	Salmon Terrine	6.0 10^3	-
2	*Bacillus*	*circulans*	Ad 760	Vegetables	2.0 10^3	-
3	*Bacillus*	*coagulans*	Ad731	Dairy product	2.0 10^3	-
4	*Bacillus*	*licheniformis*	Ad 978	Dairy product	2.0 10^3	-
5	*Bacillus*	*pumilus*	Ad 284	Ready-to-eat	3.4 10^4	-
6	*Brochrotrix*	*campestris*	CIP 102920T	Environment	2.0 10^3	-
7	*Carnobacterium*	*piscicola*	Ad369	Raw milk	2.0 10^5	-
8	*Enterococcus*	*durans*	Ad 149	Ham	2.0 10^5	-
9	*Enterococcus*	*faecalis*	89L326	Soft cheese (Vacherin)	2.0 10^5	-
10	*Lactobacillus*	*brevis*	86L126	Ham	2.8 10^5	-
11	*Lactobacillus*	*curvatus*	Ad 380	Delicatessen	2.4 10^5	-
12	*Lactobacillus*	*sakei*	Ad 473	Ham	1.4 10^5	-
13	*Leuconostoc*	*carnosum*	Ad 411	Dairy product	3.9 10^5	-
14	*Leuconostoc*	*citreum*	Ad396	Ham	1.0 10^5	-
15	*Micococcus*	*luteus*	Ad432	Cocktail	2.0 10^5	-
16	*Staphylococcus*	*aureus*	Ad165	Smoked delicatessen	3.2 10^4	-
17	*Staphylococcus*	*epidermidis*	Ad931	Fruits	4.0 10^3	-
18	*Staphylococcus*	*haemoliticus*	Ad989	Dairy product	2.0 10^3	-
19	*Steptococcus*	*bovis*	92L622	Cheese	4.4 10^4	-
20	*Steptococcus*	*salivarus*	Ad441	Dairy product	6.0 10^3	-
1	*Listeria*	*grayi*	Ad1198	Smoked salmon	2.6 10^5	-
2	*Listeria*	*grayi*	Ad1443	Pork meat sausages	3.0 10^5	-
3	*Listeria*	*innocua*	1	Smoked salmon	2.3 10^5	-
4	*Listeria*	*innocua*	Ad658	Gorgonzola	4.8 10^5	-
5	*Listeria*	*innocua*	Ad 655	Brine	2.6 10^5	-
6	*Listeria*	*innocua*	Ad 660	Bread crumbs	3.1105	-
7	*Listeria*	*innocua*	Ad 663	Environment (dairy industry)	2.7 10^5	-
8	*Listeria*	*innocua*	Ad 671	Smocked bacon	2.2 10^5	-
9	*Listeria*	*innocua*	Ad 661	Soft cheese (Pont L'Evêque)	4.6105	-
10	*Listeria*	*innocua*	Ad 659	Environment (dairy industry)	2.0 10^5	-
11	*Listeria*	*ivanovii*	Ad466	Raw veal meat	3.0 10^5	-
12	*Listeria*	*ivanovii*	Ad462	Environment (dairy industry)	2.3 10^5	-
13	*Listeria*	*ivanovii*	BR11	Environment (fish)	2.3 10^5	-
14	*Listeria*	*ivanovii londoniensis*	CIP103466	/	4.2 10^5	-
15	*Listeria*	*ivanovii*	Ad 1289	Raw milk cheese	2.6 10^5	-
16	*Listeria*	*ivanovii*	Ad 1290	Milk powder	6.7 10^5	-
17	*Listeria*	*ivanovii*	Ad 1291	Poultry	1.8 10^5	-
18	*Listeria*	*ivanovii*	Ad 1288	Sheep milk	4.6 10^5	-
19	*Listeria*	*seeligeri*	Ad 649	Cheese	2.2 10^5	-
20	*Listeria*	*seeligeri*	Ad 651	Environment	1.6 10^5	-
21	*Listeria*	*seeligeri*	Ad 652	Environment (dairy industry)	2.8 10^4	-
22	*Listeria*	*seeligeri*	Ad 674	Soft cheese (Munster)	4.2 10^5	-

EXCLUSIVITY						
Strain		Species	Reference	Origin	Inoculation level (CFU/ml)	ANSR for L.monocytogenes
23	*Listeria*	*seeligeri*	BR1	Trout	2.3 10^5	-
24	*Listeria*	*seeligeri*	BR18	Environment (fish)	4.2 10^5	-
25	*Listeria*	*seeligeri*	CIP100100	/	5.8 10^5	-
26	*Listeria*	*welshimeri*	Ad1276	Environment (Slaughterhouse)	2.8 10^5	-
27	*Listeria*	*welshimeri*	Ad1235	Beef meat	4.4 10^5	-
28	*Listeria*	*welshimeri*	191424	Poultry	4.2 10^5	-
29	*Listeria*	*welshimeri*	Ad 1175	Ready-to-eat-food	2.8 10^5	-
30	*Listeria*	*welshimeri*	Ad 650	Poultry	5.2 10^5	-

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

Laboratory **A**

Aerobic mesophilic flora: 2,7.10^8/g

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

Laboratory **B** Incubation time not respected:22h instead of 24h

Aerobic mesophilic flora: 2,0.10^{8}/g

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

Laboratory **C**

Aerobic mesophilic flora: $6,5.10^6$/g

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

Laboratory **D**

Aerobic mesophilic flora:2,3.10^8 /g

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

Laboratory **E**

Aerobic mesophilic flora: 2,1.10^{8}/g

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

Laboratory **F**

Aerobic mesophilic flora: 2,6.10^8/g

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

Laboratory **G**

Aerobic mesophilic flora: 4,6.10^{8}/g

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

Laboratory **H**

Aerobic mesophilic flora: $2,7.10^6$ /g

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

Laboratory I

Aerobic mesophilic flora: 1,1.10^{8}/g

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

Laboratory **J**

Aerobic mesophilic flora: 2,5.10^{8}/g

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

Laboratory **K**

Aerobic mesophilic flora:8,5.10^7 /g

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

Laboratory **L**

Aerobic mesophilic flora: $9,7.10^7$ /g

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

Laboratory **M**

Aerobic mesophilic flora: 1,3.10^{8}/g

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

Laboratory **N**

Aerobic mesophilic flora:2,5.10^8 /g

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

Laboratory **O**

Aerobic mesophilic flora: $4,2.10^7$/g

N°Sample	Reference method: ISO 11290-1					ANSR for Listeria monocytogenes			Agreement
	Half Fraser		Fraser		Final result	ANSR test	O&A	Final result	
	O&A	Palcam	O&A	Palcam					
O4	-	-	-	-	-	-	-	-	**NA**
O7	-	-	-	-	-	-	-	-	**NA**
O9	-	-	-	-	-	-	-	-	**NA**
O10	-	-	-	-	-	-	-	-	**NA**
O13	-	-	-	-	-	-	-	-	**NA**
O18	-	-	-	-	-	-	-	-	**NA**
O23	-	-	-	-	-	-	-	-	**NA**
O24	-	-	-	-	-	-	-	-	**NA**
O2	-	-	+	+	+	+	+	+	**PA**
O3	+	+	+	+	+	+	+	+	**PA**
O8	+	+	+	+	+	+	+	+	**PA**
O12	+	+	+	+	+	+	+	+	**PA**
O15	-	-	+	+	+	+	+	+	**PA**
O17	+	+	+	+	+	+	+	+	**PA**
O19	+	-	+	+	+	-	-	-	**ND**
O21	-	-	-	-	-	+	+	+	**PD**
O1	+	+	+	+	+	+	+	+	**PA**
O5	+	+	+	+	+	+	+	+	**PA**
O6	+	+	+	+	+	+	+	+	**PA**
O11	+	+	+	+	+	+	+	+	**PA**
O14	+	+	+	+	+	+	+	+	**PA**
O16	+	+	+	+	+	+	+	+	**PA**
O20	+	+	+	+	+	+	+	+	**PA**
O22	+	+	+	+	+	+	+	+	**PA**

Laboratory **P (ADRIA)**

Aerobic mesophilic flora: 2,1.10^{8}/g

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