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

NEOGEN Molecular Detection Assay 2 - *Listeria*
(certificate # 3M 01/14 – 05/16)
for the detection of *Listeria* spp in human food products and in environmental samples

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Version 0 April 09, 2024

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 (version 7).**

- **Reference method:**

- **EN ISO 11290-a1 (2004):** Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of *Listeria monocytogenes* - Part 1: detection of *Listeria monocytogenes* in foods.

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

- **Application scope:**

- **All human food products** by a validation testing of a broad range of foods, including:
  - composite foods,
  - meat products,
  - dairy products,
  - vegetables,
  - seafood and fishery products,
- **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 NEOGEN Molecular Detection Assay 2 - *Listeria* for the detection of *Listeria* species was validated for human food products and environmental samples (excluding samples from primary production) in May 2016 (Certificate number: NEOGEN 01/14 - 05/16) according to the ISO 16140-2 (2016).

The method was renewed in April 2020 without additional testing.

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

Table 1: validation history

Date	Study	Expert Laboratory	Standards
May 2016	Initial validation for the detection of *Listeria* spp	ADRIA Développement	- ISO/FDIS 16140-2:2015 - ISO 11290-1/A1:2005
April 2020	First renewal study without modification	ADRIA Développement	- ISO 16140-2:2016 - ISO 11290-1:2017
April 2024	Second renewal study without modification	Microsept	- ISO 16140-2:2016 - ISO 11290-1:2017

The results set out in this summary 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

The NEOGEN Molecular Listeria Test Kit uses isothermal amplification of unique DNA target sequences, the amplified sequences are detected by bioluminescence.

2.1.2. Protocol of the alternative method

- **Enrichment protocols**:

- General protocol: 25 g + 225 ml Half Fraser (1/10) for all products (food products, excluding products tested with specific protocols ❶ and ❷, and environmental samples). Incubation for 27 h ± 3 h at 37°C.
- Specific protocol 1: 25 g + 475 ml Half Fraser (1/20) for raw meat and raw seafoods products. Incubation for 30 h ± 2 h at 37°C.
- Specific protocol 2: 25 g + 225 ml Half Fraser (1/10) for raw dairy products. Incubation for 22 h ± 2 h at 37°C. Subculture in Fraser broth for 22 h ± 2 h at 37°C.

- **Lysis step**
- **Amplification and real-time detection**
- **Confirmation step:**

Option 1: by using the tests described in the ISO 11290-1 starting from the Half-Fraser
Option 2: by streaking 100 µl of enriched Half Fraser broth onto O&A and Palcam plates (Specific protocol and General protocol), and by streaking 10 µl of Fraser broth (Specific protocol). The only presence of typical colonies allows to confirm the positive MDA test.
Option 3: by using nucleic acid probes as described in EN ISO 7218 standard, performed on isolated colonies, from selective agar (see Option 1 or 2).
Option 4: by using any other method certified NF VALIDATION, the principle of which must be different from NEOGEN Molecular Detection Assay 2 - *Listeria*. The complete protocol described for this second validated method must be used. All steps prior to the start of confirmation must be common to both methods.

It is possible to store the enrichment broths for 72 h at 5°C ± 3°C for all the categories except for environmental samples and to store the lysates for 72 h at 5°C ± 3°C for all the categories, except for dairy products and environmental samples, before running the MDA test.

The protocols are set out in Appendix A.

2.2. Reference method

The validation study was run according to the ISO 11290-1/A1 (2004): Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of *Listeria monocytogenes* Part 1: detection method.
A new version of the ISO method has been published in 2017: ISO 11290-1 (2017): Microbiology of the food chain - Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp. - Part 1: detection method.

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

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

2.3. Restriction

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

2.4. Study design

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

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

459 samples were analyzed for the initial validation in 2016 covering 6 categories.
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	10	20
	b	Ready-to-reheat	13	10	23
	c	Pastries and egg products	7	13	20
	Total		**30**	**33**	**63**
Meat products ❷	a	Meat products (raw, frozen, seasoned) – Specific protocol ❶	16	16	32
	b	Ready-to-eat and processed meat products	10	13	23
	c	Delicatessen	14	13	27
	Total		**40**	**42**	**82**
Dairy products ❸	a	Raw dairy products – Specific protocol ❷	30	30	60
	b	Pasteurized milk cheeses	14	9	23
	c	Ice cream, milk, flavored milk (pasteurized)	8	12	20
	Total		**52**	**51**	**103**
Vegetables ❹	a	Raw products (fresh and frozen)	11	18	29
	b	Mapped and heat processed products	13	7	20
	c	Vegetables based preparations and processed vegetables	8	12	20
	Total		**32**	**37**	**69**
Seafood and fishery products ❺	a	Raw products (fresh and frozen) – Specific protocol ❶	17	15	32
	b	Smoked and marinated	10	10	20
	c	Ready-to-eat, Ready to reheat	10	10	20
	Total		**37**	**35**	**72**
Environmental samples ❻	a	Process waters	11	15	26
	b	Dusts	9	11	20
	c	Wipes	10	14	24
	Total		**30**	**40**	**70**
TOTAL			**221**	**238**	**459**
General protocol			**158**	**177**	**335**
Specific protocol ❶			**23**	**31**	**64**
Specific protocol ❷			**30**	**30**	**60**

The distribution per target analytes is given in table 3.

Table 3: Distribution per target analyte

Category	*Listeria* spp.	*Listeria* spp + *Listeria monocytogenes*	*Listeria monocytogenes*
❶ **Composite foods**	9	1	20
❷ **Meat products**	19	11	10
❸ **Dairy products**	28	1	23
❹ **Vegetables**	9	8	15
❺ **Seafood and fishery products**	9	11	17
❻ **Environmental samples**	15	3	12
TOTAL	**89**	**35**	**97**

The number of samples contaminated with *Listeria* spp alone or mixed with *Listeria monocytogenes* is comprised between 15 and 25 for each category as required in the AFNOR technical rules.

3.1.2. Artificial contamination of samples

Artificial contaminations were done by seeding protocol and spiking.
The samples and the strains used for the artificial contaminations are presented in Appendix C.

113 samples were artificially contaminated, using 56 different strains. 82 gave a positive result. 76 samples were inoculated at a level 3 CFU, 2 samples at 3.4 CFU, 2 samples at 3.8 CFU and 2 samples at 6.2 CFU (spiking protocol). 139 positive samples were naturally contaminated.

Table 4: Distribution of the positive natural and artificial contaminated samples

		Positive samples								
		Naturally contaminated	Cross-contamination	Spiking (CFU/sample)			Seeding (CFU/sample)			Total
				<5 CFU	5<x<10	>10 CFU	<3 CFU	3<x<10	>10 CFU	
MDA	Samples number	139	0	0	2	0	76	4	0	**221**
	Percentage	62.9%	0%	0%	0.9%	0%	34.4%	1.8%	0%	100.0%

2.7% of the samples were contaminated between 3 CFU (spiking protocol) or 5 CFU (seeding protocol) and 10 CFU/ sample, this is in agreement with the AFNOR technical rules.
62.9 % of the samples were naturally contaminated.

3.1.3. Confirmation protocols

The positive tests were confirmed for the protocol ❶ by streaking 100 µl and 10 µl for the protocol ❷ of the enrichment broth onto O&A and Palcam plates.

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

3.1.4. Enrichment broths and lysates storage

The enrichment broths and lysates from positive and discordant samples were stored for 72h at 5°C ± 3°C and tested a second time.

3.1.5. Results

Raw data are shown in Appendix D.
Table 5 shows the results.

Table 5: results of the sensitivity study for both methods for the analysis of individual samples (R+/-: reference method positive or negative, A+/-: alternative method positive or negative, PA: positive agreement, NA: negative agreement, ND: negative deviation, PD: positive deviation, PP: presumptive positive before confirmation)

Category	Response	R+	R-
Composite foods ❶	A+	PA = 25	PD = 4
	A-	ND = 1 incl. 0 PPND	NA = 33 incl. 0 PPNA
Meat products ❷	A+	PA = 28	PD = 7
	A-	ND = 5 incl. 0 PPND	NA = 42 incl. 1 PPNA
Dairy products ❸	A+	PA = 29	PD = 10
	A-	ND = 13 incl. 0 PPND	NA = 51 incl. 1 PPNA
Vegetables ❹	A+	PA = 25	PD = 4
	A-	ND = 3 incl. 0 PPND	NA = 37 incl. 0 PPNA
Seafood and fishery products ❺	A+	PA = 28	PD = 3
	A-	ND = 6 incl. 0 PPND	NA = 35 incl. 0 PPNA
Environmental samples ❻	A+	PA = 25	PD = 1
	A-	ND = 4 incl. 0 PPND	NA = 40 incl. 1 PPNA
All categories	A+	**PA = 160**	**PD = 29**
	A-	**ND = 32 incl. 0 PPND**	**NA = 238 incl. 2 PPNA**

3.1.6. 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 6 presents the results.

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

Category		Type	PA	NA*	PD	ND**	PPND	PPNA	SE alt %	SE ref %	RT %	FP %
❶ Composite foods	a	Ready-to-eat	7	10	3	0	0	0	100.0	70.0	85.0	0.0
	b	Ready-to reheat	11	10	1	1	0	0	92.3	92.3	91.3	0.0
	c	Pastries, desserts, omelets	7	13	0	0	0	0	100.0	100.0	100.0	0.0
	Total		**25**	**33**	**4**	**1**	**0**	**0**	**96.7**	**86.7**	**92.1**	**0.0**
❷ Meat products	a	Raw, frozen, seasoned	12	16	3	1	0	0	93.8	81.3	87.5	0.0
	b	Ready-to-eat and processed meat products	6	13	2	2	0	0	80.0	80.0	82.6	0.0
	c	Delicatessen	10	13	2	2	0	0	85.7	85.7	85.2	0.0
	Total		**28**	**42**	**7**	**5**	**0**	**0**	**87.5**	**82.5**	**85.4**	**0.0**
❸ Dairy products	a	Raw dairy products	18	30	5	7	0	1	76.7	83.3	80.0	3.4
	b	Pasteurized milk cheese	5	9	3	6	0	0	57.1	78.6	60.9	0.0
	c	Ice cream, milk (pasteurized), flavored milk	6	12	2	0	0	0	100.0	75.0	90.0	0.0
	Total		**29**	**51**	**10**	**13**	**0**	**1**	**75.0**	**80.8**	**77.7**	**2.0**
❹ Vegetables	a	Raw products (fresh, frozen)	10	18	1	0	0	0	100.0	90.9	96.6	0.0
	b	Mapped and heat processed vegetables	8	7	3	2	0	0	84.6	76.9	75.0	0.0
	c	Vegetables based preparations, processed	7	12	0	1	0	0	87.5	100.0	95.0	0.0
	Total		**25**	**37**	**4**	**3**	**0**	**0**	**90.6**	**87.5**	**89.9**	**0.0**
❺ Seafood and fishery products	a	Raw products (fresh, frozen)	12	15	2	3	0	0	82.4	88.2	84.4	0.0
	b	Smoked, marinated	9	10	1	0	0	0	100.0	90.0	95.0	0.0
	c	Ready-to-eat or ready-to-reheat	7	10	0	3	0	0	70.0	100.0	85.0	0.0
	Total		**28**	**35**	**3**	**6**	**0**	**0**	**83.8**	**91.9**	**87.5**	**0.0**
❻ Environmental samples	a	Process water	8	15	0	3	0	0	72.7	100.0	88.5	0.0
	b	Dusts	7	12	1	1	0	0	88.9	88.9	90.0	0.0
	c	Wipes	10	13	0	0	0	1	100.0	100.0	100.0	7.7
	Total		**25**	**40**	**1**	**4**	**0**	**1**	**86.7**	**96.7**	**92.9**	**2.5**
All categories			**160**	**238**	**29**	**32**	**0**	**2**	**85.5**	**86.9**	**86.7**	**0.8**

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

Table 7: parameters for all categories per kind of samples

Parameter	Formula EN ISO 16140-2 :2016	%
Sensitivity of the alternative method (SE_{alt})	$SE_{alt} = \frac{(PA + PD)}{(PA + ND + PD)} \times 100\ \%$	**85.5 %**
Sensitivity of the reference method (SE_{ref})	$SE_{ref} = \frac{(PA + ND)}{(PA + ND + PD)} \times 100\ \%$	**86.9 %**
Relative trueness (RT)	$RT = \frac{(PA + NA)}{N} \times 100\ \%$	**86.7 %**
False positive ratio (FPR) False positive results are the sum of PPNA and PPND	$FPR = \frac{FP}{NA} \times 100\ \%$	**0.8 %**

3.1.7. Analysis of discordant results

32 negative deviations (Table 8) and 29 positive deviations (Table 9) were observed on 221 positive samples.

Among the 32 negative deviations, 19 concern artificially contaminated samples and 13 naturally contaminated samples.
For 9 samples, the presence of *Listeria* spp. was detected in the enrichment broth by the confirmatory test of the alternative method.
For 3 other samples (N° 3719, 2565 and 3755), the presence of *Listeria* spp. was detected when the protocol of the reference method was run, i.e. subculture in Fraser broth incubated for 48 h at 37°C prior streaking on O&A and Palcam plates.
For the 20 other samples, the negative results were probably due to sampling heterogeneity in this unpaired data study when dealing with low contamination levels.

Among the 29 positive deviations, 11 concern artificially contaminated samples and 18 naturally contaminated samples.

Table 8: negative deviations

Category		Type	Sample n°	Product	Inoculated strain	Inoculated level (CFU/sample)	MDA result	Confirmation result		Final result
								Alternative method	Reference method	
1	Composite foods	b	3758	Pizza	*L. welshimeri Ad1223*	1,6	-	-	-	-
2	Meat products	c	3162	Merguez	/	/	-/-/-	*L. innocua*	+	-
		b	3719	RTRH chicken and rice	/	/	-	-	+ *(L. welshimeri)*	-
		c	4451	Cooked ham	/	/	-	-	-	-
		a	7429	Frozen ground beef	/	/	-	-	-	-
		b	7558	Ready to reheat meal (beef)	*L. monocytogenes Ad266*	0,8	-	-	-	-
3	Dairy products	b	3215	Pasteurized milk cheese	*L. ivanovii Ad678*	1,6	-/-/-	*L. ivanovii*	+	-
		b	3405	Pasteurized cow milk cheese	*L. monocytogenes A00L106*	1,2	-/-/-	*L. monocytogenes*	+	-
		b	3415	Pasteurized goat milk cheese	*L. seeligeri Ad649*	1,4	-	-	-	-
		b	3419	Pasteurized cow milk cheese	*L. innocua Ad636*	1,8	-	-	-	-
		b	3708	Cheese	*L. ivanovii Ad1288*	2,4	-	-	-	-
		b	3752	Pasteurized milk cheese	*L. monocytogenes Ad1201*	2,4	-/-/-	*L. monocytogenes*	+	-
		a	4152	Raw milk cheese	*L. monocytogenes Ad249*	2,2	-		-	-
		a	4153	Raw milk cheese	*L. monocytogenes Ad619*	2,4	-		-	-
		a	4161	Raw milk cheese	*L. seeligeri Ad1237*	0,8	-		-	-
		a	4673	Raw milk	*L. monocytogenes A00L101*	2,6	-/-/-	*L. monocytogenes /L. inoccua*	/	-
		a	4681	Raw milk	*L. innocua Ad654*	0,8	i/-/-	*L. innocua*	/	-
		a	4683	Raw milk	*L. innocua Ad654*	1,8	-	*L. innocua*	/	-
		a	4702	Raw milk cheese	*L. seeligeri Ad1783*	1,2	-	-	-	-
4	Vegetables	b	4443	Frozen roasted onions	/	/	-	-	-	-
		b	4454	Frozen broccoli	/	/	-	-	-	-
		c	7365	Frozen vegetables mix	*L. innocua Ad1176*	1,8	-	-	-	-
5	Seafood and fishery products	a	1194	White fish	/	/	-	-	-	-
		a	2549	Raw ground fish with tomato	/	/	-/-/-	*L. monocytogenes /L. inoccua*	+	-
		c	2565	RTRH salmon balls	/	/	-	-	+ *(L. monocytogenes)*	-
		c	2939	Breaded cooked fish	/	/	-/+/+	*L. welshimeri*	/	-
		c	2942	RTRH fish	/	/	-	-	-	-
		a	7434	Raw salmon	/	/	-/-/-	-	-	-
6	Environmental samples	a	3571	Rinsing water (salmon industry)	*L. monocytogenes A00E049*	2,4	-	-	-	-
		a	3755	Rinsing water	*L. monocytogenes Ad631*	2,8	-/-/-	-	+ *(L. monocytogenes)*	-
		a	3768	Rinsing water	*L. innocua Ad1273*	1,2	-	-	-	-
		b	4386	Wastes (Salmon industry)	/	/	-	-	-	-

Table 9: positive deviations

Category		Type	Sample n°	Product	Inoculated strain	Inoculated level (CFU/sample)	MDA result	Confirmation result	Final result
1	Composite foods	b	1076	Deli salad	/	/	+	*L. monocytogenes*	+
		a	1079	RTE	/	/	+	*L. monocytogenes*	+
		a	2760	Sandwich (goat cheese, vegetables)	/	/	+	*L. monocytogenes*	+
		a	2933	Chinese pasta	/	/	+	*L. monocytogenes*	+
2	Meat products	a	1185	Seasoned turkey meat	/	/	+	*L. welshimeri*	+
		a	2559	Raw pork meat	/	/	+	*L. innocua*	+
		c	3158	Terrine	/	/	+	*L. monocytogenes*	+
		a	3995	Raw turkey meat	/	/	+	*L. innocua*	+
		c	4665	Low moisture sausage	/	/	+	*L. monocytogenes*	+
		b	7483	RTRH beef	*L. innocua ATCC 033090*	6,2	+	*L. innocua*	+
		b	7557	RTRH meal (beef)	*L. monocytogenes Ad266*	0,8	+	*L. monocytogenes*	+
3	Dairy products	c	3209	Pasteurized half skimmed milk	*L. ivanovii Ad678*	1,6	+	*L. ivanovii*	+
		c	3210	Pasteurized half skimmed milk	*L. seeligeri Ad1780*	0,8	+	*L. seeligeri*	+
		b	3404	Pasteurized cow milk cheese	*L. monocytogenes A00I 106*	1,2	+	*L. monocytogenes*	+
		b	3414	Pasteurized cow milk cheese	*L. innocua T654*	1,2	+	*L. innocua*	+
		b	3749	Pasteurized milk cheese	*L. monocytogenes Ad1784*	1	+	*L. monocytogenes*	+
		a	4149	Raw milk cheese	*L. monocytogenes Ad665*	2	+	*L. monocytogenes*	+
		a	4150	Raw milk cheese	*L. monocytogenes Ad629*	1,6	+	*L. monocytogenes*	+
		a	4151	Raw milk cheese	*L. monocytogenes Ad619*	2,4	+	*L. monocytogenes*	+
		a	4699	Raw milk cheese	*L. ivanovii Ad1289*	1,2	+	*L. ivanovii*	+
		a	4703	Raw milk cheese	/	/	+	*L. monocytogenes*	+
4	Vegetables	b	3538	Frozen roasted onions	/	/	+	*L. monocytogenes*	+
		b	4458	Frozen roasted onions	/	/	+	*L. monocytogenes*	+
		b	4461	Vegetables for couscous	/	/	+	*L. monocytogenes*	+
		a	4655	Pieces of chestnut	/	/	+	*L. monocytogenes*	+
5	Seafood and fishery products	a	1202	Raw fish	/	/	+	*L. monocytogenes*	+
		a	1204	Raw material for surimi	/	/	+	*L. innocua*	+
		b	3528	Smoked salmon	/	/	+	*L. monocytogenes*	+
6	Environmental samples	b	4383	Wastes (salmon industry)	/	/	+	*L. innocua*	+

3.1.8. 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	Results			
			PD	ND	ND-PD	AL
❶	a	Ready-to-eat	3	0	/	/
	b	Ready-to reheat	1	1		
	c	Pastries, desserts, omelets	0	0		
	Total		**4**	**1**	**-3**	**+3**
❷	a	Raw, frozen, seasoned – **Specific protocol 1**	3	1	/	/
	b	Ready to eat and processed meat products	2	2		
	c	Delicatessen	2	2		
	Total		**7**	**5**	**-2**	**+3**
❸	a	Raw dairy products - **Specific protocol 2**	5	7	/	/
	b	Pasteurized milk cheese	3	6		
	c	Ice cream, milk (pasteurized), flavored milk	2	0		
	Total		**10**	**13**	**3**	**+3**
❹	a	Raw products (fresh and frozen)	1	0	/	/
	b	Mapped vegetables and heat processed	3	2		
	c	Vegetables based preparations, processed vegetables	0	1		
	Total		**4**	**3**	**-1**	**+3**
❺	a	Raw products (fresh and frozen) - **Specific protocol 1**	2	3	/	/
	b	Smoked, marinated	1	0		
	c	Ready-to-eat, Ready to reheat	0	3		
	Total		**3**	**6**	**3**	**+3**
❻	a	Process waters	0	3	/	/
	b	Dusts	1	1		
	c	Wipes	0	0		
	Total		**1**	**4**	**3**	**+3**
Total			**29**	**32**	**3**	**+6**
General protocol			**19**	**21**	**2**	**+5**
Specific protocol 1			**5**	**4**	**-1**	**+3**
Specific protocol 2			**5**	**7**	**2**	**+3**

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

Additional *Listeria* spp. strains were recovered from 7 samples (See Table 11). 5 samples were artificially contaminated; the other ones were naturally contaminated samples. For 2 samples (4157

and 4701), only few colonies were observed on selective agar plates. For 2 samples (3762 and 3216), the strains were isolated after storage of the enrichment broth for 72 h at 5°C ± 3°C.

Table 11: strains recovered from samples with NA results.

Category		Sample n°	Product	MDA result	MDA confirmation			Reference method
					O&A	Palcam	Confirmation	
3	Dairy products	4688	Raw milk cheese	-	H-	-	*L. innocua*	-
		4701	Raw milk	-/-/-	H+ (1)	+ (1)	*L. monocytogenes*	-
		4144	Raw milk cheese	-/-/-	H+	+	*L. monocytogenes*	+
		3761	Pasteurized milk cheese	-/-/-	H+	-	*L. ivanovii*	+
		3762	Pasteurized milk cheese	-/-/-	- (H+ at 72h)	-	*L. ivanovii*	+
		4157	Pasteurized milk cheese	-	H- d (2)	-	*L. ivanovii*	-
6	Environmental samples	3216	Wastes (salmon)	-	- (H- at 72h)	- (+ at 72h)	*L. seeligeri*	+

The alternative method produces results comparable to the reference method.

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

239 samples (enrichment) and 146 samples (lysates) were tested again after storage at 2 - 8°C for 72 h. The following changes are observed.
Table 12 shows the different changes before and after storage.

Table 12: enrichment broth and lysates storage

Sample	Before storage	After storage	
		Enrichment	Lysate
1097	PA	PPND	PA
1184	PA	PA	ND
3162	ND	PA	ND
3719	ND	PA	ND
4665	PD	PD	NA
3166	NA	PD	PD
3216	NA	PD	/
3215	ND	PA	/
3405	ND	PA	/
3752	ND	PA	/
3761	NA	PD	/
3762	NA	PD	/
4673	ND	PA	PA
4681	ND	PA	PA
4683	ND	PA	/
4158	PA	PA	/
4699	PD	PD	/
4703	PD	PD	/
4684	PA	ND	ND
3146	NA	PD	PD

Sample	Before storage	After storage	
		Enrichment	Lysate
4662	PA	PA	ND
4663	PA	PA	ND
2553	NA	PD	NA
2549	ND	PA	ND
2565	ND	PA	ND
2939	ND	PA	PA
1202	PD	PD	NA
1204	PD	NA	PD
3714	PA	ND	ND
3715	PA	ND	ND
3767	PA	ND	/

Table 13 shows the differences between ND and PD and the acceptability limits after storage.

Table 13: acceptability limits after storage of the enriched broths and lysates

Cate-gory	Type	Enrichment				Lysates			
		PD	ND	ND-PD	AL	PD	ND	ND-PD	AL
❶	Composite foods	4	1	-3	3	4	1	-3	3
❷	Meats products	8	4	-4	3	7	6	-1	3
❸	Dairy products	13	8	-5	3	/	/	/	3
❹	Vegetables	5	3	-2	3	5	5	0	3
❺	Seafood and fishery products	3	3	0	3	2	5	3	3
Total		36	25	-14	6	18	17	-1	5
General protocol		23	11	-12	5	14	12	-2	5
Specific protocol 1		5	3	-2	3	4	5	1	3
Specific protocol 2		5	5	0	3	/	/	/	/

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

The alternative method produces results comparable to the reference method.

3.1.10. Inhibitions

937 lysates were tested; only one inhibition was observed during the study (sample No 4681: raw milk). The lysate was tested again without any dilution; no matrix inhibition was observed, a negative result was then obtained.

3.1.11. Confirmation

A summary of the differences observed between streaking onto O&A and Palcam plates is given in Table 14. For 15 samples which gave positive MDA test results, typical colonies were observed on O&A plates while no colony was obtained on Palcam plates.

Table 14: Differences observed between streaking onto O&A agar and Palcam plates.

Sample n°	O&A agar	Palcam	Identification
1103	H+	-	*L. monocytogenes*
2761	H+	-	*L. monocytogenes*
4667	H+	-	*L. monocytogenes*
3404	H+	-	*L. monocytogenes*
3709	H+d	-	*L. ivanovii*
3750	H+	-	*L. monocytogenes*
4699	H+	-	*L. monocytogenes*
3538	H+	-	*L. monocytogenes*
4658	H+	-	*L. monocytogenes*
1100	H-	-	*L. welshimeri*
1101	H+	-	*L. monocytogenes*
2566	H+	-	*L. monocytogenes*
3527	H+	-	*L. monocytogenes*
4452	H+/H-	-	*L. monocytogenes/L. welshimeri*
4146	H+/H-d	-	*L. monocytogenes*

3.1.12. Confirmation using the reference method on the alternative enrichment broth.

A subculture of the Half Fraser of the alternative method in Fraser broth for 48 h at 37°C was realized in order to verify if *Listeria* strains were present or not in the enrichment.

For 8 samples in negative agreement, the presence of *Listeria* spp. was detected in the enrichment. Note that for 6 samples, the confirmatory tests of the alternative method (direct streaking onto O&A and Palcam plates after an enrichment step) detected also the presence of *Listeria* spp. strains.

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 15).

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.

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

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

Matrix	Strain	Origin	Protocol
Composite foods: **Deli-salad (Piemontese salad)**	*Listeria monocytogenes* Ad 494	Deli salad	**General**
Meat products: **Raw poultry**	*Listeria ivanovii Ad1291*	Poultry meat	**Specific 1**
Milk and Dairy products **Raw milk**	*Listeria monocytogenes* Ad 618	Cheese	**Specific 2**
Vegetables: **Bagged raw spinach**	*Listeria seeligeri* Ad 1754	Raw vegetables	**General**
Fish and seafood: **Cold smoked salmon**	*Listeria innocua* Ad 1674	Smoked salmon	**General**
Environmental samples: **Process water**	*Listeria monocytogenes* Ad 551	Environmental sample	**General**

3.2.2. Results and calculation of the RLODs

Raw results are shown in Appendix E. 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.

Table 17: RLODs values for the individual samples (RLOD: the estimated relative level of detection value, RLODU: the upper limit of the 95% confidence interval for RLOD, RLODL: the lower limit of the 95% confidence interval for RLOD, b=ln(RLOD): logarithm of the RLOD value, sd(b): standard deviation of b, z-Test statistic: absolute value of the test statistic of the z-Test with the null hypothesis 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**	1.037	0.4	3.0	0.0	0.5	0.1	0.9	
❷ **Meat products**	2.541	0.9	7.0	0.9	0.5	1.8	0.1	
❸ **Dairy products**	1.000	0.4	2.2	0.0	0.4	0.0	1.0	
❹ **Vegetables**	1.700	0.7	4.1	0.5	0.4	1.2	0.2	2.5
❺ **Seafood and fishery**	0.561	0.2	1.3	-0.6	0.4	1.4	1.8	
❻ **Env. samples**	1.000	0.5	2.2	0.0	0.4	0.0	1.0	
Combined	**1.125**	**0.8**	**1.6**	**0.1**	**0.2**	**0.7**	**0.5**	

The RLOD meet the Acceptability Limit for all the tested matrix/strain pairs. For Raw poultry, the RLOD is just above the AL; this was accepted by the AFNOR technical committee.

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

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

Matrix	Strain	Individual samples (CFU/sample size)	
		$LOD_{50\%}$ AM	**$LOD_{50\%}$ RM**
Deli-salad	*L. monocytogenes*	1.6	1.6
Raw poultry	*L. ivanovii*	0.4	0.2
Raw milk	*L. monocytogenes*	0.4	0.4
Bagged raw spinach	*L. seeligeri*	0.8	0.4
Cold smoked salmon	*L. innocua*	0.6	1.0
Process water	*L. monocytogenes*	0.8	0.8
Combined results		**0.7**	**0.7**

The LOD50% varies from 0.2 to 1.6 CFU/sample for the reference method and from 0.4 to 1.6 CFU for the alternative method.

3.2.3. Interpretation and conclusion

The RLODs values are below the acceptability limit set at 2.5, meaning that, as stated in ISO 16140-2:2016, the maximum increase in LOD of the alternative versus the reference method is not considered as relevant in consideration of the fitness for purpose of the method.
In conclusion, alternative and reference methods show similar LODs values for the detection of *Listeria* in the categories and the protocols tested.

3.3. Inclusivity and exclusivity study

3.3.1. Test protocol

50 target strains and 30 non-target strains were tested by the alternative method and by the reference method.

- **Inclusivity**

Listeria spp. strains cultures were performed in BHI medium at 37°C. Dilutions were done in order to inoculate between 10 to 100 cells/225 ml Half Fraser broth (the broth was incubated for 24 h at 37°C). The alternative protocol was then performed.

- **Exclusivity**

Non-target strains cultures were performed in BHI at 37°C. Dilutions were realized in order to inoculate around 10^5 cells/ml BPW. BPW was incubated for 24 h at 37°C. The alternative protocol was then performed.

3.3.2. Results

Raw data are given in Appendix F.

- **Inclusivity**

Among the 50 specific inclusivity strains tested, 48 were detected; for two strains (*Listeria grayi*), it was necessary to mimic the real conditions of routine testing, and 25 ml of UHT milk were added in the Half Fraser broth: positive data were then observed.

- **Exclusivity**

Among the 30 non target strains tested, no cross reaction was observed.

3.3.3. Conclusion

The selectivity of the method is satisfactory.

3.4. Practicability

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

- **Storage conditions, shelf-life and modalities of utilization after first use**

The storage temperature is: 2-8°C. The shelf-life is given on the package. All the reagents shall be stored at the temperature mentioned on the package.

- **Common step with the reference method**

No common step

- **Time-to-result**

See table below:

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

Steps	Reference method	Alternative method		
		General protocol	Specific protocol 1	Specific protocol 2
Negative samples				
Sampling enrichment	Day 0	Day 0	Day 0	Day 0
Fraser 1	Day 1	/	/	/
Lysis	/	Day 1	Day 1	Day 2
MDA test	/	Day 1	Day 1	Day 2
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	/	/	/
Results	Day 5	Day 1	Day 1	Day 2
Presumptive positive or positive results				
Sub-culture of typical colonies on TSAYE	Day 2 – Day 3	/	/	/
Streaking onto O&A or Palcam plates	/	Day 1	Day 1	Day 2
O&A or Palcam plates reading	/	Day 2 – Day 3	Day 2 – Day 3	Day 3 – Day 4
Confirmatory tests	Day 3 – Day 6	/	/	/
Results	Day 4 – Day 7 Day 8 – Day 11	Day 2 – Day 3	Day 2 – Day 3	Day 3 – Day 4

The negative results are available in one day for the general protocol, the specific protocol 1, and in two days for the specific protocol 2.

The positive results are available in two or three days for the general protocol and the specific protocol 1, and in three or four days for the specific protocol 2.

4. Interlaboratory study

4.1. Organization of the study

The study was carried out in 2016. Samples were sent to 13 laboratories. Pasteurized cheese sample (Brie: 32 % fat, 1.4 % NaCl) was inoculated with Listeria monocytogenes 153, isolated from raw milk cheese.

The targeted inoculation levels were the following:
- Level 0: 0 CFU/25 g,
- Level 1: 2 CFU/g, inoculation level providing as much as possible fractional positive recovery data;
- Level 2: 8 CFU/25 g.

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

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

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

Collaborative study laboratories and the expert laboratory carried out the analyses on Tuesday 1st March or Wednesday 2nd March 2016 with the alternative and reference methods. The analyses by the reference method and the alternative method were performed on the same day.

4.2. Experimental parameters controls

4.2.1. Sample stability

4.2.1.1. Contamination levels before inoculation

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

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

Level	Samples	Theoretical target level	True level	Low limit	High limit
Level 0 L_0	8-11-12-16-18-21-23-24	0	/	/	/
Low level L_1	1-4-7-9-10-13-15-22	2	1.9	1.6	2.4
High level L_2	2-3-5-6-14-17-19-20	8	9.2	7.4	11.3

4.2.1.2. Strain stability during transport

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

Table 22: Listeria spp stability in the matrix

Day of analysis	*Listeria* spp. detection		Mesophilic aerobic
	CFU/g	Detection/25 g	flora (CFU/g)
Day 0	210	+	$2.7\ 10^8$
	160	+	
	100	+	
Day 1	150	+	$5.3\ 10^8$
	110	+	
	160	+	
Day 2	180	+	$5.2\ 10^8$
	160	+	
	150	+	

4.2.1.3. Logistic conditions

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

Table 23: samples temperature upon receipt (T°C: temperature in °C)

Laboratories	Probe T°C	Receipt T°C	Receipt date and time	Analysis date
A	1.0	2.3	01/03/2016 at 11h45	Day 2
B	2.0	3.7	01/03/2016 at 09h00	Day 1
C	1.5	3.1	01/03/2016 at 10h30	Day 2
D	1.5	2.6	01/03/2016 at 10h00	Day 1
E	2.0	4.0	01/03/2016 at 13h00	Day 1
F	1.5	2.8	01/03/2016 at 10h05	Day 1
G	2.5	5.4	01/03/2016 at 09h50	/
H	2.5	2.4	01/03/2016 at 13h30	Day 2
I	2.5	3.4	01/03/2016 at 11h05	Day 2
J	*2.0*	0.4	01/03/2016 at 14h40	Day 1
K	2.0	3.0	01/03/2016 at 10h30	Day 1
L	2.0	3.3	01/03/2016 at 12h00	Day 2
M	1.5	5.4	01/03/2016 at 13h10	Day 2

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 G.

4.3.1. Results obtained by the Expert Laboratory

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

Table 24: Results obtained by the Expert Laboratory

Level	Reference method	Alternative method
L_0	0 / 8	0 / 8
L_1	8 / 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 4.5 10^5 to 2.6 10^9 CFU/g.

- **Reference method**

Samples were sent to 13 labs. Finally, only 12 labs proceeded to analyses; Lab G decided to stop the tests. The results obtained are provided in Table 21 (reference method) and Table 22 (alternative method).

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

Lab	Reference method			Alternative method					
				Contamination level					
	L_0	L_1	L_2	L_0		L_1		L_2	
				bc	ac	bc	ac	bc	ac
A	0	7	8	0	0	8	8	8	8
B	0	7	8	1	0	7	7	8	8
C	0	8	8	0	0	8	8	8	8
D	0	8	8	0	0	7	7	8	8
E	0	8	8	0	0	7	7	8	8
F	0	6	8	0	0	8	8	8	8
H	0	8	8	0	0	8	8	8	8
I	0	7	8	0	0	4	4	6	6
J	0	7	8	0	0	6	6	8	8
K	0	8	8	0	0	8	8	8	8
L	0	8	8	0	0	8	8	8	8
M	0	8	8	0	0	8	8	8	8
Total	**0**	**90**	**96**	**1**	**0**	**87**	**87**	**94**	**94**

For 3 labs (D, I and J), negative MDA results were observed while the presence of *Listeria monocytogenes* strains was detected in the enrichment broth. It was asked to the labs to run again the MDA tests for the samples concerned. The results and the curves observed for these samples are provided in Appendix 5 for information.

According to the AFNOR technical rules, it is possible to include the results from a collaborator with maximum one cross contamination at Level 0. For this study, this rule was applied for Lab B.
The results from all the Labs were kept.

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

Level	Response	Reference method positive (R+)	Reference method negative (R-)
Level 1	**Alternative method positive (A+)**	Positive agreement PA = 82	Positive deviation PD = 5
	Alternative method negative (A-)	Negative deviation ND = 8	Negative agreement NA = 1
Level 2	**Alternative method positive (A+)**	Positive agreement PA = 94	Positive deviation PD = 0
	Alternative method negative (A-)	Negative deviation ND = 2	Negative agreement NA = 0

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

The difference between (ND – PD) for the level where fractional recovery was obtained (L_1+L_2) 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 A*L*. When the AL is not met, investigations should be made (e.g. root cause analysis) in order to provide an explanation of the observed results.

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

In this study, fractional recovery was observed at Level 1 and Level 2. The calculations are the following, according to the EN ISO 16140-2:2016. The different parameters obtained by the calculation are detailed in the table below:

Table 27: values obtained for the determination of the acceptability limit

Parameter	Value	
	Level 1	Level 2
N_x	96	96
$(p+)_{ref}$	0.94	1.00
$(p+)_{alt}$	0.91	1.98
Acceptability limit: AL = $(ND-PD)_{max}$	6.45	2.45
Observed value: ND-PD	3	2

The value (ND-PD) is inferior to the acceptability limit, 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 26, 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:

Level 1	**Level 2**
SE_{alt} = 91.6%	SE_{alt} = 97.9%
SE_{ref} = 94.7%	SE_{ref} = 100.0%
AC = 86.5%	AC = 97.9%
FP = 0%	FP = /

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

The RLOD, $LOD_{50\%}$ and $LOD_{95\%}$ are calculated using the Excel spreadsheet called RLOD_inter-lab_study_16140-2_AnnexF_ver1_28_28-06-2017 available at http://standards.iso.org/iso/16140. The values for each method are presented in table 29.

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

Method	$LOD_{50\%}$	$LOD_{95\%}$	RLOD
Reference	0.47 [0.36 ; 0.63]	2.05 [1.54 ; 2.73]	1.17 [0.85 ; 1.62]
Alternative	0.56 [0.43 ; 0.73]	2.40 [1.84 ; 3.14]	

The collaborative study has been run with only one laboratory having experience with NEOGEN MDA2 platform.

Since the collaborative study, NEOGEN has decided to recommend any user to run an operational qualification test, as described in the following document (Installation Qualification/ Operational Qualification: Protocols and instructions for NEOGEN Molecular Detection System; Guidelines for the installation and operational qualification of the NEOGEN Molecular Detection System. This recommendation will be included in the instruction for use.

5. Conclusion

- **Methods comparison study**

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

In the sensitivity study, 6 categories were tested: 5 food categories and the environmental samples. The protocol of the alternative method shows 29 positive deviations (PD) and 32 negative deviations (ND) for the overall categories. The observed 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.

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

The alternative method allows a one-day screening of the negative samples for the general protocol and the specific protocol 1, and in two days for the specific protocol 2.

It is possible to store the primary enrichment broth for all the categories except for environmental samples and the lysates for 72 h at 2-8°C for all the categories except Dairy products and environmental samples.

The alternative method fulfils all the ISO 16140-2 (2016) and AFNOR technical rules requirements.

- **Interlaboratory study**

The data and interpretations comply with the ISO 16140-2 (FDIS, 2016) requirements. The NEOGEN Molecular Detection Assay 2 - *Listeria* is considered equivalent to the ISO standard.

Le Lion d'Angers, April 09, 2024

Guillaume MESNARD
Technical deputy manager

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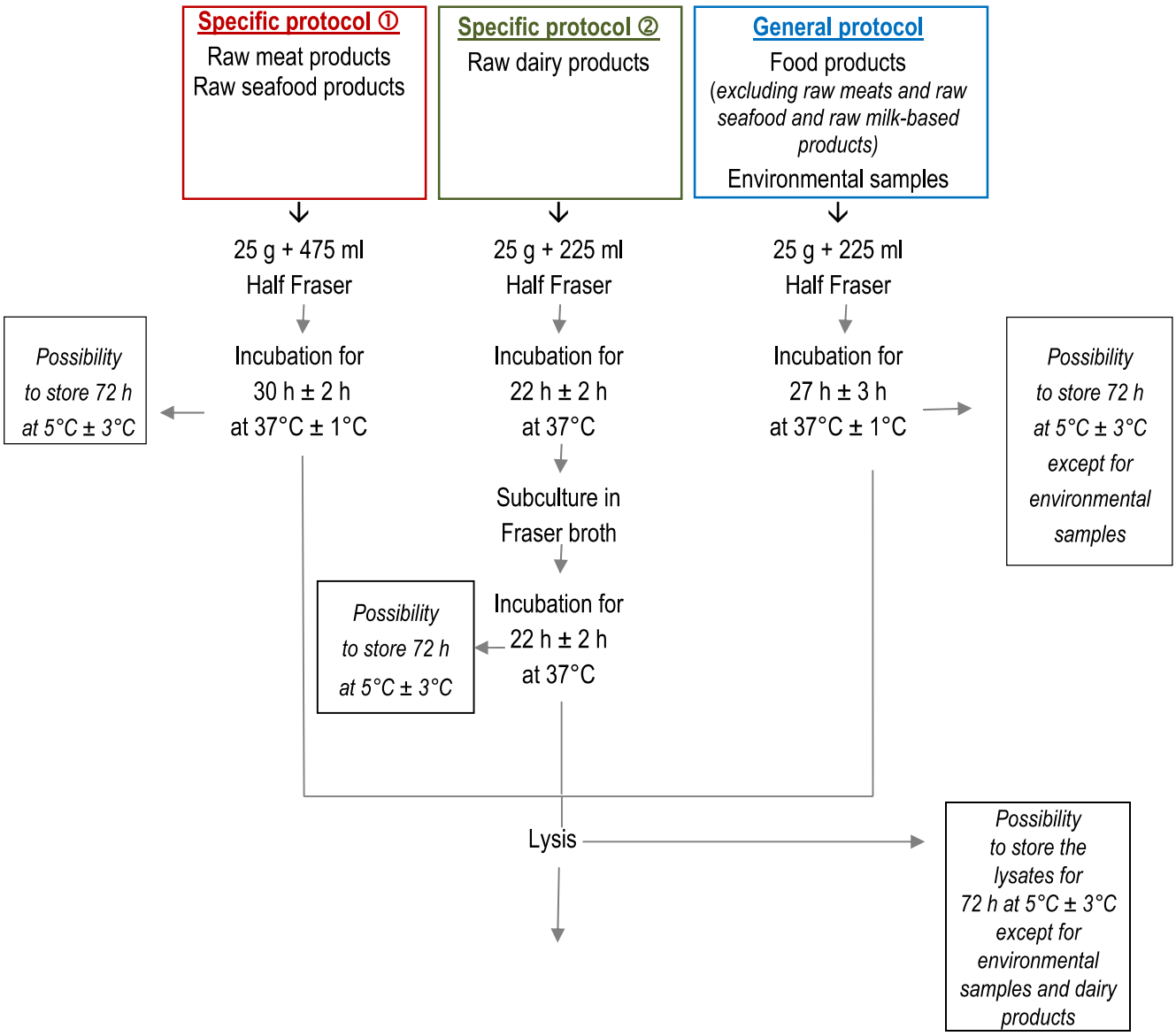
Head of the Microbiology Department

APPENDICES

Appendix A– Flow diagram of the alternative method: NEOGEN Molecular Detection Assay 2 - *Listeria*



Amplification and detection by the *Listeria* spp kit on 20 µl lysate

Confirmation:
- by streaking 100 µl of Half Fraser broth onto Palcam and O&A plates (General protocol and Specific protocol ①)
- by streaking 10 µl of Fraser broth onto Palcam and O&A plates (Specific protocol ②)

During the validation study:
confirmation of the typical colonies by the tests described in the ISO method

Appendix B– Flow diagram of the reference methods:
ISO 11290-1 (2017) and EN ISO 11290-1/A1 (2004)

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

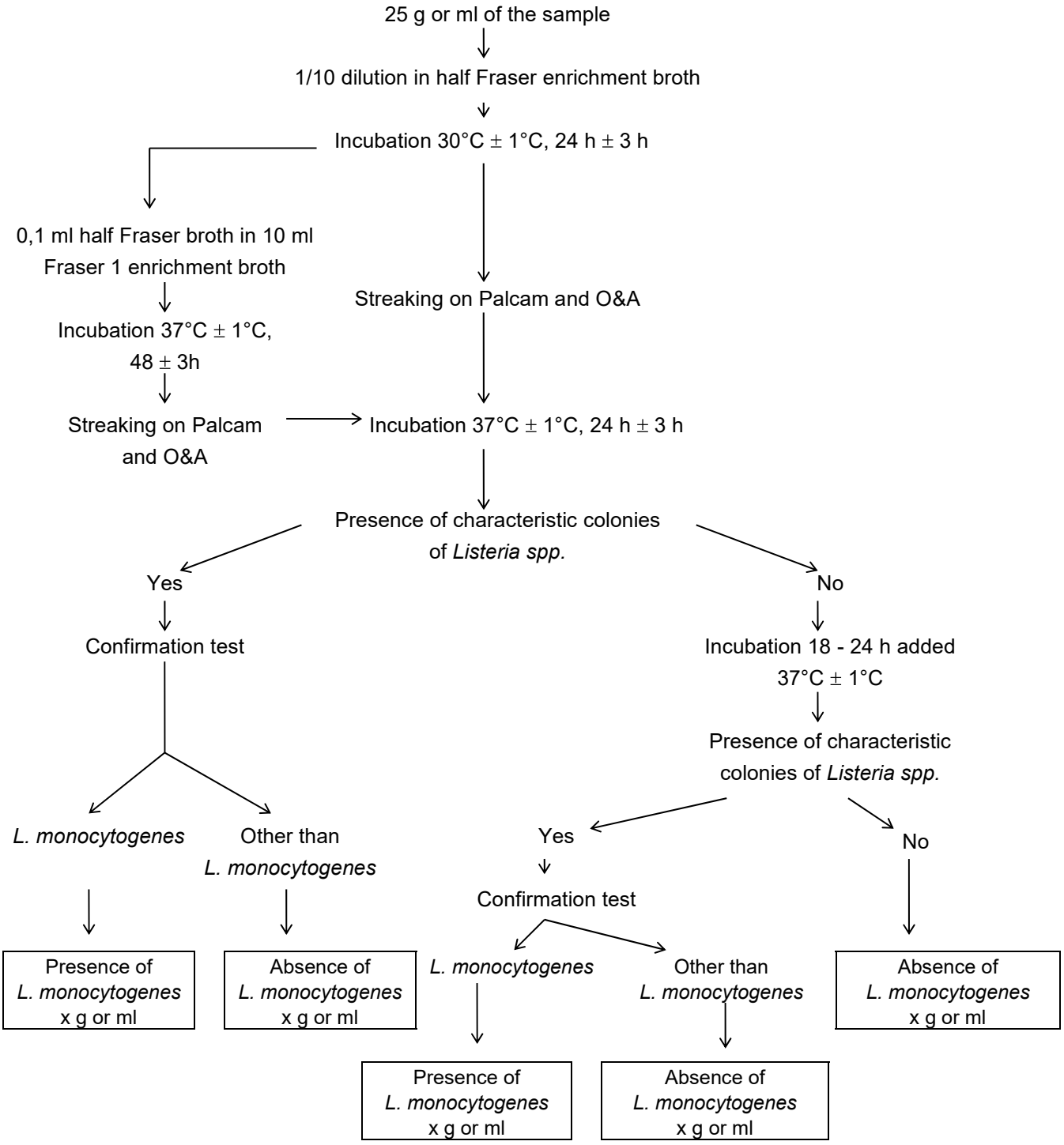
Test portion (25 g or 25 ml) + 225 ml half Fraser broth [2]
1 swab + 10 ml half Fraser
1 sponge+ 100 ml half Fraser
1 wipe + 225 ml half Fraser
↓
Primary enrichment medium (half Fraser broth) (225 g or 225 ml)
↓
Incubation at 30°C ± for 25 h ± 1 h

0.1 ml of culture
in 10 ml of secondary
enrichment medium (Fraser broth)
↓
Incubation at 37°C ± 1°C
for 24 h ± 2 h

Plating out on Agar *Listeria* according to
Ottaviani and Agosti and second selective medium
↓
Incubation of Agar *Listeria* according to
Ottaviani and Agosti for 24 h ± 2 h and an additional 24 h ± 3 h at 37°C ± 1°C
Incubation of second selective medium according
to the chosen medium as specified by the manufacturer
↓
Confirmation:
Gram
Catalase

[2] For sampling after cleaning process, premoisten:
- 1 swab + 1 ml broth universal neutralizing (+ 9 ml Half Fraser)
- 1 sponge + 10 ml broth universal neutralizing (+ 90 ml Half Fraser)
- 1 wipe + BPW + 10 % neutralizing agent (+ 225 ml Half Fraser)

EN ISO 11290-1/A1 (2004) reference method:
Horizontal method for the detection and enumeration of *Listeria monocytogenes* - Part 1: detection of *Listeria monocytogenes* in foods



Confirmation tests: Gram, Catalase, Hemolysis, Camp Test, API Listeria Gallery

Appendix C– Artificial contamination of samples

Sample number	Product name (in French)	Product	Artificial contaminations					Global result
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/25g	
3712	Tapis parage après désinfection	Wipe (salmon industry)	*L. innocua* Ad1677	Environmental sample	Seeding 48h 4°C	/	2-2-4-6-1 (3.0)	-
3713	Maille sortie parage après désinfection	Wipe (salmon industry)	*L. innocua* Ad1677	Environmental sample	Seeding 48h 4°C	/	2-2-4-6-1 (3.0)	+
3208	Lait pasteurisé entier	Pasteurized milk	*L. innocua* 902	Milk	Seeding 48h 4°C	/	3-1-5-3-1 (2.6)	+
3211	Lait pasteurisé 1/2 écrémé	Pasteurized half skimmed milk	*L. innocua* 902	Milk	Seeding 48h 4°C	/	3-1-5-3-1 (2.6)	+
3214	Brie au lait pasteurisé	Pasteurized milk cheese	*L. innocua* 902	Milk	Seeding 48h 4°C	/	3-1-5-3-1 (2.6)	-
3217	Mimolette	Pasteurized milk cheese	*L. innocua* 902	Milk	Seeding 48h 4°C	/	3-1-5-3-1 (2.6)	-
3222	Glace vanille	Vanilla ice cream	*L. innocua* 902	Milk	Seeding 2 weeks -20°C	/	5-2-1-3-1 (2.6)	+
3223	Glace pistache	Pistachio ice cream	*L. innocua* 902	Milk	Seeding 2 weeks -20°C	/	5-2-1-3-1 (2.6)	+
4159	Roquefort 31% MG	Raw milk cheese	*L. innocua* 908	Milk	Seeding 48h 4°C	/	1-3-3-0-2 (1.8)	-
4160	Selles sur Cher au lait cru	Raw milk cheese	*L. innocua* 908	Milk	Seeding 48h 4°C	/	1-3-3-0-2 (1.8)	+
4164	Lait cru fermier	Raw milk	*L. innocua* 908	Milk	Seeding 48h 4°C	/	1-3-3-0-2 (1.8)	+
3420	Baby carottes	Baby carrots	*L. innocua* Ad1176	Spinach	Seeding 48h 4°C	/	1-2-2-0-3 (1.6)	-
7365	Carottes râpées aux échalotes et ciboulette	Frozen vegetables mix	*L. innocua* Ad1176	Spinach	Seeding 48h 4°C	/	3-2-3-0-1 (1.8)	+
7364	Mélange de légumes vapeur surgelés	Frozen vegetables mix	*L. innocua* Ad1176	Spinach	Seeding 48h 4°C	/	3-2-3-0-1 (1.8)	+
3704	Cordon bleu de dinde	RTRH turkey	*L. innocua* Ad1227	Raw meat	Seeding 48h 4°C	/	2-4-5-5-1 (3.4)	+
3706	Osso bucco de dinde à la Milanaise	RTHR turkey	*L. innocua* Ad1227	Raw meat	Seeding 48h 4°C	/	2-4-5-5-1 (3.4)	+
7879	Couscous poulet	Couscous	*L. innocua* Ad1227	Poultry meat	Seeding 48h 4°C	/	5-0-0-3-3 (2.2)	+
3767	Eau de rinçage bol	Rinsing water	*L. innocua* Ad1273	Environmental sample	Seeding 48h 4°C	/	0-2-2-1-1 (1.2)	+
3768	Eau de rinçage siphon	Rinsing water	*L. innocua* Ad1273	Environmental sample	Seeding 48h 4°C	/	0-2-2-1-1 (1.2)	+
4157	Saint Nectaire fermier	Raw milk cheese	*L. innocua* Ad1789	Raw milk	Seeding 48h 4°C	/	0-3-1-0-0 (0.8)	-
4158	Morbier au lait cru	Raw milk cheese	*L. innocua* Ad1789	Raw milk	Seeding 48h 4°C	/	0-3-1-0-0 (0.8)	+

Sample number	Product name (in French)	Product	Artificial contaminations					Global result
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/25g	
4163	Lait cru	Raw milk	*L. innocua* Ad1789	Raw milk	Seeding 48h 4°C	/	0-3-1-0-0 (0.8)	+
3416	Camembert au lait pasteurisé	Pasteurized cow milk cheese	*L. innocua* Ad636	Cheese	Seeding 48h 4°C	/	3-3-1-0-2 (1.8)	+
3419	Emmental au lait pasteurisé	Pasteurized cow milk cheese	*L. innocua* Ad636	Cheese	Seeding 48h 4°C	/	3-3-1-0-2 (1.8)	+
3205	Eclair café	Pastry	*L. innocua* Ad644	Raw pastry for bread	Seeding 48h 4°C	/	1-0-1-6-5 (2.6)	+
3206	Religieuse chocolat	Pastry	*L. innocua* Ad644	Raw pastry for bread	Seeding 48h 4°C	/	1-0-1-6-5 (2.6)	+
3207	Tortilla	Tortilla	*L. innocua* Ad644	Raw pastry for bread	Seeding 48h 4°C	/	1-0-1-6-5 (2.6)	+
4681	Lait cru	Raw milk	*L. innocua* Ad654	Dairy product	Seeding 48h 4°C	/	1-1-1-1-0 (0.8)	+
4683	Lait cru	Raw milk	*L. innocua* Ad654	Brine	Seeding 48h 4°C	/	1-2-3-2-2 (1.8)	+
4682	Lait cru	Raw milk	*L. innocua* Ad654	Dairy product	Seeding 48h 4°C	/	1-1-1-1-0 (0.8)	+
4684	Lait cru	Raw milk	*L. innocua* Ad654	Brine	Seeding 48h 4°C	/	1-2-3-2-2 (1.8)	+
3759	Hachis Parmentier	RTHR beef and purée	*L. innocua* Ad671	Delicatessen	Seeding 48h 4°C	/	0-1-1-0-1 (0.6)	+
7483	Sauté de bœuf tomates thym	Ready to reheat beef	*L. innocua* ATCC 033090	Beef	HT 18 min 56°C	0.47	8-5-6-3-3-6 (6.2)	+
7485	Fondant de bœuf sauce au poivre	Ready to reheat beef	*L. innocua* ATCC 033090	Beef	HT 18 min 56°C	0.47	8-5-6-3-3-6 (6.2)	+
3417	Saint Paulin	Pasteurized cow milk cheese	*L. innocua* T654	Cheese	Seeding 48h 4°C	/	2-0-1-1-2 (1.2)	+
3414	Edam au lait pasteurisé	Pasteurized cow milk cheese	*L. innocua* T654	Cheese	Seeding 48h 4°C	/	2-0-1-1-2 (1.2)	+
3707	Gorgonzola au mascarpone	Gorgonzola and mascarpone	*L. ivanovii* Ad1288	Raw milk	Seeding 48h 4°C	/	1-2-3-4-2 (2.4)	-
3708	Brie	Cheese	*L. ivanovii* Ad1288	Raw milk	Seeding 48h 4°C	/	1-2-3-4-2 (2.4)	+
3709	Brique de brebis	Ewe cheese	*L. ivanovii* Ad1288	Raw milk	Seeding 48h 4°C	/	1-2-3-4-2 (2.4)	+
4699	Bethmale au lait cru	Raw milk cheese	*L. ivanovii* Ad1289	Raw milk cheese	Seeding 48h 4°C	/	2-1-0-1-2 (1.2)	+
4700	Sainte Maure de Touraine au lait cru	Raw milk cheese	*L. ivanovii* Ad1289	Raw milk cheese	Seeding 48h 4°C	/	2-1-0-1-2 (1.2)	-
3412	Ecouvillon (environnement laitier)	Swab (dairy industry)	*L. ivanovii* Ad616	Dairy industry environmental sample	Seeding 48h 4°C	/	0-1-2-0-1 (0.8)	+
3413	Ecouvillon (environnement laitier)	Swab (dairy industry)	*L. ivanovii* Ad616	Dairy industry environmental sample	Seeding 48h 4°C	/	0-1-2-0-1 (0.8)	+

Sample number	Product name (in French)	Product	Artificial contaminations					Global result
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/25g	
3212	Lait aromatisé cacao	Cocoa flavored milk	*L. ivanovii* Ad678	Cheese	Seeding 48h 4°C	/	1-1-3-3-0 (1.6)	+
3215	Etorki	Pasteurized milk cheese	*L. ivanovii* Ad678	Cheese	Seeding 48h 4°C	/	1-1-3-3-0 (1.6)	+
3209	Lait pasteurisé 1/2 écrémé	Pasteurized half skimmed milk	*L. ivanovii* Ad678	Cheese	Seeding 48h 4°C	/	1-1-3-3-0 (1.6)	+
3761	Fromage au lait pasteurisé	Pasteurised milk cheese	*L. ivanovii* Ad680	Raw milk	Seeding 48h 4°C	/	1-0-0-0-1 (0.4)	-
3762	Brie au lait pasteurisé	Pasteurised milk cheese	*L. ivanovii* Ad680	Raw milk	Seeding 48h 4°C	/	1-0-0-0-1 (0.4)	-
3745	Bourguignon	RTHR beef	*L. monocytogenes* 2407/3139	RTE	Seeding 48h 4°C	/	0-0-1-0-1 (0.4)	-
3747	Hachi Parmentier	RTHR beef and purée	*L. monocytogenes* 2407/3139	RTE	Seeding 48h 4°C	/	0-0-1-0-1 (0.4)	-
3569	Lingette tapis (poisson fumé)	Wipe (salmon industry)	*L. monocytogenes* A00E049	Environmental sample	Seeding 48h 4°C	/	3-2-5-0-2 (2.4)	-
3571	Eau de rinçage peleuse	Rinsing water (Salmon industry)	*L. monocytogenes* A00E049	Environmental sample	Seeding 48h 4°C	/	3-2-5-0-2 (2.4)	+
4673	Lait cru	Raw milk	*L. monocytogenes* A00L101	Milk	Seeding 48h 4°C	/	6-0-1-1-5 (2.6)	+
4674	Lait cru	Raw milk	*L. monocytogenes* A00L102	Milk	Seeding 48h 4°C	/	1-1-1-3-0 (1.2)	-
4675	Lait cru	Raw milk	*L. monocytogenes* A00L103	Milk	Seeding 48h 4°C	/	1-1-1-2-2 (1.4)	+
4680	Lait cru	Raw milk	*L. monocytogenes* A00L105	Milk	Seeding 48h 4°C	/	4-1-2-2-0 (1.8)	-
4698	Le Mothais sur feuille au lait cru	Raw milk cheese	*L. monocytogenes* A00L105	Milk	Seeding 48h 4°C	/	4-1-2-2-0 (1.8)	-
3405	Brie au lait pasteurisé	Pasteurized cow milk cheese	*L. monocytogenes* A00L106	Milk	Seeding 48h 4°C	/	1-3-0-0-2 (1.2)	+
3404	Coulommiers au lait pasteurisé	Pasteurized cow milk cheese	*L. monocytogenes* A00L106	Milk	Seeding 48h 4°C	/	1-3-0-0-2 (1.2)	+
4692	Bethmale au lait cru	Raw milk cheese	*L. monocytogenes* A00L107	Milk	Seeding 48h 4°C	/	2-1-0-1-1 (1.0)	-
4144	Déchets sol atelier filetage	Wastes (Salmon industry)	*L. monocytogenes* A00M021	Smoked salmon	Seeding 48h 4°C	/	2-0-1-1-1 (1.0)	-
4145	Eau épineuse	Process water (Salmon industry)	*L. monocytogenes* A00M092	Smoked salmon	Seeding 48h 4°C	/	2-2-2-1-5 (2.4)	-
3746	Pizza	Pizza	*L. monocytogenes* Ad1197	Pizza	Seeding 48h 4°C	/	1-1-0-1-1 (0.8)	-

Sample number	Product name (in French)	Product	Artificial contaminations					Global result
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/25g	
3752	Camembert au lait pasteurisé	Pasteurized milk cheese	*L. monocytogenes* Ad1201	Raw milk cheese	Seeding 48h 4°C	/	2-2-2-3-3 (2.4)	+
3750	Brie au lait pasteurisé	Pasteurized milk cheese	*L. monocytogenes* Ad1201	Raw milk cheese	Seeding 48h 4°C	/	2-2-2-3-3 (2.4)	+
4146	Déchets pousse de soja	Sprouts wastes	*L. monocytogenes* Ad1238	Vegetables	Seeding 48h 4°C	/	0-3-0-0-2 (1.0)	+
3568	Lingette tapis (poisson fumé)	Wipe (salmon industry)	*L. monocytogenes* Ad1679	Environmental sample	Seeding 48h 4°C	/	1-0-1-1-0 (0.6)	-
3570	Eau de rinçage laveuse	Rinsing water (Salmon industry)	*L. monocytogenes* Ad1679	Environmental sample	Seeding 48h 4°C	/	1-0-1-1-0 (0.6)	-
3203	Tartelette fraise	Pastry	*L. monocytogenes* Ad1757	Cooked eggs	Seeding 48h 4°C	/	0-3-3-2-1 (1.8)	+
3204	Eclair vanille	Pastry	*L. monocytogenes* Ad1757	Cooked eggs	Seeding 48h 4°C	/	0-3-3-2-1 (1.8)	+
3751	Fromage au lait pasteurisé	Pasteurized milk cheese	*L. monocytogenes* Ad1784	Raw milk cheese	Seeding 48h 4°C	/	1-1-1-1-1 (1.0)	-
3749	Fromage au lait pasteurisé	Pasteurized milk cheese	*L. monocytogenes* Ad1784	Raw milk cheese	Seeding 48h 4°C	/	1-1-1-1-1 (1.0)	+
4152	Selles sur Cher au lait cru	Raw milk cheese	*L. monocytogenes* Ad249	Dairy product	Seeding 48h 4°C	/	3-2-3-1-2 (2.2)	+
4154	Lait cru fermier	Raw milk	*L. monocytogenes* Ad249	Dairy product	Seeding 48h 4°C	/	3-2-3-1-2 (2.2)	+
4695	Comté au lait cru	Raw milk cheese	*L. monocytogenes* Ad250	Dairy product	Seeding 48h 4°C	/	0-2-0-1-0 (0.6)	-
4696	Picodon au lait cru	Raw milk cheese	*L. monocytogenes* Ad250	Dairy product	Seeding 48h 4°C	/	0-2-0-1-0 (0.6)	-
7558	Bœuf carottes, tagliatelles	Ready to reheat meal (beef)	*L. monocytogenes* Ad266	Beef meat	Seeding 48h 4°C	/	0-1-0-1-2 (0.8)	+
7557	Sauté de bœuf aux tomates séchées	Ready to reheat meal (beef)	*L. monocytogenes* Ad266	Beef meat	Seeding 48h 4°C	/	0-1-0-1-2 (0.8)	+
3406	Carottes râpées	Sliced carrots	*L. monocytogenes* Ad285	Green peppers	Seeding 48h 4°C	/	1-1-1-2-4 (1.8)	-
3753	Eau de rinçage laveuse sas	Rinsing water	*L. monocytogenes* Ad548	Environmental sample	Seeding 48h 4°C	/	1-2-3-0-0 (1.2)	+
3754	Eau de rinçage épineuse	Rinsing water	*L. monocytogenes* Ad548	Environmental sample	Seeding 48h 4°C	/	1-2-3-0-0 (1.2)	+
4153	Reblochon de Savoie au lait cru	Raw milk cheese	*L. monocytogenes* Ad619	Cheese	Seeding 48h 4°C	/	4-1-2-3-2 (2.4)	+
4151	Roquefort 31% MG	Raw milk cheese	*L. monocytogenes* Ad619	Cheese	Seeding 48h 4°C	/	4-1-2-3-2 (2.4)	+

Sample number	Product name (in French)	Product	Artificial contaminations					Global result
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/25g	
3411	Ecouvillon (environnement laitier)	Swab (dairy industry)	*L. monocytogenes* Ad627	Dairy industry environmental sample	Seeding 48h 4°C	/	0-2-2-4-0 (1.6)	+
4150	Morbier au lait cru	Raw milk cheese	*L. monocytogenes* Ad629	Cheese	Seeding 48h 4°C	/	1-3-2-1-1 (1.6)	+
4156	Lait cru fermier	Raw milk	*L. monocytogenes* Ad629	Cheese	Seeding 48h 4°C	/	1-3-2-1-1 (1.6)	+
3755	Eau de rinçage bol	Rinsing water	*L. monocytogenes* Ad631	Environmental sample	Seeding 48h 4°C	/	2-2-2-3-5 (2.8)	+
3409	Ecouvillon (environnement laitier)	Swab (dairy industry)	*L. monocytogenes* Ad633	Dairy industry environmental sample	Seeding 48h 4°C	/	1-3-0-0-5 (1.8)	+
3410	Ecouvillon (environnement laitier)	Swab (dairy industry)	*L. monocytogenes* Ad633	Dairy industry environmental sample	Seeding 48h 4°C	/	1-3-0-0-5 (1.8)	+
4149	Saint Nectaire fermier	Raw milk cheese	*L. monocytogenes* Ad665	Raw milk	Seeding 48h 4°C	/	0-1-2-3-4 (2.0)	+
4155	Lait cru	Raw milk	*L. monocytogenes* Ad665	Raw milk	Seeding 48h 4°C	/	0-1-2-3-4 (2.0)	+
4140	Ecouvillon après nettoyage (environnement laitier)	Swab after cleaning (dairy industry)	*L. monocytogenes* Ad665	Raw milk	Seeding 48h 4°C	/	0-1-2-3-4 (2.0)	+
4161	Reblochon de Savoie au lait cru	Raw milk cheese	*L. seeligeri* Ad1237	Raw milk	Seeding 48h 4°C	/	1-1-1-0-1 (0.8)	+
4141	Ecouvillon après nettoyage (environnement laitier)	Swab after cleaning (dairy industry)	*L. seeligeri* Ad1237	Raw milk	Seeding 48h 4°C	/	1-1-1-0-1 (0.8)	+
3765	Eau de rinçage laveuse sas	Rinsing water	*L. seeligeri* Ad1267	Environmental sample	Seeding 48h 4°C	/	0-0-0-0-1 (0.2)	+
3766	Eau de rinçage épineuse	Rinsing water	*L. seeligeri* Ad1267	Environmental sample	Seeding 48h 4°C	/	0-0-0-0-1 (0.2)	+
3216	Leerdarmer	Pasteurized milk cheese	*L. seeligeri* Ad1780	Raw milk	Seeding 48h 4°C	/	0-0-1-2-1 (0.8)	-
3224	Glace café	Coffee ice cream	*L. seeligeri* Ad1780	Raw milk	Seeding 2 weeks -20°C	/	1-2-0-1-0 (0.8)	+
3210	Lait pasteurisé 1/2 écrémé	Pasteurized half skimmed milk	*L. seeligeri* Ad1780	Raw milk	Seeding 48h 4°C	/	0-0-1-2-1 (0.8)	+
3763	Fromage au lait pasteurisé	Pasteurised milk cheese	*L. seeligeri* Ad1782	Raw milk	Seeding 48h 4°C	/	1-1-0-0-0 (0.4)	-
3764	Camembert au lait pasteurisé	Pasteurised milk cheese	*L. seeligeri* Ad1782	Raw milk	Seeding 48h 4°C	/	1-1-0-0-0 (0.4)	-

Sample number	Product name (in French)	Product	Artificial contaminations					Global result
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/25g	
4702	**Comté au lait cru**	**Raw milk cheese**	*L. seeligeri* Ad1783	Raw milk	Seeding 48h 4°C	/	0-1-2-3-0 (1.2)	**+**
4701	**Crottin de chavignol**	**Raw milk cheese**	*L. seeligeri* Ad1783	Raw milk	Seeding 48h 4°C	/	0-1-2-3-0 (1.2)	**-**
3418	**Emmental au lait pasteurisé**	**Pasteurized cow milk cheese**	*L. seeligeri* Ad649	Cheese	Seeding 48h 4°C	/	1-1-3-1-1 (1.4)	**+**
3415	**Chèvre au lait pasteurisé**	**Pasteurized goat milk cheese**	*L. seeligeri* Ad649	Cheese	Seeding 48h 4°C	/	1-1-3-1-1 (1.4)	**+**
7880	**Moussaka au bœuf**	**Moussaka**	*L. welshimeri*	Beef meat	Seeding 48h 4°C	/	0-3-0-1-2 (1.2)	**+**
3758	**Pizza**	**Pizza**	*L. welshimeri* Ad1223	Beef	Seeding 48h 4°C	/	1-2-2-2-1 (1.6)	**+**
3757	**Bourguignon**	**RTRH beef**	*L. welshimeri* Ad1223	Beef	Seeding 48h 4°C	/	1-2-2-2-1 (1.6)	**-**
3703	**Spaghettis bolognaise**	**RTRH pasta**	*L. welshimeri* Ad1235	RTR	Seeding 48h 4°C	/	7-1-6-1-4 (3.8)	**+**
3705	**Courgette farcie et semoule**	**RTHR zucchini**	*L. welshimeri* Ad1235	RTR	Seeding 48h 4°C	/	7-1-6-1-4 (3.8)	**+**
4162	**Lait cru fermier**	**Raw milk**	*L. welshimeri* Ad1667	Raw milk cheese	Seeding 48h 4°C	/	2-2-3-1-2 (2.0)	**+**
7362	**Poêlée champêtre surgelée**	**Frozen vegetables mix**	*L. welshimeri* Ad1668	Vegetables	Seeding 48h 4°C	/	0-1-0-0-1 (0.4)	**+**
7363	**Poêlée légumes et pommes de terre surgelée**	**Frozen vegetables mix**	*L. welshimeri* Ad1668	Vegetables	Seeding 48h 4°C	/	0-1-0-0-1 (0.4)	**+**

Appendix D – Sensitivity study: raw data

Bold typing: artificially inoculated samples

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:	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
MC:	matrix control

COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT																				
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1						Alternative method: NEOGEN Molecular Detection Assay 2 - Listeria spp. After incubation time									Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
1074	Baguette lardons	RTE composite food	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	a
1075	Salade de pâtes	Pasta deli salad	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	a
1079	Coquille crabe légumes	RTE	st	st	st	-	/	-	General	+	+	H+	+	*L. monocytogenes*	+	PD	/	1	a
1102	Sandwich saumon	Salmon sandwich	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	a
1103	Sandwich duo de saumon	Salmon sandwich	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	-	*L. monocytogenes*	+	PA	/	1	a
2760	Sandwich chèvre, tomate, légumes grillés	Sandwich (goat cheese, vegetables)	-	-	-	-	/	-	General	+	+	H+/H-d (NC)	+(1)	*L. monocytogenes*	+	PD	/	1	a
2933	Nouilles chinoises	Chinese pasta	st	st	st	st	/	-	General	+/+/+	i/i	H+	+d	*L. monocytogenes*	+	PD	/	1	a
2935	Salade pâtes, tomate, surimi	Deli salad	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	a
2936	Baguette gratinée jambon emmental	RTE composite food	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	a
3143	Macédoine	Deli salad	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	a
3144	Macédoine	Deli salad	st	st	st	st	/	-	General	-	+	-	-	/	-	NA	-	1	a
3259	Salade de riz, thon, tomates, olives	Deli salad (rice, tuna, tomato, olive)	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	a
3261	Riz thon, tomates	Deli salad (rice, tune, tomato)	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	a
4437	Sandwich jambon œuf crudité	Sandwich (ham, egg, vegetables)	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	a
4438	Sandwich américain poulet	Sandwich (chicken)	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	a
4439	Baguette jambon emmental	Bread with ham and cheese	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	a
4450	Riz au thon	Deli salad (rice and tuna)	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	a
4456	Wrap saumon fumé	Smoked salmon wrap	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	a
4666	Wrap de saumon fumé	Smoked salmon wrap	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	a
7233	Sandwich jambon beurre	Sandwich (ham, butter)	-	st	st	st	/	-	General	-	+	-	-	/	-	NA	-	1	a
1076	Salade niçoise	Deli salad	-	-	-	-	/	-	General	+	+	H+	+	*L. monocytogenes*	+	PD	/	1	b
1077	Croquettes ail et fines herbes	RTRH composite food	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	b
1078	Cordon bleu de dinde	RTRH turkey	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	b
1080	Croque Monsieur	RTRH	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	b
1094	Emincés de volaille kebab cuits	Sliced cooked poultry meat	-	-	st	st	/	-	General	-	+	-	-	/	-	NA	-	1	b
3758	**Pizza**	**Pizza**	-	+d (1)	H-	+	L.welshimeri	+	General	-	+	-	-	/	-	ND	-	1	b
2761	Croque 3 fromages	RTRH composite food	-	-	H+	+	*L. monocytogenes*	+	General	+	+	H+	-	*L. monocytogenes*	+	PA	+	1	b
2764	Baguette pizza	RTE composite food	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	b
2765	Galettes de blé noir	Pancakes	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	b

COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT																				
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			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
2934	Croisillon fromage	RTRH composite food	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	b
2937	Croque Monsieur chèvre	RTRH composite food	st	st	st	-	/	-	General	-	+	-	-	/	-	NA	-	1	b
3260	Tartine tomate aubergine, mozzarella	Bread with tomato, egg plant, mozzarella)	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	b
3703	**Spaghettis bolognaise**	**RTRH pasta**	H-	+	H-	+	*L.welshimeri*	+	General	+	+	H-	+	*L.welshimeri*	+	PA	/	1	b
3704	**Cordon bleu de dinde**	**RTRH turkey**	H-	+	H-	+	*L.innocua*	+	General	+	+	H-	+	*L.innocua*	+	PA	/	1	b
3705	**Courgette farcie et semoule**	**RTHR zucchini**	H-	+	H-	+	*L.welshimeri*	+	General	+	+	H-	+	*L.welshimeri*	+	PA	/	1	b
3706	**Osso bucco de dinde à la Milanaise**	**RTHR turkey**	H-	+	H-	+	*L.innocua*	+	General	+	+	H-	+	*L.innocua*	+	PA	/	1	b
3745	**Bourguignon**	**RTHR beef**	st	st	st	st	/	-	General	-	+	st	-	/	-	NA	-	1	b
3746	**Pizza**	**Pizza**	H-d	+d	-	-	NC	-	General	-	+	-	-	/	-	NA	-	1	b
3747	**Hachi Parmentier**	**RTHR beef and purée**	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	b
3757	**Bourguignon**	**RTRH beef**	st	st	st	st	/	-	General	-	+	-	-	/	-	NA	-	1	b
3759	**Hachi Parmentier**	**RTHR beef and purée**	H-	+	H-	+	*L .innocua*	+	General	+	+	H-	+	*L.welshimeri*	+	PA	/	1	b
4444	Paupiette de saumon cuite	RTRH Salmon paupiette	H+/H-	+	H+(1)/H-	+	*L. monocytogenes/ L.innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes / L.welshimeri*	+	PA	/	1	b
4667	Feuilletés de saumon	Ready to reheat food	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	-	*L. monocytogenes*	+	PA	/	1	b
1081	Charlotte aux poires	Dessert	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	c
1082	Crêpes sucrées	Pancakes	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	c
1083	Gaufre de Bruxelles	Dessert	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	c
2762	Pâte sablée	Puff pastry		-	H-d/-	+d/-	/	-	General	-	+	-	-	/	-	NA	-	1	c
2763	Pâte feuilletée	Puff pastry	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	c
2766	Verre fraise/chantilly	Dessert	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	c
2767	Flan pâtissier	Dessert	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	c
2768	Forêt noire	Pastry	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	c
2769	Sauce fromage blanc	Dressing	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	c
2770	Sauce colombo	Dressing	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	c
2771	Sauve crème oignons	Dressing	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	c
3203	**Tartelette fraise**	**Pastry**	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	c
3204	**Eclair vanille**	**Pastry**	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	1	c
3205	**Eclair café**	**Pastry**	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	PA	/	1	c
3206	**Religieuse chocolat**	**Pastry**	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	PA	/	1	c
3207	**Tortilla**	**Tortilla**	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	PA	/	1	c
4446	Salambo rose	Pastry	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	c
7234	Eclair au chocolat	Pastry	-	-	-	-	/	-	General	-	+	H+/H-d	-	Gram (NC)	-	NA	-	1	c
7235	Pêche melba	Dairy based dessert	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	1	c
7236	Coupe profiterole	Dairy based dessert	H-	-	-	-	Gram (NC)	-	General	-	+	H-	-	Gram (NC)	-	NA	-	1	c

MEAT PRODUCTS																				
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			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
1176	Araignée de porc marinée	Marinated pork meat	st	st	st	st	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
1178	Viande de porc congelée	Frozen pork meat	H-	+	H-	+	*L. innocua*	+	Protocol 1	+	+	H-	+	*L. welshimeri*	+	PA	+	2	a
1180	Côte de porc thym romarin	Seasoned pork meat	-	st	-	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
1181	Sauté de dinde nature	Turkey raw meat	H+/H-	+	H+/H-	+	*L. monocytogenes*/ *L. welshimeri*	+	Protocol 1	+	+	H-	+	*L. welshimeri*	+	PA	+	2	a
1183	Blanc de poulet	Chicken meat	H+	+	H+	+	*L. monocytogenes*	+	Protocol 1	+	+	H+/H-	+	*L. monocytogenes*/ *L. welshimeri*	+	PA	/	2	a
1184	Croupions	Rumps	H+	+	H+	+	*L. monocytogenes*	+	Protocol 1	+	+	H-	+	*L. innocua*	+	PA	+	2	a
1186	Escalope de dinde viennoise	Seasoned turkey meat	-	st	-	-	/	-	Protocol 1	-	+	st	st	/	-	NA	-	2	a
1193	Steak haché	Ground beef	st	st	st	st	/	-	Protocol 1	-	+	st	st	/	-	NA	-	2	a
1185	Escalope de dinde viennoise	Seasoned turkey meat	H-d	-	-	-	NC on TSYEA	-	Protocol 1	+	+	H-	+	*L. welshimeri*	+	PD	+	2	a
2559	Maigre de porc cru	Raw pork meat	-	-	-	-	/	-	Protocol 1	+	+	H-	+	*L. innocua*	+	PD	+	2	a
2560	Viande gros grain de volaille crue	Raw ground poultry	st	st	-	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
3995	Haut de cuisse désossé	Raw turkey meat	st	-	st	st	/	-	Protocol 1	+	+	H-	+	*L. innocua*	+	PD	/	2	a
7429	Steak haché surgelé	Frozen ground beef	H-	+	H-	+	*L. welshimeri*	+	Protocol 1	-	+	-	-	/	-	ND	-	2	a
3983	Haché de veau cru	Ground veal	H-	-	H-	+	*L. welshimeri*	+	Protocol 1	+	+	H-d	+d(2)	*L. welshimeri*	+	PA	/	2	a
3984	Emincés de bœuf ciboulette cru	Sliced beef and chives	-	-	st	st	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
3985	Filet de poulet cru	Raw chicken meat	st	-	-	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
3986	Sauté de dinde cru	Raw turkey meat	st	-	-	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
3987	Jambon à l'ancienne (matière première crue)	Raw pork meat	st	st	-	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
3989	Jarretine porc gout fumé cru	Raw pork meat	st	-	-	st	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
3990	Sauté de dinde cru	Raw turkey meat	H-d	-	H-	-	*L. welshimeri*	+	Protocol 1	+	+	H-	+	*L. welshimeri*	+	PA	/	2	a
3991	Escalope de dinde crue	Raw turkey meat	-	-	st	st	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
3994	Viande rouge cuisse de dinde	Raw turkey meat	H-	+	H-	+	*L. welshimeri*	+	Protocol 1	+	+	H-	+	*L. welshimeri*	+	PA	/	2	a
4089	Steak haché	Ground beef	-	-	-	st	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
4091	Croupions	Rumps	H+	+(4)	H+	+	*L. monocytogenes*	+	Protocol 1	+	+	H+/H-	+	*L. monocytogenes*/ *L. welshimeri*	+	PA	/	2	a
4092	Viande rouge congelée	Red meat	H+	+	H+	+	*L. monocytogenes*	+	Protocol 1	+	+	H+	+	*L. monocytogenes* / *L. welshimeri* (72h)	+	PA	/	2	a
4095	Roti de dinde	Raw turkey meat	H+/H-	+	H+/H-	+	*L. monocytogenes*/ *L. welshimeri*	+	Protocol 1	+	+	H+/H-d	+	*L. monocytogenes*/ *L. welshimeri*	+	PA	/	2	a
4096	Viande parage	Raw meat	H+/H-	+	H+/H-	+	*L. monocytogenes*/ *L. innocua*	+	Protocol 1	+	+	H-	+	*L. innocual* *L. monocytogenes* (72h)	+	PA	/	2	a
4098	Viande de poulet congelée	Frozen chicken meat	H+	+	H+	+	*L. monocytogenes*	+	Protocol 1	+	+	H+	+	*L. monocytogenes* / *L. welshimeri* (72h)	+	PA	/	2	a

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			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
4100	Côte de porc thym romarin	Raw seasoned pork meat	st	st	st	st	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
7430	Aiguillettes de poulet surgelées	Frozen chicken meat	-	-	st	st	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
7431	Délice de veau surgelé	Frozen veal meat	st	st	st	st	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
7432	Pavé de rumsteck	Beef meat	st	st	st	st	/	-	Protocol 1	-	+	-	-	/	-	NA	-	2	a
2561	Allumettes de poulet	Raw sliced chicken meat	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	PA	/	2	b
3719	Poulet tandoori	RTRH chicken and rice	H+d/H-	+	H-	+	*L. welshimeri*	+	General	-/-/-	+	- (Fraser1: H-)	-	/	-	ND	+ (*L. welshimeri*)	2	b
2927	Côte de porc miel moutarde	Seasoned pork meat	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	2	b
2928	Pâté de veau	Veal pâté	st	st	st	st	/	-	General	-	+	-	-	/	-	NA	-	2	b
2952	Allumettes de poulet	Sliced cooked chicken	H-	+	H-	+	*L. welshimeri*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA		2	b
3149	Tomate farcie	RTRH meat product	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	2	b
7558	**Bœuf carottes, tagliatelles**	**Ready to reheat meal (beef)**	H+	+	H+	+	*L. monocytogenes*	+	General	-	+	-	-	/	-	ND	-	2	b
3168	Aiguillettes panées poulet riz	RTRH chicken and rice	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	2	b
7483	**Sauté de bœuf tomates thym**	**Ready to reheat beef**	st	st	-	-	/	-	General	+	+	H-	+	*L. innocua*	+	PD	/	2	b
7557	**Sauté de bœuf aux tomates séchées**	**Ready to reheat meal (beef)**	st	st	-	-	/	-	General	+	+	H+	+	*L. monocytogenes*	+	PD	/	2	b
7237	Coq au vin	Ready to reheat meat	st	-	-	st	/	-	General	-	+	-	st	/	-	NA	-	2	b
7238	Lasagnes bolognaise	Ready to reheat pasta	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	2	b
7239	Fricadelles sauce tomate	Ready to reheat sausages	st	-	st	-	/	-	General	-	+	-	-	/	-	NA	-	2	b
7240	Poulet au curry	Ready to reheat chicken	st	st	st	st	/	-	General	-	+	-	-	/	-	NA	-	2	b
7241	Couscous	Couscous	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	2	b
7242	Tomate farcie et riz	Ready to reheat meat	st	-	-	st	/	-	General	-	+	st	-	/	-	NA	-	2	b
7243	Porc au caramel	Ready to reheat meat	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	2	b
7244	Lange de bœuf sauce piquante	Ready to reheat meat	st	-	-	-	/	-	General	-	+	st	st	/	-	NA	-	2	b
7245	Bœuf bourguignon	Ready to reheat meat	st	-	-	st	/	-	General	-	+	st	-	/	-	NA	-	2	b
7246	Blanquette de veau et riz blanc	Ready to reheat meat	st	st	st	-	/	-	General	-	+	st	st	/	-	NA	-	2	b
7485	**Fondant de bœuf sauce au poivre**	**Ready to reheat beef**	-	-	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	PA	/	2	b
7879	**Couscous poulet**	**Couscous**	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	PA	/	2	b
7880	**Moussaka au bœuf**	**Moussaka**	H-	+	H-	+	*L. welshimeri*	+	General	+	+	H-	+	*L. welshimeri*	+	PA	/	2	b
1095	Jambon à l'ancienne	Cooked ham	-	st	st	st	/	-	General	-	+	-	-	/	-	NA	-	2	c
1096	Allumettes de jambon	Sliced cooked ham	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	2	c
1097	Rillettes	Rillettes	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	+d H-	+d(2)	*L.grayi*	+	PA	/	2	c
1098	Poitrine fumée 1/2 sel	Cured and smoked meat	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	2	c

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			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
1099	Saucisson	Cooked sausage	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	2	c
3162	Merguez	Merguez	H-d(1)	+	H-	+	*L. welshimeri*	+	General	-/-/-	+	H-	+(1)	*L. innocua*	-	ND	+	2	c
3158	Terrine de campagne	Terrine	st	st	st	st	/	-	General	+	+	H+	+	*L. monocytogenes*	+	PD	/	2	c
2772	Terrine à l'échalote	Terrine	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	2	c
2924	Fromage de tête aux herbes	Pork pâté	-	st	st	st	/	-	General	-	+	H-d/-	+d	NC on TSAYE	-	NA	-	2	c
2925	Merguez	Merguez	-	-	-	-	/	-	General	-	+	H-d/-	-	-	-	NA	-	2	c
2926	Terrine de lapin	Rabbit terrine	st	st	-	-	/	-	General	-	+	H-d/-	-	-	-	NA	-	2	c
4451	Jambon à l'ancienne	Cooked ham	H+	+	H+	+	*L. monocytogenes*	+	General	-	+	-	-	/	-	ND	-	2	c
4665	Rosette	Low moisture sausage	st	st	-	-	/	-	General	+	+	H+	+	*L. monocytogenes*	+	PD		2	c
3159	Andouille	Chitterling	H+	+	H+	+	*L. monocytogenes/ L. grayi*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	2	c
3160	Jambon sec	Law moisture ham	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	2	c
3161	Lardons cuits fumés	Cooked smoked sliced bacon	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	2	c
3163	Lardons fumés	Smoked sliced bacon	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	2	c
3164	Rillettes de poulet rôti	Chicken rillettes	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	2	c
3165	Chipolatas aux herbes	Sausages with aromatic herbs	H-	+	H-	+	*L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	2	c
3166	Saucisses	Sausages	st	st	st	st	/	-	General	-/-/-	+	H-d/-	+d	*L. innocua*	-	NA	+	2	c
3167	Chipolatas nature	Sausages	H-	+	H-	+	*L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	2	c
3171	Allumettes de poulet fumé	Smoked sliced chicken	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	2	c
3718	Jambon à l'ancienne	Ham	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	L.monocyogenes	+	PA	/	2	c
4441	Saucisse cuite	Cooked sausage	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	PA	/	2	c
4442	Langue en gelée	Cooked delicatessen	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	2	c
4664	Lardons fumés	Smoked sliced bacon	H+/H-	+	H-	+	*L. monocytogenes/ L. welshimeri*	+	General	+	+	H-	+	*L. welshimeri*	+	PA	/	2	c
4669	Demi-museau de porc cuit	Cooked delicatessen	H+/H-	+	H-	+	*L. monocytogenes/ L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	2	c

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			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
4152	**Selles sur Cher au lait cru**	**Raw milk cheese**	H+	+	H+	+	*L. monocytogenes*	+	Protocol 2	-	+	st	-	/	-	**ND**	-	3	a
4153	**Reblochon de Savoie au lait cru**	**Raw milk cheese**	-	-	H+	+	*L. monocytogenes*	+	Protocol 2	-	+	-	-	/	-	**ND**	-	3	a
4161	**Reblochon de Savoie au lait cru**	**Raw milk cheese**	H-d	+	H-	+	L.seeligeri	+	Protocol 2	-	+	-	-	/	-	**ND**	-	3	a
4673	**Lait cru**	**Raw milk**	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	Protocol 2	-/-/-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	-	**ND**	+	3	a
4002	Fromage au lait cru	Raw milk cheese	H+	+	H+	+	*L. monocytogenes*	+	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	3	a
4003	Lait cru	Raw milk	H+	+	H+	+	*L. monocytogenes*	+	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	3	a
4004	Lait cru	Raw milk	H+	+	H+	+	*L. monocytogenes*	+	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	3	a
4005	Lait cru	Raw milk	H+	+	H+	+	*L. monocytogenes*	+	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	3	a
4006	Lait cru	Raw milk	-	-	-	-	/	-	Protocol 2	-	+	-	-	/	-	**NA**	-	3	a
4007	Lait cru	Raw milk	H+(3)	+(2)	H+	+	*L. monocytogenes*	+	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	3	a
4008	Lait cru	Raw milk	st	st	-	-	/	-	Protocol 2	-	+	st	-	/	-	**NA**	-	3	a
4009	Lait cru	Raw milk	H+	+	H+	+	*L. monocytogenes*	+	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	3	a
4108	Lait cru de brebis	Raw ewe milk	st	st	-	-	/	-	Protocol 2	+/-/-	+	- (x5: 3+d)	- (x5: 2+d)	NC on TSAYE	-	**PPNA**	-	3	a
4109	Lait cru de brebis	Raw ewe milk	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	3	a
4149	**Saint Nectaire fermier**	**Raw milk cheese**	-	-	-	-	/	-	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PD**	/	3	a
4150	**Morbier au lait cru**	**Raw milk cheese**	-	-	-	-	/	-	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PD**	/	3	a
4151	**Roquefort 31% MG**	**Raw milk cheese**	-	-	-	-	/	-	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PD**	/	3	a
4681	**Lait cru**	**Raw milk**	H-	+	H-	+	*L. innocua*	+	Protocol 2	i/-/-	-/+	H-	+	*L. innocua*	-	**ND**	+	3	a
4683	**Lait cru**	**Raw milk**	H-	+	H-	+	*L. innocua*	+	Protocol 2	-	+	H-	+	*L. innocua*	-	**ND**	+	3	a
4154	**Lait cru fermier**	**Raw milk**	H+	+	H+	+	*L. monocytogenes*	+	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	3	a
4155	**Lait cru**	**Raw milk**	H+	+	H+	+	*L. monocytogenes*	+	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	3	a
4156	**Lait cru fermier**	**Raw milk**	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	3	a
4157	**Saint Nectaire fermier**	**Raw milk cheese**	-	-	-	-	/	-	Protocol 2	-	+	H-d(2)	-	*L. innocua*	-	**NA**	-	3	a
4158	**Morbier au lait cru**	**Raw milk cheese**	H-	+	H-	+	*L. innocua*	+	Protocol 2	+	+	H-	+	*L. innocua*	+	**PA**	/	3	a
4159	**Roquefort 31% MG**	**Raw milk cheese**	st	-	-	-	/	-	Protocol 2	-	+	-	-	/	-	**NA**	-	3	a
4160	**Selles sur Cher au lait cru**	**Raw milk cheese**	H-	+	H-	+	*L. innocua*	+	Protocol 2	+	+	H-	+	*L. innocua*	+	**PA**	/	3	a
4702	Comté au lait cru	Raw milk cheese	H-	+	H-	+	*L. innocua*	+	Protocol 2	-	+	-	-	/	-	**ND**	-	3	a
4162	**Lait cru fermier**	**Raw milk**	H-	+	H-	+	*L. welshimeri*	+	Protocol 2	+	+	H-	+	*L. welshimeri*	+	**PA**	/	3	a
4163	**Lait cru**	**Raw milk**	H-	+	H-	+	*L. innocua*	+	Protocol 2	+	+	H-	+	*L. innocua*	+	**PA**	/	3	a
4164	**Lait cru fermier**	**Raw milk**	H-	+d(2)	H-	+	*L. innocua*	+	Protocol 2	+	+	H-	+	*L. innocua*	+	**PA**	/	3	a
4165	Fromage non affiné au lait cru	Raw milk cheese	-	-	-	-	/	-	Protocol 2	-	+	-	st	/	-	**NA**	-	3	a
4166	Reblochon	Raw milk cheese	-	-	-	-	/	-	Protocol 2	-	+	st	-	/	-	**NA**	-	3	a

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			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
4167	Reblochon	Raw milk cheese	st	-	-	-	/	-	Protocol 2	-	+	H-(1)	st	NC on TSAYE	-	NA	-	3	a
4168	Fromage non affiné au lait cru de vache	Raw milk cheese	-	-	-	-	/	-	Protocol 2	-	+	-	st	/	-	NA	-	3	a
4699	**Bethmale au lait cru**	**Raw milk cheese**	st	-	st	-	/	-	Protocol 2	+	+	H+	-	*L. monocytogenes*	+	PD	/	3	a
4703	Beaumont de Savoie au lait cru	Raw milk cheese	-	-	-	-	/	-	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	PD	/	3	a
4674	**Lait cru**	**Raw milk**	st	-	-	-	/	-	Protocol 2	-	+	st	st	/	-	NA	-	3	a
4675	**Lait cru**	**Raw milk**	H+	-	H+	+	*L. monocytogenes*	+	Protocol 2	+	+	H+	+	*L. monocytogenes*	+	PA	/	3	a
4680	**Lait cru**	**Raw milk**	-	-	-	-	/	-	Protocol 2	-	+	-	-	/	-	NA	-	3	a
4682	**Lait cru**	**Raw milk**	H-	+	H-	+	*L. innocua*	+	Protocol 2	+	+	H-	+	*L. innocua*	+	PA	/	3	a
4684	**Lait cru**	**Raw milk**	H-	+	H-	+	*L. innocua*	+	Protocol 2	+	+	H-	+	*L. innocua*	+	PA	/	3	a
4685	Lait cru	Raw milk	st	-	-	-	/	-	Protocol 2	-	+	-	-	/	-	NA	-	3	a
4686	Lait cru	Raw milk	st	-	-	-	/	-	Protocol 2	-	+	st	-	/	-	NA	-	3	a
4687	Lait cru	Raw milk	st	st	-	-	/	-	Protocol 2	-	+	st	-	/	-	NA	-	3	a
4688	Lait cru	Raw milk	st	st	st	st	/	-	Protocol 2	-	+	H-	-	*L. innocua*	-	NA	-	3	a
4689	Lait cru	Raw milk	st	-	-	-	/	-	Protocol 2	-	+	-	-	/	-	NA	-	3	a
4690	Lait cru	Raw milk	st	st	-	-	/	-	Protocol 2	-	+	st	st	/	-	NA	-	3	a
4691	Lait cru	Raw milk	st	st	-	st	/	-	Protocol 2	-	+	st	-	/	-	NA	-	3	a
4692	**Bethmale au lait cru**	**Raw milk cheese**	st	-	-	-	/	-	Protocol 2	-	+	-	-	/	-	NA	-	3	a
4695	**Comté au lait cru**	**Raw milk cheese**	-	-	-	-	/	-	Protocol 2	-	+	-	st	/	-	NA	-	3	a
4696	**Picodon au lait cru**	**Raw milk cheese**	st	st	st	st	/	-	Protocol 2	-	+	st	st	/	-	NA	-	3	a
4698	**Le Mothais sur feuille au lait cru**	**Raw milk cheese**	st	st	st	st	/	-	Protocol 2	-	+	st	st	/	-	NA	-	3	a
4700	**Sainte Maure de Touraine au lait cru**	**Raw milk cheese**	st	-	-	-	/	-	Protocol 2	-	+	-	-	/	-	NA	-	3	a
4701	**Crottin de chavignol**	**Raw milk cheese**	st	st	st	st	/	-	Protocol 2	-/-/-	+	H+(1)	+(1)	*L. monocytogenes*	-	NA	-	3	a
4704	Sainte Maure de Touraine	Raw milk cheese	st	st	-	-	/	-	Protocol 2	-	+	-	st	/	-	NA	-	3	a
4706	Picodon au lait cru	Raw milk cheese	st	st	-	-	/	-	Protocol 2	-	+	-	st	/	-	NA	-	3	a
4707	Tomme de Savoie au lait cru	Raw milk cheese	st	st	-	-	/	-	Protocol 2	-	+	-	st	/	-	NA	-	3	a
4708	Mothais au lait cru	Raw milk cheese	st	st	-	st	/	-	Protocol 2	-	+	st	st	/	-	NA	-	3	a
4709	Rocamadour au lait cru	Raw milk cheese	st	st	-	-	/	-	Protocol 2	-	+	st	st	/	-	NA	-	3	a
4710	Brie de Meaux au lait cru	Raw milk cheese	st	-	-	-	/	-	Protocol 2	-	+	st	st	/	-	NA	-	3	a
3214	**Brie au lait pasteurisé**	**Pasteurized milk cheese**	-	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	3	b
3216	**Leerdarmer**	**Pasteurized milk cheese**	st	st	st	st	/	-	General	-	+	-	-	/	-	NA	+	3	b
3217	**Mimolette**	**Pasteurized milk cheese**	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	3	b
3215	**Etorki**	**Pasteurized milk cheese**	H+	+	H+	+	L.ivanovii	+	General	-/-/-	+	H+	-	L.ivanovii	-	ND	+	3	b
3405	**Brie au lait pasteurisé**	**Pasteurized cow milk cheese**	H+	+	H+	+	*L. monocytogenes*	+	General	-/-/-	+	H+(2)	-	*L. monocytogenes*	-	ND	+	3	b
3416	**Camembert au lait pasteurisé**	**Pasteurized cow milk cheese**	H-	+	H-	+	*L. innocua*	+	General	+	+	H-d	+	*L. innocua*	+	PA	/	3	b
3417	**Saint Paulin**	**Pasteurized cow milk cheese**	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	PA	/	3	b

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			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
3418	**Emmental au lait pasteurisé**	**Pasteurized cow milk cheese**	H-	+	H-	+	L.seeligeri	+	General	+	+	H-d	+d	*L. innocua*	+	**PA**	/	3	b
3415	**Chèvre au lait pasteurisé**	**Pasteurized goat milk cheese**	H-d	+d	H-	+	L.seeligeri	+	General	-	+	-	-	/	-	**ND**	-	3	b
3404	**Coulommiers au lait pasteurisé**	**Pasteurized cow milk cheese**	st	-	-	-	/	-	General	+	+	H+	-	*L. monocytogenes*	+	**PD**	/	3	b
3419	**Emmental au lait pasteurisé**	**Pasteurized cow milk cheese**	H-	+	H-	+	*L. innocua*	+	General	-	+	-	-	/	-	**ND**	-	3	b
3707	**Gorgonzola au mascarpone**	**Gorgonzola and mascarpone**	-	st	H-d	+d	- (gram-catalase)	-	General	-	+	-	-	/	-	**NA**	-	3	b
3708	**Brie**	**Cheese**	H+d	+	H+	+	L.ivanovii	+	General	-	+	-	-	/	-	**ND**	-	3	b
3709	**Brique de brebis**	**Ewe cheese**	st	-	H-	+	*L. innocua*	+	General	+	+	H+d	-	L.ivanovii	+	**PA**	/	3	b
3752	**Camembert au lait pasteurisé**	**Pasteurized milk cheese**	st	+	H+	+	*L. monocytogenes*	+	General	-/-/-	+	H+	-	*L. monocytogenes*	-	**ND**	+	3	b
3414	**Edam au lait pasteurisé**	**Pasteurized cow milk cheese**	st	st	st	st	/	-	General	+	+	-(H-at 72h)	-	*L. innocua*	+	**PD**	/	3	b
3750	**Brie au lait pasteurisé**	**Pasteurized milk cheese**	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	-	*L. monocytogenes*	+	**PA**	/	3	b
3751	**Fromage au lait pasteurisé**	**Pasteurized milk cheese**	st	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	3	b
3761	**Fromage au lait pasteurisé**	**Pasteurized milk cheese**	st	-	st	-	/	-	General	-/-/-	+	H+	-	L.ivanovii	-	**NA**	+	3	b
3762	**Brie au lait pasteurisé**	**Pasteurized milk cheese**	-	st	-	-	/	-	General	-/-/-	+	-(H+at 72h)	-	L.ivanovii	-	**NA**	+	3	b
3763	**Fromage au lait pasteurisé**	**Pasteurized milk cheese**	st	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	3	b
3764	**Camembert au lait pasteurisé**	**Pasteurized milk cheese**	st	st	st	st	/	-	General	-	+	-	-	/	-	**NA**	-	3	b
3749	**Fromage au lait pasteurisé**	**Pasteurized milk cheese**	-	-	-	-	/	-	General	+	+	H+	+	*L. monocytogenes*	+	**PD**	/	3	b
2953	Chantilly	Chantilly	st	st	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	3	c
3208	**Lait pasteurisé entier**	**Pasteurized milk**	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	**PA**	/	3	c
3211	**Lait pasteurisé 1/2 écrémé**	**Pasteurized half skimmed milk**	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	**PA**	/	3	c
3212	**Lait aromatisé cacao**	**Cocoa flavored milk**	H+	+	H+	+	L.ivanovii	+	General	+	+	H+	+	L.ivanovii	+	**PA**	/	3	c
3222	**Glace vanille**	**Vanilla ice cream**	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	**PA**	/	3	c
3223	**Glace pistache**	**Pistachio ice cream**	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	**PA**	/	3	c
3224	**Glace café**	**Coffee ice cream**	-	-	H-	+d	L.seeligeri	+	General	+	+	H-d	+	L.seeligeri	+	**PA**	/	3	c
3209	**Lait pasteurisé 1/2 écrémé**	**Pasteurized half skimmed milk**	st	st	st	st	/	-	General	+	+	H+	+	L.ivanovii	+	**PD**	/	3	c
3210	**Lait pasteurisé 1/2 écrémé**	**Pasteurized half skimmed milk**	st	-	-	-	/	-	General	+	+	H-	+d	L.seeligeri	+	**PD**	/	3	c
7247	Lait entier pasteurisé	Pasteurized milk	st	-	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	3	c
7248	Lait pasteurise demi écrémé	Half skimmed pasteurized milk	st	-	-	st	/	-	General	-	+	st	st	/	-	**NA**	-	3	c
7249	Lait aromatisé pêche abricot	Flavored milk	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	3	c
7250	Boisson lactée orange banane fraise	Dairy based beverage	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	3	c

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			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
7251	Lait entier pasteurisé	Pasteurized milk	st	st	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	3	c
7252	Crème anglaise	English cream	st	-	-	-	/	-	General	-	+	st	-	/	-	**NA**	-	3	c
7253	Lait écrémé	Skimmed milk	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	3	c
7254	Crème glacée menthe chocolat	Ice cream	H-d	-	-	-	Gram (NC)	-	General	-	+	H+/H-d	-	Gram (NC)	-	**NA**	-	3	c
7255	Glace vanille caramel brownies	Ice cream	st	-	-	st	/	-	General	-	+	-	-	/	-	**NA**	-	3	c
7256	Glace duce de Leone	Ice cream	st	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	3	c
7257	Glace caramel et spéculos	Ice cream	H-d	-	-	-	Gram (NC)	-	General	-	+	-	-	/	-	**NA**	-	3	c

VEGETABLES																					
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			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
1085	Pommes de terre crues	Raw potatoes	st	st	st	st	/	-	General	-	+	-	-	/	-	NA	-	4	a
1086	Ciboulette	Chive	st	-	st	st	/	-	General	-	+	-	-	/	-	NA	-	4	a
1087	Ciboulette	Chive	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	a
1090	Poivrons jaunes en cubes crus	Raw yellow peppers	st	st	st	st	/	-	General	-	+	st	-	/	-	NA	-	4	a
1091	Persil plat	Parsley	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	a
1092	Persil haché	Parsley	st	st	st	st	/	-	General	-	+	-	-	/	-	NA	-	4	a
2753	Fenouil	Fennel	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	4	a
2754	Chou blanc	White cubbage	-	-	-	-	/	-	General	-	+	st	-	/	-	NA	-	4	a
2755	Légumes à potage	Vegetables for soup	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	a
2756	Petits pois	Beans	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	PA	+	4	a
2758	Persil plat	Parsley	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	a
2759	Ciboulette	Chive	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	a
2929	Oignons crus	Raw onions	st	st	st	st	/	-	General	-	+	st	-	/	-	NA	-	4	a
2930	Persil plat	Parsley	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	a
2931	Ciboulette	Chive	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	a
2932	Persil frisé	Parsley	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	a
4445	Pousse de Haricot Mungo	Sprouts	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	PA	/	4	a
4448	Persil	Parsley	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	a
4455	Salade de fruits exotiques surgelée	Exotic fruit salad	st	st	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	4	a
4457	Ciboulette	Chive	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	+	4	a
4653	Courgette râpées surgelées	Frozen sliced zucchini	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	4	a
4654	Printanière de légumes surgelés	Frozen vegetable mix	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	a
4656	Jeunes carottes	Carrots	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	a
4657	Courgettes julienne	Sliced zucchini	H+/H-d	-	H+/H-	+	*L. monocytogenes/ L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	4	a
4658	Poivrons rouges en dés	Pieces of red peppers	H+(2)	-	H+	+	*L. monocytogenes*	+	General	+	+	H+	-	*L. monocytogenes*	+	PA	/	4	a
4659	Rondelles de courgettes	Slices of zucchini	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	4	a
4662	Pousses de haricots mungo	Sprouts	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	4	a
4663	Pousses de haricots mungo	Sprouts	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	4	a
4655	Châtaignes en morceaux	Pieces of chestnuts	-	-	-	-	/	-	General	+	+	H+	+	*L. monocytogenes*	+	PD	/	4	a
1088	Poêlée de pommes de terre aux oignons	RTRH potatoes	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	b
1089	Palets de légumes	RTRH vegetables	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	b

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			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
1093	Oignons frits	Fries onions	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	b
3406	**Carottes râpées**	**Sliced carrots**	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	4	b
3420	**Baby carottes**	**Baby carrots**	st	st	st	st	/	-	General	-	+	-	-	/	-	NA	-	4	b
3535	Brocolis surgelés	Frozen broccoli	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	4	b
3536	Courgettes surgelées	Frozen zucchini	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	4	b
3539	Champignons émincés surgelés	Frozen sliced mushrooms	H-	+(1)	H-	+	*L. innocua*	+	General	+	+	H+	+(2)	*L. monocytogenes*	+	PA	/	4	b
4443	Oignons préfrits surgelés	Frozen roasted onions	H+	+	H+	+	*L. monocytogenes*	+	General	-	+	-	-	/	-	ND	-	4	b
4454	Brocolis fleurettes surgelés	Frozen broccoli	H+	+	H+	+	*L. monocytogenes*	+	General	-	+	-	-	/	-	ND	-	4	b
4447	Courgettes lisses standard	Zucchini	H+/H-	+	H+/H-	+	*L. monocytogenes*/ *L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	PA	/	4	b
4449	Macédoine	Vegetables mix	H+/H-	+	H+/H-	+	*L. monocytogenes*/ *L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes*/ *L. innocua*	+	PA	/	4	b
4453	Oignons préfrits surgelés	Frozen roasted onions	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	4	b
4459	Courgettes surgelées	Frozen zucchini	H-(d)	+d(2)	H-	+	*L. monocytogenes*/ *L. innocua*	+	General	+	+	H-	+	*L. monocytogenes* (72h)/ *L. innocua*	+	PA	/	4	b
4460	Jeunes carottes surgelées	Frozen carrots	H+/H-	+	H+/H-	+	*L. monocytogenes*/ *L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes*/ *L. innocua*	+	PA	/	4	b
3538	Oignons préfrits surgelés	Frozen roasted onions	-	st	-	-	/	-	General	+	+	H+	-	*L. monocytogenes*	+	PD	/	4	b
4458	Oignons préfrits surgelés	Frozen roasted onions	st	-	-	-	/	-	General	+	+	H+	+	*L. monocytogenes*	+	PD	/	4	b
4660	Purée d'artichauts	Artichoke purée	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	b
4461	Légumes pour couscous	Vegetables for couscous	-	-	-	-	/	-	General	+	+	H+	+	*L. monocytogenes*	+	PD	/	4	b
7366	Ratatouille à la provençale	Ready to reheat vegetables	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	4	b
1084	Pommes de terre sarladaises cuites	Vegetables based preparation	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	c
2757	Bol de soupe moulinée	Soup	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	4	c
3145	Purée de pomme de terre	Potatoes purée	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	4	c
3146	Palets courgettes petits légumes	Vegetables based preparation	H-d	-	-	-	NC on TSYEA	-	General	-/-/+	+	H+	+d	*L. monocytogenes*	-	NA	+	4	c
3151	Piémontaise sans jambon	Vegetable based preparation	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	PA	-	4	c
3537	Potage	Soup	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	c
3540	Ratatouille surgelée	Frozen ratatouille	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	c
7365	**Carottes râpées aux échalotes et ciboulette**	**Frozen vegetables mix**	H-	st	H-	+	L.seeligeri	+	General	-	+	-	-	/	-	ND	-	4	c
4661	Sauce ratatouille	Dressing	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	4	c
7362	**Poêlée champêtre surgelée**	**Frozen vegetables mix**	st	-	H-	+	*L. welshimeri*	+	General	+/+/+	+	-	-	Fraser 1: H+- *L. monocytogenes*	+	PA	+	4	c

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			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
7363	**Poêlée légumes et pommes de terre surgelée**	**Frozen vegetables mix**	H-	+	H-	+	*L. welshimeril L. innocua*	+	General	+	+	H-	+	*L. welshimeril L. innocua*	+	**PA**	/	4	c
7364	**Mélange de légumes vapeur surgelés**	**Frozen vegetables mix**	H-	+	H-	+	*L. welshimeril L. innocua*	+	General	+	+	H-	+	*L. welshimeril L. innocua*	+	**PA**	/	4	c
7367	Poêlée du sud surgelée	Frozen vegetables mix	st	-	+d(1)	-	Gram (NC)	-	General	-	+	-	-	/	-	**NA**	-	4	c
7368	Concombre à la crème	Deli salad	H-d	+(1)	H-	+	Gram (NC)	-	General	-	+	-	-	/	-	**NA**	-	4	c
7369	Tagine de carottes et olives	Ready to reheat vegetables	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	4	c
7370	Haricots plats à la provençale	Ready to reheat vegetables	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	4	c
7371	Macédoine de légumes	Vegetable mix	st	st	-	-	/	-	General	-	+	st	st	/	-	**NA**	-	4	c
7372	Mélange de légumes vapeur surgelés	Frozen vegetables mix	H+	-	H+	+	*L. monocytogenes*	+	General	+	+	H-	+	*L. welshimeril L. innocua*	+	**PA**	/	4	c
7373	Carottes râpées	Sliced carrots	st	st	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	4	c
7378	Mini brochettes de légumes confits	Ready to reheat vegetables	-	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	4	c

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			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
1195	Filet de cabillaud en croûte	Cod based preparation	H+	+	H+	+	*L. monocytogenes*	+	Protocol 1	+	+	H+	+	*L. monocytogenes*	+	PA	/	5	a
1196	Brochette de poisson pané cru	Breaded raw fish	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	Protocol 1	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	5	a
1197	Filet de cabillaud en croûte	Cod based preparation	-	-	-	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	5	a
1198	Filet de cabillaud en croûte d'amande	Cod based preparation	H+	+	H+	+	*L. monocytogenes*	+	Protocol 1	+	+	H+	+	*L. monocytogenes*	+	PA	/	5	a
1199	Meunière de poisson blanc	White fish preparation	st	-	-	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	5	a
1200	Filet de cabillaud en croûte d'amande	Cod based preparation	H+	+	H+	+	*L. monocytogenes*	+	Protocol 1	+	+	H+	+	*L. monocytogenes*	+	PA	/	5	a
1201	Tranche nature de poisson cru	Raw fish	st	st	st	st	/	-	Protocol 1	-	+	st	st	/	-	NA	-	5	a
1203	Poisson blanc	White raw fish	H+	+	H+	+	*L. monocytogenes*	+	Protocol 1	+	+	H+	+	*L. monocytogenes*	+	PA	/	5	a
1205	Filet de bar	Raw fish fillet	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	Protocol 1	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	+	5	a
2546	Filet de saumon cru	Raw salmon fillet	st	st	st	st	/	-	Protocol 1	-	+	st	st	/	-	NA	-	5	a
2547	Paupiette de saumon crue	Raw salmon paupiette	H+/H-	+	/	/	*L. monocytogenes/ L. welshimeri*	+	Protocol 1	+	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	PA	/	5	a
2548	Haché de colin cru	Ground fish	st	st	-	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	5	a
2550	Haché de saumon cru	Raw ground salmon	st	-	-	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	5	a
2552	Brochette de poisson pané cru	Raw breaded fish	H+/H-	+	/	/	*L. monocytogenes/ L. innocua*	+	Protocol 1	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	5	a
2553	Pavé de poisson blanc à la provençale crue	Raw seasoned fish	H-d	-	-	-	-	-	Protocol 1	-	+	H+/H-d	-	*L. monocytogenes*	-	NA	+	5	a
3981	Pavé de lieu jaune cru	Raw fish fillet	st	-	st	-	/	-	Protocol 1	-	+	st	-	/	-	NA	-	5	a
4433	Filet de panga cru	Raw panga fillet	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	Protocol 1	+	+	H+	+	*L. monocytogenes*	+	PA	/	5	a
4434	Filet de truite cru	Raw trout fillet	H+	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	Protocol 1	+	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	PA	/	5	a
4435	Filet Zinger cru	Raw zinger fillet	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	Protocol 1	+	+	H+	+	*L. monocytogenes*	+	PA	/	5	a
1194	Poisson blanc	White fish	H-	+	H-	+	*L. welshimeri*	+	Protocol 1	-	+	-	-	/	-	ND	-	5	a
2549	Hache de colin cru à la tomate et ciboulette	Raw ground fish with tomato	H+/H-	+	/	/	*L. monocytogenes/ L. welshimeri*	+	Protocol 1	-/-/-	+	H+/H-d	+	*L. monocytogenes/ L. innocua*	-	ND	+	5	a
1202	Bar	Raw fish	st	st	st	st	/	-	Protocol 1	+	+	H+	+	*L. monocytogenes*	+	PD	/	5	a
7434	Pavé de saumon	Raw salmon	H-	+	H-	+	*L. welshimeri*	+	Protocol 1	-/-/-	+	-	-	/	-	ND	-	5	a
7433	Viande bovine pour pot au feu	Beef meat	H-	+	H-	+	*L. welshimeri*	+	Protocol 1	+	+	H-	+	*L. welshimeri*	+	PA	/	5	a
7435	Lieu jaune	Raw fish	st	st	st	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	5	a
7436	Filet de tacaud	Raw fish fillet	st	st	st	st	/	-	Protocol 1	-	+	-	-	/	-	NA	-	5	a
7437	Dos de cabillaud	Raw cod	st	st	st	-	/	-	Protocol 1	-	+	-	st	/	-	NA	-	5	a
7438	Filet de lieu noir	Raw fish fillet	st	st	st	-	/	-	Protocol 1	-/-/-	+	H-	-	Gram (NC)	-	NA	-	5	a
7439	Maquereau	Mackerel	-	st	st	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	5	a

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			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
7440	Filet de truite rose	Raw trout fillet	-	st	st	-	/	-	Protocol 1	-	+	-	-	/	-	NA	-	5	a
7441	Filet de flétan	Raw fish fillet	st	-	st	-	/	-	Protocol 1	-	+	-	-		-	NA	-	5	a
1204	Matière première pour Surimi	Raw material for surimi	st	st	st	st	/	-	Protocol 1	+	+	H-	+	*L. innocua*	+	PD	+	5	a
2943	Filets de hareng fumés	Smoked herrings	st	st	st	st	/	-	General	-	+	st	-	/	-	NA	-	5	b
3262	Harengs fumés	Smoked herrings	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	5	b
3263	Lardons de saumon fumé	Sliced smoked salmon	st	-	st	-	/	-	General	-	+	-	-	/	-	NA	-	5	b
3264	Harengs fumés	Smoked herrings	st	st	-	st	/	-	General	-	+	-	-	/	-	NA	-	5	b
3265	Emincés de saumon fumé	Sliced smoked salmon	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	5	b
3266	Saumon fumé norvégien	Smoked salmon	st	-	st	-	/	-	General	-	+	-	-	/	-	NA	-	5	b
3267	Saumon fumé écossais	Smoked salmon	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	5	b
3268	Truite fumée Bio	Smoked trout	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	5	b
3269	Saumon fumé	Smoked salmon	st	st	st	st	/	-	General	-	+	-	-	/	-	NA	-	5	b
3524	Saumon fumé de Norvège	Smoked salmon	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	5	b
3525	Truite de mer fumée	Smoked trout	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	PA	/	5	b
3526	Saumon fumé de l'atlantique	Smoked salmon	H+	+	H+	-	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	5	b
3527	Saumon fumé de l'atlantique	Smoked salmon	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	-	*L. monocytogenes*	+	PA	/	5	b
3529	Saumon fumé de l'atlantique	Smoked salmon	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	PA	/	5	b
3530	Saumon fumé Bio	Smoked salmon	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	General	+	+	H-	+	*L. welshimeri*	+	PA	/	5	b
3531	Saumon fumé supérieur de Norvège	Smoked salmon	H-	+	H-	+	*L. welshimeri*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	5	b
3533	Truite de mer fumée de Norvège	Smoked trout	H+	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	PA	/	5	b
4668	Haddock fumé	Smoked haddock	H+(3)	+d(4)	H+	+	*L. monocytogenes*	+	General	+	+	H-	+	*L. welshimeri*	+	PA	/	5	b
7374	Filets de harengs fumés	Smoked herring	st	st	-	-	/	-	General	-	+	st	-	/	-	NA	-	5	b
3528	Saumon fumé de l'atlantique	Smoked salmon	st	st	st	-	/	-	General	+	+	H+	+	*L. monocytogenes*	+	PD	/	5	b
1100	Paupiette de saumon cuite	RTRH Salmon paupiette	H+(1)	-	-	-	*L. monocytogenes*	+	General	+	+	H-	-	*L. welshimeri*	+	PA	/	5	c
1101	Paupiette de saumon cuite	RTRH Salmon paupiette	H+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	General	+	+	H+	-	*L. monocytogenes*	+	PA	/	5	c
2562	Calamars à la romaine	RTRH squids	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. innocua*	+	PA	/	5	c
2563	Brandade de morue	Cod brandade	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	PA	/	5	c
2564	Pavé de poisson pané cuit	Cooked breaded fish	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	5	c
2566	Filet de bar sauce iodée	RTRH fish	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	-	*L. monocytogenes*	+	PA	/	5	c

SEAFOOD AND FISHERY PRODUCTS																				
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1						Alternative method: NEOGEN Molecular Detection Assay 2 - Listeria spp. After incubation time									Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
2567	Colin pané cuit	Breaded cooked cod	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	5	c
2568	Filet de bar cuisiné	Cooked fish	H+/H-	+	/	/	*L. monocytogenes*/ *L. innocua*	+	General	+	+	H+	+(2)	*L. monocytogenes*	+	PA	/	5	c
2940	Filet de Hoki meunière	RTRH fish	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	5	c
2941	Brochette de poisson pané	RTRH fish	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	5	c
3154	Boulettes de saumon cuites	Cooked salmon balls	st	st	st	st	/	-	General	-	+	st	st	/	-	NA	-	5	c
3155	Poisson blanc aux céréales cuit	Cooked white fish with cereals	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	5	c
3156	Filet de cabillaud pané cuit	Breaded cooked cod	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	5	c
4452	LongFish de Hoki	Fish based preparation	H+	-	H+/H-	+	*L. monocytogenes*/ *L. welshimeri*	+	General	+	+	H+/H-	-	*L. monocytogenes*/ *L. welshimeri*	+	PA	/	5	c
2565	Croquette de saumon	RTRH salmon balls	H+	+	H+	+	*L. monocytogenes*	+	General	-	+	-	-	/	-	ND	+(*L. monocytogenes*)	5	c
2939	Tranche de colin pané	Breaded cooked fish	H-	+	H-	-	*L. welshimeri*	+	General	-/+/+	+	H-	+	*L. welshimeri*	-	ND	/	5	c
2942	Tranche de colin meunière	RTRH fish	H-	+	H-	+	*L. welshimeri*	+	General	-	+	-	-	/	-	ND	-	5	c
7375	Miettes saveur crabe	Fish based preparation	st	st	-	-	/	-	General	-	+	-	-	/	-	NA	-	5	c
7376	Haché au colin , citron et persil	Ready to reheat fish	st	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	5	c
7377	Saumon à l'oseille et riz	Ready to reheat fish	st	st	-	-	/	-	General	-	+	st	st	/	-	NA	-	5	c

ENVIRONMENTAL SAMPLES																				
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1						Alternative method: NEOGEN Molecular Detection Assay 2 - Listeria spp. After incubation time									Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
2946	Eau exsudat algues	Process water	st	st	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	6	a
2947	Eau de refroidissement alaria	Cooling water	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	a
2948	Eau de rinçage wakamé	Rinsing water	st	st	st	st	/	-	General	-	+	st	-	/	-	**NA**	-	6	a
2949	Eau de blanchiment alaria	Process water	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	a
2950	Eau de blanchiment wakamé	Process water	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	a
3544	Eau de process pareuse (poisson fumé)	Process water (Salmon industry)	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	a
3545	Eau de siphon maturation salage	Siphon water (salmon industry)	H+(1)	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	6	a
3546	Eau de siphon atelier filetage	Siphon water (salmon industry)	H+/H-	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	**PA**	/	6	a
3570	**Eau de rinçage laveuse**	**Rinsing water (salmon industry)**	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	a
3753	**Eau de rinçage laveuse sas**	**Rinsing water**	H+/H-d	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	General	+	+	H+/H-	+	*L. monocytogenes/ L. welshimeri*	+	**PA**	/	6	a
3754	**Eau de rinçage épineuse**	**Rinsing water**	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	6	a
3765	**Eau de rinçage laveuse sas**	**Rinsing water**	H+/H-	+	H+/H-	+	*L. monocytogenes/* L.seeligeri	+	General	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	6	a
3766	**Eau de rinçage épineuse**	**Rinsing water**	st	st	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	6	a
3767	**Eau de rinçage bol**	**Rinsing water**	H-	+	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. welshimeri*	+	**PA**	/	6	a
4145	**Eau épineuse**	**Process water (Salmon industry)**	st	st	st	st	/	-	General	-	+	st	s	/	-	**NA**	-	6	a
4378	Eau laveuse chariot	Cleaning water (salmon industry)	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	a
4385	Eau rinçage bac inox	Rinsing water (salmon industry)	st	st	st	st	/	-	General	-	+	-	-	/	-	**NA**	-	6	a
6704	Eau flagelleuse (Industrie porc)	Process water (Pork industry)	-	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	6	a
6705	Eau flagelleuse (Industrie porc)	Process water (Pork industry)	H-	+	H-	+	*L. innocua*	+	General	+	+	H-d	+	*L. innocua*	+	**PA**	/	6	a
6706	Eau de rinçage avant flambeuse(industrie porc)	Process water (Pork industry)	-	-	st	-	/	-	General	-	+	-	-	/	-	**NA**	-	6	a
6708	Eau échaudage (industrie porc)	Process water (Pork industry)	-	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	6	a
6866	Eau pédiluve découpe N°1 (atelier abattage porc)	Water (Pork industry)	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	a
6867	Eau pédiluve découpe N°2 (atelier abattage porc)	Water (Pork industry)	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	a

ENVIRONMENTAL SAMPLES																			
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1						Alternative method: NEOGEN Molecular Detection Assay 2 - Listeria spp. After incubation time									Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
3571	**Eau de rinçage peleuse**	**Rinsing water (salmon industry)**	H+	+	H+	+	*L. monocytogenes*	+	General	-	+	st	st	/	-	**ND**	-	6	a
3755	**Eau de rinçage bol**	**Rinsing water**	H+ (3)	+	H+	+	*L. monocytogenes*	+	General	-/-/-	+	st	st	/	-	**ND**	+ (*L. monocytogenes*)	6	a
3768	**Eau de rinçage siphon**	**Rinsing water**	H-(2)	+	H-	+	*L. innocua*	+	General	-	+	st	st	/	-	**ND**	-	6	a
2944	Déchets de végétaux	Vegetables wastes	-	-	H-d	-	NC on TSYEA	-	General	-	+	-	-	/	-	**NA**	-	6	b
2945	Poussières aspirateur laiterie	Dusts from dairy industry	H-d	+d	-	-	NC on TSYEA	-	General	-	+	-	-	/	-	**NA**	-	6	b
2951	Déchets découpes algues	Algae wastes	-	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	6	b
4144	**Déchets sol atelier filetage**	**Wastes (Salmon industry)**	st	st	st	st	/	-	General	-/-/-	+	H+	+	*L. monocytogenes*	-	**NA**	+	6	b
4146	**Déchets pousse de soja**	**Sprouts wastes**	H+/H-d	-	H+	+	*L. monocytogenes*	+	General	+	+	H+/H-d	-	*L. monocytogenes*	+	**PA**	/	6	b
4379	Déchets sol	Wastes (Salmon industry)	st	st	-	-	/	-	General	-	+	H-d	-	NC on TSAYE	-	**NA**	-	6	b
4380	Matière première à réception	Wastes	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	b
4381	Filet en sortie de baader (déchets)	Wastes (Salmon industry)	st	st	st	st	/	-	General	-	+	-	-	/	-	**NA**	-	6	b
4382	Filet en sortie désarrêteuse (déchets)	Wastes (Salmon industry)	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	6	b
4384	Déchets sol étêteuse	Wastes (Salmon industry)	H+/H-	+	H+/H-	+	*L. monocytogenes*/ *L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	**PA**	/	6	b
4387	Déchets égout topping	Wastes (Salmon industry)	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*/ *L. innocua* (72h)	+	**PA**	/	6	b
6868	Déchets viande au sol (découpe) (atelier abattage porc)	Wastes (Pork industry)	H-	+	H-	+	*L. innocua* /*L. welshimeri*	+	General	+	+	H-	+	*L. innocua*	+	**PA**	/	6	b
6869	Déchets viande au sol (emballage) (atelier abattage porc)	Wastes (Pork industry)	H+/H-	+	H+/H-	+	*L. monocytogenes*/ *L. welshimeri*	+	General	+	+	H-	+	*L. welshimeri*	+	**PA**	/	6	b
6870	Déchets viande au sol (VS) (atelier abattage porc)	Wastes (Pork industry)	H+/H-	+	H+/H-	+	*L. monocytogenes*/ *L. innocua*	+	General	+	+	H-	+	*L. welshimeri*	+	**PA**	/	6	b
7487	Poussières de laiterie	Dusts (Dairy industry)	-	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	6	b
7488	Poussières de laiterie	Dusts (Dairy industry)	st	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	6	b
7489	Poussières de laiterie	Dusts (Dairy industry)	-	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	6	b
7490	Poussières de laiterie	Dusts (Dairy industry)	-	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	6	b
4383	Filet sortie peleuse (déchets)	Wastes (Salmon industry)	st	st	st	st	/	-	General	+	+	H-	+	*L. innocua*	+	**PD**	/	6	b
4386	Déchets parage toast	Wastes (Salmon industry)	H-(2)	st	H-	st	*L. welshimeri*	+	General	-	+	-	-	/	-	**ND**	-	6	b
3409	**Ecouvillon (environnement laitier)**	**Swab (dairy industry)**	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	6	c
3410	**Ecouvillon (environnement laitier)**	**Swab (dairy industry)**	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	6	c

ENVIRONMENTAL SAMPLES																				
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1						Alternative method: NEOGEN Molecular Detection Assay 2 - Listeria spp. After incubation time									Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
3411	**Ecouvillon (environnement laitier)**	**Swab (dairy industry)**	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	6	c
3412	**Ecouvillon (environnement laitier)**	**Swab (dairy industry)**	H+	+	H+	+	L.ivanovii	+	General	+	+	H+	+	L.ivanovii	+	**PA**	/	6	c
3413	**Ecouvillon (environnement laitier)**	**Swab (dairy industry)**	H+	+	H+	+	L.ivanovii	+	General	+	+	H+	+	L.ivanovii	+	**PA**	/	6	c
3541	Chiffonnette tapis déchets pareuse (poisson fumé)	Wipe (salmon industry)	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	c
3542	Chiffonnette tapis déchets fileteuse (poisson fumé)	Wipe (salmon industry)	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	c
3543	Chiffonnette tapis pareuse (poisson fumé)	Wipe (salmon industry)	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	c
3568	**Lingette tapis (poisson fumé)**	**Wipe (salmon industry)**	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	c
3569	**Lingette tapis (poisson fumé)**	**Wipe (salmon industry)**	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	c
3712	**Tapis parage après désinfection**	**Wipe (salmon industry)**	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	c
3713	**Maille sortie parage après désinfection**	**Wipe (salmon industry)**	H- (3)	+ (4)	H-	+	*L. innocua*	+	General	+	+	H-	+	*L. innocua*	+	**PA**	/	6	c
3714	Lingette couteau découpe saumon	Wipe (salmon industry)	H-	+	H-	+	*L. welshimeri*	+	General	+	+	H-	+	*L. welshimeri*	+	**PA**	/	6	c
3715	Lingette bac de stockage saumon	Wipe (salmon industry)	H-	+	H-	+	*L. welshimeri*	+	General	+	+	H-	+	*L. welshimeri*	+	**PA**	/	6	c
4140	**Ecouvillon après nettoyage (environnement laitier)**	**Swab after cleaning (dairy industry)**	H+	+	H+	+	*L. monocytogenes*	+	General	+	+	H+	+	*L. monocytogenes*	+	**PA**	/	6	c
4141	**Ecouvillon après nettoyage (environnement laitier)**	**Swab after cleaning (dairy industry)**	H-	+	H-	+	L.seeligeri	+	General	+	+	H-d	+	L.seeligeri	+	**PA**	/	6	c
6371	Chiffonnette sol M4 (industrie salades)	Wipe (Vegetables industry)	st	-	-	-	/	-	General	-	+	st	st	/	-	**NA**	-	6	c
6372	Chiffonnette sol salage (industrie salades)	Wipe (Vegetables industry)	st	-	-	-	/	-	General	-	+	-	-	/	-	**NA**	-	6	c
6674	Chiffonnette machine (Industrie ovoproduits)	Wipe (egg product industry)	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	c
6675	Chiffonnette machine (Industrie ovoproduits)	Wipe (egg product industry)	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	c
6676	Chiffonnette machine (Industrie ovoproduits)	Wipe (egg product industry)	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	c
6677	Chiffonnette tapis convoyeur (industrie ovoproduits)	Wipe (egg product industry)	st	st	st	st	/	-	General	-	+	st	st	/	-	**NA**	-	6	c

ENVIRONMENTAL SAMPLES																				
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1						Alternative method: NEOGEN Molecular Detection Assay 2 - Listeria spp. After incubation time										Category	Type
			Half Fraser		Fraser 1		Identification	Listeria spp result	Protocol	MDA results		Confirmation			Final result	Agreement Ref/Alt	Reference method on Half Fraser Alternative method		
			O&A	Palcam	O&A	Palcam				MDA Listeria spp	MC	O&A	Palcam	Confirmation tests (ISO)					
6710	Chiffonnette crochet abattoir	Wipe (pork industry)	-	-	-	-	/	-	General	-	+	-	-	/	-	NA	-	6	c
6875	Chiffonnette grille égout (atelier laiterie)	Wipe (Dairy industry)	-	-	-	-	/	-	General	+/+/-	+	-	-	/	-	PPNA	-	6	c

COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT																	
Sample number	Product (in French)	Product	Reference method: ISO 11290-1/A1	Alternative method: NEOGEN Molecular Detection Assay 2 - *Listeria* spp.												Category	Type
					After storage for 72h at 5°C ± 3°C												
					Enrichment broth storage		MDA results		Confirmation		Final result Enrichment storage	Final result Lysate storage	Agreement Ref/Alt Enrichment storage	Agreement Ref/Alt Lysate storage		
			Listeria spp result	Protocol	MDA Listeria spp	MC	MDA Listeria spp	MC	O&A	Palcam						
1074	Baguette lardons	RTE composite food	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
1079	Coquille crabe légumes	RTE	-	General	+	+	+	+	H+	+	+	+	PD	PD	1	a
1103	Sandwich duo de saumon	Salmon sandwich	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
2760	Sandwich chèvre, tomate, légumes grillés	Sandwich (goat cheese, vegetables)	-	General	+	+	+	+	H+	+	+	+	PD	PD	1	a
2933	Nouilles chinoises	Chinese pasta	-	General	+	i	+	i	H+	+	+	+	PD	PD	1	a
2936	Baguette gratinée jambon emmental	RTE composite food	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
4438	Sandwich américain poulet	Sandwich (chicken)	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
4450	Riz au thon	Deli salad (rice and tuna)	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
4456	Wrap saumon fumé	Smoked salmon wrap	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
4666	Wrap de saumon fumé	Smoked salmon wrap	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
7233	Sandwich jambon beurre	Sandwich (ham, butter)	-	General								-		NA	1	a
1076	Salade niçoise	Deli salad	-	General	+	+	+	+	H+(1)	+	+	+	PD	PD	1	b
2761	Croque 3 fromages	RTRH composite food	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	b
2764	Baguette pizza	RTE composite food	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	b
2765	Galettes de blé noir	Pancakes	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	b
3260	Tartine tomate aubergine, mozzarella	Bread with tomato, egg plant, mozzarella)	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	b
3703	**Spaghettis bolognaise**	**RTRH pasta**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	b
3704	**Cordon bleu de dinde**	**RTRH turkey**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	b
3705	**Courgette farcie et semoule**	**RTHR zucchini**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	b
3706	**Osso bucco de dinde à la Milanaise**	**RTHR turkey**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	b
3758	**Pizza**	**Pizza**	+	General	-	+	-	+	-	-	-	-	ND	ND	1	b
3759	**Hachi Parmentier**	**RTHR beef and purée**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	b
4444	Paupiette de saumon cuite	RTRH Salmon paupiette	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	1	b
4667	Feuilletés de saumon	Ready to reheat food	+	General	+	+	+	+	H+	-	+	+	PA	PA	1	b
2762	Pâte sablée	Puff pastry	-	General	-	+	-	+	-	-	-	-	NA	NA	1	c
2767	Flan pâtissier	Dessert	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	c
2768	Forêt noire	Pastry	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	c
3203	**Tartelette fraise**	**Pastry**	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	c
3204	**Eclair vanille**	**Pastry**	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	c
3205	**Eclair café**	**Pastry**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	c
3206	**Religieuse chocolat**	**Pastry**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	c
3207	**Tortilla**	**Tortilla**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	c
7236	Coupe profiterole	Dairy based dessert	-	General	-	+	-	+	-	-	-	-	NA	NA	1	c

MEAT PRODUCTS																	
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1	Alternative method: NEOGEN Molecular Detection Assay 2 - *Listeria* spp.												Category	Type
					After storage for 72h at 5°C ± 3°C												
					Enrichment broth storage		MDA results		Confirmation		Final result Enrichment storage	Final result Lysate storage	Agreement Ref/Alt Enrichment storage	Agreement Ref/Alt Lysate storage		
			Listeria spp result	Protocol	MDA Listeria spp	MC	MDA Listeria spp	MC	O&A	Palcam						
1178	Viande de porc congelée	Frozen pork meat	+	Protocol 1	+	+	+	+	H-	+	+	+	PA	PA	2	a
1181	Sauté de dinde nature	Turkey raw meat	+	Protocol 1	+	+	+	+	H-	+	+	+	PA	PA	2	a
1183	Blanc de poulet	Chicken meat	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	2	a
1184	Croupions	Rumps	+	Protocol 1	+	+	-/+/+	+	H-	+	+	-	PA	ND	2	a
1185	Escalope de dinde viennoise	Seasoned turkey meat	-	Protocol 1	+	+	+	+	H-	+	+	+	PD	PD	2	a
2559	Maigre de porc cru	Raw pork meat	-	Protocol 1	+	+	+	+	H-	+	+	+	PD	PD	2	a
3983	Haché de veau cru	Ground veal	+	Protocol 1	+	+	+	+	H-	+(4)	+	+	PA	PA	2	a
3990	Sauté de dinde cru	Raw turkey meat	+	Protocol 1	+	+	+	+	H-	+	+	+	PA	PA	2	a
3994	Viande rouge cuisse de dinde	Raw turkey meat	+	Protocol 1	+	+	+	+	H-	+	+	+	PA	PA	2	a
3995	Haut de cuisse désossé	Raw turkey meat	-	Protocol 1	+	+	+	+	H-	+	+	+	PD	PD	2	a
4091	Croupions	Rumps	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	2	a
4092	Viande rouge congelée	Red meat	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	2	a
4095	Roti de dinde	Raw turkey meat	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	2	a
4096	Viande parage	Raw meat	+	Protocol 1	+	+	+	+	H+d/H-	+	+	+	PA	PA	2	a
4098	Viande de poulet congelée	Frozen chicken meat	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	2	a
7429	Steak haché surgelé	Frozen ground beef	+	Protocol 1	-	+	-	+	-	-	-	-	ND	ND	2	a
2561	Allumettes de poulet	Raw sliced chicken meat	+	General	+	+	+	+	H+	+	+	+	PA	PA	2	b
2952	Allumettes de poulet	Sliced cooked chicken	+	General	+	+	+	+	H+	+	+	+	PA	PA	2	b
3149	Tomate farcie	RTRH meat product	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	2	b
3719	Poulet tandoori	RTRH chicken and rice	+	General	+	+	-	+	-	-	+	-	PA	ND	2	b
7483	**Sauté de bœuf tomates thym**	**Ready to reheat beef**	-	General	+	+	+	+			+	+	PD	PD	2	b
7485	**Fondant de bœuf sauce au poivre**	**Ready to reheat beef**	+	General	+	+	+	+	H-	+	+	+	PA	PA	2	b
7557	**Sauté de bœuf aux tomates séchées**	**Ready to reheat meal (beef)**	-	General	+	+	+	+	H+	+	+	+	PD	PD	2	b
7558	**Bœuf carottes, tagliatelles**	**Ready to reheat meal (beef)**	+	General	-	+	-	+	-	-	-	-	ND	ND	2	b
7879	**Couscous poulet**	**Couscous**	+	General	+	+	+	+	H-	+	+	+	PA	PA	2	b
7880	**Moussaka au bœuf**	**Moussaka**	+	General	+	+	+	+	H-	+	+	+	PA	PA	2	b
1097	Rillettes	Rillettes	+	General	+	+	+	+	- (5x F1:-)	- (5x F1:-)	-	+	PPND	PA	2	c
3158	Terrine de campagne	Terrine	-	General	+	+	+	+	H+	+	+	+	PD	PD	2	c
3159	Andouille	Chitterling	+	General	+	+	+	+	H+/H-(L.mono + *L. innocua*)	+	+	+	PA	PA	2	c
3162	Merguez	Merguez	+	General	+	+	-	+	H-	+	+	-	PA	ND	2	c
3165	Chipolatas aux herbes	Sausages with aromatic herbs	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	2	c
3166	Saucisses	Sausages	-	General	+	+	+	+	H-d	+	+	+	PD	PD	2	c
3167	Chipolatas nature	Sausages	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	2	c
3171	Allumettes de poulet fumé	Smoked sliced chicken	+	General	+	+	+	+	H+	+	+	+	PA	PA	2	c
3718	Jambon à l'ancienne	Ham	+	General	+	+	+	+	H+	+	+	+	PA	PA	2	c

COMPOSITE FOODS / READY TO EAT AND READY TO REHEAT																	
Sample number	Product (in French)	Product	Reference method: ISO 11290-1/A1	Alternative method: NEOGEN Molecular Detection Assay 2 - *Listeria* spp.												Category	Type
					After storage for 72h at 5°C ± 3°C												
					Enrichment broth storage		MDA results		Confirmation		Final result Enrichment storage	Final result Lysate storage	Agreement Ref/Alt Enrichment storage	Agreement Ref/Alt Lysate storage		
			Listeria spp result	Protocol	MDA Listeria spp	MC	MDA Listeria spp	MC	O&A	Palcam						
1074	Baguette lardons	RTE composite food	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
1079	Coquille crabe légumes	RTE	-	General	+	+	+	+	H+	+	+	+	PD	PD	1	a
1103	Sandwich duo de saumon	Salmon sandwich	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
2760	Sandwich chèvre, tomate, légumes grillés	Sandwich (goat cheese, vegetables)	-	General	+	+	+	+	H+	+	+	+	PD	PD	1	a
2933	Nouilles chinoises	Chinese pasta	-	General	+	i	+	i	H+	+	+	+	PD	PD	1	a
2936	Baguette gratinée jambon emmental	RTE composite food	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
4438	Sandwich américain poulet	Sandwich (chicken)	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
4450	Riz au thon	Deli salad (rice and tuna)	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
4456	Wrap saumon fumé	Smoked salmon wrap	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
4666	Wrap de saumon fumé	Smoked salmon wrap	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	a
7233	Sandwich jambon beurre	Sandwich (ham, butter)	-	General								-		NA	1	a
1076	Salade niçoise	Deli salad	-	General	+	+	+	+	H+(1)	+	+	+	PD	PD	1	b
2761	Croque 3 fromages	RTRH composite food	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	b
2764	Baguette pizza	RTE composite food	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	b
2765	Galettes de blé noir	Pancakes	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	b
3260	Tartine tomate aubergine, mozzarella	Bread with tomato, egg plant, mozzarella)	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	b
3703	**Spaghettis bolognaise**	**RTRH pasta**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	b
3704	**Cordon bleu de dinde**	**RTRH turkey**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	b
3705	**Courgette farcie et semoule**	**RTHR zucchini**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	b
3706	**Osso bucco de dinde à la Milanaise**	**RTHR turkey**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	b
3758	**Pizza**	**Pizza**	+	General	-	+	-	+	-	-	-	-	ND	ND	1	b
3759	**Hachi Parmentier**	**RTHR beef and purée**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	b
4444	Paupiette de saumon cuite	RTRH Salmon paupiette	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	1	b
4667	Feuilletés de saumon	Ready to reheat food	+	General	+	+	+	+	H+	-	+	+	PA	PA	1	b
2762	Pâte sablée	Puff pastry	-	General	-	+	-	+	-	-	-	-	NA	NA	1	c
2767	Flan pâtissier	Dessert	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	c
2768	Forêt noire	Pastry	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	c
3203	**Tartelette fraise**	**Pastry**	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	c
3204	**Eclair vanille**	**Pastry**	+	General	+	+	+	+	H+	+	+	+	PA	PA	1	c
3205	**Eclair café**	**Pastry**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	c
3206	**Religieuse chocolat**	**Pastry**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	c
3207	**Tortilla**	**Tortilla**	+	General	+	+	+	+	H-	+	+	+	PA	PA	1	c
7236	Coupe profiterole	Dairy based dessert	-	General	-	+	-	+	-	-	-	-	NA	NA	1	c

MEAT PRODUCTS																	
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1	Alternative method: NEOGEN Molecular Detection Assay 2 - *Listeria* spp.												Category	Type
					After storage for 72h at 5°C ± 3°C												
					Enrichment broth storage		MDA results		Confirmation		Final result Enrichment storage	Final result Lysate storage	Agreement Ref/Alt Enrichment storage	Agreement Ref/Alt Lysate storage		
			Listeria spp result	Protocol	MDA Listeria spp	MC	MDA Listeria spp	MC	O&A	Palcam						
1178	Viande de porc congelée	Frozen pork meat	+	Protocol 1	+	+	+	+	H-	+	+	+	PA	PA	2	a
1181	Sauté de dinde nature	Turkey raw meat	+	Protocol 1	+	+	+	+	H-	+	+	+	PA	PA	2	a
1183	Blanc de poulet	Chicken meat	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	2	a
1184	Croupions	Rumps	+	Protocol 1	+	+	-/+/+	+	H-	+	+	-	PA	ND	2	a
1185	Escalope de dinde viennoise	Seasoned turkey meat	-	Protocol 1	+	+	+	+	H-	+	+	+	PD	PD	2	a
2559	Maigre de porc cru	Raw pork meat	-	Protocol 1	+	+	+	+	H-	+	+	+	PD	PD	2	a
3983	Haché de veau cru	Ground veal	+	Protocol 1	+	+	+	+	H-	+(4)	+	+	PA	PA	2	a
3990	Sauté de dinde cru	Raw turkey meat	+	Protocol 1	+	+	+	+	H-	+	+	+	PA	PA	2	a
3994	Viande rouge cuisse de dinde	Raw turkey meat	+	Protocol 1	+	+	+	+	H-	+	+	+	PA	PA	2	a
3995	Haut de cuisse désossé	Raw turkey meat	-	Protocol 1	+	+	+	+	H-	+	+	+	PD	PD	2	a
4091	Croupions	Rumps	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	2	a
4092	Viande rouge congelée	Red meat	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	2	a
4095	Roti de dinde	Raw turkey meat	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	2	a
4096	Viande parage	Raw meat	+	Protocol 1	+	+	+	+	H+d/H-	+	+	+	PA	PA	2	a
4098	Viande de poulet congelée	Frozen chicken meat	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	2	a
7429	Steak haché surgelé	Frozen ground beef	+	Protocol 1	-	+	-	+	-	-	-	-	ND	ND	2	a
2561	Allumettes de poulet	Raw sliced chicken meat	+	General	+	+	+	+	H+	+	+	+	PA	PA	2	b
2952	Allumettes de poulet	Sliced cooked chicken	+	General	+	+	+	+	H+	+	+	+	PA	PA	2	b
3149	Tomate farcie	RTRH meat product	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	2	b
3719	Poulet tandoori	RTRH chicken and rice	+	General	+	+	-	+	-	-	+	-	PA	ND	2	b
7483	**Sauté de bœuf tomates thym**	**Ready to reheat beef**	-	General	+	+	+	+			+	+	PD	PD	2	b
7485	**Fondant de bœuf sauce au poivre**	**Ready to reheat beef**	+	General	+	+	+	+	H-	+	+	+	PA	PA	2	b
7557	**Sauté de bœuf aux tomates séchées**	**Ready to reheat meal (beef)**	-	General	+	+	+	+	H+	+	+	+	PD	PD	2	b
7558	**Bœuf carottes, tagliatelles**	**Ready to reheat meal (beef)**	+	General	-	+	-	+	-	-	-	-	ND	ND	2	b
7879	**Couscous poulet**	**Couscous**	+	General	+	+	+	+	H-	+	+	+	PA	PA	2	b
7880	**Moussaka au bœuf**	**Moussaka**	+	General	+	+	+	+	H-	+	+	+	PA	PA	2	b
1097	Rillettes	Rillettes	+	General	+	+	+	+	- (5x F1:-)	- (5x F1:-)	-	+	PPND	PA	2	c
3158	Terrine de campagne	Terrine	-	General	+	+	+	+	H+	+	+	+	PD	PD	2	c
3159	Andouille	Chitterling	+	General	+	+	+	+	H+/H-(L.mono + *L. innocua*)	+	+	+	PA	PA	2	c
3162	Merguez	Merguez	+	General	+	+	-	+	H-	+	+	-	PA	ND	2	c
3165	Chipolatas aux herbes	Sausages with aromatic herbs	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	2	c
3166	Saucisses	Sausages	-	General	+	+	+	+	H-d	+	+	+	PD	PD	2	c
3167	Chipolatas nature	Sausages	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	2	c
3171	Allumettes de poulet fumé	Smoked sliced chicken	+	General	+	+	+	+	H+	+	+	+	PA	PA	2	c
3718	Jambon à l'ancienne	Ham	+	General	+	+	+	+	H+	+	+	+	PA	PA	2	c

MEAT PRODUCTS																	
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1	Alternative method: NEOGEN Molecular Detection Assay 2 - *Listeria* spp.											Category	Type
					After storage for 72h at 5°C ± 3°C											
			Listeria spp result	Protocol	Enrichment broth storage		MDA results		Confirmation		Final result Enrichment storage	Final result Lysate storage	Agreement Ref/Alt Enrichment storage	Agreement Ref/Alt Lysate storage		
					MDA Listeria spp	MC	MDA Listeria spp	MC	O&A	Palcam						
4441	Saucisse cuite	Cooked sausage	+	General	+	+	+	+	H-	+	+	+	PA	PA	2	c
4442	Langue en gelée	Cooked delicatessen	+	General	+	+	+	+	H+d	+	+	+	PA	PA	2	c
4451	Jambon à l'ancienne	Cooked ham	+	General	-	+	-	+	-	-	-	-	ND	ND	2	c
4664	Lardons fumés	Smoked sliced bacon	+	General	+	+	+	+	H-	+	+	+	PA	PA	2	c
4665	Rosette	Low moisture sausage	-	General	+	+	-/-/-	+	H+	+	+	-	PD	NA	2	c
4669	Demi-museau de porc cuit	Cooked delicatessen	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	2	c

MEAT PRODUCTS																	
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1	Alternative method: NEOGEN Molecular Detection Assay 2 - *Listeria* spp.												Category	Type
					After storage for 72h at 5°C ± 3°C												
			Listeria spp result	Protocol	Enrichment broth storage		MDA results		Confirmation		Final result Enrichment storage	Final result Lysate storage	Agreement Ref/Alt Enrichment storage	Agreement Ref/Alt Lysate storage		
					MDA Listeria spp	MC	MDA Listeria spp	MC	O&A	Palcam						
4441	Saucisse cuite	Cooked sausage	+	General	+	+	+	+	H-	+	+	+	PA	PA	2	c
4442	Langue en gelée	Cooked delicatessen	+	General	+	+	+	+	H+d	+	+	+	PA	PA	2	c
4451	Jambon à l'ancienne	Cooked ham	+	General	-	+	-	+	-	-	-	-	ND	ND	2	c
4664	Lardons fumés	Smoked sliced bacon	+	General	+	+	+	+	H-	+	+	+	PA	PA	2	c
4665	Rosette	Low moisture sausage	-	General	+	+	-/-/-	+	H+	+	+	-	PD	NA	2	c
4669	Demi-museau de porc cuit	Cooked delicatessen	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	2	c

DAIRY PRODUCTS													
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1	Alternative method: NEOGEN Molecular Detection Assay 2 - *Listeria* spp.								Category	Type
					After storage for 72h at 5°C ± 3°C								
			Listeria spp result	Protocol	Enrichment broth storage		MDA results	Confirmation		Final result Enrichment storage	Agreement Ref/Alt Enrichment storage		
					MDA Listeria spp	MC	MC	O&A	Palcam				
4002	Fromage au lait cru	Raw milk cheese	+	Protocol 2	+	+	+	H+	+	+	PA	3	a
4003	Lait cru	Raw milk	+	Protocol 2	+	+	+	H+	+	+	PA	3	a
4004	Lait cru	Raw milk	+	Protocol 2	+	+	+	H+	+	+	PA	3	a
4005	Lait cru	Raw milk	+	Protocol 2	+	+	+	H+	+	+	PA	3	a
4007	Lait cru	Raw milk	+	Protocol 2	+	+	+	H+	+	+	PA	3	a
4009	Lait cru	Raw milk	+	Protocol 2	+	+	+	H+	+	+	PA	3	a
4108	Lait cru de brebis	Raw ewe milk	-	Protocol 2	-	+	+	st	-	-	NA	3	a
4109	Lait cru de brebis	Raw ewe milk	+	Protocol 2	+	+	+	H+	+	+	PA	3	a
4149	**Saint Nectaire fermier**	**Raw milk cheese**	-	Protocol 2	+	+	+	H+	+	+	PD	3	a
4150	**Morbier au lait cru**	**Raw milk cheese**	-	Protocol 2	+	+	+	H+	+	+	PD	3	a
4151	**Roquefort 31% MG**	**Raw milk cheese**	-	Protocol 2	+	+	+	H+	+	+	PD	3	a
4152	**Selles sur Cher au lait cru**	**Raw milk cheese**	+	Protocol 2	-	+	+	-	st	-	ND	3	a
4153	**Reblochon de Savoie au lait cru**	**Raw milk cheese**	+	Protocol 2	-	+	+	-	-	-	ND	3	a
4154	**Lait cru fermier**	**Raw milk**	+	Protocol 2	+	+	+	H+	+	+	PA	3	a
4155	**Lait cru**	**Raw milk**	+	Protocol 2	+	+	+	H+	+	+	PA	3	a
4156	**Lait cru fermier**	**Raw milk**	+	Protocol 2	+	+	+	H+	+	+	PA	3	a
4158	**Morbier au lait cru**	**Raw milk cheese**	+	Protocol 2	+	+	+	H-	+	+	PA	3	a
4160	**Selles sur Cher au lait cru**	**Raw milk cheese**	+	Protocol 2	+	+	+	H-	+	+	PA	3	a
4161	**Reblochon de Savoie au lait cru**	**Raw milk cheese**	+	Protocol 2	-	+	+	-	-	-	ND	3	a
4162	**Lait cru fermier**	**Raw milk**	+	Protocol 2	+	+	+	H-	+	+	PA	3	a
4163	**Lait cru**	**Raw milk**	+	Protocol 2	+	+	+	H-	+	+	PA	3	a
4164	**Lait cru fermier**	**Raw milk**	+	Protocol 2	+	+	+	H-	+	+	PA	3	a
4673	**Lait cru**	**Raw milk**	+	Protocol 2	+	+	+	H+/H-	+	+	PA	3	a
4675	**Lait cru**	**Raw milk**	+	Protocol 2	+	+	+	H+	+	+	PA	3	a
4681	**Lait cru**	**Raw milk**	+	Protocol 2	+	+	+	H-	+	+	PA	3	a
4682	**Lait cru**	**Raw milk**	+	Protocol 2	+	+	+	H-	+	+	PA	3	a
4683	**Lait cru**	**Raw milk**	+	Protocol 2	+	+	+	H-	+	+	PA	3	a
4684	**Lait cru**	**Raw milk**	+	Protocol 2	-/-/-	+	+	H-	+	-	ND	3	a
4699	**Bethmale au lait cru**	**Raw milk cheese**	-	Protocol 2	+	+	+	H+	+(3)	+	PD	3	a
4701	**Crottin de chavignol**	**Raw milk cheese**	-	Protocol 2	-	+	+	H+(1)	st	-	NA	3	a
4702	**Comté au lait cru**	**Raw milk cheese**	+	Protocol 2	-	+	+	st	st	-	ND	3	a
4703	Beaumont de Savoie au lait cru	Raw milk cheese	-	Protocol 2	+	+	+	H+	+	+	PD	3	a
3215	**Etorki**	**Pasteurized milk cheese**	+	General	+	+	+	H+	-	+	PA	3	b
3216	**Leerdarmer**	**Pasteurized milk cheese**	-	General	+	+	+	H-d (L.seeligeri)	+d	+	PD	3	b
3404	**Coulommiers au lait pasteurisé**	**Pasteurized cow milk cheese**	-	General	+	+	+	H+	+	+	PD	3	b
3405	**Brie au lait pasteurisé**	**Pasteurized cow milk cheese**	+	General	+	+	+	H+	-	+	PA	3	b
3414	**Edam au lait pasteurisé**	**Pasteurized cow milk cheese**	-	General	+	+	+	H- (*L. innocua*)	-	+	PD	3	b
3415	**Chèvre au lait pasteurisé**	**Pasteurized goat milk cheese**	+	General	-	+	+	-	-	-	ND	3	b
3416	**Camembert au lait pasteurisé**	**Pasteurized cow milk cheese**	+	General	+	+	+	H-	+	+	PA	3	b
3417	**Saint Paulin**	**Pasteurized cow milk cheese**	+	General	+	+	+	H-	+	+	PA	3	b

♦ Analyses performed according to the COFRAC accreditation

DAIRY PRODUCTS													
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1	Alternative method: NEOGEN Molecular Detection Assay 2 - *Listeria* spp.							Category	Type
					After storage for 72h at 5°C ± 3°C							
			Listeria spp result	Protocol	Enrichment broth storage		MDA results	Confirmation		Final result Enrichment storage	Agreement Ref/Alt Enrichment storage	
					MDA Listeria spp	MC	MC	O&A	Palcam			
3418	**Emmental au lait pasteurisé**	**Pasteurized cow milk cheese**	+	General	+	+	+	H-	+d	+	**PA**	3	b
3419	**Emmental au lait pasteurisé**	**Pasteurized cow milk cheese**	+	General	-	+	+	-	-	-	**ND**	3	b
3707	**Gorgonzola au mascarpone**	**Gorgonzola and mascarpone**	-	General	-	+	+	-	-	-	**NA**	3	b
3708	**Brie**	**Cheese**	+	General	-	+	+	-	-	-	**ND**	3	b
3709	**Brique de brebis**	**Ewe cheese**	+	General	+	+	+	H+	+	+	**PA**	3	b
3749	**Fromage au lait pasteurisé**	**Pasteurized milk cheese**	-	General	+	+	+	H+	+	+	**PD**	3	b
3750	**Brie au lait pasteurisé**	**Pasteurized milk cheese**	+	General	+	+	+	H+	+	+	**PA**	3	b
3752	**Camembert au lait pasteurisé**	**Pasteurized milk cheese**	+	General	+	+	+	H+	-	+	**PA**	3	b
3761	**Fromage au lait pasteurisé**	**Pasteurized milk cheese**	-	General	+	+	+	H+	-	+	**PD**	3	b
3762	**Brie au lait pasteurisé**	**Pasteurized milk cheese**	-	General	+	+	+	H+	-	+	**PD**	3	b
3208	**Lait pasteurisé entier**	**Pasteurized milk**	+	General	+	+	+	H-	+	+	**PA**	3	c
3209	**Lait pasteurisé 1/2 écrémé**	**Pasteurized half skimmed milk**	-	General	+	+	+	H+	+	+	**PD**	3	c
3210	**Lait pasteurisé 1/2 écrémé**	**Pasteurized half skimmed milk**	-	General	+	+	+	H-	-	+	**PD**	3	c
3211	**Lait pasteurisé 1/2 écrémé**	**Pasteurized half skimmed milk**	+	General	+	+	+	H-	+	+	**PA**	3	c
3212	**Lait aromatisé cacao**	**Cocoa flavored milk**	+	General	+	+	+	H+	+	+	**PA**	3	c
3222	**Glace vanille**	**Vanilla ice cream**	+	General	+	+	+	H-	+	+	**PA**	3	c
3223	**Glace pistache**	**Pistachio ice cream**	+	General	+	+	+	H-	+	+	**PA**	3	c
3224	**Glace café**	**Coffee ice cream**	+	General	+	+	+	H-	-	+	**PA**	3	c

VEGETABLES																	
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1	Alternative method: NEOGEN Molecular Detection Assay 2 - *Listeria* spp.												Category	Type
					After storage 72h at 5°C ± 3°C												
					Enrichment broth storage		MDA results		Confirmation		Final result Enrichment storage	Final result Lysate storage	Agreement Ref/Alt Enrichment storage	Agreement Ref/Alt Lysate storage		
			Listeria spp result	Protocol	MDA Listeria spp	MC	MDA Listeria spp	MC	O&A	Palcam						
2753	Fenouil	Fennel	+	General	+	+	+	+	H+	+	+	+	PA	PA	4	a
2756	Petits pois	Beans	+	General	+	+	+	+	H-	+	+	+	PA	PA	4	a
4445	Pousse de Haricot Mungo	Sprouts	+	General	+	+	+	+	H-	+	+	+	PA	PA	4	a
4455	Salade de fruits exotiques surgelée	Exotic fruit salad	+	General	+	+	+	+	H+	+	+	+	PA	PA	4	a
4653	Courgette râpées surgelées	Frozen sliced zucchini	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	4	a
4655	Châtaignes en morceaux	Pieces of chestnuts	-	General	+	+	+	+	H+	+	+	+	PD	PD	4	a
4657	Courgettes julienne	Sliced zucchini	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	4	a
4658	Poivrons rouges en dés	Pieces of red peppers	+	General	+	+	+	+	H+	+	+	+	PA	PA	4	a
4659	Rondelles de courgettes	Slices of zucchini	+	General	+	+	+	+	H-	+	+	+	PA	PA	4	a
4662	Pousses de haricots mungo	Sprouts	+	General	+	+	-/+/-	+	H+/H-	+	+	-	PA	ND	4	a
4663	Pousses de haricots mungo	Sprouts	+	General	+	+	-/-/-	+	H+/H-	+	+	-	PA	ND	4	a
3535	Brocolis surgelés	Frozen broccoli	+	General	+	+	+	+	H+	+	+	+	PA	PA	4	b
3536	Courgettes surgelées	Frozen zucchini	+	General	+	+	+	+	H+	+	+	+	PA	PA	4	b
3538	Oignons préfrits surgelés	Frozen roasted onions	-	General	+	+	+	+	H+/H- (*L. innocua*)	-	+	+	PD	PD	4	b
3539	Champignons émincés surgelés	Frozen sliced mushrooms	+	General	+	+	+	+	H+	+	+	+	PA	PA	4	b
4443	Oignons préfrits surgelés	Frozen roasted onions	+	General	-	+	-	+	-	-	-	-	ND	ND	4	b
4447	Courgettes lisses standard	Zucchini	+	General	+	+	+	+	H-	+	+	+	PA	PA	4	b
4449	Macédoine	Vegetables mix	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	4	b
4453	Oignons préfrits surgelés	Frozen roasted onions	+	General	+	+	+	+	H+	+	+	+	PA	PA	4	b
4454	Brocolis fleurettes surgelés	Frozen broccoli	+	General	-	+	-	+	-	-	-	-	ND	ND	4	b
4458	Oignons préfrits surgelés	Frozen roasted onions	-	General	+	+	+	+	H+	+	+	+	PD	PD	4	b
4459	Courgettes surgelées	Frozen zucchini	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	4	b
4460	Jeunes carottes surgelées	Frozen carrots	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	4	b
4461	Légumes pour couscous	Vegetables for couscous	-	General	+	+	+	+	H+	+	+	+	PD	PD	4	b
2757	Bol de soupe moulinée	Soup	+	General	+	+	+	+	H+	+	+	+	PA	PA	4	c
3145	Purée de pomme de terre	Potatoes purée	+	General	+	+	+	+	H+	+	+	+	PA	PA	4	c
3146	Palets courgettes petits légumes	Vegetables based preparation	-	General	+	+	+	+	H+	+	+	+	PD	PD	4	c
3151	Piémontaise sans jambon	Vegetable based preparation	+	General	+	+	+	+	H-	+	+	+	PA	PA	4	c
7362	**Poêlée champêtre surgelée**	**Frozen vegetables mix**	+	General	+	+	+	+	- (Fraser1:H+)	- (Fraser 1:+)	+	+	PA	PA	4	c
7363	**Poêlée légumes et pommes de terre surgelée**	**Frozen vegetables mix**	+	General	+	+	+	+	H-	+	+	+	PA	PA	4	c
7364	**Mélange de légumes vapeur surgelés**	**Frozen vegetables mix**	+	General	+	+	+	+	H-	+	+	+	PA	PA	4	c
7365	**Carottes râpées aux échalotes et ciboulette**	**Frozen vegetables mix**	+	General	-	+	-	+	st	-	-	-	ND	ND	4	c
7368	Concombre à la crème	Deli salad	-	General	-	+	-	+	H-	-	-	-	NA	NA	4	c
7372	Mélange de légumes vapeur surgelés	Frozen vegetables mix	+	General	+	+	+	+	H-	+	+	+	PA	PA	4	c

SEAFOOD AND FISHERY PRODUCTS																	
Sample number	Product (in French)	Product	Reference method: ISO 11290-1/A1	Alternative method: NEOGEN Molecular Detection Assay 2 - Listeria spp.												Categpru	Type
					After storage 72h at 5°C ± 3°C												
			Listeria spp result	Protocol	Enrichment broth storage		MDA results		Confirmation		Final result Enrichment storage	Final result Lysate storage	Agreement Ref/Alt Enrichment storage	Agreement Ref/Alt Lysate storage		
					MDA Listeria spp	MC	MDA Listeria spp	MC	O&A	Palcam						
1194	Poisson blanc	White fish	+	Protocol 1	-	+	-	+	-	-	-	-	ND	ND	5	a
1195	Filet de cabillaud en croûte	Cod based preparation	+	Protocol 1	+	+	+	+	H+	+	+	+	PA	PA	5	a
1196	Brochette de poisson pané cru	Breaded raw fish	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	5	a
1198	Filet de cabillaud en croûte d'amande	Cod based preparation	+	Protocol 1	+	+	+	+	H+	+	+	+	PA	PA	5	a
1200	Filet de cabillaud en croûte d'amande	Cod based preparation	+	Protocol 1	+	+	+	+	H+	+	+	+	PA	PA	5	a
1202	Bar	Raw fish	-	Protocol 1	+	+	-/+/-	+	H+	+	+	-	PD	NA	5	a
1203	Poisson blanc	White raw fish	+	Protocol 1	+	+	+	+	H+	+	+	+	PA	PA	5	a
1204	Matière première pour Surimi	Raw material for surimi	-	Protocol 1	-/-/-	+	+	+	H-	+	-	+	NA	PD	5	a
1205	Filet de bar	Raw fish fillet	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	5	a
2547	Paupiette de saumon crue	Raw salmon paupiette	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	5	a
2549	Hache de colin cru à la tomate et ciboulette	Raw ground fish with tomato	+	Protocol 1	+	+	-	+	H+	+	+	-	PA	ND	5	a
2552	Brochette de poisson pané cru	Raw breaded fish	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	5	a
2553	Pavé de poisson blanc à la provençale crue	Raw seasoned fish	-	Protocol 1	+	+	-	+	H+	-	+	-	PD	NA	5	a
4433	Filet de panga cru	Raw panga fillet	+	Protocol 1	+	+	+	+	H+/H-(1)	+	+	+	PA	PA	5	a
4434	Filet de truite cru	Raw trout fillet	+	Protocol 1	+	+	+	+	H+/H-	+	+	+	PA	PA	5	a
4435	Filet Zinger cru	Raw zinger fillet	+	Protocol 1	+	+	+	+	H+	+	+	+	PA	PA	5	a
7433	Viande bovine pour pot au feu	Beef meat	+	Protocol 1	+	+	+	+	H-	+	+	+	PA	PA	5	a
7434	Pavé de saumon	Raw salmon	+	Protocol 1	-	+	-	+	-	-	-	-	ND	ND	5	a
7438	Filet de lieu noir	Raw fish fillet	-	Protocol 1	-	+	-	+	-	-	-	-	NA	NA	5	a
3524	Saumon fumé de Norvège	Smoked salmon	+	General	+	+	+	+	H+	+	+	+	PA	PA	5	b
3525	Truite de mer fumée	Smoked trout	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	5	b
3526	Saumon fumé de l'atlantique	Smoked salmon	+	General	+	+	+	+	H+	+	+	+	PA	PA	5	b
3527	Saumon fumé de l'atlantique	Smoked salmon	+	General	+	+	+	+	H+	+(2)	+	+	PA	PA	5	b
3528	Saumon fumé de l'atlantique	Smoked salmon	-	General	+	+	+	+	H+	+	+	+	PD	PD	5	b
3529	Saumon fumé de l'atlantique	Smoked salmon	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	5	b
3530	Saumon fumé Bio	Smoked salmon	+	General	+	+	+	+	H-	+	+	+	PA	PA	5	b
3531	Saumon fumé supérieur de Norvège	Smoked salmon	+	General	+	+	+	+	H+	+	+	+	PA	PA	5	b
3533	Truite de mer fumée de Norvège	Smoked trout	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	5	b
4668	Haddock fumé	Smoked haddock	+	General	+	+	+	+	H-	+	+	+	PA	PA	5	b
1100	Paupiette de saumon cuite	RTRH Salmon paupiette	+	General	+	+	+	+	H-	+	+	+	PA	PA	5	c
1101	Paupiette de saumon cuite	RTRH Salmon paupiette	+	General	+	+	+	+	H+	+	+	+	PA	PA	5	c
2562	Calamars à la romaine	RTRH squids	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	5	c
2563	Brandade de morue	Cod brandade	+	General	+	+	+	+	H+	+	+	+	PA	PA	5	c
2565	Croquette de saumon	RTRH salmon balls	+	General	+	+	-	+	Fraser 1 :H+	Fraser1:+	+	-	PA	ND	5	c
2566	Filet de bar sauce iodée	RTRH fish	+	General	+	+	+	+	H+	+	+	+	PA	PA	5	c

SEAFOOD AND FISHERY PRODUCTS																	
Sample number	Product (in French)	Product	Reference method: ISO 11290-1/A1	Alternative method: NEOGEN Molecular Detection Assay 2 - Listeria spp.												Categpru	Type
					After storage 72h at 5°C ± 3°C												
			Listeria spp result	Protocol	Enrichment broth storage		MDA results		Confirmation		Final result Enrichment storage	Final result Lysate storage	Agreement Ref/Alt Enrichment storage	Agreement Ref/Alt Lysate storage		
					MDA Listeria spp	MC	MDA Listeria spp	MC	O&A	Palcam						
2568	Filet de bar cuisiné	Cooked fish	+	General	+	+	+	+	H+	+	+	+	PA	PA	5	c
2939	Tranche de colin pané	Breaded cooked fish	+	General	+	+	+	+	H-	+	+	+	PA	PA	5	c
2942	Tranche de colin meunière	RTRH fish	+	General	-	+	-	+	-	-	-	-	ND	ND	5	c
4452	LongFish de Hoki	Fish based preparation	+	General	+	+	+	+	H+/H-	+	+	+	PA	PA	5	c

ENVIRONMENTAL SAMPLES														
Sample number	Product (in French)	Product	Reference method : ISO 11290-1/A1	Protocol	Alternative method: NEOGEN Molecular Detection Assay 2 - Listeria spp. After storage 72h at 5°C ± 3°C							Category	Type
			Listeria spp result		Enrichment broth storage		MDA results	Confirmation		Final result Enrichment storage	Agreement Ref/Alt Enrichment storage		
					MDA Listeria spp	MC	MC	O&A	Palcam				
3545	Eau de siphon maturation salage	Siphon water (salmon industry)	+	General	+	+	+	H+	+	+	PA	6	a
3546	Eau de siphon atelier filetage	Siphon water (salmon industry)	+	General	+	+	+	H+/H-	+	+	PA	6	a
3571	**Eau de rinçage peleuse**	**Rinsing water (salmon industry)**	+	General	-	+	+	st	st	-	ND	6	a
3753	**Eau de rinçage laveuse sas**	**Rinsing water**	+	General	+	+	+	H+	+	+	PA	6	a
3754	**Eau de rinçage épineuse**	**Rinsing water**	+	General	+	+	+	H+	+	+	PA	6	a
3755	**Eau de rinçage bol**	**Rinsing water**	+	General	-	+	+	st	st	-	ND	6	a
3765	**Eau de rinçage laveuse sas**	**Rinsing water**	+	General	+	+	+	H+	+	+	PA	6	a
3766	**Eau de rinçage épineuse**	**Rinsing water**	+	General	+	+	+	H+	+	+	PA	6	a
3767	**Eau de rinçage bol**	**Rinsing water**	+	General	-/-/-	+	+	H-	+	-	ND	6	a
3768	**Eau de rinçage siphon**	**Rinsing water**	+	General	-	-	+	st	st	-	ND	6	a
4145	**Eau épineuse**	**Process water (Salmon industry)**	-	General	-	+	+	st	st	-	NA	6	a
6705	Eau flagelleuse (Industrie porc)	Process water (Pork industry)	+	General	+	+	+	H-	+	+	PA	6	a
2945	Poussières aspirateur laiterie	Dusts from dairy industry	-	General	-	+	+	-	-	-	NA	6	b
4144	**Déchets sol atelier filetage**	**Wastes (Salmon industry)**	-	General	-	+	+	H+	+	-	NA	6	b
4146	**Déchets pousse de soja**	**Sprouts wastes**	+	General	+	+	+	H+	-	+	PA	6	b
4379	Déchets sol	Wastes (Salmon industry)	-	General	-	+	+	-	-	-	NA	6	b
4382	Filet en sortie désarrêteuse (déchets)	Wastes (Salmon industry)	+	General	+	+	+	H+	+	+	PA	6	b
4383	Filet sortie peleuse (déchets)	Wastes (Salmon industry)	-	General	+	+	+	H-	+	+	PD	6	b
4384	Déchets sol étêteuse	Wastes (Salmon industry)	+	General	+	+	+	H-	+	+	PA	6	b
4386	Déchets parage toast	Wastes (Salmon industry)	+	General	-	+	+	-	-	-	ND	6	b
4387	Déchets égout topping	Wastes (Salmon industry)	+	General	+	+	+	H+/H-	+	+	PA	6	b
6868	Déchets viande au sol (découpe) (atelier abattage porc)	Wastes (Pork industry)	+	General	+	+	+	H-	+	+	PA	6	b
6869	Déchets viande au sol (emballage) (atelier abattage porc)	Wastes (Pork industry)	+	General	+	+	+	H-	+	+	PA	6	b
6870	Déchets viande au sol (VS) (atelier abattage porc)	Wastes (Pork industry)	+	General	+	+	+	H-	+	+	PA	6	b
3409	**Ecouvillon (environnement laitier)**	**Swab (dairy industry)**	+	General	+	+	+	H+	+	+	PA	6	c
3410	**Ecouvillon (environnement laitier)**	**Swab (dairy industry)**	+	General	+	+	+	H+	+	+	PA	6	c
3411	**Ecouvillon (environnement laitier)**	**Swab (dairy industry)**	+	General	+	+	+	H+	+	+	PA	6	c
3412	**Ecouvillon (environnement laitier)**	**Swab (dairy industry)**	+	General	+	+	+	H+	+	+	PA	6	c
3413	**Ecouvillon (environnement laitier)**	**Swab (dairy industry)**	+	General	+	+	+	H+	+	+	PA	6	c
3713	**Maille sortie parage après désinfection**	**Wipe (salmon industry)**	+	General	+	+	+	H-	+	+	PA	6	c
3714	Lingette couteau découpe saumon	Wipe (salmon industry)	+	General	-/- /-	+	+	H-	+	-	ND	6	c
3715	Lingette bac de stockage saumon	Wipe (salmon industry)	+	General	-/- /-	+	+	H-	+	-	ND	6	c
4140	**Ecouvillon après nettoyage (environnement laitier)**	**Swab after cleaning (dairy industry)**	+	General	+	+	+	H+	+	+	PA	6	c
4141	**Ecouvillon après nettoyage (environnement laitier)**	**Swab after cleaning (dairy industry)**	+	General	+	+	+	H-	+	+	PA	6	c
6875	Chiffonnette grille égout (atelier laiterie)	Wipe (Dairy industry)	-	General	+	+	+	-	-	-	PPNA	6	c

Appendix D– Relative level of detection study: raw data

Matrix : Deli-salad (Piémontaise)
Strain : *Listeria monocytogenes* Ad494
Aerobic mesophilic flora : 210 CFU/g

N° sample	Level	Contamination level (cfu/sample)- MPN determination	Reference method : ISO 11290-1♦					Number positive samples/Total	Alternative method : NEOGEN MDA 2 - Listeria			Number positive samples/Total
			Half Fraser		Fraser		Final result					
			O&A	Palcam	O&A	Palcam			MDA test	Confirmation result	Final result	
3369	0	/	st	-	-	-	-	0/5	-	-	-	0/5
3370			st	-	-	-	-		-	-	-	
3371			st	-	-	-	-		-	-	-	
3372			st	st	-	-	-		-	-	-	
3373			st	-	-	-	-		-	-	-	
3374	Low	0,6	st	-	-	-	-	4 /20	-	-	-	6/20
3375			st	-	-	-	-		+	+	+	
3376			st	st	st	st	-		+	+	+	
3377			H+	+	/	/	+		+	+	+	
3378			st	-	-	-	-		-	-	-	
3379			st	-	-	-	-		+	+	+	
3380			st	-	-	-	-		-	-	-	
3381			st	st	-	-	-		+	+	+	
3382			st	st	st	st	-		-	-	-	
3383			st	st	-	-	-		-	-	-	
3384			st	-	-	-	-		-	-	-	
3385			st	-	-	-	-		-	-	-	
3386			H+	+	/	/	+		-	-	-	
3387			st	st	-	-	-		-	-	-	
3388			st	-	-	-	-		-	-	-	
3389			H+	+	/	/	+		-	-	-	
3390			H+	+	/	/	+		-	-	-	
3391			st	-	-	-	-		-	-	-	
3392			st	-	-	-	-		+	+	+	
3393			st	st	-	-	-		-	-	-	
3394	High	1,7	H+	+	/	/	+	3/5	-	-	-	1/5
3395			H+	+	/	/	+		-	-	-	
3396			H+	+	/	/	+		+	+	+	
3397			st	-	-	-	-		-	-	-	
3398			st	-	-	-	-		-	-	-	

Matrix : Raw poultry (chicken fillet)
Strain : *Listeria ivanovii* Ad1291
Aerobic mesophilic flora : $4{,}0.10^5$ CFU/g

N° sample	Level	Contamination level- (cfu/sample)- MPN determination	Reference method : ISO 11290-1♦					Number positive samples/Total	Alternative method : NEOGEN MDA 2 - Listeria			Number positive samples/Total
			Half Fraser		Fraser		Final result		MDA test	Confirmation result	Final result	
			O&A	Palcam	O&A	Palcam						
5095	0	/	-	-	-	-	-	0/5	-	-	-	0/5
5096			-	-	-	st	-		-	-	-	
5097			st	-	-	st	-		-	-	-	
5098			-	-	-	st	-		-	-	-	
5099			st	-	-	st	-		-	-	-	
5100	Low	0,1	H+	+	H+	+	+	8/20	-	-	-	4/20
5101			H+	+	/	/	+		+	+	+	
5102			H+	+	/	/	+		-	-	-	
5103			-	-	-	-	-		-	-	-	
5104			-	-	-	-	-		-	-	-	
5105			-	-	st	-	-		-	-	-	
5106			-	-	-	-	-		-	-	-	
5107			H+	+	/	/	+		-	-	-	
5108			-	-	-	-	-		-	-	-	
5109			-	-	st	st	-		-	-	-	
5110			-	-	-	-	-		-	-	-	
5111			-	-	-	-	-		-	-	-	
5112			H+	+	/	/	+		-	-	-	
5113			-	-	-	-	-		-	-	-	
5114			-	-	-	-	-		+	+	+	
5115			-	-	-	-	-		-	-	-	
5116			H+	+	/	/	+		+	+	+	
5117			H+	+	H+	+	+		-	-	-	
5118			-	-	-	-	-		-	-	-	
5119			H+	+(1)	/	/	+		+	+	+	
5120	High	0,5	H+	+	/	/	+	4/5	+	+	+	2/5
5121			H+	+	/	/	+		-	-	-	
5122			H+	+	/	/	+		+	+	+	
5123			-	-	-	st	-		-	-	-	
5124			H+	+	/	/	+		-	-	-	

Matrix : Raw milk
Strain : *Listeria monocytogenes* Ad618
Aerobic mesophilic flora : $6{,}4.10^5$ CFU/g

N° sample	Level	Contamination level (cfu/sample) MPN deterination	Reference method : ISO 11290-1♦					Number positive samples/Total	Alternative method : NEOGEN MDA 2 - Listeria			Number positive samples/Total
			Half Fraser		Fraser		Final result		MDA test	Confirmation result	Final result	
			O&A	Palcam	O&A	Palcam						
5481	0	/	St	st	-	-	-	0/5	-	-	-	0/5
5482			St	st	st	-	-		-	-	-	
5483			St	-	st	-	-		-	-	-	
5484			St	-	-	-	-		-	-	-	
5485			St	st	-	-	-		-	-	-	
5486	Low	0,5	St	st	-	-	-	11/20	-	-	-	12/20
5487			-	-	-	-	-		-	-	-	
5488			H+	+	H+	+	+		-	-	-	
5489			H+	+	H+	+	+		+	+	+	
5490			H+	+	H+	+	+		-	-	-	
5491			H+	+	H+	+	+		+	+	+	
5492			-	-	st	st	-		+	+	+	
5493			H+	+	H+	+	+		+	+	+	
5494			H+	+	H+	+	+		+	+	+	
5495			H+	+	H+	+	+		+	+	+	
5496			-	-	st	-	-		-	-	-	
5497			st	st	-	-	-		+	+	+	
5498			st	-	-	-	-		+	+	+	
5499			H+	+	H+	+	+		-	-	-	
5500			st	-	st	-	-		-	-	-	
5501			-	-	-	-	-		+	+	+	
5502			H+	+	H+	+	+		+	+	+	
5503			H+	+	H+	+	+		+	+	+	
5504			st	-	-	-	-		+	+	+	
5505			st	-	H+	+	+		-	-	-	
5506	High	1,7	H+	+	H+	+	+	5/5	+	+	+	5/5
5507			H+	+	H+	+	+		+	+	+	
5508			H+	+	H+	+	+		+	+	+	
5509			H+	+	H+	+	+		+	+	+	
5510			H+	+	H+	+	+		+	+	+	

Matrix : Bagged raw spinach
Strain : *Listeria seeligeri* Ad1754
Aerobic mesophilic flora : 9,3.10^6 CFU/g

N° sample	Level	Contamination level-(cfu/sample)-MPN determination	Reference method : ISO 11290-1♦					Number positive samples/Total	Alternative method : NEOGEN MDA 2 - Listeria			Number positive samples/Total
			Half Fraser		Fraser		Final result		MDA test	Confirmation result	Final result	
			O&A	Palcam	O&A	Palcam						
1894	0	/	-	-	st	-	-	0 /5	-	-	-	0/5
1895			-	-	-	-	-		-	-	-	
1896			-	-	-	-	-		-	-	-	
1897			-	-	st	-	-		-	-	-	
1898			-	-	-	-	-		-	-	-	
1899	Low	0,3	H-	+	H-	+	+	9/20	-	-	-	6/20
1900			-	-	st	st	-		-	-	-	
1901			-	-	H-	+	+		-	-	-	
1902			-	+	H-	+	+		+	+	+ (subculture in Fraser)	
1903			-	-	-	-	-		-	-	-	
1904			-	+	H-	+	+		-	-	-	
1905			-	+	H-	+	+		+	+	+	
1906			-	-	-	-	-		-	-	-	
1907			-	+	H-	+	+		+	+	+ (subculture in Fraser)	
1908			-	-	st	st	-		+	+	+ (subculture in Fraser)	
1909			-	+	H-	+	+		-	-	-	
1910			-	+	H-	+	+		-	-	-	
1911			-	-	st	-	-		-	-	-	
1912			-	-	-	-	-		-	-	-	
1913			-	+	H-	+	+		+	+	+ (subculture in Fraser)	
1914			-	-	-	-	-		-	-	-	
1915			-	-	-	-	-		+	+	+ (subculture in Fraser)	
1916			-	-	st	st	-		-	-	-	
1917			-	-	-	-	-		-	-	-	
1918			-	-	-	-	-		-	-	-	
1919	High	1,7	-	+	H-	+	+	4/5	+	+	+	3/5
1920			-	+	H-	+	+		+	+	+	
1921			-	+	H-	+	+		-	-	-	
1922			-	+	H-	+	+		-	-	-	
1923			-	-	st	st	-		+	+	+ (subculture in Fraser)	

Matrix : Cold smoked salmon
Strain : *Listeria innocua* Ad1674
Aerobic mesophilic flora : 200 CFU/g

N° sample	Level	Contamination level (cfu/sample)- MPN determination	Reference method : ISO 11290-1♦					Number positive samples/Total	Alternative method : NEOGEN MDA 2 - Listeria			Number positive samples/Total
			Half Fraser		Fraser		Final result		MDA test	Confirmation result	Final result	
			O&A	Palcam	O&A	Palcam						
1735	0	/	st	st	st	st	-	'0/5	-	-	-	0/5
1736			st	st	st	st	-		-	-	-	
1737			st	st	st	st	-		-	-	-	
1738			st	st	st	st	-		-	-	-	
1739			st	st	st	st	-		-	-	-	
1740	Low	0,8	H-	+	H-	+	+	8/20	+	+	+	11/20
1741			st	st	st	st	-		+	+	+	
1742			H-	+	H-	+	+		-	-	-	
1743			H-	+	H-	+	+		+	+	+	
1744			st	st	st	st	-		-	-	-	
1745			st	st	st	st	-		+	+	+	
1746			-	st	st	st	-		+	+	+	
1747			st	st	st	st	-		-	-	-	
1748			st	st	st	st	-		+	+	+	
1749			H-	+	H-	+	+		-	-	-	
1750			H-	+	H-	+	+		-	-	-	
1751			H-	+	H-	+	+		+	+	+	
1752			st	st	st	st	-		+	+	+	
1753			H-	+	H-	+	+		+	+	+	
1754			st	st	st	st	-		-	-	-	
1755			H-	+	H-	+	+		-	-	-	
1756			st	st	st	st	-		-	-	-	
1757			st	st	st	st	-		-	-	-	
1758			st	st	st	st	-		+	+	+	
1759			st	st	st	st	-		+	+	+	
1760	High	1,7	st	st	st	st	-	4/5	+	+	+	5/5
1761			H-	+	H-	+	+		+	+	+	
1762			H-	+	H-	+	+		+	+	+	
1763			H-	+	H-	+	+		+	+	+	
1764			H-	+	H-	+	+		+	+	+	

Matrix : Process water
Strain : *Listeria monocytogenes* Ad551
Aerobic mesophilic flora : 9.7 10^0 CFU/g

N° sample	Level	Contamination level- (cfu/sample)	Reference method : ISO 11290-1♦					Number positive samples/Total	Alternative method : NEOGEN MDA 2 - Listeria			Number positive samples/Total
			Half Fraser		Fraser		Final result		MDA test	Confirmation result	Final result	
			O&A	Palcam	O&A	Palcam						
4135	0	/	st	st	-	-	-	0/5	-	-	-	0/5
4136			st	st	st	st	-		-	-	-	
4137			st	st	st	-	-		-	-	-	
4138			st	st	st	st	-		-	-	-	
4139			st	st	st	st	-		-	-	-	
4353	Low	0,6	st	st	st	st	-	11 /20	-	-	-	11/20
4354			H+	+	/	/	+		-	-	-	
4355			st	st	st	st	-		-	-	-	
4356			st	st	st	st	-		+	+	+	
4357			H+	+	/	/	+		+	+	+	
4358			H+	+	/	/	+		-	-	-	
4359			H+	+	/	/	+		-	-	-	
4360			st	st	st	st	-		-	-	-	
4361			H+	+	/	/	+		+	+	+	
4362			st	st	st	st	-		+	+	+	
4363			H+	+	/	/	+		+	+	+	
4364			H+	+	/	/	+		+	+	+	
4365			st	st	st	st	-		+	+	+	
4366			st	st	st	st	-		+	+	+	
4367			H+	+	/	/	+		+	+	+	
4368			H+	+	/	/	+		+	+	+	
4369			H+	+	/	/	+		-	-	-	
4370			st	st	st	st	-		+	+	+	
4371			H+	+	/	/	+		-	-	-	
4372			st	st	st	st	-		-	-	-	
4373	High	1,7	st	st	st	st	-	2/5	+	+	+	2/5
4374			st	st	st	st	-		-	-	-	
4375			st	st	st	st	-		-	-	-	
4376			H+	+	/	/	+		-	-	-	
4377			H+	+	/	/	+		+	+	+	

Appendix F – Inclusivity and exclusivity study: raw data

INCLUSIVITY								
Strain		Species	Reference	Origin	Inoculation level (cfu/225ml)	NEOGEN Molecular Detection Assay 2 Half Fraser broth 24h at 37°C		
						MDA results	Confirmation 100 µl	
						MDA Listeria spp	O&A	Palcam
1	*Listeria*	*monocytogenes*	1011/1410	Frozen broccoli	28	+	H+	+
2	*Listeria*	*monocytogenes*	153	Soft cheese (Munster)	39	+	H+	+
3	*Listeria*	*monocytogenes*	1973/2400	Egg and ham pastry (Quiche Lorraine)	38	+	H+	+
4	*Listeria*	*monocytogenes*	38/181	Toulouse sausages	33	+	H+	+
5	*Listeria*	*monocytogenes*	7111/7516	Pâté (Rillettes)	64	+	H+	+
6	*Listeria*	*monocytogenes*	913/1048	Black pudding	39	+	H+	+
7	*Listeria*	*monocytogenes*	A00C036	Poultry (guinea)	41	+	H+	+
8	*Listeria*	*monocytogenes*	A00C041	Sausage	38	+	H+	+
9	*Listeria*	*monocytogenes*	A00C044	Poultry (Duck)	34	+	H+	+
10	*Listeria*	*monocytogenes*	A00L097	Milk	60	+	H+	+
11	*Listeria*	*monocytogenes*	A00M009	Smoked salmon	40	+	H+	+
12	*Listeria*	*monocytogenes*	Ad 253	Semi-hard cheese	58	+	H+	+
13	*Listeria*	*monocytogenes*	Ad 266	Poultry	26	+	H+	+
14	*Listeria*	*monocytogenes*	Ad 270	Fermented sausage	42	+	H+	+
15	*Listeria*	*monocytogenes*	Ad 273	Cured delicatessen	27	+	H+	+
16	*Listeria*	*monocytogenes*	Ad 274	Ready-to-eat food (Asiatic meal)	40	+	H+	+
17	*Listeria*	*monocytogenes*	Ad 534	Fruits	54	+	H+	+
18	*Listeria*	*monocytogenes*	Ad 548	Environment (Seafood)	37	+	H+	+
19	*Listeria*	*monocytogenes*	Ad 623	Bread crumbs	50	+	H+	+
20	*Listeria*	*monocytogenes*	Ad 665	Raw milk	33	+	H+	+
21	*Listeria*	*grayi*	Ad 1198	Smoked salmon	27	-/-	st	st
					5 (+25ml UHT milk)	-	H-	-
					158	-	H-(1)	st
					158 (+25ml UHT milk)	+	H-	st
					1300	+	H-(2)	-
					1300 (+25ml UHT milk)	+	H-	-
22	*Listeria*	*grayi*	Ad 1443	Pork meat sausages	46	-/-	st	st
					12 (+25ml UHT milk)	+	H-	-

INCLUSIVITY								
Strain		Species	Reference	Origin	Inoculation level (cfu/225ml)	NEOGEN Molecular Detection Assay 2 Half Fraser broth 24h at 37°C		
						MDA results	Confirmation 100 µl	
						MDA Listeria spp	O&A	Palcam
23	*Listeria*	*innocua*	1	Smoked salmon	40	+	H-	+
24	*Listeria*	*innocua*	Ad 658	Gorgonzola	28	+	H-	+
25	*Listeria*	*innocua*	Ad 655	Brine	19	+	H-	+
26	*Listeria*	*innocua*	Ad 660	Bread crumbs	35	+	H-	+
27	*Listeria*	*innocua*	Ad 663	Environment (dairy industry)	25	+	H-	+
28	*Listeria*	*innocua*	Ad 671	Smoked bacon	10	+	H-	+
29	*Listeria*	*innocua*	Ad 661	Soft cheese (Pont L'Evêque)	15	+	H-	+
30	*Listeria*	*innocua*	Ad 659	Environment (dairy industry)	14	+	H-	+
31	*Listeria*	*ivanovii*	Ad 466	Raw veal meat	11	+	H+	+
32	*Listeria*	*ivanovii*	Ad 662	Environment (dairy industry)	20	+	H+	+
33	*Listeria*	*ivanovii*	BR11	Environment (fish)	29	+	H+	+
34	*Listeria*	*ivanovii*	Ad 1289	Raw milk cheese	30	+	H+	+
35	*Listeria*	*ivanovii*	Ad 1290	Milk powder	17	+	H+	+
36	*Listeria*	*ivanovii*	Ad 1291	Poultry	18	+	H+	+
37	*Listeria*	*ivanovii*	Ad 1288	Sheep milk	80	+	H+	+
38	*Listeria*	*ivanovii londoniensis*	CIP103466	/	14	+	H-	+
39	*Listeria*	*seeligeri*	Ad 649	Cheese	29	+	H-	+
40	*Listeria*	*seeligeri*	Ad 651	Environment	36	+	H-	+
41	*Listeria*	*seeligeri*	Ad 652	Environment (dairy industry)	28	+	H-	+
42	*Listeria*	*seeligeri*	Ad 674	Soft cheese (Munster)	23	-	st	st
					240	+	H-	H-
43	*Listeria*	*seeligeri*	BR1	Trout	28	+	H-	+
44	*Listeria*	*seeligeri*	BR18	Environment (fish)	36	+	H-	+
45	*Listeria*	*seeligeri*	CIP100100	/	8	+	st	1col
46	*Listeria*	*welshimeri*	Ad1276	Environment (Slaughterhouse)	44	+	H-	+
47	*Listeria*	*welshimeri*	Ad1235	Beef meat	26	+	H-	+
48	*Listeria*	*welshimeri*	191424	Poultry	24	+	H-	+
49	*Listeria*	*welshimeri*	Ad 1175	Ready-to-eat-food	46	+	H-	+
50	*Listeria*	*welshimeri*	Ad 650	Poultry	33	+	H-	+

EXCLUSIVITY							
Strain		Species	Reference	Origin	Inoculation level (cfu/ml)	NEOGEN Molecular Detection Assay 2 MDA results	
						MDA Listeria spp	MC
1	*Bacillus*	*cereus*	Ad 465	Salmon Terrine	$7.2\ 10^4$	-	+
2	*Bacillus*	*circulans*	Ad 760	Vegetables	$1.0\ 10^4$ (opacity +)	-	+
3	*Bacillus*	*coagulans*	Ad 731	Dairy product	$<2.0\ 10^3$ (opacity +)	-	+
4	*Bacillus*	*licheniformis*	Ad 978	Dairy product	$<2.0\ 10^3$ (opacity+)	-	+
5	*Bacillus*	*mycoïdes*	Ad 762	Milk	$5.6\ 10^4$	-	+
6	*Bacillus*	*pseudomycoides*	Ad 765	Vegetables	$2.0\ 10^4$	-	+
7	*Bacillus*	*pumilus*	Ad 284	Ready-to-eat	$1.7\ 10^5$	-	+
8	*Bacillus*	*weihenstephanensis*	Ad 726	Egg product	$6.8\ 10^4$	-	+
9	*Brochothrix*	*thermosphacta*	EN 15129	Trout	$8.5\ 10^5$	-	+
10	*Brochrotrix*	*campestris*	CIP 102920T	Environment	$<2.0\ 10^3$ (opacity +)	-	+
11	*Carnobacterium*	*divergens*	CIP 101029^T	/	$>2.0\ 10^3$ (opacity +)	-	+
12	*Carnobacterium*	*piscicola*	Ad 369	Raw milk	$<2.0\ 10^3$ (opacity +)	-	+
13	*Enterococcus*	*durans*	Ad 149	Ham	$<2.0\ 10^3$ (opacity +)	-	+
14	*Enterococcus*	*faecalis*	89L326	Soft cheese (Vacherin)	$1.6\ 10^5$	-	+
15	*Lactobacillus*	*brevis*	86L126	Ham	$1.4\ 10^5$	-	+
16	*Lactobacillus*	*curvatus*	Ad 380	Delicatessen	$1.7\ 10^5$	-	+
17	*Lactobacillus*	*fermentum*	Ad 482	Tomatoes juice	$1.2\ 10^5$	-	+
18	*Lactobacillus*	*sakei*	Ad 473	Ham	$4.9\ 10^5$	-	+
19	*Lactococcus*	*lactis subsp cremoris*	Ad 137	Dairy product	$>2.0\ 10^3$ (opacity +)	-	+
20	*Leuconostoc*	*carnosum*	Ad 411	Ham	$6.8\ 10^5$	-	+
21	*Leuconostoc*	*citreum*	Ad 396	Ham	$4.9\ 10^5$	-	+
22	*Micrococcus*	*luteus*	Ad 432	Cocktail	$<2.0\ 10^3$ (opacity+)	-	+
23	*Pediococcus*	*pentosaceus*	ATCC 33316	/	$1.0\ 10^5$	-	+
24	*Propionibacterium*	*freundenreichii*	CNRZ 725	Dairy product	$<2.0\ 10^3$ (opacity +)	-	+
25	*Staphylococcus*	*aureus*	Ad 165	Smoked delicatessen	$1.3\ 10^5$	-	+
26	*Staphylococcus*	*aureus*	Ad 902	Nems	$8.2\ 10^4$	-	+
27	*Staphylococcus*	*epidermidis*	Ad 931	Fruits	$2.0\ 10^3$	-	+
28	*Staphylococcus*	*haemoliticus*	Ad 989	Dairy product	$2.8\ 10^4$	-	+
29	*Streptococcus*	*bovis*	92L622	Dairy product	$2.0\ 10^3$	-	+
30	*Streptococcus*	*salivarius sps thermophilus*	Ad 441	Dairy product	$<2.0\ 10^3$ (opacity +)	-	+

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

Laboratory A

Aerobic mesophilic flora: 1,4.10^{9}/g

N°Sample	Reference method: ISO 11290-1					**NEOGEN** Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
A8	-	-	-	-	-	-	-	-	-	**NA**
A11	-	-	-	-	-	-	-	-	-	**NA**
A12	-	-	-	-	-	-	-	-	-	**NA**
A16	-	-	-	-	-	-	-	-	-	**NA**
A18	-	-	-	-	-	-	-	-	-	**NA**
A21	-	-	-	-	-	-	-	-	-	**NA**
A23	-	-	-	-	-	-	-	-	-	**NA**
A24	-	-	-	-	-	-	-	-	-	**NA**
A1	+	+	+	+	+	+	+	+	+	**PA**
A4	+	+	+	+	+	+	+	+	+	**PA**
A7	+	+	+	+	+	+	+	+	+	**PA**
A9	+	+	+	+	+	+	+	+	+	**PA**
A10	+	+	+	+	+	+	+	+	+	**PA**
A13	-	-	-	-	-	+	+	+	+	**PD**
A15	+	+	+	+	+	+	+	+	+	**PA**
A22	+	+	+	+	+	+	+	+	+	**PA**
A2	+	+	+	+	+	+	+	+	+	**PA**
A3	+	+	+	+	+	+	+	+	+	**PA**
A5	+	+	+	+	+	+	+	+	+	**PA**
A6	+	+	+	+	+	+	+	+	+	**PA**
A14	+	+	+	+	+	+	+	+	+	**PA**
A17	+	+	+	+	+	+	+	+	+	**PA**
A19	+	+	+	+	+	+	+	+	+	**PA**
A20	+	+	+	+	+	+	+	+	+	**PA**

Laboratory B

Aerobic mesophilic flora: 1,2.10^9 /g

N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
B8	-	-	-	-	-	+/-	-	-	-	**PPNA**
B11	-	-	-	-	-	-	-	-	-	**NA**
B12	-	-	-	-	-	-	-	-	-	**NA**
B16	-	-	-	-	-	-	-	-	-	**NA**
B18	-	-	-	-	-	-	-	-	-	**NA**
B21	-	-	-	-	-	-	-	-	-	**NA**
B23	-	-	-	-	-	-	-	-	-	**NA**
B24	-	-	-	-	-	-	-	-	-	**NA**
B1	+	+	+	+	+	+	+	+	+	**PA**
B4	+	+	+	+	+	+	+	+	+	**PA**
B7	+	+	+	+	+	+	+	+	+	**PA**
B9	+	+	+	+	+	+	+	+	+	**PA**
B10	+	+	+	+	+	-	-	-	-	**ND**
B13	-	-	-	-	-	+	+	+	+	**PD**
B15	+	+	+	+	+	+	+	+	+	**PA**
B22	+	+	+	+	+	+	+	+	+	**PA**
B2	+	+	+	+	+	+	+	+	+	**PA**
B3	+	+	+	+	+	+	+	+	+	**PA**
B5	+	+	+	+	+	+	+	+	+	**PA**
B6	+	+	+	+	+	+	+	+	+	**PA**
B14	+	+	+	+	+	+	+	+	+	**PA**
B17	+	+	+	+	+	+	+	+	+	**PA**
B19	+	+	+	+	+	+	+	+	+	**PA**
B20	+	+	+	+	+	+	+	+	+	**PA**

Laboratory C

Aerobic mesophilic flora: $4,5.10^5$/g

N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
C8	-	-	-	-	-	-	-	-	-	**NA**
C11	-	-	-	-	-	-	-	-	-	**NA**
C12	-	-	-	-	-	-	-	-	-	**NA**
C16	-	-	-	-	-	-	-	-	-	**NA**
C18	-	-	-	-	-	-	-	-	-	**NA**
C21	-	-	-	-	-	-	-	-	-	**NA**
C23	-	-	-	-	-	-	-	-	-	**NA**
C24	-	-	-	-	-	-	-	-	-	**NA**
C1	+	+	+	+	+	+	+	+	+	**PA**
C4	+	+	+	+	+	+	+	+	+	**PA**
C7	+	+	+	+	+	+	+	+	+	**PA**
C9	+	+	+	+	+	+	+	+	+	**PA**
C10	+	+	+	+	+	+	+	+	+	**PA**
C13	+	+	+	+	+	+	+	+	+	**PA**
C15	+	+	+	+	+	+	+	+	+	**PA**
C22	+	+	+	+	+	+	+	+	+	**PA**
C2	+	+	+	+	+	+	+	+	+	**PA**
C3	+	+	+	+	+	+	+	+	+	**PA**
C5	+	+	+	+	+	+	+	+	+	**PA**
C6	+	+	+	+	+	+	+	+	+	**PA**
C14	+	+	+	+	+	+	+	+	+	**PA**
C17	+	+	+	+	+	+	+	+	+	**PA**
C19	+	+	+	+	+	+	+	+	+	**PA**
C20	+	+	+	+	+	+	+	+	+	**PA**

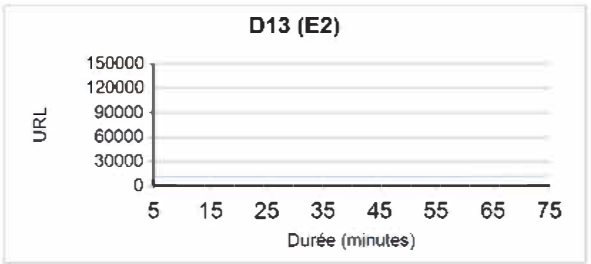
Laboratory D

Aerobic mesophilic flora: 3,2.10^7 /g

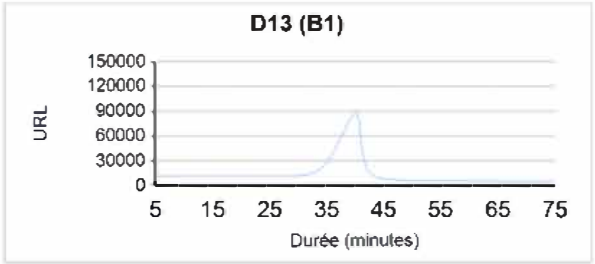
N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
D8	-	-	-	-	-	-	-	-	-	**NA**
D11	-	-	-	-	-	-	-	-	-	**NA**
D12	-	-	-	-	-	-	-	-	-	**NA**
D16	-	-	-	-	-	-	-	-	-	**NA**
D18	-	-	-	-	-	-	-	-	-	**NA**
D21	-	-	-	-	-	-	-	-	-	**NA**
D23	-	-	-	-	-	-	-	-	-	**NA**
D24	-	-	-	-	-	-	-	-	-	**NA**
D1	+	+	+	+	+	+	+	+	+	**PA**
D4	+	+	+	+	+	+	+	+	+	**PA**
D7	+	+	+	+	+	+	+	+	+	**PA**
D9	+	+	+	+	+	+	+	+	+	**PA**
D10	+	+	+	+	+	+	+	+	+	**PA**
D13	+	+	+	+	+	-/+(2)	+	+	-	**ND**
D15	+	+	+	+	+	+	+	+	+	**PA**
D22	+	+	+	+	+	+	+	+	+	**PA**
D2	+	+	+	+	+	+	+	+	+	**PA**
D3	+	+	+	+	+	+	+	+	+	**PA**
D5	+	+	+	+	+	+	+	+	+	**PA**
D6	+	+	+	+	+	+	+	+	+	**PA**
D14	+	+	+	+	+	+	+	+	+	**PA**
D17	+	+	+	+	+	+	+	+	+	**PA**
D19	+	+	+	+	+	+	+	+	+	**PA**
D20	+	+	+	+	+	+	+	+	+	**PA**

(2): second test on same lysate (02/03/2016)

First run



Second run



Laboratory **E**

Aerobic mesophilic flora:9,2.10^8 /g

N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
E8	-	-	-	-	-	-	-	-	-	**NA**
E11	-	-	-	-	-	-	-	-	-	**NA**
E12	-	-	-	-	-	-	-	-	-	**NA**
E16	-	-	-	-	-	-	-	-	-	**NA**
E18	-	-	-	-	-	-	-	-	-	**NA**
E21	-	-	-	-	-	-	-	-	-	**NA**
E23	-	-	-	-	-	-	-	-	-	**NA**
E24	-	-	-	-	-	-	-	-	-	**NA**
E1	+	+	+	+	+	+	+	+	+	**PA**
E4	+	+	+	+	+	+	+	+	+	**PA**
E7	+	+	+	+	+	+	+	+	+	**PA**
E9	+	+	+	+	+	+	+	+	+	**PA**
E10	+	+	+	+	+	+	+	+	+	**PA**
E13	+	+	+	+	+	+	+	+	+	**PA**
E15	+	+	+	+	+	+	+	+	+	**PA**
E22	+	+	+	+	+	-	-	-	-	**ND**
E2	+	+	+	+	+	+	+	+	+	**PA**
E3	+	+	+	+	+	+	+	+	+	**PA**
E5	+	+	+	+	+	+	+	+	+	**PA**
E6	+	+	+	+	+	+	+	+	+	**PA**
E14	+	+	+	+	+	+	+	+	+	**PA**
E17	+	+	+	+	+	+	+	+	+	**PA**
E19	+	+	+	+	+	+	+	+	+	**PA**
E20	+	+	+	+	+	+	+	+	+	**PA**

Laboratory F

Aerobic mesophilic flora:1,4.10^9 /g

N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
F8	-	-	-	-	-	-	-	-	-	**NA**
F11	-	-	-	-	-	-	-	-	-	**NA**
F12	-	-	-	-	-	-	-	-	-	**NA**
F16	-	-	-	-	-	-	-	-	-	**NA**
F18	-	-	-	-	-	-	-	-	-	**NA**
F21	-	-	-	-	-	-	-	-	-	**NA**
F23	-	-	-	-	-	-	-	-	-	**NA**
F24	-	-	-	-	-	-	-	-	-	**NA**
F1	-	-	-	-	-	+	H+	+	+	**PD**
F4	H+	+	H+	+	+	+	H+	+	+	**PA**
F7	H+	+	H+	+	+	+	H+	+	+	**PA**
F9	H+	+	H+	+	+	+	H+	+	+	**PA**
F10	H+	+	H+	+	+	+	H+	+	+	**PA**
F13	-	-	-	-	-	+	H+	+	+	**PD**
F15	H+	+	H+	+	+	+	H+	+	+	**PA**
F22	H+	+	H+	+	+	+	H+	+	+	**PA**
F2	H+	+	H+	+	+	+	H+	+	+	**PA**
F3	H+	+	H+	+	+	+	H+	+	+	**PA**
F5	H+	+	H+	+	+	+	H+	+	+	**PA**
F6	H+	+	H+	+	+	+	H+	+	+	**PA**
F14	H+	+	H+	+	+	+	H+	+	+	**PA**
F17	H+	+	H+	+	+	+	H+	+	+	**PA**
F19	H+	+	H+	+	+	+	H+	+	+	**PA**
F20	H+	+	H+	+	+	+	H+	+	+	**PA**

Laboratory H

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

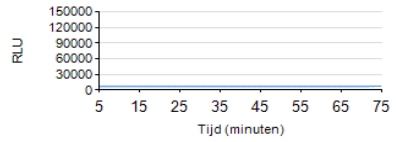
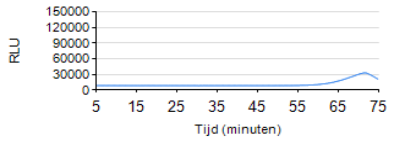
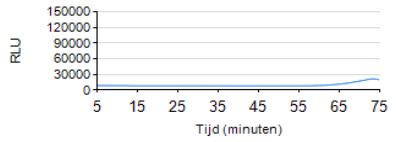
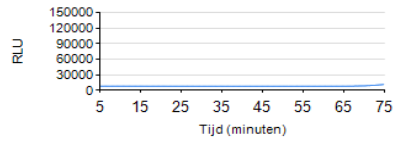
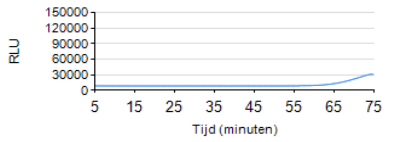
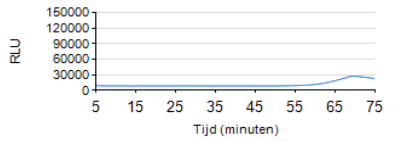
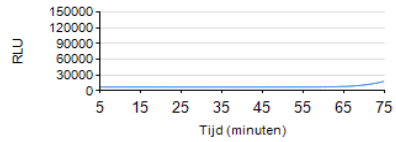
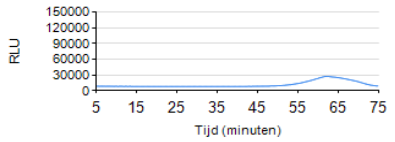
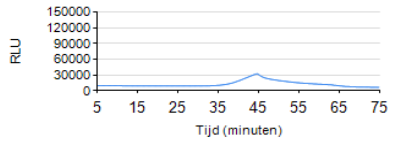
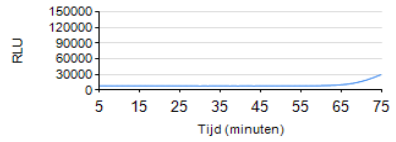
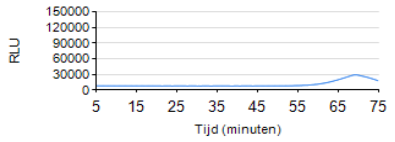
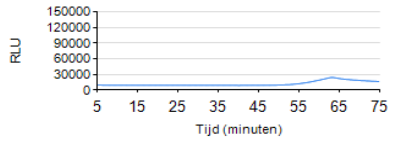
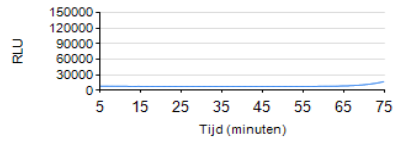
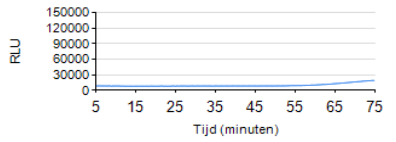
N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
H8	-	-	-	-	-	-	-	-	-	**NA**
H11	-	-	-	-	-	-	-	-	-	**NA**
H12	-	-	-	-	-	-	-	-	-	**NA**
H16	-	-	-	-	-	-	-	-	-	**NA**
H18	-	-	-	-	-	-	-	-	-	**NA**
H21	-	-	-	-	-	-	-	-	-	**NA**
H23	-	-	-	-	-	-	-	-	-	**NA**
H24	-	-	-	-	-	-	-	-	-	**NA**
H1	+	+	+	+	+	+	+	+	+	**PA**
H4	+	+	+	+	+	+	+	+	+	**PA**
H7	+	+	+	+	+	+	+	+	+	**PA**
H9	+	+	+	+	+	+	+	+	+	**PA**
H10	+	+	+	+	+	+	+	+	+	**PA**
H13	+	+	+	+	+	+	+	+	+	**PA**
H15	+	+	+	+	+	+	+	+	+	**PA**
H22	+	+	+	+	+	+	+	+	+	**PA**
H2	+	+	+	+	+	+	+	+	+	**PA**
H3	+	+	+	+	+	+	+	+	+	**PA**
H5	+	+	+	+	+	+	+	+	+	**PA**
H6	+	+	+	+	+	+	+	+	+	**PA**
H14	+	+	+	+	+	+	+	+	+	**PA**
H17	+	+	+	+	+	+	+	+	+	**PA**
H19	+	+	+	+	+	+	+	+	+	**PA**
H20	+	+	+	+	+	+	+	+	+	**PA**

Laboratory I

Aerobic mesophilic flora: 9,1.10⁸/g

N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
I8	-	-	-	-	-	-	-	-	-	NA
I11	-	-	-	-	-	-	-	-	-	NA
I12	-	-	-	-	-	-	-	-	-	NA
I16	-	-	-	-	-	-	-	-	-	NA
I18	-	-	-	-	-	-	-	-	-	NA
I21	-	-	-	-	-	-	-	-	-	NA
I23	-	-	-	-	-	-	-	-	-	NA
I24	-	-	-	-	-	-	-	-	-	NA
I1	+	+	+	+	+	+	+	+	+	PA
I4	+	+	+	+	+	-/+/- (2)	+	+	-	ND
I7	+	+	+	+	+	-/+/+ (2)	+	+	-	ND
I9	+	+	+	+	+	+	+	+	+	PA
I10	+	+	+	+	+	-	-	-	-	ND
I13	+	+	+	+	+	inspect/+/+ (2)	+	+	+	PA
I15	-	-	-	-	-	-/+/- (2)	+	+	-	NA
I22	+	+	+	+	+	+	+	+	+	PA
I2	+	+	+	+	+	+	+	+	+	PA
I3	+	+	+	+	+	+	+	+	+	PA
I5	+	+	+	+	+	-/-/- (2)	+	+	-	ND
I6	+	+	+	+	+	+	+	+	+	PA
I14	+	+	+	+	+	+	+	+	+	PA
I17	+	+	+	+	+	-/-/- (2)	+	+	-	ND
I19	+	+	+	+	+	+	+	+	+	PA
I20	+	+	+	+	+	+	+	+	+	PA

(2): second test on same lysate

First run	Second run	
I4 (D6) 	4 (A1) 	4-2 (A2) 
I5 (E6) 	59 (B1) 	5-2 (B2) 
I7 (G6) 	7 (C1) 	7-2 (C2) 
I15 (G7) 	15 (E1) 	15-2 (E2) 
I17 (A8) 	17 (F1) 	17-2 (F2) 

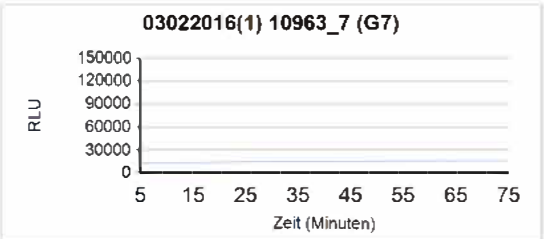
Laboratory J

Aerobic mesophilic flora: 1,3.10⁹/g

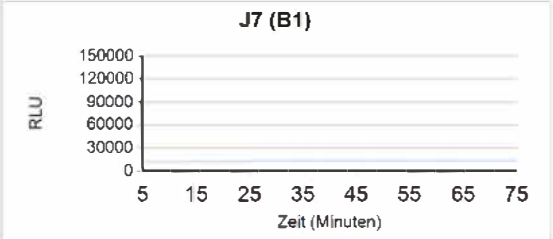
N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
J8	-	-	-	-	-	-	-	-	-	**NA**
J11	-	-	-	-	-	-	-	-	-	**NA**
J12	-	-	-	-	-	-	-	-	-	**NA**
J16	-	-	-	-	-	-	-	-	-	**NA**
J18	-	-	-	-	-	-	-	-	-	**NA**
J21	-	-	-	-	-	-	-	-	-	**NA**
J23	-	-	-	-	-	-	-	-	-	**NA**
J24	-	-	-	-	-	-	-	-	-	**NA**
J1	H+	-	H+	+	+	-	-	-	-	**ND**
J4	H+	+	H+	+	+	+	H+	+	+	**PA**
J7	-	-	H+	+	+	-/- (2)	H+	+	-	**ND**
J9	H+	+	H+	+	+	+	H+	+	+	**PA**
J10	H+	+	H+	+	+	+	H+	+	+	**PA**
J13	H+	+	H+	+	+	+	H+	+	+	**PA**
J15	-	-	-	-	-	+	H+	+	+	**PD**
J22	H+	+	H+	+	+	+	H+	+	+	**PA**
J2	H+	+	H+	+	+	+	H+	+	+	**PA**
J3	H+	+	H+	+	+	+	H+	+	+	**PA**
J5	H+	+	H+	+	+	+	H+	+	+	**PA**
J6	H+	+	H+	+	+	+	H+	+	+	**PA**
J14	H+	+	H+	+	+	+	H+	+	+	**PA**
J17	H+	+	H+	+	+	+	H+	+	+	**PA**
J19	H+	+	H+	+	+	+	H+	+	+	**PA**
J20	H+	+	H+	+	+	+	H+	+	+	**PA**

(2): second test on same lysate (10/03/2016)

First run



Second run



Laboratory K

Aerobic mesophilic flora: 10^8-10^9/g

N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
K8	-	-	-	-	-	-	-	-	-	**NA**
K11	-	-	-	-	-	-	-	-	-	**NA**
K12	-	-	-	-	-	-	-	-	-	**NA**
K16	-	-	-	-	-	-	-	-	-	**NA**
K18	-	-	-	-	-	-	-	-	-	**NA**
K21	-	-	-	-	-	-	-	-	-	**NA**
K23	-	-	-	-	-	-	-	-	-	**NA**
K24	-	-	-	-	-	-	-	-	-	**NA**
K1	+	+	+	+	+	+	+	+	+	**PA**
K4	+	+	+	+	+	+	+	-	+	**PA**
K7	+	+	+	+	+	+	+	+	+	**PA**
K9	+	+	+	+	+	+	+	+	+	**PA**
K10	+	+	+	+	+	+	+	+	+	**PA**
K13	+	+	+	+	+	+	+	+	+	**PA**
K15	+	+	+	+	+	+	+	+	+	**PA**
K22	+	+	+	+	+	+	+	+	+	**PA**
K2	+	+	+	+	+	+	+	+	+	**PA**
K3	+	+	+	+	+	+	+	+	+	**PA**
K5	+	+	+	+	+	+	+	+	+	**PA**
K6	+	+	+	+	+	+	+	-	+	**PA**
K14	+	+	+	+	+	+	+	+	+	**PA**
K17	+	+	+	+	+	+	+	+	+	**PA**
K19	+	+	+	+	+	+	+	+	+	**PA**
K20	+	+	+	+	+	+	+	+	+	**PA**

Laboratory L

Aerobic mesophilic flora: 2,6 .10^9/g

N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
L8	-	-	-	-	-	-	-	-	-	**NA**
L11	-	-	-	-	-	-	-	-	-	**NA**
L12	-	-	-	-	-	-	-	-	-	**NA**
L16	-	-	-	-	-	-	-	-	-	**NA**
L18	-	-	-	-	-	-	-	-	-	**NA**
L21	-	-	-	-	-	-	-	-	-	**NA**
L23	-	-	-	-	-	-	-	-	-	**NA**
L24	-	-	-	-	-	-	-	-	-	**NA**
L1	+	+	+	+	+	+	+	+	+	**PA**
L4	+	+	+	+	+	+	+	+	+	**PA**
L7	+	+	+	+	+	+	+	+	+	**PA**
L9	+	+	+	+	+	+	+	+	+	**PA**
L10	+	+	+	+	+	+	+	+	+	**PA**
L13	+	+	+	+	+	+	+	+	+	**PA**
L15	+	+	+	+	+	+	+	+	+	**PA**
L22	+	+	+	+	+	+	+	+	+	**PA**
L2	+	+	+	+	+	+	+	+	+	**PA**
L3	+	+	+	+	+	+	+	+	+	**PA**
L5	+	+	+	+	+	+	+	+	+	**PA**
L6	+	+	+	+	+	+	+	+	+	**PA**
L14	+	+	+	+	+	+	+	+	+	**PA**
L17	+	+	+	+	+	+	+	+	+	**PA**
L19	+	+	+	+	+	+	+	+	+	**PA**
L20	+	+	+	+	+	+	+	+	+	**PA**

Laboratory M
Aerobic mesophilic flora:1,0.10^9 /g

N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
M8	-	-	-	-	-	-	-	-	-	**NA**
M11	-	-	-	-	-	-	-	-	-	**NA**
M12	-	-	-	-	-	-	-	-	-	**NA**
M16	-	-	-	-	-	-	-	-	-	**NA**
M18	-	-	-	-	-	-	-	-	-	**NA**
M21	-	-	-	-	-	-	-	-	-	**NA**
M23	-	-	-	-	-	-	-	-	-	**NA**
M24	-	-	-	-	-	-	-	-	-	**NA**
M1	+	+	+	+	+	+	+	+	+	**PA**
M4	+	+	+	+	+	+	+	+	+	**PA**
M7	+	+	+	+	+	+	+	+	+	**PA**
M9	+	+	+	+	+	+	+	+	+	**PA**
M10	+	+	+	+	+	+	+	+	+	**PA**
M13	+	+	+	+	+	+	+	+	+	**PA**
M15	+	+	+	+	+	+	+	+	+	**PA**
M22	+	+	+	+	+	+	+	+	+	**PA**
M2	+	+	+	+	+	+	+	+	+	**PA**
M3	+	+	+	+	+	+	+	+	+	**PA**
M5	+	+	+	+	+	+	+	+	+	**PA**
M6	+	+	+	+	+	+	+	+	+	**PA**
M14	+	+	+	+	+	+	+	+	+	**PA**
M17	+	+	+	+	+	+	+	+	+	**PA**
M19	+	+	+	+	+	+	+	+	+	**PA**
M20	+	+	+	+	+	+	+	+	+	**PA**

Laboratory N (ADRIA)
Aerobic mesophilic flora: 5,2.10⁸/g

N°Sample	Reference method: ISO 11290-1					NEOGEN Molecular Detection Assay 2 -*Listeria* for detection of *Listeria* species				Agreement Individual
	Half Fraser		Fraser		Final result	MDA test result	O&A	Palcam	Final result Individual	
	O&A	Palcam	O&A	Palcam						
N8	-	-	-	-	-	-	-	-	-	**NA**
N11	-	-	-	-	-	-	-	-	-	**NA**
N12	-	-	-	-	-	-	-	-	-	**NA**
N16	-	-	-	-	-	-	-	-	-	**NA**
N18	-	-	-	-	-	-	-	-	-	**NA**
N21	-	-	-	-	-	-	-	-	-	**NA**
N23	-	-	-	-	-	-	-	-	-	**NA**
N24	-	-	-	-	-	-	-	-	-	**NA**
N1	H+	+	H+	+	+	+	H+	+	+	**PA**
N4	H+	+	H+	+	+	+	H+	+	+	**PA**
N7	H+	+	H+	+	+	+	H+	+	+	**PA**
N9	H+	+	H+	+	+	+	H+	+	+	**PA**
N10	H+	+	H+	+	+	+	H+	+	+	**PA**
N13	H+	+	H+	+	+	+	H+	+	+	**PA**
N15	H+	+	H+	+	+	-	-	-	-	**ND**
N22	H+	+	H+	+	+	+	H+	+	+	**PA**
N2	H+	+	H+	+	+	+	H+	+	+	**PA**
N3	H+	+	H+	+	+	+	H+	+	+	**PA**
N5	H+	+	H+	+	+	+	H+	+	+	**PA**
N6	H+	+	H+	+	+	+	H+	+	+	**PA**
N14	H+	+	H+	+	+	+	H+	+	+	**PA**
N17	H+	+	H+	+	+	+	H+	+	+	**PA**
N19	H+	+	H+	+	+	+	H+	+	+	**PA**
N20	H+	+	H+	+	+	+	H+	+	+	**PA**