ADRIA
FOOD EXPERTISE

cofrac
ESSAIS
(TESTING)

ACCREDITATION
N°1-0144
scope available
on www.COFRAC.fr

NF VALIDATION
Validation of alternative analytical methods
Application in food microbiology

Summary report

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

RAPID'*Listeria* spp.
(Certificate number: BRD 07/12 - 12/06)
for the detection of *Listeria* spp.
in broad range of foods and production environmental samples

Qualitative method

> ***Expert Laboratory:***	**ADRIA** ZA Creac'h Gwen 29196 Quimper Cedex (France)
> ***For:***	**BIO-RAD** 3 boulevard Raymond Poincaré 92430 Marnes-La-Coquette (France)

This report consists of 86 pages, including 7 appendices.

Only copies including the totality of this report are authorised.

Competencies of the laboratory are certified by COFRAC accreditation for the analyses marked with the symbol◆.

Version 0

23 October 2023

Quality Assurance documents related to this study can be consulted upon request from **BIO-RAD**.

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

Validation protocols	▪ EN ISO 16140-1 (June 2016) : Microbiology of the food chain - Method validation - *Part 1: Vocabulary* ▪ EN ISO 16140-2 (June 2016) : Microbiology of the food chain - Method validation - *Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method* ▪ AFNOR Technical Rules (PR Revision 7)
Reference methods♦	▪ NF EN ISO 11290-1 (February 1997) and NF EN ISO 11290-1/A1 (February 2005)): 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 ▪ 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
Alternative method	**RAPID'*Listeria spp.* for the detection of *Listeria* spp.**
Scope	> **Broad range of foods** > **Production environmental samples**
Certification organism	AFNOR Certification (http://nf-validation.afnor.org/)

♦ Analyses performed according to the COFRAC accreditation

1 INTRODUCTION

The **RAPID'*Listeria* spp.** detection method was validated on December 2006 for *Listeria spp* detection in broad range of foods and production environmental samples with the certificate number BRD 07/12 - 12/06. The validation stages are the following:

Date	Validation stage	Reference method	Validation protocol
December 2006	Initial validation for food products (4 categories tested)	EN ISO 11290-1/A1:2004	EN ISO 16140:2003
March 2007	Extension study for a new confirmation test: spot on Palcam	EN ISO 11290-1/A1:2004	
July 2010	Renewal without modification	EN ISO 11290-1/A1:2004	
November 2014	Renewal without modification	EN ISO 11290-1/A1:2004	
July 2019	Renewal with addition of a fifth food category: composite food	ISO 11290-1:2017	EN ISO 16140-2:2016
October 2023	Renewal without modification	ISO 11290-1:2017	EN ISO 16140-2:2016

2 METHOD PROTOCOLS

2.1 Alternative method

The flow diagram of the alternative method is provided in **Appendix 1**.

2.1.1 Principle

The method enables plating and colony isolation on a single medium (RAPID'*Listeria* spp.) after a primary sample enrichment.

The RAPID'*Listeria* spp. is an agar plate for specific *Listeria* detection by chromogenic detection of β-D-glucosidase activity, which forms blue to blue-green colonies.

The selectivity of medium is obtained by the combined action of lithium chroride and an antibiotic mix.

2.1.2 Protocol

The validated protocol is the following:

- Dilution (25 g or ml test portion) at 1/10 and enrichment in half Fraser for **24 h ± 2 h** at 30°C ± 1°C,

- Spreading-streaking of 0.1 ml onto RAPID'*Listeria* spp. (RLSP) and incubation for 22 to 48 h at 37°C ± 1°C,

- Confirmation of typical colonies - *Listeria* spp. from blue to blue-green colonies on RAPID'*Listeria* spp. Agar:
    - According to classical tests described in standardized methods with purification,
    - Using nucleic probes described in EN ISO 7218 (including or not the purification step): for example, iQ-Check *Listeria* spp.
    - By spot on RAPID'*L.mono* from an isolated colony, GRAM test and catalase test,

    or

    - By spot on PALCAM agar from an isolated colony,

    or

    - By implementing any other NF VALIDATION 16140-2 certificated method based on a principle different from the RAPID'*Listeria* spp. method.

It is possible to store the enrichment broth for 72 h at 5°C ± 3°C after incubation before streaking onto RAPID'*Listeria* spp*.* agar plate.

It is also possible to store the RAPID'*Listeria* spp*.* agar plates for 72 h at 5°C ± 3°C after incubation before observation.

2.1.3 Restriction

There is no restriction.

2.2 Reference method♦

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

The flow diagram is given in **Appendix 2**.

2.3 Study design

The study is **a paired study design** as the reference and the alternative methods have the same enrichment procedure.

3 INITIAL VALIDATION STUDY AND EXTENSION/RENEWAL STUDIES: RESULTS (*Listeria spp* detection)

3.1 Method Comparison Study

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

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

3.1.1 Sensitivity study

The sensitivity (SE) is the ability of the method to detect the analyte by either the reference or alternative method.

3.1.1.1 Number and nature of samples

According to the ISO 16140-2:2016, five food categories are required to have a broad range food claim. As only 4 food categories were tested for the initial validation study, the composite food category was added, and the samples tested for the initial validation study were reclassified.

Note that 9 samples tested in 2006 were removed due to high contamination level.

♦ Analysis performed according to the COFRAC accreditation

Taking into account the initial and renewal studies, 467 samples were analysed providing 237 positive and 230 negative samples.

The number of samples tested per category and type is given in **Table 1**.

Table 1 - Number of samples tested per category and type

Category		Type		Positive	Negative	Total
1	Composite foods	a	RTE	14	7	21
		b	RTRH	13	12	25
		c	Pastries, egg products	11	9	20
			Total	38	28	66
2	Meat products	a	Raw	12	14	26
		b	RTE, RTRH	7	13	20
		c	Delicatessen	15	18	33
			Total	34	45	79
3	Dairy products	a	Raw milk cheeses	26	17	43
		b	Raw milk	12	10	22
		c	Heat treated dairy products	8	12	20
			Total	46	39	85
4	Fishery products	a	Raw fish	15	12	27
		b	Smoked and seasoned fish	11	13	24
		c	RTE, RTRH	8	12	20
			Total	34	37	71
5	Vegetables	a	Fresh and frozen vegetables	9	14	23
		b	Pre-cooked, MAP	12	10	22
		c	RTE, RTRH	10	13	23
			Total	31	37	68
6	Production environmental Samples	a	Process water	8	13	21
		b	Sponges, swabs,	31	23	54
		c	Dusts, residues	15	8	23
			Total	54	44	98
All categories				**237**	**230**	**467**

3.1.1.2 Artificial contamination of samples

Artificial contaminations were done using spiking or seeding protocols (See **Appendix 3**). Strains were injured using different protocol and the injury level was evaluated by comparing enumeration done onto selective media (Palcam) and non-selective media (TSYEA).

85 samples were artificially contaminated, 66 gave a positive result.

The repartition of positive samples per inoculation level is given in **Table 2**.

Table 2 - Repartition of the positive samples per inoculation protocol and inoculation level

	Naturally contaminated	Cross contamination	Spiking protocol			Seeding protocol			Total
			≤5	5< CFU ≤10	10< CFU ≤ 30	≤3	3< CFU ≤10	10< CFU ≤ 30	
Number of samples	170	0	8	9	9	33	8	0	237
%	71,7%	0,0%	3,4%	3,8%	3,8%	13,9%	3,4%	0,0%	100%

7.2 % of the samples were contaminated between 3 CFU (seeding) or 5 CFU (spiking) and 10 CFU/sample.

71.7 % of the samples were naturally contaminated.

According to the AFNOR technical rules, the number of samples contaminated with *Listeria* spp alone on mixed with *Listeria monocytogenes* per category has to be comprised between 15 and 25 samples. The repartition per target analyte is given **Table 3**.

Table 3 - Distribution per target analyte

Category	A : *Listeria* spp	B : *Listeria* spp + *Listeria monocytogenes*	C : *Listeria monocytogenes*	Total A + B
1	8	8	22	16
2	6	21	7	27
3	8	7	31	15
4	6	9	19	15
5	14	5	12	19
6	7	19	28	26
Total	**49**	**69**	**119**	**118**

3.1.1.3 Protocols applied during the validation study

> **Incubation time**

The Half-Fraser broths were incubated for 22 h at 30°C ± 1°C
The RAPID'*Listeria* plates were incubated for 22 h and 48 h at 37°C.

> **Confirmations**

The typical colonies (blue to blue-green) were confirmed by:

- The tests described in in the ISO 11290-1 method after purification step (Gram, catalase).
- By spot on RAPID'*L.mono* from an isolated colony, GRAM test and catalase test.
- By spot on PALCAM agar from an isolated colony.

> **Plates storages**

For the initial validation study, the RAPID'*Listeria* plates were stored for 48 h at 5°C ± 3°C, for the renewal study they were stored for 72 h at 5°C ± 3°C.

> **Half-Fraser storage**

The Half-Fraser broths from positive and discordant samples were stored for 72 h at 5°C ± 3°C.

3.1.1.4 Test results

Raw data per category are given in **Appendix 4**. A summary of the results is given in Table 4. The interpretation is given for both incubation times (22 h and 48 h).

Table 4 – Interpretation of sample results between the reference and alternative method (based on the confirmed alternative test results)

Category		RAPID'*Listeria* 22 h						
		PA	NA*	PD	ND**	PPND	PPNA	Total
1	Composite food	36	28	0	2	0	0	66
2	Meat products	32	45	0	2	0	0	79
3	Dairy products	45	37	0	1	0	2	85
4	Fishery products	34	37	0	0	0	0	71
5	Vegetables	30	37	0	1	0	0	68
6	Production environmental samples	53	44	1	0	0	0	98
Total		**230**	**228**	**1**	**6**	**0**	**2**	**467**

Category		RAPID'*Listeria* 48 h						
		PA	NA*	PD	ND**	PPND	PPNA	Total
1	Composite food	36	26	0	2	0	2	66
2	Meat products	33	45	0	1	0	0	79
3	Dairy products	46	37	0	0	0	2	85
4	Fishery products	34	37	0	0	0	0	71
5	Vegetables	30	35	0	1	0	2	68
6	Production environmental samples	53	44	1	0	0	0	98
Total		**232**	**224**	**1**	**4**	**0**	**6**	**467**

* PPNA not included ** PPND not included

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

The calculations are presented in **Table 5** for 22 h incubation time of the RAPID'*Listeria* plates and **Table 6** for 48 h incubation time.

Table 5 - Calculation of the relative trueness (RT), the sensitivity (SE) and the false positive ratio (FPR) - 22 h

Category		Type		PA	NA*	PD	ND**	PPND	PPNA	SE alt %	SE ref %	RT %	FPR %
1	Composite foods	a	RTE	12	7	0	2	0	0	85,7	100,0	90,5	0,0
		b	RTRH	13	12	0	0	0	0	100,0	100,0	100,0	0,0
		c	Pastries, egg products	11	9	0	0	0	0	100,0	100,0	100,0	0,0
			Total	36	28	0	2	0	0	94,7	100,0	97,0	0,0
2	Meat products	a	Raw	11	14	0	1	0	0	91,7	100,0	96,2	0,0
		b	RTE, RTRH	6	13	0	1	0	0	85,7	100,0	94,7	0,0
		c	Delicatessen	15	18	0	0	0	0	100,0	100,0	100,0	0,0
			Total	32	45	0	2	0	0	94,1	100,0	97,5	0,0
3	Dairy products	a	Raw milk cheeses	26	15	0	0	0	2	100,0	100,0	100,0	11,8
		b	Raw milk	12	10	0	0	0	0	100,0	100,0	100,0	0,0
		c	Heat treated dairy products	7	12	0	1	0	0	87,5	100,0	95,0	0,0
			Total	45	37	0	1	0	2	97,8	100,0	98,8	5,1
4	Fishery products	a	Raw fish	15	12	0	0	0	0	100,0	100,0	100,0	0,0
		b	Smoked and seasoned fish	11	13	0	0	0	0	100,0	100,0	100,0	0,0
		c	RTE, RTRH	8	12	0	0	0	0	100,0	100,0	100,0	0,0
			Total	34	37	0	0	0	0	100,0	100,0	100,0	0,0
5	Vegetables	a	Fresh and frozen vegetables	9	14	0	0	0	0	100,0	100,0	100,0	0,0
		b	Pre-cooked, MAP	11	10	0	1	0	0	91,7	100,0	95,5	0,0
		c	RTE, RTRH	10	13	0	0	0	0	100,0	100,0	100,0	0,0
			Total	30	37	0	1	0	0	96,8	100,0	98,5	0,0
6	Production environmental Samples	a	Process water	8	13	0	0	0	0	100,0	100,0	100,0	0,0
		b	Sponges, swabs	30	23	1	0	0	0	100,0	96,8	98,1	0,0
		c	Dusts, residues	15	8	0	0	0	0	100,0	100,0	100,0	0,0
			Total	53	44	1	0	0	0	100,0	98,1	99,0	0,0
All categories				**230**	**228**	**1**	**6**	**0**	**2**	**97,5**	**99,6**	**98,5**	**0,9**

* PPNA not included ** PPND not included

Table 6 - Calculation of the relative trueness (RT), the sensitivity (SE) and the false positive ratio (FPR) - 48 h

Category		Type		PA	NA	PD	ND	PPND	PPNA	SE alt %	SE ref %	RT %	FPR %
1	Composite foods	a	RTE	12	6	0	2	0	1	85,7	100,0	90,5	14,3
		b	RTRH	13	11	0	0	0	1	100,0	100,0	100,0	8,3
		c	Pastries, egg products	11	9	0	0	0	0	100,0	100,0	100,0	0,0
			Total	36	26	0	2	0	2	94,7	100,0	97,0	7,1
2	Meat products	a	Raw	12	14	0	0	0	0	100,0	100,0	100,0	0,0
		b	RTE, RTRH	6	13	0	1	0	0	85,7	100,0	94,7	0,0
		c	Delicatessen	15	18	0	0	0	0	100,0	100,0	100,0	0,0
			Total	33	45	0	1	0	0	97,1	100,0	98,7	0,0
3	Dairy products	a	Raw milk cheeses	26	15	0	0	0	2	100,0	100,0	100,0	11,8
		b	Raw milk	12	10	0	0	0	0	100,0	100,0	100,0	0,0
		c	Heat treated dairy products	8	12	0	0	0	0	100,0	100,0	100,0	0,0
			Total	46	37	0	0	0	2	100,0	100,0	100,0	5,1
4	Fishery products	a	Raw fish	15	12	0	0	0	0	100,0	100,0	100,0	0,0
		b	Smoked and seasoned fish	11	13	0	0	0	0	100,0	100,0	100,0	0,0
		c	RTE, RTRH	8	12	0	0	0	0	100,0	100,0	100,0	0,0
			Total	34	37	0	0	0	0	100,0	100,0	100,0	0,0
5	Vegetables	a	Fresh and frozen vegetables	9	13	0	0	0	1	100,0	100,0	100,0	7,1
		b	Pre-cooked, MAP	11	10	0	1	0	0	91,7	100,0	95,5	0,0
		c	RTE, RTRH	10	12	0	0	0	1	100,0	100,0	100,0	7,7
			Total	30	35	0	1	0	2	96,8	100,0	98,5	5,4
6	Production environmental Samples	a	Process water	8	13	0	0	0	0	100,0	100,0	100,0	0,0
		b	Sponges, swabs	30	23	1	0	0	0	100,0	96,8	98,1	0,0
		c	Dusts, residues	15	8	0	0	0	0	100,0	100,0	100,0	0,0
			Total	53	44	1	0	0	0	100,0	98,1	99,0	0,0
All categories				**232**	**224**	**1**	**4**	**0**	**6**	**98,3**	**99,6**	**98,9**	**2,6**

* PPNA not included ** PPND not included

The following results are observed (See **Table 7**)

Table 7 - Summary of results

		RAPID'*Listeria*	
		22 h	48 h
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA+PD)}{(PA+ND+PD)} \times 100\,\%$	97.5 %	98.3 %
Sensitivity for the reference method	$SE_{ref} = \frac{(PA+ND)}{(PA+ND+PD)}\ x\ 100\ \%$	99.6 %	99.6 %
Relative trueness	$RT = \frac{(PA+NA)}{N} \times 100\,\%$	98.5 %	98.9 %
False positive ratio for the alternative method* FP = PPNA + PPND	$FPR = \frac{(FP)}{NA} \times 100\,\%$	0.9 %	2.6 %

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

3.1.1.6 Analysis of discordant results

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

Table 8 - Negative deviations

Year of analysis	Sample N°	Product	Strain inoculated	Inoculation level (CFU/sample)	ISO 11290-1		RAPID'*Listeria spp*				Agreement Ref/Alt			Category	Type
					Result	Identification	22 h	48 h	F1/2 storage	Identification	22 h	48 h	F1/2 storage		
2019	**1658**	**RTE salad (ham)**	*L.monocytogenes* Ad2598 *L.seeligeri* Ad1754	1,0 1,6	+	*L.welshimeri*	-	-	+	*Gram -* /*L.monocytogenes* (72 h F 1/2)	**ND**	**ND**	**PA**	1	a
2019	3550	RTE (sandwich ham cheese)	/	/	+	*L.seeligeri*	-	-	-	/	**ND**	**ND**	**ND**	1	a
2006	C5	Minced meat	/	/	+	*L.monocytogenes* *L.innocua*	-	+	-	*L.innocua*	**ND**	**PA**	**ND**	2	a
2006	K9	Sauté of horse in the Indian	/	/	+	*L.monocytogenes* *L.welshimeri*	-	-	+	*L.monocytogenes* (72 h F1/2)	**ND**	**ND**	**PA**	2	b
2006	A12	Chevrotin farmer	/	/	+	*L.ivanovii*	-	+	+	*L.ivanovii*	**ND**	**PA**	**PA**	3	c
2006	E5	Deep-frozen chips	/	/	+	*L.innocua*	-	-	-	Ø	**ND**	**ND**	**ND**	5	b

Table 9 - Positive deviations

Year of analysis	Sample N°	Product	Strain inoculated	Inoculation level (CFU/sample)	ISO 11290-1		RAPID'*Listeria spp*				Agreement Ref/Alt			Category	Type
					Result	Identification	22 h	48 h	F1/2 storage	Identification	22 h	48 h	F1/2 storage		
2006	AE11	Surface lines threading conveyor waste		/	-	/	+	+	-	*L.monocytogenes*	**PD**	**PD**	**NA**	6	b

♦ Analyses performed according to the COFRAC accreditation

Negative deviations

6 negative deviations were observed after 22 h incubation time of the *RAPID'Listeria* plates.

For two samples (C5: minced meat and A12: cheese), a positive result was obtained after 48 h incubation time of the plates. For sample C5, *Listeria innocua* was isolated and for sample A12, *Listeria ivanovii*.

Note that for sample C5 a negative result was also obtained after Half-Fraser broth storage for 72 h at 5°C ± 3°C even if in this case the plates were incubated for 48 h at 37°C.This sample was probably contaminated at a very low level providing either positive or negative result.

Four samples were naturally contaminated, and one sample was artificially contaminated.

For two samples (1658 and K9), the Half-Fraser storage for 72 h at 5°C ± 3°C allowed to recover the strain in the enrichment broth.

Positive deviations

One positive deviation was observed and concerned an environmental sample naturally contaminated with *Listeria monocytogenes*.

The analysis of discordant results according to the EN ISO 1640-2 2016 is given **Table 10** for 22 h incubation time and **Table 11** for 48 h incubation time.

Table 10 - Analysis of discordant results - 22 h

Category		Type		N+	ND	PPND	PD	(ND+PPND)-PD	AL	(ND+PPND)+PD	AL
1	Composite foods	a	RTE	14	2	0	0				
		b	RTRH	13	0	0	0				
		c	Pastries, egg products	11	0	0	0				
			Total	38	2	0	0	2	3	2	6
2	Meat products	a	Raw	12	1	0	0				
		b	RTE, RTRH	7	1	0	0				
		c	Delicatessen	15	0	0	0				
			Total	34	2	0	0	2	3	2	6
3	Dairy products	a	Raw milk cheeses	26	0	0	0				
		b	Raw milk	12	0	0	0				
		c	Heat treated dairy products	8	1	0	0				
			Total	46	1	0	0	1	3	1	6
4	Fishery products	a	Raw fish	15	0	0	0				
		b	Smoked and seasoned fish	11	0	0	0				
		c	RTE, RTRH	8	0	0	0				
			Total	34	0	0	0	0	3	0	6
5	Vegetables	a	Fresh and frozen vegetables	9	0	0	0				
		b	Pre-cooked, MAP	12	1	0	0				
		c	RTE, RTRH	10	0	0	0				
			Total	31	1	0	0	1	3	1	6
6	Production environmental Samples	a	Process water	8	0	0	0				
		b	Sponges, swabs,	31	0	0	1				
		c	Dusts, residues	15	0	0	0				
			Total	54	0	0	1	-1	3	1	6
All categories				**237**	**6**	**0**	**1**	**5**	**6**	**7**	**16**

Table 11 - Analysis of discordant results - 48 h

Category		Type		N+	ND	PPND	PD	(ND+PPND)-PD	AL	(ND+PPND)+PD	AL
1	Composite foods	a	RTE	14	2	0	0				
		b	RTRH	13	0	0	0				
		c	Pastries, egg products	11	0	0	0				
			Total	38	2	0	0	2	3	2	6
2	Meat products	a	Raw	12	0	0	0				
		b	RTE, RTRH	7	1	0	0				
		c	Delicatessen	15	0	0	0				
			Total	34	1	0	0	1	3	1	6
3	Dairy products	a	Raw milk cheeses	26	0	0	0				
		b	Raw milk	12	0	0	0				
		c	Heat treated dairy products	8	0	0	0				
			Total	46	0	0	0	0	3	0	6
4	Fishery products	a	Raw fish	15	0	0	0				
		b	Smoked and seasoned fish	11	0	0	0				
		c	RTE, RTRH	8	0	0	0				
			Total	34	0	0	0	0	3	0	6
5	Vegetables	a	Fresh and frozen vegetables	9	0	0	0				
		b	Pre-cooked, MAP	12	1	0	0				
		c	RTE, RTRH	10	0	0	0				
			Total	31	1	0	0	1	3	1	6
6	Production environmental Samples	a	Process water	8	0	0	0				
		b	Sponges, swabs	31	0	0	1				
		c	Dusts, residues	15	0	0	0				
			Total	54	0	0	1	-1	3	1	6
All categories				**237**	**4**	**0**	**1**	**3**	**6**	**5**	**16**

The observed values for ND+PPND-PD and for ND+PPND+PD meet the acceptability limit (AL) for each individual category and for all the categories combined whatever the incubation time tested (22h and 48h).

3.1.1.7 RAPID'Listeria Agar plates storage

All the plates were stored for 48 h for the study performed in 2006 and for 72 h at 5°C ± 3°C for the renewal study.
No modification of the result was observed after storage, the analysis of discordant results is the same as before plate's storage.

3.1.1.8 Half-Fraser broth storage for 72 h at 5°C ± 3°C

The Half-Fraser broths from positive and discordant samples were stored for 72 h at 5°C ± 3°C before streaking onto RAPID'*Listeria* plates incubated for 48 h at 37°C ±1°C.
Three modifications were observed, they are listed in **Table 12**.

Table 12 - Modifications observed after Half-Fraser broth storage for 72 h at 5°C ± 3°C

Year of analysis	Sample N°	Product	RAPID'*Listeria* 48 h at 37°C		Category	Type
			Before storage	After storage		
2019	**1658**	**RTE salad (ham)**	ND	PA	1	a
2006	C5	Minced meat	PA	ND	2	a
2006	K9	Horse meat	ND	PA	2	b

The analysis of discordant results became (See **Table 13**):

Table 13 - Analysis of discordant results - Half Fraser 72 h (RAPID'*Listeria* 48 h)

Category			Type	N+	ND	PPND	PD	(ND+PPND)-PD	AL	(ND+PPND)+PD	AL
1	Composite foods	a	RTE	14	1	0	0				
		b	RTRH	13	0	0	0				
		c	Pastries, egg products	11	0	0	0				
			Total	38	1	0	0	1	3	1	6
2	Meat products	a	Raw	12	1	0	0				
		b	RTE, RTRH	7	0	0	0				
		c	Delicatessen	15	0	0	0				
			Total	34	1	0	0	1	3	1	6
3	Dairy products	a	Raw milk cheeses	26	0	0	0				
		b	Raw milk	12	0	0	0				
		c	Heat treated dairy products	8	0	0	0				
			Total	46	0	0	0	0	3	0	6
4	Fishery products	a	Raw fish	15	0	0	0				
		b	Smoked and seasoned fish	11	0	0	0				
		c	RTE, RTRH	8	0	0	0				
			Total	34	0	0	0	0	3	0	6
5	Vegetables	a	Fresh and frozen vegetables	9	0	0	0				
		b	Pre-cooked, MAP	12	1	0	0				
		c	RTE, RTRH	10	0	0	0				
			Total	31	1	0	0	1	3	1	6
6	Production environmental Samples	a	Process water	8	0	0	0				
		b	Sponges, swabs	30	0	0	0				
		c	Dusts, residues	15	0	0	0				
			Total	53	0	0	0	0	3	0	6
All categories				**236**	**3**	**0**	**0**	**3**	**6**	**3**	**16**

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

3.1.1.9 Confirmation

Confirmations were performed using the tests described in the reference method (Gram, catalase) by spot on RLM and Palcam plates and by biochemical galleries.
Same results were observed on both plates (RLM and Palcam) except for sample 1688 for which no colony was observed on RLM while typical colonies were observed on Palcam. The colonies were not confirmed as *Listeria* spp (Gram observation not characteristic of *Listeria* genus).
All the colonies giving typical colonies on both RLM and Palcam plates were identified as *Listeria* spp. except for sample 1688.

3.1.2 Relative level of detection

The relative level of detection is the level of detection at P = 0.50 (LOD_{50}) of the alternative (proprietary) method divided by the level of detection at P = 0.50 (LOD_{50}) of the reference method.

The RLOD is defined as the ratio of the alternative and reference methods:

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

The relative detection level is the smallest number of culturable micro-organisms that can be detected in the sample in 50% of occasions by the alternative and reference methods.

3.1.2.1 Experimental design

For the initial validation study six matrix/strain pairs were tested using the following protocol:

- 0 CFU/ g or ml, 6 samples;
- level required to get 0 to 50 % positive samples,6 samples;
- level required to get 50 to 75 % positive samples, 6 samples;
- level required to get 75 to 100 % positive samples, 6 samples.

The samples were analysed by both methods, and the background microflora was enumerated.

For the renewal study two matrix/strain pairs were tested for the Composite food category using the following protocol:

- 0 CFU/g with 5 replicates;
- A low contamination level providing fractional recovery data, with 20 replicates;
- A higher inoculation level, with 5 replicates.

Finally, eight matrix/strain pairs were tested by the reference and the alternative method (See **Table 14**).

Table 14 - Matrix/strain pairs tested for the RLOD determination

Category	Matrix	Strain	Origin	Storage conditions prior to analysis
Composite food	Tabbouleh	*Listeria monocytogenes* Ad1495	Deli salad	48 h 3°C ± 2°C
		Listeria ivanovii Ad2465	Poultry	48 h 3°C ± 2°C
Meat products	Rillettes	*Listeria welshimeri L90*	/	/
Dairy products	Raw milk	*Listeria monocytogenes* 1/2b	Raw milk cheese	/
		Listeria ivanovii	/	/
Fishery products	Smoked salmon	*Listeria monocytogenes* 1/2a	Smoked salmon	/
Vegetables	Red cabbage	*Listeria seeligeri L140*	/	/
Production Environmental samples	Process water	*Listeria innocua L144*	/	/

3.1.2.2 Calculation and interpretation of the RLOD

The raw data are given in **Appendix 5**.

The RLOD calculations were performed using the Excel spreadsheet available at http://standards.iso.org/iso/16140 - RLOD (clause 5-1-4-2 Calculation and interpretation of RLOD) version 15.08.2015. The RLOD are given in Tables 15 and 16.

Table 15 - Presentation of RLOD before and after confirmation of the alternative method results - 22 h

Strain/matrix pair	RLOD	RLODL	RLODU	b=ln(RLOD)	sd(b)	z-Test statistic	p-value	AL
Tabbouleh / *Listeria monocytogenes* Ad1495	0,854	0,319	2,286	-0,157	0,492	0,320	1,251	
Tabbouleh / *Listeria ivanovii* Ad1495	1,144	0,438	2,990	0,135	0,480	0,280	0,779	
Rillettes / *Listeria welshimeri* L90	1,363	0,541	3,433	0,309	0,462	0,670	0,503	
Raw milk / *Listeria monocytogenes* L37	1,000	0,406	2,462	0,000	0,450	0,000	1,000	
Raw milk / *Listeria ivanovii*	1,000	0,422	2,371	0,000	0,432	0,000	1,000	1,5
Smoked salmon / *Listeria monocytogenes*	1,000	0,364	2,744	0,000	0,505	0,000	1,000	
Vegetables mix / *Listeria seeligeri* L140	1,000	0,406	2,462	0,000	0,450	0,000	1,000	
Process water / *Listeria innocua* L144	1,000	0,422	2,371	0,000	0,432	0,000	1,000	
Combined	**1,035**	**0,750**	**1,428**	**0,034**	**0,161**	**0,214**	**0,830**	

Table 16 - Presentation of RLOD before and after confirmation of the alternative method results - 48 h

Strain/matrix pair	RLOD	RLODL	RLODU	b=ln(RLOD)	sd(b)	z-Test statistic	p-value	AL
Tabbouleh / *Listeria monocytogenes* Ad1495	0,854	0,319	2,286	-0,157	0,492	0,320	1,251	
Tabbouleh / *Listeria ivanovii* Ad2465	1,144	0,438	2,990	0,135	0,480	0,280	0,779	
Rillettes / *Listeria welshimeri* L90	1,165	0,472	2,871	0,152	0,451	0,338	0,735	
Raw milk / *Listeria monocytogenes* L37	1,000	0,406	2,462	0,000	0,450	0,000	1,000	
Raw milk / *Listeria ivanovii*	1,000	0,422	2,371	0,000	0,432	0,000	1,000	1,5
Smoked salmon / *Listeria monocytogenes*	1,000	0,364	2,744	0,000	0,505	0,000	1,000	
Vegetables mix / *Listeria seeligeri* L140	1,000	0,406	2,462	0,000	0,450	0,000	1,000	
Process water / *Listeria innocua* L144	1,000	0,422	2,371	0,000	0,432	0,000	1,000	
Combined	**1,017**	**0,738**	**1,403**	**0,017**	**0,161**	**0,107**	**0,915**	

An additional positive sample was observed after 48h incubation time of the RAPID'*Listeria* plates; this explains the difference observed for the RLOD values between both incubation times.

The RLOD meet the Acceptability Limit (AL) fixed at 1.5 for the matrix/ strain pairs tested whatever the incubation time applied for the RAPID'*Listeria* spp. plates.

The $LOD_{50\ \%}$ calculations according to Wilrich & Wilrich POD-LOD calculation program - 11, 2022-10-12 test are given in Table 17.

Table 17 - LOD_{50} results

(Strain / matrix) pair	Level of detection at 50% (CFU / sample size) according to Wilrich & Wilrich[1]		
	Reference method	Alternative method	
		22 h	48 h
Tabbouleh / *Listeria monocytogenes* Ad1495	0.8[0.4;1.4]	0.7[0.4;1.2]	0.7[0.4;1.2]
Tabbouleh / *Listeria ivanovii* Ad2465	0.9[0.4;1.8]	1.0[0.5;2.1]	1.0[0.5;2.1]
Rillettes / *Listeria welshimeri* L90	1.0[0.5;1.8]	1.0[0.6;2.0]	1.0[0.5;2.0]
Raw milk / *Listeria monocytogenes* L37	0.7[0.4;1.2]	0.7[0.4;1.2]	0.7[0.4;1.2]
Raw milk / *Listeria ivanovii*	0.8[0.4;1.3]	0.8[0.4;1.3]	0.8[0.4;1.3]
Smoked salmon / *Listeria monocytogenes*	0.6[0.3;1.1]	0.6[0.3;1.1]	0.6[0.3;1.1]
Vegetables mix / *Listeria seeligeri* L140	0.6[0.3;1.0]	0.7[0.4;1.2]	0.6[0.0;1.0]
Process water / *Listeria innocua* L144	0.8[0.4;1.4]	0.8[0.4;1.4]	0.8[0.4;1.4]
Combined results	**0.8[0.6;0.9]**	**0.8[0.6;1.0]**	**0.8[0.6;1.0]**

The LOD_{50} varies from 0.6 CFU to 1.0 CFU for both reference and alternative methods.

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

3.1.3 Inclusivity / exclusivity

The inclusivity is the ability of the alternative method to detect the target analyte from a wide range of strains. The exclusivity is the lack of interference from a relevant range of non-target strains of the alternative method.

3.1.3.1 Test protocols

- **Inclusivity**

Initial validation study (2006): 50 target strains including 14 *Listeria monocytogenes* strain were grown in nutrient broth for 24 h at 30°C. The broths were diluted in order to inoculate between 1 to 100 cells in Half-Fraser broth; the broths were incubated for 22 h at 30°C ± 1°C before streaking on RAPID'*Listeria* spp. plates.

- **Exclusivity**

Initial validation study (2006): 30 non-target strains were grown in nutrient broth and inoculated at 10^5 CFU/ml of nutrient broth, incubated for 24 h at 30°C before streaking onto RAPID'*Listeria* Plates.
In 2007, additional testing was performed on 36 non-target strains giving typical blue colonies on RAPID'*Listeria* to check if these strains were not able to grow and show typical growth on Palcam plates.

3.1.3.2 Results

Raw data are given in **Appendix 6**.

- **Inclusivity**

All the *Listeria* spp. strains including 25 *Listeria monocytogenes* strains show typical colonies after 22 h incubation time, except one *Listeria ivanovii* strain (L185). Three other *L.ivanovii* strains were tested and gave typical colonies after 22 h incubation time of RAPID'*Listeria* spp. plates.

- **Exclusivity**

70 non-*Listeria* strains were tested.
30 for the initial validation study in 2006 including 23 β-D-glucosidase positive strains 36 additional β-D-glucosidase positive strains in 2007.

Most of these strains were not able to grow on RAPID'*Listeria* spp. plates.
Some strains gave non-typical blue colonies (shape) after 22 or 48 h incubation time. This concern:

- *Enterococcus faecalis* E1,
- *Jonesia denitrificans,*
- *Bacillus* BA22,
- *Enterococcus faecium* E9,
- *Enterococcus durans* E10.

The confirmation protocol applied (spot on Palcam) on colonies which were able to grow on RAPID'*Listeria* spp. plates gave a negative result.

3.1.4 Practicability

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

Storage conditions, shelf-life and modalities of utilisation after first use	The storage temperature is 2 - 8°C. The shelf-life is given on the package and on the plates.		
Time to result	Steps	**Reference method**	**Alternative method**
	Negative samples		
	Sampling, enrichment	Day 0	Day 0
	Subculture in Fraser 1	Day 1	/
	Streaking onto plates (O1/P1/RLSP)	Day 1	Day 1/
	Second streaking (O2/P2)	Day 3	/
	Reading plates (O1/P1/RLSP)	Day 2 - 3	Day 2
	Results	Day 5	Day 2
	Presumptive positive or positive results		
	Subculture of typical colonies	Day 3 - 5	/
	Confirmation test	Day 4 - 6	Day 2
	Results	Day 5 - 7 Day 8 - 11 *	Day 3
	* In the case of rhamnose and xylose tests are carried out in tubes.		
Common step with the reference method	Sampling enrichment		

The negative results are available in 2 days and the positive results in 3 days with the alternative method.

3.2 Inter-Laboratory Study

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

3.2.1 Study organisation

The study was carried out on 2006. Pasteurized milk samples were inoculated with *Listeria innocua* L64 isolated from raw milk cheese. 15 collaborators were involved in the study but only 14 collaborators received their samples on time.

3.2.2 Experimental parameters controls

3.2.2.1 Contamination levels

The contamination levels and the sample codification were the following (see **Table 18**).

Table 18 - Contamination levels

Level	Samples	Theoretical target level (b/25 g)	True level (b/25 g sample)	Low limit / 25 g sample	High limit / 25 g sample
1	7-8-9-13-14-18-21-24	0	0	/	/
2	3-4-6-11 12-15-19-22	3	3,3	1,9	5,4
3	1-2-5-10-16-17-20-23	30	33,8	28	41

3.2.2.2 Logistic conditions

Temperature conditions are given in Table 19.

Table 19 - Sample temperatures at receipt

Collaborators	Temperature measured by the probe (°C)	Temperature measured at receipt (°C)	Receipt date and time	State of the package and samples at the receipt	Analysis date
A	0,4	2,5	Day 1	/	Day 1
B	1,4	3,0	Day 1	/	Day 1
C	4,9	2,7	Day 1	/	Day 1
D	0,4	4,0	Day 1	/	Day 1
E	0,9	1,2	Day 1	Sample 4 partially frozen	Day 1
F	0,4	1,5	Day 1	/	Day 1
G	3,4	5,6	Day 1	/	Day 1
H	2,9	3,9	Day 1	/	Day 1
I	Not received	12,0	Day 2	/	Day 2
J	1,4	2,0	Day 1	/	Day 1
K	3,5	9,4	Day 1	/	Day 1
L	0,4	4,0	Day 1	/	Day 1
M	2,4	3,5	Day 1	/	Day 1
N	5,9	7,0	Day 1	/	Day 1
O	4,0	7,0	Day 1	/	

No problem was encountered during the transport or at receipt for 14 collaborators. All the samples were delivered on time and in appropriate conditions except for Lab I which received the samples at Day 2 at 12°C. Lab K indicated a temperature at receipt of 9.4°C, but the probe indicated a temperature of 3.5°C.

3.2.3 Results analysis

Raw data are provided in **Appendix 7**.

3.2.3.1 Expert laboratory results

The results obtained by the expert laboratory are given in **Table 20**.

Table 20 – Results obtained by the expert Lab.

Level	Reference method	Alternative method
L0	0	0
L1	7	7
L2	8	8

3.2.3.2 Results observed by the collaborative laboratories

> *Aerobic mesophilic flora enumeration*

Depending on the Lab results, the enumeration levels varied from <1 CFU/ml to 940 CFU/g.

> *Listeria spp detection*

14 collaborators participated to the study. The results obtained are provided in **Table 21** (reference method) and **Table 22** (alternative method).

Table 21 - Positive results by the reference method (ALL the collaborators)

Collaborators	Contamination level		
	L0	L1	L2
A	0	8	8
B	0	8	8
C	0	8	8
D	0	8	8
E	0	8	8
F	0	6	8
G	0	8	8
H	0	8	8
I	0	8	8
J	0	8	8
K	0	8	8
L	0	8	8
M	0	8	8
N	0	8	8
Total	$P_0 = 0$	$P_1 = 110$	$P_2 = 112$

Table 22 - Positive results (before and after confirmation) by the alternative method (ALL the collaborators)

Collaborators	Contamination level								
	L0			L1			L2		
	Before confirmation	Confir-mation	Final result	Before confirmation	Confir-mation	Final result	Before confirmation	Confir-mation	Final result
A	0	0	0	8	8	8	8	8	8
B	0	0	0	8	8	8	8	8	8
C	0	0	0	8	8	8	8	8	8
D	0	0	0	8	8	8	8	8	8
E	0	0	0	8	8	8	8	8	8
F	0	0	0	4	4	4	8	8	8
G	0	0	0	8	8	8	8	8	8
H	0	0	0	8	8	8	8	8	8
I	0	0	0	8	8	8	8	8	8
J	0	0	0	8	8	8	8	8	8
K	0	0	0	8	8	8	8	8	8
L	0	0	0	8	8	8	8	8	8
M	0	0	0	8	8	8	8	8	8
N	0	0	0	8	8	8	8	8	8
Total	**$P_0 = 0$**	**$C_0 = 0$**	**$CP_0 = 0$**	**$P_1 = 108$**	**$C_1 = 108$**	**$CP_1 = 108$**	**$P_2 = 112$**	**$C_2 = 112$**	**$CP_2 = 112$**

3.2.4 Calculation and interpretation

3.2.4.1 Calculation of the specificity percentage (SP)

The percentage specificities (SP) of the reference method and of the alternative method, using the data after confirmation, based on the results of level L0 are the following (See **Table 23**).

Table 23 - Percentage specificity

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

N: number of all L0 tests
P_0 = total number of false-positive results obtained with the blank samples before confirmation
CP_0 = total number of false-positive results obtained with the blank samples

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

Fractional positive results were obtained for the low inoculation level (L1). This inoculation level was retained for calculation.

A summary of the results of the collaborators retained for interpretation, and obtained with the reference and the alternative methods for Level 1 is provided in **Table 24**.

Table 24 - Summary of the obtained results with the reference method and the alternative method for Level 1

Level	Response	Reference method positive (R+)	Reference method negative (R-)
1	Alternative method positive (A+)	Positive agreement (A+/R+) **PA = 108**	Positive deviation (R-/A+) **PD = 0**
	Alternative method negative (A-)	Negative deviation (A-/R+) **ND = 2 (PPNA=0)**	Negative agreement (A-/R-) **NA = 2 (PPNA=0)**

Based on the data summarized in **Table 24**, the values of sensitivity of the alternative and reference methods, as well as the relative trueness and false positive ratio for the alternative method taking account the confirmations, are the following (See **Table 25**).

Table 25 - Sensitivity, relative trueness and false positive ratio percentages

		Level 1
Sensitivity for the alternative method:	$SE_{alt} = \frac{(PA+PD)}{(PA+PD+ND)} x\ 100\% =$	98.2%
Sensitivity for the reference method:	$SE_{ref} = \frac{(PA+ND)}{(PA+PD+ND)} x\ 100\% =$	100%
Relative trueness	$RT = \frac{(PA+NA)}{N} x\ 100\% =$	98.2%
False positive ratio for the alternative method	$FPR = \frac{FP}{NA} x\ 100\% =$	0%

3.2.4.3 *Interpretation of data*

Two negative deviations were observed at level 1 for Lab E (samples 6 and 11). For these samples typical colonies were observed for the reference method only on plates isolated from Fraser broth. These samples were probably contaminated at a

low level and a double step enrichment was required for the recovery of the inoculated strain.

For a **paired study design**, the difference between (ND – PD) and the addition (ND + PD) are calculated for the level(s) where fractional recovery is obtained (L_1). The observed value found for (ND – PD) and (ND + PD) shall not be higher than the AL.

For 14 Labs, the limits are the following:

	Calculated values	AL	Conclusion
ND - PD	2	4	ND-PD < AL
ND + PD	2	6	ND-PD < AL

The EN ISO 16140-2:2016 requirements are fulfilled as (ND - PD) and (ND + PD) meet the AL.

3.2.4.4 Evaluation of the LOD $_{50\%}$, LOD $_{95\%}$ and RLOD between laboratories

The RLOD was calculated using the EN ISO 16140-2:2016 Excel spreadsheet available at https://standards.iso.org/iso/16140/-5/ed-1/en/RLOD_inter-lab-study_16140-2_AnnexF_ver1_28-06-2017.xls. The results are used only for information (see **Table 26**).

Table 26 - LOD $_{50\%}$, LOD $_{95\%}$ and RLOD

Method	LOD 50%	LOD 95%	RLOD
Reference	0,57 [0,40;0,80]	2,46 1,73;3,48]	1,21 [0;83;1,76]
Alternative	0,69 [0,51;0,92]	2,97 [2,21;3,98]	

3.3 General conclusion

The **method comparison study conclusions** are:

- ☒ The method comparison study scheme corresponds to a PAIRED STUDY design as the alternative and reference methods have a common enrichment procedure.
- ☒ In the sensitivity study, six categories were tested: five food categories and the production environmental samples. The protocol of the alternative method shows one positive deviation (PD) and six negative deviations (ND) for 22h incubation time of the RAPID'*Listeria* plates, one positive deviation and 4 negative deviations for 48h incubation time for all the combined categories. The observed values for ND+PPND-PD and for ND+PPND+PD meet the acceptability limit (AL) for each individual category and for all the categories combined whatever the incubation time tested (22h and 48h).
- ☒ The Relative Levels of Detection (RLOD) are all below the AL fixed at 1.5 for the paired study design whatever the matrix/strain pairs.
- ☒ The RAPID'*Listeria spp* method is specific and selective.
- ☒ It is possible to store the primary enrichment broth and the plates for 72 h at 5 ± 3°C.
- ☒ The negative results are available in 2 days and the positive results in 3 days with the alternative method.
- ☒ The alternative method fulfils all the EN ISO 16140-2:2016 and AFNOR technical rules (PR revision 7).

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

- ☒ The data and interpretations comply with the EN ISO 16140-2:2016 requirements. The RAPID'*Listeria* spp method is considered equivalent to the ISO standard.

Quimper, 23 October 2023

Maryse RANNOU
Project Manager
Validation of Alternative methods

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

Appendix 1 – Flow diagram of the alternative method: RAPID'*Listeria spp.*

Enrichment

Up to 25 g or 25 mL test portion (x g or x ml) in 9x ml Half Fraser
1 swab + 10 ml Half Fraser broth[2]
1 sponge + 100 ml Half Fraser broth
1 wipe + 225 ml Half Fraser broth

↓

Incubation for 24 h ± 2 h at 30°C ± 1°C

Possibility to store for 72 h at 5°C ± 3°C

↓

Spreading - streaking 0.1 ml Half Fraser enrichment
on a RAPID'*Listeria* spp. plate

↓

Incubation for 24 h to 48 h ± 2 h
at 30°C ± 1°C

Possibility to store for 48 h at 5°C ± 3°C

↓

Presence of characteristic colonies
(blue to blue green)

↓

Confirmation *Listeria* spp.
- Tests described in the ISO method [3]
- iQ-Check *Listeria* spp. [2]
- Spot onto RAPID'*Lmono* Agar + Gram + Catalase [2]
- Spot onto Palcam plates [2]

[2] For sampling after cleaning process pre-moisten
- 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)

[3] Tested during the validation study

Appendix 2 – Flow diagram of the reference method: ISO 11290-1 (2017): Microbiology of the food chain - Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp. - Part 1: detection method

Test portion (25 g or 25 ml)
1 swab + 10 ml Half Fraser broth[4]
1 sponge + 100 ml Half Fraser broth
1 wipe + 225 ml Half Fraser broth

↓

Primary enrichment medium (Half Fraser broth) (225 g or 225 ml)

↓

Incubation at 30°C ± 24 h to 26 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 ± 2 h at 37°C ± 1°C
Incubation of second selective medium according to the chosen medium
as specified by the manufacturer

↓

Confirmation

Target	Gram	Catalase	Beta hemolysis	CAMP test	Carbohydrates
Listeria spp	x	x			
Listeria monocytogenes	x	Optional	x	Optional	x

[4] For sampling after cleaning process pre-moisten
- 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)

Appendix 3 – Artificial contamination of samples

IPL (2006) (in French)

Code	Sample (in French)	Category	Strain			Stress	Stress intensity	Level of contamination (CFU/25g)	Result
			n°	nom	origin				
AK6	Brie de Meaux	PL1	L73	*Listeria innocua*	Munster	48 hours at 4°C, 45 minutes at 55°C, 30 minutes at -80°C	0,4	13,6	+
AK11	Reblochon	PL1	L75	*Listeria innocua*	Munster	48 hours at 4°C, 45 minutes at 55°C, 30 minutes at -80°C	0,4	11,9	+
AK13	Médaillon de lotte aux légumes	PP3	L113	*Listeria innocua*	Flétan fumé	48 hours at 4°C, 45 minutes at 55°C, 30 minutes at -80°C	0,9	9,9	+
AK14	Paupiette de saumon	PP3	L113	*Listeria innocua*	Flétan fumé	48 hours at 4°C, 45 minutes at 55°C, 30 minutes at -80°C	0,9	8,8	+
AK15	Terrine de poisson	PP3	L113	*Listeria innocua*	Flétan fumé	48 hours at 4°C, 45 minutes at 55°C, 30 minutes at -80°C	0,9	11	+
AK16	Poisson en sauce	PP3	L113	*Listeria innocua*	Flétan fumé	48 hours at 4°C, 45 minutes at 55°C, 30 minutes at -80°C	0,9	22	+
AL2	Salade de tagliatelles	PV3	L66	*Listeria innocua*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	0,2	19	+
AL4	Ratatouille	PV3	L66	*Listeria innocua*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	0,2	3,2	-
AL5	Soupe aux légumes	PV3	L66	*Listeria innocua*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	0,2	3,8	-
AL7	Salade de haricots verts	PV3	L112	*Listeria innocua*	Pommes frites	45 minutes at 55°C, 30 minutes at -80°C	0,3	6,8	+
AL8	Salade de pommes de terre	PV3	L112	*Listeria innocua*	Pommes frites	45 minutes at 55°C, 30 minutes at -80°C	0,3	7,9	+
AL9	Carottes en rondelles	PV2	L112	*Listeria innocua*	Pommes frites	45 minutes at 55°C, 30 minutes at -80°C	0,3	9, 1	+
AL10	Taboulé	PV3	L112	*Listeria innocua*	Pommes frites	45 minutes at 55°C, 30 minutes at -80°C	0,3	10,2	+
AM1	Purée de carottes	PV3	L174	*Listeria welshimeri*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	>1,5	ND	-
AM2	Salade de pommes de terre	PV3	L175	*Listeria welshimeri*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	>1,5	ND	-
AM3	Salade céleri chou carottes	PV2	L176	*Listeria welshimeri*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	>1,5	ND	-

Code	Sample (in French)	Category	Strain			Stress	Stress intensity	Level of contamination (CFU/25g)	Result
			n°	nom	origin				
AM4	Salade de fruits	PV3	L177	*Listeria welshimeri*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	>1,5	ND	-
A01	Céleri rémoulade	PV3	L66	*Listeria innocua*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	0,4	2,2	+
A02	Salade de concombres	PV3	L66	*Listeria innocua*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	0,4 -	3,3	+
A03	Carottes râpées	PV2	L66	*Listeria innocua*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	0,4	4,4	+
A04	Salade de pâtes	PV3	L66	*Listeria innocua*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	0,4	5,5	+
A05	Salade de farfales	PV3	L66	*Listeria innocua*	Epinard	45 minutes at 55°C, 30 minutes at -80°C	0,4	6,6	+
A06	Salade de tomates	PV3	L112	*Listeria innocua*	Pommes frites	45 minutes at 55°C, 30 minutes at -80°C	0,2	6	+
A07	Courgettes cuites	PV3	L112	*Listeria innocua*	Pommes frites	45 minutes at 55°C, 30 minutes at -80°C	0,2	9	+
A08	Salade de lentilles	PV3	L112	*Listeria innocua*	Pommes frites	45 minutes at 55°C, 30 minutes at -80°C	0,2	12	+
A09	Salade de riz	PV3	L112	*Listeria innocua*	Pommes frites	45 minutes at 55°C, 30 minutes at -80°C	0,2	15	-
AP7	Frites surgelées	PV1	L31	*Listeria monocytogenes 1/2*	Persil plat	45 minutes at 55°C, 30 minutes at -80°C	1,8	*1,3*	+
AP21	Boudin noir à la crème	PC3	L3	*Listeria innocua*	Foie de génisse	45 minutes at 55°C, 30 minutes at -80°C	0,8	0,3	-
AP22	Merguez cru	PC2	L3	*Listeria innocua*	Foie de génisse	45 minutes at 55°C, 30 minutes at -80°C	0,8	0,2	-
AP23	Salami	PC3	L3	*Listeria innocua*	Foie de génisse	45 minutes at 55°C, 30 minutes at -80°C	0,8	Q,2	+
AP24	Assortiment de charcuteries	PC3	L151	*Listeria ivanovii*	Steak haché	45 minutes at 55°C, 30 minutes at -80°C	>3	ND	-
AP25	Jambon	PC3	L151	*Listeria ivanovii*	Steak haché	45 minutes at 55°C, 30 minutes at -80°C	>3	ND	-
AP26	Boudin aux pommes	PC3	L151	*Listeria ivanovii*	Steak haché	45 minutes at 55°C, 30 minutes at -80°C	>3	ND	-
AP27	Pâté de campagne	PC3	L151	*Listeria ivanovii*	Steak haché	45 minutes at 55°C, 30 minutes at -80°C	>3	ND	-

Code	Sample (in French)	Category	Strain			Stress	Stress intensity	Level of contamination (CFU/25g)	Result
			n°	nom	origin				
A02	Saucisson de cheval	PC3	L151	*Listeria ivanovii*	Steak haché	1 month at 4±°C, 60 min at 55°C	>3,93	13,1	+
A03	Palette crue fumée	PC3	L151	*Listeria ivanovii*	Steak haché	1 month at 4±°C, 60 min at 55°C	>3,93	17.4	+
AR1	Saucisse catalane	PC3	L10	*Listeria monocytogenes 1/2a*	Rillettes	48 hours at 4°C, 30 minutes at 55"C	ND	10	+
AR2	Escalope de poulet	PC1	L10	*Listeria monocytogenes 1/2a*	Rillettes	48 hours at 4°C, 30 minutes at 55"C	ND	- o.o	+

ADRIA (2019)

Year	Ref	Product	Artificial contaminations							Global result	Category	Type
			CA	Strain	Origin	Injury protocol	Injury measu-rement	Inoculation level				
2019	**1658**	**RTE salad (ham)**	*Yes*	*L.monocytogenes* Ad2598+*L.seeligeri* Ad1754	Salad+Zucchini	Seeding 48 h 3°C ± 2°C	/	2-0-1-0-2+0-0-1-0-2	1,0+1,6	+	1	a
2019	**1659**	**RTE salad (ham cabbage and cheese)**	*Yes*	*L.monocytogenes* Ad2598+*L.seeligeri* Ad1754	Rillettes+Baccon	Seeding 48 h 3°C ± 2°C	/	2-0-1-0-2 n	1,0	-	1	a
2019	**2408**	**RTE (sandwich tuna vegetables)**	*Yes*	*L.monocytogenes* Ad1412+*L.welshimeri* Ad1669	Smoked salmon+Fish	Seeding 48 h 3°C ± 2°C	/	1-3-0-0-2+0-1-0-0-3	1,2+0,8	+	1	a
2019	**2409**	**RTE (sandwich salmon)**	*Yes*	*L.monocytogenes* Ad2599+*L.innocua Ad1675*	Salmon+Fish	Seeding 48 h 3°C ± 2°C	/	1-1-3-0-0+1-2-0-2-3	1,0+1,6	+	1	a
2019	**2410**	**RTE (salad pasta surimi)**	*Yes*	*L.monocytogenes* Ad1412+*L.welshimeri* Ad1669	Smoked salmon+Fish	Seeding 48 h 3°C ± 2°C	/	1-3-0-0-2+0-1-0-0-3	1,2+0,8	+	1	a
2019	**2411**	**RTE (salad rice tuna)**	*Yes*	*L.monocytogenes* Ad2599+*L.innocua Ad1675*	Salmon+Fish	Seeding 48 h 3°C ± 2°C	/	1-1-3-0-0+1-2-0-2-3	1,0+1,6	+	1	a
2019	**2412**	**RTE (pasta salmon)**	*Yes*	*L.monocytogenes* Ad1412+*L.innocua* Ad1675	Smoked salmon+Fish	Seeding 48 h 3°C ± 2°C	/	1-3-0-0-2+1-2-0-2-3	1,2+1,6	+	1	a
2019	**1660**	**RTRH Pizza(ham and cheese)**	*Yes*	*L.monocytogenes* Ad669+*L.innocua* Ad671	/	Seeding 48 h 3°C ± 2°C	/	0-0-1-0-1+1-1-0-0-0	0,4+0,4	+	1	b
2019	**1661**	**RTRH Quiche Lorraine**	*Yes*	*L.monocytogenes* Ad669+*L.innocua* Ad671	/	Seeding 48 h 3°C ± 2°C	/	0-0-1-0-1+1-1-0-0-0	0,4+0,4	+	1	b
2019	**1664**	**RTRH Pizza(ham and cheese)**	*Yes*	*L.monocytogenes* Ad1494	Sausage	Seeding 48 h 3°C ± 2°C	/	2-0-1-3-1	1,4	+	1	b
2019	**1665**	**RTRH Quiche Lorraine**	*Yes*	*L.monocytogenes* Ad1494	Sausage	Seeding 48 h 3°C ± 2°C	/	2-0-1-3-1	1,4	+	1	b
2019	**1666**	**RTRH (puff ham and cheese)**	*Yes*	*L.monocytogenes* Ad669	Rillettes	Seeding 48 h 3°C ± 2°C	/	2-0-4-0-2	1,6	+	1	b
2019	**1667**	**RTRH (puff ham and cheese)**	*Yes*	*L.monocytogenes* Ad1494	Sausage	Seeding 48 h 3°C ± 2°C	/	2-0-1-3-1	1,4	-	1	b
2019	**1668**	**RTRH (Couscous)**	*Yes*	*L.monocytogenes* Ad669	Rillettes	Seeding 48 h 3°C ± 2°C	/	2-0-4-0-2	1,6	-	1	b
2019	**1669**	**RTRH (Couscous)**	*Yes*	*L.monocytogenes* Ad1494	Sausage	Seeding 48 h 3°C ± 2°C	/	2-0-1-3-1	1,4	+	1	b
2019	**1871**	**RTRH (Beef)**	*Yes*	*L.monocytogenes* Ad1218	Ground beef	Seeding 48 h 3°C ± 2°C	/	0-2-1-0-0	0,6	+	1	b
2019	**1872**	**RTRH (Beef)**	*Yes*	*L.monocytogenes* Ad1206	Frozen ground beef	Seeding 48 h 3°C ± 2°C	/	5-2-1-0-2	2,0	+	1	b
2019	**1873**	**RTRH (Beef Goulash)**	*Yes*	*L.monocytogenes* Ad1218	Ground beef	Seeding 48 h 3°C ± 2°C	/	0-2-1-0-0	0,6	+	1	b

Year	Ref	Product	Artificial contaminations							Global result	Category	Type
			CA	Strain	Origin	Injury protocol	Injury measu-rement	Inoculation level				
2019	**1874**	**RTRH (Poultry)**	*Yes*	*L.monocytogenes* Ad2453	Poultry	Seeding 48 h 3°C ± 2°C	/	2-3-1-0-2	1,6	+	1	b
2019	**1875**	**RTRH (Poultry)**	*Yes*	*L.monocytogenes* Ad2453	Poultry	Seeding 48 h 3°C ± 2°C	/	2-3-1-0-2	1,6	+	1	b
2019	**1876**	**RTRH (Pork)**	*Yes*	*L.monocytogenes* Ad2154	Pâté	Seeding 48 h 3°C ± 2°C	/	0-2-1-3-0	1,2	+	1	b
2019	**1877**	**RTRH (Pork)**	*Yes*	*L.monocytogenes* Ad1494	Sausages	Seeding 48 h 3°C ± 2°C	/	3-3-2-1-3	2,4	-	1	b
2019	**3016**	**Quiche Lorraine**	*Yes*	*L.monocytogenes* Ad272+*L.welshimeri* Ad1215	Dry sausage+Bacon	Seeding 48 h 3°C ± 2°C	/	5-4-10-6-2+2-0-3-0-3	5,4+1,6	+	1	b
2019	**1662**	**Pastry**	*Yes*	*L.monocytogenes* Ad1195+*L.innocua* Ad644	Omelette+Raw bread	Seeding 48 h 3°C ± 2°C	/	1-0-1-0-1+0-2-1-0-0	0,6+0,6	+	1	c
2019	**1663**	**Pastry**	*Yes*	*L.monocytogenes* Ad1195+*L.innocua* Ad644	Omelette+Raw bread	Seeding 48 h 3°C ± 2°C	/	1-0-1-0-1+0-2-1-0-0	0,6+0,6	+	1	c
2019	**1670**	**Tortilla**	*Yes*	*L.monocytogenes Ad1195*	Rillette	Seeding 48 h 3°C ± 2°C	/	1-0-1-0-1	0,6	-	1	c
2019	**1671**	**Tortilla**	*Yes*	*L.innocua Ad1277*	Poultry environment	Seeding 48 h 3°C ± 2°C	/	0-1-0-2-0	0,6	-	1	c
2019	**1672**	**Pastry**	*Yes*	*L.monocytogenes Ad1195*	Rillette	Seeding 48 h 3°C ± 2°C	/	1-0-1-0-1	0,6	-	1	c
2019	**2413**	**Pastry**	*Yes*	*L.monocytogenes* Ad1757+*L.innocua* Ad644	Egg+Raw bread	Seeding 48 h 3°C ± 2°C	/	1-2-0-1-0+2-0-4-3-1	0,8+2,0	+	1	c
2019	**2414**	**Pastry**	*Yes*	*L.monocytogenes* Ad1757+*L.innocua* Ad644	Egg+Raw bread	Seeding 48 h 3°C ± 2°C	/	1-2-0-1-0+2-0-4-3-1	0,8+2,0	+	1	c
2019	**2415**	**Tortilla onions**	*Yes*	*L.monocytogenes* Ad1757+*L.innocua* Ad644	Egg+Raw bread	Seeding 48 h 3°C ± 2°C	/	1-2-0-1-0+2-0-4-3-1	0,8+2,0	+	1	c
2019	**2420**	**RTRH (Bourguignon beef)**	*Yes*	*L.monocytogenes* AOOC054+*L.innocua* Ad1207	Beef+Groud beef	Seeding 48 h 3°C ± 2°C	/	0-0-4-1-0+0-1-1-1-2	1,0+1,0	+	2	b
2019	**2421**	**RTRH (Goulash beef)**	*Yes*	*L.monocytogenes* AOOC054+*L.innocua* Ad1207	Beef+Groud beef	Seeding 48 h 3°C ± 2°C	/	0-0-4-1-0+0-1-1-1-2	1,0+1,0	+	2	b
2019	**2422**	**RTRH (Breaded pork)**	*Yes*	*L.monocytogenes* AOOC040+*L.innocua* Ad671	Pork+Bacon	Seeding 48 h 3°C ± 2°C	/	0-0-0-1-1+2-1-1-2-2	0,4+1,6	+	2	b
2019	**2423**	**RTRH (Breaded pork)**	*Yes*	*L.monocytogenes* AOOC041+*L.innocua* Ad671	Pork+Bacon	Seeding 48 h 3°C ± 2°C	/	0-0-1-1-1+2-1-1-2-2	0,6+1,6	+	2	b
2019	**2998**	**Raw milk**	*Yes*	*L.innocua* Ad1789	Raw milk	Seeding 48 h 3°C ± 2°C	/	1-0-1-1-0	0,6	+	3	b
2019	**2999**	**Raw milk**	*Yes*	*L.welshimeri* Ad1667	Raw milk cheese	Seeding 48 h 3°C ± 2°C	/	4-2-4-3-2	3,0	+	3	b

Year	Ref	Product	Artificial contaminations							Global result	Category	Type
			CA	Strain	Origin	Injury protocol	Injury measu-rement	Inoculation level				
2019	**3000**	**Raw milk**	*Yes*	*L.welshimeri* Ad1667	Raw milk cheese	Seeding 48 h 3°C ± 2°C	/	4-2-4-3-2	3,0	+	3	b
2019	**3536**	**Raw milk**		*L.monocytogenes* Ad1781+*L.innocua* Ad1787	Raw milk /Raw milk	Seeding 48 h 3°C ± 2°C	/	2-0-0-0-2+2-0-1-0-1	0,8+0,8	+	3	b
2019	**2991**	**Pasteurized semi-skimmed milk**	*Yes*	*L.monocytogenes* Ad1781+*L.innocua* Ad1789	Raw milk+raw milk	Seeding 48 h 3°C ± 2°C	/	3-0-2-6-2+1-0-1-1-0	2,6+0,6	+	3	c
2019	**2992**	**Pasteurized semi-skimmed milk**	*Yes*	*L.monocytogenes* Ad1781+*L.innocua* Ad1789	Raw milk+raw milk	Seeding 48 h 3°C ± 2°C	/	3-0-2-6-2+1-0-1-1-0	2,6+0,6	+	3	c
2019	**2993**	**Pasteurized skimmed milk**	*Yes*	*L.monocytogenes* Ad1781+*L.innocua* Ad1789	Raw milk+raw milk	Seeding 48 h 3°C ± 2°C	/	3-0-2-6-2+1-0-1-1-0	2,6+0,6	+	3	c
2019	**2996**	**Smoked herring**	*Yes*	*L.innocua* Ad1674	Smoked salmon	Seeding 48 h 3°C ± 2°C	/	0-3-2-1-2	1,6	+	4	b
2019	**2997**	**Smoked trout**	*Yes*	*L.innocua* Ad1674	Smoked salmon	Seeding 48 h 3°C ± 2°C	/	0-3-2-1-2	1,6	+	4	b
2019	**2994**	**Vegetables (cabbage, beet)**	*Yes*	*L.monocytogenes* Ad2643	Salad	Seeding 48 h 3°C ± 2°C	/	8-4-2-2-3	3,8	+	5	b
2019	**2995**	**Vegetables (cabbage, beet)**	*Yes*	*L.monocytogenes* Ad2598	Salad	Seeding 48 h 3°C ± 2°C	/	2-5-3-6-1	3,4	+	5	b
2019	**3017**	**Process water (liver production)**	*Yes*	*L.monocytogenes* Ad272	Dry sausage	Seeding 48 h 3°C ± 2°C	/	5-4-10-6-2	5,4	+	6	a
2019	**3018**	**Process water (liver production)**	*Yes*	*L.monocytogenes* Ad280	Bacon	Seeding 48 h 3°C ± 2°C	/	5-1-8-6-1	4,2	+	6	a

Appendix 4 – Sensitivity study: raw data

ADRIA – Legend

Bold typing : artificially inoculated samples
***Listeria* detection results:**

H-:	characteristic Listeria colonies without halo
H+:	characteristic Listeria colonies with halo
-:	no typical colonies but presence of background microflora
st:	plate without any colony
i:	PCR inhibition
PA:	positive agreement
NA:	negative agreement
ND:	negative deviation
PD:	positive deviation
PPNA:	positive presumptive negative agreement
PPND :	positive presumptive negative deviation
NC:	non characteristic colony on TSYEA
d:	doubtful colony
F1:	Fraser 1

♦ Analyses performed according to the COFRAC accreditation

IPL - Legend

Total bacteria growth
Ø : no growth L = low
M = medium H = high

Distribution of flora
A = pure culture of suspicious colonies (blue) B = mix with a majority of suspicious colonies C = mix with a minority of suspicious colonies D = mix with rare suspicious colonies
E = absence of suspicious colonies
(x) : x typical colonies of Listeria if x < 5

(48h) : result after 48 hours incubation of agars sh = without halo
(b) : Bacillus
(st) : staphylocoque
j : yellow
blc : white

CA : artificial contamination Mixt : contamination by mixture P or PAL : Palcam agar
AL : Listeria agar according to Ottaviani and Agosti RLM : RAPID'L.mono agar

COMPOSITE FOODS																										
				NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method																
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
Year	Ref	Product	Global result	O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h	Agreement RL 24 h	Agreement RL 48 h	Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C	Category	Type
2006	AJ1	Tagliatelli carbonara	+	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	a
2006	AL2	Salad of tagliatelli	+	+LA	+LA	-MA	+MA	*L.innocua*	+	+LA	+LA	+LA	+HA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	1	a
2006	AO4	Pasta salad	+	+LA	+LA	+MA	+MA	*L.innocua*	+	+MA	+MA	+MA	+HA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	1	a
2006	AO5	Salad of farfale	+	+LB	+LB	+MA	+MA	*L.innocua*	+	+LA	+LB	+LB	+MA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	1	a
2019	**1658**	**RTE salad (ham)**	+	-	-	H-d	+d	*L.welshimeri*	+	st	+1d	+1d	+d	-	+	*Gram - /L.monocytogenes (72h F1/2)*	-	-	-	+	ND	ND	ND	PA	1	a
2019	**1659**	**RTE salad (ham cabbage and cheese)**	-	st	st	-	-		-	st	+1d	+1d	st	-	-	Uncharacteristic on TSYEA	-	-	-	-	NA	NA	NA	NA	1	a
2019	1753	RTE salad (grapefruit)	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	a
2019	1754	RTE salad (rice)	-	-	-	st	st		-	st	st	st	st				-	-	-	-	NA	NA	NA	NA	1	a
2019	1755	RTE sandwich (chicken vegetables)	-	-	-	-	-		-	st	+4 pale colonies	+4d	st	-	-	Catalase -	-	-	-	-	NA	PPNA	PPNA	NA	1	a
2019	1756	RTE sandwich (ham and cheese)	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	a
2019	**2408**	**RTE (sandwich tuna vegetables)**	+	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	+p	+p	+M	+M	+	+	*L.welshimeri*	+	+	+	+	PA	PA	PA	PA	1	a
2019	**2409**	**RTE (sandwich salmon)**	+	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+p	+p	+p	+p	+	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	1	a
2019	**2410**	**RTE (salad pasta surimi)**	+	H-	+	H-	+	*L.welshimeri*	+	+M	+M	+M	+M	+	+	*L.welshimeri*	+	+	+	+	PA	PA	PA	PA	1	a
2019	**2411**	**RTE (salad rice tuna)**	+	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+p	+p	+p	+p	+	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	1	a
2019	**2412**	**RTE (pasta salmon)**	+	-	-	H-	+	*L.innocua*	+	+Md	+Md	+Md	+Md	+	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	1	a
2019	3537	RTE (sandwich salmon)	-	-	-	-	-		-	st	st	st					-	-	-	-	NA	NA	NA	NA	1	a
2019	3538	RTE (salad tuna)	-	-	st	st	st		-	st	st	st					-	-	-	-	NA	NA	NA	NA	1	a
2019	3550	RTE (sandwich ham cheese)	+	H-d	st	-	-	*L.seeligeri*	+	st	st	st	st				-	-	-	-	ND	ND	ND	ND	1	a
2019	3551	RTE (sandwich tuna and egg)	-	-	st	-	-		-	st	st	st					-	-	-	-	NA	NA	NA	NA	1	a
2019	3552	RTE (sandwich delicatessen)	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+M	+M	+M	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	a
2019	3553	RTE (salad ham pastas)	-	-	-	-	-		-	st	st	st					-	-	-	-	NA	NA	NA	NA	1	a
2019	**1660**	**RTRH Pizza(ham and cheese)**	+	H+	-	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b
2019	**1661**	**RTRH Quiche Lorraine**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b
2019	**1664**	**RTRH Pizza(ham and cheese)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b
2019	**1665**	**RTRH Quiche Lorraine**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b
2019	**1666**	**RTRH (puff ham and cheese)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b
2019	**1667**	**RTRH (puff ham and cheese)**	-	-	-	-	-		-	st	st	st					-	-	-	-	NA	NA	NA	NA	1	b
2019	**1668**	**RTRH (Couscous)**	-	-	st	-	-		-	st	st	st					-	-	-	-	NA	NA	NA	NA	1	b
2019	**1669**	**RTRH (Couscous)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b

COMPOSITE FOODS

Year	Ref	Product	Global result	NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method											Agreement RL 24 h	Agreement RL 48 h	Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C	Category	Type
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
				O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h						
2019	1757	RTRH (Pizza)	-	-	-	-	-		-	st	st	st	st				-	-	-	-	NA	NA	NA	NA	1	b
2019	**1871**	**RTRH (Beef)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b
2019	**1872**	**RTRH (Beef)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b
2019	**1873**	**RTRH (Beef Goulash)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b
2019	**1874**	**RTRH (Poultry)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b
2019	**1875**	**RTRH (Poultry)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b
2019	**1876**	**RTRH (Pork)**	+	H+d	+	H+d	+	*PCR + L.monocytogenes (haemolysis negative)*	+	+d	+	+	+	white	+	*L.monocytogenes (haemolysis negative)*	+	+	+	+	PA	PA	PA	PA	1	b
2019	**1877**	**RTRH (Pork)**	-	-	-	-	-		-	st	st	st					-	-	-		NA	NA	NA		1	b
2019	1958	RTRH (Beef)	-	st	st	st	st		-	st	st	st					-	-	-		NA	NA	NA		1	b
2019	1959	RTRH (Beef Goulash)	-	st	st	st	-		-	st	st	st					-	-	-		NA	NA	NA		1	b
2019	1960	RTRH (Poultry)	-	st	st	st	st		-	st	st	st					-	-	-		NA	NA	NA		1	b
2019	1961	RTRH (Poultry)	-	st	st	st	st		-	st	st	st					-	-	-		NA	NA	NA		1	b
2019	1962	RTRH (Pork)	-	-	-	-	-		-	-	+d	+d	st	-	-	Gram-	-	-	-	-	NA	PPNA	PPNA	NA	1	b
2019	**3016**	**Quiche Lorraine**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+M	+M	+M	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	b
2019	3539	Pastry	-	st	-	-	-		-	st	st	st					-	-	-	-	NA	NA	NA	NA	1	b
2019	3548	RTRH (Pizza)	-	-	st	st	st		-	st	st	st					-	-	-	-	NA	NA	NA	NA	1	b
2019	3549	RTRH (Quiche)	-	st	-	-	st		-	st	st	st					-	-	-	-	NA	NA	NA	NA	1	b
2006	E1	Tarts in fruits	+	+MA	+MA	+MA	+MA	*L.innocua*	+	+MA	+MA	+MA	+HA	+ j	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	1	c
2006	AA6	Profiteroles (whipped cream)	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	/	/	/	Ø	-	-	-	-	NA	NA	NA	NA	1	c
2006	AB7	Tarts in fruits	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	NA	NA	NA	NA	1	c
2006	AB8	Whipped cream puffs	+	+LA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	c
2006	AB12	Tarts in fruits	-	Ø	-LE	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	NA	NA	NA	NA	1	c
2006	AB15	Tarts in fruits	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	NA	NA	NA	NA	1	c
2006	AC1	Tarts in fruits	-	-LE	-LE	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	NA	NA	NA	NA	1	c
2006	AC15	Duet raspberries	+	+LB	+LB	+LB	+LB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	c
2006	AC16	Strawberry cream cake	+	+LB	+LB	+LB	+LB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	c
2006	AC17	Custard	+	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	c
2006	AC18	Pastry cook puffs	+	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	c
2019	**1662**	**Pastry**	+	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	c
2019	**1663**	**Pastry**	+	H-	+	H-	+	*L.innocua*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	1	c

COMPOSITE FOODS																											
				NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method																	
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations													
Year	Ref	Product	Global result	O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h	**Agreement RL 24 h**	**Agreement RL 48 h**	**Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C**	**Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C**	Category	Type
2019	**1670**	**Tortilla**	**-**	-	-	-	-		-	st	st	st					-	-	-	-	**NA**	**NA**	**NA**	**NA**	1	c
2019	**1671**	**Tortilla**	**-**	st	st	st	st		-	st	st	st					-	-	-	-	**NA**	**NA**	**NA**	**NA**	1	c
2019	**1672**	**Pastry**	**-**	-	-	st	st		-	st	st	st					-	-	-	-	**NA**	**NA**	**NA**	**NA**	1	c
2019	**2413**	**Pastry**	**+**	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+p	+p	+p	+p	+	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	1	c
2019	**2414**	**Pastry**	**+**	H-	+	H-	+	*L.innocua*	+	+M	+M	+M	+M	+	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	1	c
2019	**2415**	**Tortilla onions**	**+**	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+p	+p	+p	+p	+	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	1	c
2019	3001	Tortilla	**-**	st	st	st	st		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		1	c

MEAT PRODUCTS																											
				NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method																	
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations													
Year	Ref	Product	Global result	O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h	**Agreement RL 24 h**	**Agreement RL 48 h**	**Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C**	**Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C**	Category	Type
2006	A8	Émincé of pork	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	B6	Pork's sauté	+	-LE	-LE	-MA	+MB	*L.innocua*	+	+LB	+LB	+LB	+LB	+	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	a
2006	B7	Veal cutlet	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	C5	Minced meat	+	Ø	Ø	+HB	+HB	*L.monocytogenes L.innocua*	+	-LE	+HB(3)**	+HB(3)**	-LE	/	/	*L.innocua*	-	+	+	-	**ND**	**PA**	**PA**	**ND**	2	a
2006	E4	Chopped meat of ox	-	-ME	-LE	-LE	-LE	/	-	-ME	-ME	-ME	-ME	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	K5	Minced meat of ox	-	-LE	Ø	Ø	Ø	/	-	Ø	-ME	-ME	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	L1	Rib steak of ox(beef)	+	+LA (5)	+LA	+HA	+HA	*L.monocytogenes L.innocua*	+	+MB*	+MB*	+MB*	+MB*	+/+ blc	+/+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	a
2006	L3	Cutlet of poultry	+	+LB	+LB	+MB	+MB	*L.monocytogenes L.innocua*	+	+MB*	+MB*	+MB*	+MB*	+/+j	+/+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	a
2006	AI3	Minced meat	+	+MA	+MB	+MB	+MB	*L.monocytogenes L.innocua*	+	+MB	+MB	+MB	+MB	+/+ blc	+/+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	a
2006	AI4	Coarse pork sausage	-	Ø	-LE	-LE	-LE	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	AI5	Chipolatas	-	Ø	-LE	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	AI7	Duck tenderloin	+	+LB	+LB	+MB	+MB	*L.monocytogenes L.innocua*	+	+MB	+MB	+MB	+MB	+/+ blc	+/+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	a
2006	AI9	Pork	+	+LB	+LB	+MB	+MB	*L.monocytogenes L.welshimeri*	+	+LB	+LB	+LB	+LB	+/+j	+/+	*L.monocytogenes/ L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	a
2006	AI10	Pork	+	+LA	+LB	+LB	+LB	*L.moncytogenes L.innocua*	+	+LA	+LA	+LA	+LB	+4/+ 1blc	+/+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	a
2006	AJ5	Minced meat	-	Ø	Ø	Ø	Ø	/	-	-LE	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	AJ8	Skirt of horse	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	AJ10	Minced meat	+	+MA	+MB	+MB	+MB	*L.monocytogenes L.welshimeri*	+	+HB	+HB	+HB	+HA	+/+j	+/+	*L.monocytogenes/ L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	a
2006	AJ11	Duck fillet	+	+LA	+LA	+LB	+LB	*L.monocytogenes L.welshimeri*	+	+LA	+LA	+LA	+LA	+j	+	*L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	a
2006	AM8	Minced meat	-	-LE	-LE	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	AM9	Lamb	-	-LE	-LE	Ø	-LE	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	AM10	Shank	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	AM11	Veal cutlet	-	-LE	-LE	-LE	-LE	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	AM12	Horse meat	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	AN3	Minced beef	+	+LB	+LB	+HB	+HB	*L.monocytogenes L.welshimeri*	+	+LB	+LB	+LB	+LB	+/+j	+/+	*L.monocytogenes/ L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	a
2006	AN9	Minced meat of ox	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	a
2006	AR2	Chicken fillet	+	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	a
2019	3806	Filet de poulet pané	-	st	st	st	st		-	st	st	-					-	-	-		**NA**	**NA**	**NA**		2	b
2006	AI8	Olives of turkey poult	+	+LB	+LB	+MB	+MB	*L.monocytogenes L.welshimeri*	+	+LB	+LB	+LB	+LB	+/+j	+/+	*L.monocytogenes/ L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	b
2006	K7	Chipolatas	-	Ø	Ø	-LE	Ø	/	-	Ø	-LE	-LE	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	b
2006	AN1	Raw merguez sausage	-	-LE	-LE	-LE	-LE	/	-	-LE	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	b

MEAT PRODUCTS																											
				NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method																	
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations													
Year	Ref	Product	Global result	O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h	Agreement RL 24 h	Agreement RL 48 h	Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C	Category	Type
2006	AN2	Burger tomatoes	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	2	b
2006	AN5	Coarse pork sausage	-	-LE	-LE	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	2	b
2006	AN7	Sausage meat	-	-LE	-LE	-LE	-LE	/	-	Ø	-LE	-LE	/	/	/	/	-	-	-	-	NA	NA	NA	NA	2	b
2006	AN12	Minced meat	+	+LB	+LB	+MB	+MB	*L.monocytogenes L.welshimeri*	+	+MB	+MB	+MB	+LB	+/+j	+/+	*L.monocytogenes/ L.welshimeri*	+	+	+	+	PA	PA	PA	PA	2	b
2006	K9	Sauté of horse in the Indian	+	Ø	Ø	+MB*	+MB	*L.monocytogenes L.welshimeri*	+	Ø	-LE	-LE	+LA(2)	+	+	*L.monocytogenes (72h F1/2)*	-	-	-	+	ND	ND	ND	PA	2	b
2019	**2420**	**RTRH (Bourguignon beef)**	+	H+	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+p	+p	+p	+p	+	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	2	b
2019	**2421**	**RTRH (Goulash beef)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	2	b
2019	**2422**	**RTRH (Breaded pork)**	+	H+	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	2	b
2019	**2423**	**RTRH (Breaded pork)**	+	H-	+	H-	+	*L.welshimeri*	+	+p	+p	+p	+p	+	+	*L.welshimeri*	+	+	+	+	PA	PA	PA	PA	2	b
2019	3540	RTRH (lasagnes)	-	-	-	-	-		-	st	st	st					-	-	-	-	NA	NA	NA	NA	2	b
2019	3542	RTRH (bourguignon beef)	-	st	st	st	st		-	st	st	st					-	-	-	-	NA	NA	NA	NA	2	b
2019	3543	RTRH (blanquette)	-	st	st	st	st		-	st	st	st					-	-	-	-	NA	NA	NA	NA	2	b
2019	3544	RTRH (pork and lentils)	-	st	st	st	st		-	st	st	st					-	-	-	-	NA	NA	NA	NA	2	b
2019	3545	RTRH (Paella)	-	-	-	-	-		-	st	st	st					-	-	-	-	NA	NA	NA	NA	2	b
2019	3546	RTRH (sausages and purée)	-	st	st	st	st		-	st	st	st					-	-	-	-	NA	NA	NA	NA	2	b
2019	3547	RTRH (spaghetti and meat)	-	st	st	st	st		-	st	st	st					-	-	-	-	NA	NA	NA	NA	2	b
2006	AJ4	Sausage meat	+	+LA	+LA	+MA	+MA	*L.innocua*	+	+LA	+LA	+LA	+LA	+ blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	2	c
2006	A9	Sausage meat	+	+LA	+LA(3)	+MA	+HA	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	2	c
2006	K4	Raw merguez sausage	+	+MB *	+MB	+HB*	+HB	*L.monocytogenes L.welshimeri*	+	+MB*	+MB*	+MB*	+HB	+/+ blc	+/+	*L.monocytogenes/ L.welshimeri*	+	+	+	+	PA	PA	PA	PA	2	c
2006	AN8	Raw merguez sausage	+	+LB(1)	+LB	+MB	+MB	*L.monocytogenes*	+	+LB	+LB	+LB	+LB	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	2	c
2006	AP22	Raw merguez sausage	+	+LB	+MB	+MB	+MB	*L.monocytogenes L.welshimeri*	+	+MB	+MB	+MB	+MB	+/+j	+/+	*L.monocytogenes/ L.welshimeri*	+	+	+	+	PA	PA	PA	PA	2	c
2006	A11	Sausage in the pepper	-	Ø	Ø	-LE	-LE	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	2	c
2006	K6	Foie gras	-	-LE	Ø	-LE	Ø	/	-	Ø	-LE	-LE	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	2	c
2006	L2	Rosette of pork	+	+LA(1)	Ø	+HA	+HA	*L.moncocytogenes L.welshimeri*	+	+LA	+LA	+LA	+LA	+/+j	+/+	*L.moncocytogenes/ L.welshimeri*	+	+	+	+	PA	PA	PA	PA	2	c
2006	L4	Shank of ham in herbs	-	+LB?	Ø	-ME	-LE	*Bacillus*	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	2	c
2006	L5	Lardons	+	+LA	+LB	+HA	+HB	*L.welshimeri*	+	+MA	+MA	+MA	+MA	+j	+	*L.welshimeri*	+	+	+	+	PA	PA	PA	PA	2	c
2006	L6	Pâté in the shallot	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	2	c
2006	L7	Potjevlesh	-	-LE	-LE	-ME	-LE	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	2	c
2006	L9	Pâté de campagne	-	-ME	-ME	-ME	-ME	/	-	-LE	-LE	-LE	/	/	/	/	-	-	-	-	NA	NA	NA	NA	2	c
2006	AG1	Ham in deep	+	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	2	c

MEAT PRODUCTS																										
				NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method																
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
Year	Ref	Product	Global result	O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h	**Agreement RL 24 h**	**Agreement RL 48 h**	**Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C**	**Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C**	Category	Type
2006	AG2	Slice of ham (surface)	-	Ø	-LE	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AG3	Ham in deep	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AG4	Slice of ham	-	-LE	-LE	-LE	-ME	/	-	-LE	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AI6	Émincé of pork dijonnaise	-	Ø	-LE	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AJ7	Paté de campagne	-	Ø	-LE	-ME	-LE	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AN4	Smoked bacon	+	+LB	+LB	+MB	+MB	*L.monocytogenes L.welshimeri*	+	+MB	+MB	+MB	+MB	+/+j	+/+	*L.monocytogenes/ L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	c
2006	AN6	Bacon	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AN10	Smoked fillet	+	+MB	+MB	+MB	+MB	*L.monocytogenes L.welshimeri*	+	+MB	+MB	+MB	+MB	+/+j	+/+	*L.monocytogenes/ L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	c
2006	AN11	Pork's slice	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AN13	Smoked breast	+	+LA	+LB	+MA	+MA	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	c
2006	AP21	Black sausage	-	Ø	Ø			/	-	Ø	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AP23	Salami	+	-LE	-LE	+MB	+MB	*L.innocua*	+	+LA(5)	+LA	+LA	+LA(1)	/	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	c
2006	AP24	Assortment of delicatessen	-	-LE	-LE	-ME	-ME	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AP25	Ham	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AP26	Sausage in apples	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AP27	Pâté de campagne	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	2	c
2006	AQ2	Sausage of horse	+	+LB	+LB	+MA	+MA	*L.ivanovii*	+	+LA	+LA	+LA	+MA	+ (halo j)	+	*L.ivanovii*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	c
2006	AQ3	Smoked raw palette	+	Ø	+LA(3)	+LA	+LA	*L.ivanovii*	+	+LA	+LB	+LB	+LA	+ (halo j)	+	*L.ivanovii*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	c
2006	AR1	Catalan sausage	+	+MB	+MA	+MB	+MA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	2	c

DAIRY PRODUCTS

Year	Ref	Product	Global result	NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method											Agreement RL 24 h	Agreement RL 48 h	Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C	Category	Type
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
				O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h						
2006	A2	Camembert cheese	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	3	a
2006	A3	Munster	-	Ø	Ø	-LE	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	3	a
2006	A10	Maroilles cheese	+	+LA	+LB	+MA	+MB	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	B1	Époisses cheese	+	+MA	+LA	+MA	+MA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	B2	Époisses cheese	-	-LE	-LE	-LE	-LE	/	-	Ø	-ME	-ME	-LE	/	/	Ø	-	-	-	-	NA	NA	NA	NA	3	a
2006	B3	Reblochon	-	-LE	Ø	Ø	Ø	/	-	Ø	-LE	-LE	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	3	a
2006	B5	Munster	-	-LE	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	3	a
2006	C2	Munster	+	+MA	+MA	+MA	+MB	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	C4	Maroilles cheese	+	Ø	+LB(2)	+MA	+LB	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AA1	Munster	+	+MB	+MA	+MA	+MA	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AA4	Maroilles cheese	+	+HB	+HA	+MB	+MA	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AA8	Petit vinageois cheese	+	+MB	+MA	+MA	+MA	*L.monocytogenes*	+	+HA	+HA	+HA	+MA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AB2	Maroilles cheese	+	+LB	+LB	+MB	+LB	*L.monocytogenes*	+	+MA	+MB	+MB	+MA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AB3	Époisses cheese	+	-LE	+LA(2)	+MA	+MA	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AB4	Reblochon	-	-LE	-LE	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	NA	NA	NA	NA	3	a
2006	AB5	Époisses cheese	-	-LE	-LE	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	NA	NA	NA	NA	3	a
2006	AB6	Maroilles cheese	+	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AB9	Maroilles cheese	+	+LB	+LA	+LB	+MB	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AB13	Maroilles cheese	-	-LE	-LE	-LE	Ø	/	-	Ø	-LE(1)	-LE(1)	/	-	-	Ø	-	-	-	-	NA	NA	NA	NA	3	a
2006	AB14	Maroilles cheese	+	+MB	+MA	+MA	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AB16	Époisses cheese	+	-LE	+LB	+LB	+MB	*L.monocytogenes*	+	+LB	+LB	+LB	+LB	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AC2	Époisses cheese	+	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AC3	Époisses cheese	+	+MB	+MB	+MB	+MB	*L.monocytogenes Lseeligeri*	+	+LB	+LB	+LB	+LB	+/+j	+/+	*L.monocytogenes/ L.seeligeri*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AC4	Camembert cheese	+	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AC5	Camembert cheese	+	+MB	+MB	+MB	+MB	*L.monocytogenes L.welshimeri*	+	+MB	+MB	+MB	+MB	+/+j	+/+	*L.monocytogenes/ L.welshimeri*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AC6	Coulommiers in the raw milk	+	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AC7	Coulommiers in the raw milk	+	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AC8	Dough cheese maker	+	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AC9	Dough cheese maker	+	+LB	+LB	+LB	+LB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AC13	Camembert cheese	+	+LB	+MB	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AC14	Camembert cheese	+	+LB	+LB	+LB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AK1	Brie region (cheese)	-	-ME	-ME	-ME	-ME	/	-	-ME	-ME	-ME	/	/	/	/	-	-	-	-	NA	NA	NA	NA	3	a

DAIRY PRODUCTS

Year	Ref	Product	Global result	NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method											Agreement RL 24 h	Agreement RL 48 h	Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C	Category	Type
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
				O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h						
2006	AK3	Livarot	-	-LE	Ø	-LE	-LE	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	3	a
2006	AK6	Brie de Meaux cheese	+	+MB	+MB	+MB	+MB	*L.innocua*	+	+MA	+MA	+MA	+MA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AK7	Brie de Meaux cheese	-	-LE	-LE	-ME	-ME	/	-	-ME	-ME	-ME	/	/	/	/	-	-	-	-	NA	NA	NA	NA	3	a
2006	AK9	Parmesan cheese	-	-LE	-LE	-ME	-ME	/	-	Ø	-ME	-ME	/	/	/	/	-	-	-	-	NA	NA	NA	NA	3	a
2006	AK11	Reblochon	+	+LB	+LB	+MB	+MB	*L.innocua*	+	+MA	+MA	+MA	+MA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	3	a
2006	AK12	Reblochon	-	-LE	-LE	-ME	-ME	/	-	Ø	-ME	-ME	/	/	/	/	-	-	-	-	NA	NA	NA	NA	3	a
2006	AC12	Tomme cheese in the raw milk	+	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	a
2019	1965	Raw milk cheese	-	-	-	st	st		-	st	-	+d	st			Gram-	-	-	-	-	NA	NA	PPNA	NA	3	a
2019	1966	Raw milk cheese	-	-	-	-	-		-	+1	+d	+d	+d	-	-	Gram-	-	-	-	-	PPNA	PPNA	PPNA	PPNA	3	a
2019	1967	Raw milk cheese	-	-	st	st	st		-	+1d	+1	+1	st	-	-	NC on TSYEA	-	-	-	-	PPNA	PPNA	PPNA	NA	3	a
2019	1968	Raw milk cheese	-	st	-	st	st		-	st	st	st					-	-	-		NA	NA	NA		3	a
2006	B15	Raw milk	+	+LA	+LA	+MA	+HA	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	b
2006	B16	Raw milk	+	+MA	+MA	+MA	+MB	*L.monocytogenes* *L.innocua*	+	+MB	+MB	+MB	+MA	+ +	+ +	*L.monocytogenes/* *L.innocua*	+	+	+	+	PA	PA	PA	PA	3	b
2006	C8	Raw milk	+	Ø	+LA(1)	+LA	+HA	*L.welshimeri*	+	+LA	+LA	+LA	+LA	+	+	*L.welshimeri*	+	+	+	+	PA	PA	PA	PA	3	b
2006	E7	Raw milk	-	Ø	Ø	-LE	-LE	/	-	Ø	-LE	-LE	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	3	b
2006	AA2	Raw milk	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	NA	NA	NA	NA	3	b
2006	AA3	Raw milk	-	-LE	-LE	Ø	-LE	/	-	-ME	-ME	-ME	/	/	/	Ø	-	-	-	-	NA	NA	NA	NA	3	b
2006	AB11	Raw milk	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	NA	NA	NA	NA	3	b
2006	AC10	Raw milk	+	+LB	+LB	+LB	+LB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	b
2006	AC11	Raw milk	+	+LB	+LB	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	b
2019	1963	Raw milk	-	-	st	-	-		-	st	st	st					-	-	-		NA	NA	NA		3	b
2019	1964	Raw milk	-	-	-	-	-		-	st	st	st					-	-	-		NA	NA	NA		3	b
2019	1969	Raw milk butter	-	-	-	-	-		-	st	st	st					-	-	-		NA	NA	NA		3	b
2019	1970	Raw milk butter	-	-	-	-	-		-	st	st	st					-	-	-		NA	NA	NA		3	b
2019	1971	Fermented milk	-	st	st	st	st		-	st	st	st					-	-	-		NA	NA	NA		3	b
2019	1972	Fermented milk	-	st	st	st	st		-	st	st	st					-	-	-		NA	NA	NA		3	b
2019	2494	Ewe raw milk	+	H+	+	H+	+	*L.monocytogenes*	+	+1/2	+1/2	+1/2	+M	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	b
2019	2495	Ewe raw milk	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	b
2019	2496	Ewe raw milk	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	3	b
2019	**2998**	**Raw milk**	+	H-	+	H-	+	*L.innocua*	+	+p	+p	+p	+M	+	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	3	b
2019	**2999**	**Raw milk**	+	H-	+	H-	+	*L.welshimeri*	+	+p	+p	+1/2	+1/2	+	+	*L.welshimeri*	+	+	+	+	PA	PA	PA	PA	3	b
2019	**3000**	**Raw milk**	+	H-	+	H-	+	*L.welshimeri*	+	+p	+m	+m	+1/2	+	+	*L.welshimeri*	+	+	+	+	PA	PA	PA	PA	3	b

DAIRY PRODUCTS

Year	Ref	Product	Global result	NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method											Agreement RL 24 h	Agreement RL 48 h	Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C	Category	Type
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
				O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h						
2019	**3536**	**Raw milk**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+M	+	+	*L.monocytogenes L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	3	b
2006	A1	Goat cheese Ste Maure	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	3	c
2006	A4	Nature Féta	-	Ø	Ø	Ø	Ø	/	-	-LE	-LE	-LE	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	3	c
2006	A6	Goat cheese Chabichou	-	Ø	Ø	-LE	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	3	c
2006	A12	Chevrotin farmer	+	+MA	+LA	+HA	+HA	*L.ivanovii*	+	-ME	+MB	+MB	+LA	+	+	*L.ivanovii*	-	+	+	+	**ND**	**PA**	**PA**	**PA**	3	c
2006	E6	Ossau Iraty	+	+LA	+LA	+MB*	+HB	*L.monocytogenes L.innocua*	+	+MB	+MB	+MB	+MB	+ +j	+ +	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	3	c
2006	E8	Goat cheese	+	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+MB	+MB	+MB	+MB	+ +j	+ +	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	3	c
2006	AA5	Chevrotin farmer	-	-LE	Ø	-LE	Ø	/	-	Ø	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	3	c
2006	AA7	Goat cheese	-	-LE	-LE	Ø	Ø	/	-	-LE	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	3	c
2006	AA9	Munster farmer	+	+LA	+LA	+MA	+LA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	3	c
2006	AB1	Goat cheese	-	-LE	Ø	-LE	Ø	/	-	Ø	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	3	c
2006	AB10	Ossau Iraty	+	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	3	c
2006	AK5	Ossau Iraty	-	-ME	-LE	-HE	-HE	/	-	Ø	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	3	c
2006	AK10	Goat cheese	-	-LE	-LE	-ME	-ME	/	-	-LE	-ME	-ME	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	3	c
2019	**2991**	**Pasteurized semi-skimmed milk**	+	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	3	c
2019	**2992**	**Pasteurized semi-skimmed milk**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	3	c
2019	**2993**	**Pasteurized skimmed milk**	+	H-	+	H-	+	*L.innocua*	+	+p	+p	+p	+p	+	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	3	c
2019	3002	Pasteurized semi-skimmed milk	-	st	st	st	st		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		3	c
2019	3003	Pasteurized semi-skimmed milk	-	st	st	-	-		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		3	c
2019	3004	Pasteurized skimmed milk	-	st	st	st	st		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		3	c
2019	3005	Pasteurized skimmed milk	-	st	st	st	st		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		3	c

FISHERY PRODUCTS

Year	Ref	Product	Global result	NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method											Agreement RL 24 h	Agreement RL 48 h	Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C	Category	Type
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
				O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h						
2006	B11	Shrimps	+	+LB	+LB	+LB	+MB	*L.monocytogenes L.welshimeri*	+	+MB	+MA	+MA	+MB	+ +	+ +	*L.monocytogenes/ L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	B18	Net of tilapia	+	+LA	+LA	+MA	+MA	*L.innocua*	+	+LA	+LA	+LA	+LA	+	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	G16	Salmon raw material	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	G17	Salmon raw material	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	-LE	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	G18	Salmon raw material	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	G19	Salmon raw material	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	G20	Salmon raw material	+	+LA	+LA	+MB*	+HB*	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	H1	Fresh salmon	+	+LA	+LA	+MB	+HA	*L.monocytogenes L.innocua*	+	+MA	+MB	+MB	+MB	+/+ blanc	+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	H2	Fresh salmon	+	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	+LA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	H3	Fresh salmon	+	+LA	+LA	+MA	+HA	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	H4	Fresh salmon	+	+LA	+LA	+MA	+HA	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	H5	Fresh salmon	+	+LA	+LA	+MA	+HA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	AE1	Fresh salmon	-	Ø	-LE	-LE	-LE	/	-	Ø	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	AE3	Fresh salmon	+	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	AE4	Fresh salmon	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	AE5	Raw material fish	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	AE6	Fresh salmon	+	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	AE7	Raw material fish	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	AF6	Fresh salmon	+	+MA	+MA	+MA	+HA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	AF7	Fresh salmon	+	+LA	+LA	+MA	+HA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	AF8	Fresh salmon	+	+LA(3)	+LA(1)	+MA	+HA	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	AF9	Fresh salmon	+	+MA	+MA	+MA	+HA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	AF10	Fresh salmon	+	+MA	+MA	+MB	+HA	*L.monocytogenes L.innocua*	+	+MB	+MB	+MB	+MB	+/+ blanc	+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	a
2006	AM7	Net of cod	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	AP16	Sea fruit cocktail	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	AP18	Coley filet	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	AP19	Seabass filet	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	a
2006	E3	Herrings	-	Ø	-LE	Ø	-ME	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	b
2006	AM6	Net of smoked haddock	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	b
2006	AM13	Nets of herrings	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	b
2006	A13	Smoked halibut	+	+LA	Ø	+MA	+HB	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	4	b

FISHERY PRODUCTS

Year	Ref	Product	Global result	NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method											Agreement RL 24 h	Agreement RL 48 h	Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C	Category	Type
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
				O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h						
2006	A14	Smoked salmon	+	+LB	+LA	+MB	+HA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	4	b
2006	B8	Smoked salmon	+	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	4	b
2006	B9	Smoked salmon	+	+LA(2)	+LA(3)	+MA	+HA	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	4	b
2006	C1	Smoked salmon	-	-LE	Ø	Ø	Ø	/	-	Ø	Ø	Ø	-ME	/	/	Ø	-	-	-	-	NA	NA	NA	NA	4	b
2006	C3	Lardons of smoked salmon	+	+LA	Ø	+MB	+LB	*L.monocytogenes*	+	+LA(1)	+LA(1)	+LA(1)	+LA	/	/	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	4	b
2006	K10	Smoked salmon	-	Ø	Ø	-LE	Ø	/	-	Ø	-LE	-LE	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	4	b
2006	AI2	Smoked haddock	+	+LA	+MB	+MB	+MB	*L.monocytogenes L.innocua*	+	+MA	+MB	+MB	+MB	+/+ blc	+/+	*L.monocytogenes/ L.innocua*	+	+	+	+	PA	PA	PA	PA	4	b
2006	AJ9	Smoked salmon	+	+MB	+MA	+MB	+MB	*L.moncocytogenes L.welshimeri*	+	+HA	+HB	+HB	+HA	que J	+	*L.welshimeri*	+	+	+	+	PA	PA	PA	PA	4	b
2006	AO14	Smoked carp of Dombes	-	Ø	Ø	Ø	-LE	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	4	b
2006	AP12	Wild smoked marlin	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	4	b
2006	AP13	Smoked salmon	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	4	b
2006	AP15	Smoked haddock	+	+MB	+MB	+MB	+MB	*L.monocytogenes L.innocua*	+	+MA	+MA	+MA	+MA	+/+ blc	+	*L.monocytogenes/ L.innocua*	+	+	+	+	PA	PA	PA	PA	4	b
2006	AP20	Smoked sardines	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	4	b
2006	A15	Marinated herrings	-	Ø	Ø	Ø	-ME	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	4	b
2006	C6	Marinated herrings	-	Ø	Ø	Ø	-LE	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	4	b
2006	K2	Salmon tartar	-	-LE	Ø	Ø	Ø	/	-	Ø	-LE	-LE	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	4	b
2006	AM14	Salmon tartar	+	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+LA	+LA	+LA	+MA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	4	b
2006	AP14	Carpaccio of salmon	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	4	b
2019	**2996**	**Smoked herring**	+	H-	+	H-	+	*L.innocua*	+	+p	+p	+p	+p	+	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	4	b
2019	**2997**	**Smoked trout**	+	H-	+	H-	+	*L.innocua*	+	+p	+p	+p	+M	+	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	4	b
2006	K3	Cooked shrimps	+	+LB*	+MB	+MB*	+MB	*L.monocytogenes L.innocua*	+	+MB*	+MB*	+MB*	+HB	+/+ blc	+/+	*L.monocytogenes/ L.innocua*	+	+	+	+	PA	PA	PA	PA	4	c
2006	B10	Rillette of tuna	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	/	-	-	-	-	NA	NA	NA	NA	4	c
2006	C7	Taramasalata	-	-LE	-LE	-LE	-ME	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	NA	NA	NA	NA	4	c
2006	E2	Terrine scampis	+	+MB	+HA	+MB	+HB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	4	c
2006	K1	Cod fish cakes	+	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	4	c
2006	AI1	Fish in Bordeaux preparation	+	+MA	+MB	+MB	+MB	*L.monocytogenes L.innocua*	+	+MB	+MB	+MB	+MB	+/+ blc	+/+	*L.monocytogenes/ L.innocua*	+	+	+	+	PA	PA	PA	PA	4	c
2006	AK13	Monkfish medallion in vegetables	+	+MB	+MB	+MB	+MB	*L.innocua*	+	+HA	+MA	+MA	+HA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	4	c
2006	AK14	Olive of salmon	+	+LA	+LA	+MA	+MA	*L.innocua*	+	+MA	+MA	+MA	+LA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	4	c
2006	AK15	Fish terrine	+	+LA	+LA	+MA	+MA	*L.innocua*	+	+LA	+LA	+LA	+LA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	4	c
2006	AK16	Fish in sauce	+	+LA	+LA	+MA	+MA	*L.monocytogenes L.innocua*	+	+HA	+HA	+HA	+HA	+blc	+	*L.monocytogenes/ L.innocua*	+	+	+	+	PA	PA	PA	PA	4	c
2006	AM5	Ready-made meal of fish	-	Ø	Ø	-ME	-ME	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	4	c

FISHERY PRODUCTS																										
				NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method																
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
Year	Ref	Product	Global result	O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h	**Agreement RL 24 h**	**Agreement RL 48 h**	**Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C**	**Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C**	Category	Type
2006	AO11	Fish stick	-	Ø	Ø	-LE	-LE	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	c
2006	AO12	Cooked whiting filet	-	Ø	-LE	Ø	-LE	/	-	-LE	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	c
2006	AO13	Net of cooked cod	-	Ø	Ø	Ø	-LE	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	c
2006	AP17	Net of cooked cod	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	4	c
2019	3006	RTRH Saint Jacques dish	-	-	-	-	-		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		4	c
2019	3007	RTRH trout dish	-	st	st	-	-		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		4	c
2019	3008	RTRH cod dish	-	-	-	-	-		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		4	c
2019	3009	RTRH tuna dish	-	st	st	st	st		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		4	c
2019	3010	RTRH cod dish	-	-	-	-	-		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		4	c

VEGETABLES																											
				NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method																	
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations													
Year	Ref	Product	Global result	O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h	**Agreement RL 24 h**	**Agreement RL 48 h**	**Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C**	**Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C**	Category	Type
2006	A7	Deep-frozen French beans	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	AN14	Potatoes	-	Ø	Ø	Ø	-LE	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	B12	Red cabbage	+	+MB	+MA	+MB	+MA	*L.welshimeri*	+	+MB	+MA	+MA	+MA	+	+	*L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	a
2006	AH1	Pea exit cooler	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	AH2	Spinach exit tunel	-	-LE	-LE	Ø	Ø	/	-	-LE	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	AH3	Peas exit t1	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	AH4	Peas (conveyor of parage)	-	Ø	Ø	-LE	-LE	/	-	Ø	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	AH5	Spinach under conveyor of parage	-	-LE	-LE	Ø	Ø	/	-	Ø	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	AH6	Spinach	-	-LE	-LE	Ø	Ø	/	-	-LE	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	AH7	Mix pea spinach	+	+LB	+LB	+LB	+LB	*L.monocytogenes L.innocua*	+	+LB	+MB	+MB	+MB	+/+ blbc	+/+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	a
2006	AH8	Spinach	-	-LE	-LE	-LE	-LE	/	-	-LE	-ME	-ME	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	AH9	Spinach	+	+LB	+LB	+MA	+MA	*L.innocua*	+	+LA	+LB	+LB	+LB	+blc	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	a
2006	AH10	Pea	+	+LB	-LE	+LB	+LB	*L.monocytogenes L.innocua*	+	+LB	+LB	+LB	+LB	+/+ blc	+/+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	a
2006	AH11	Spinach	+	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+MA	+MA	+MA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	a
2006	AH12	Pea	+	+LB	+LB	+MB	+LB	*L.monocytogenes L.innocua*	+	+MB	+MB	+MB	+HB	+/+ blc	+/+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	a
2006	AH13	Pea	+	Ø	Ø	+LA	+LA	*L.innocua*	+	+LA	+LB	+LB	+HB	j	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	a
2006	AJ2	Cabbage flower	+	+LB	+LA	+LA	+LB	*L.monocytogenes*	+	+MB	+HA	+HA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	a
2006	AL9	Carrots in slices	+	+LA	+LA	-MA	+MA	*L.innocua*	+	+MA	+MA	+MA	+HA	+blc	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	a
2006	AP2	French beans	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	AP5	Fresh fruit	-	Ø	Ø	-LE	-LE	/	-	Ø	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	AP6	Dices of natural cucumber	-	-LE	-LE	Ø	-LE	/	-	-LE	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2006	AP10	Mixture of assorted raw vegetables	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	a
2019	2242	Sweet corn in grains	-	-	-	-	-		-	st	+dark blue	+dark blue	-	+d (yellow)	+d	Gram -	-	-	-	-	**NA**	**PPNA**	**PPNA**	**NA**	5	a
2006	A5	Deep-frozen chips	+	+LB	+LB	+MB	+HB	*L.monocytogenes L.innocua*	+	+MB	+MB	+MB	+MA	+	+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	b
2006	B4	Deep-frozen chips	+	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+MA	+MA	+MA	+LA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	b
2006	B13	Fried potatoes	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	b
2006	E5	Deep-frozen chips	+	+LC	-LE	-ME	-ME	*L.innocua*	+	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**ND**	**ND**	**ND**	**ND**	5	b
2006	AJ3	Vegetables for couscous	-	-LE	-LE	Ø	Ø	/	-	Ø	-LE	-LE		/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	b
2006	AJ6	Fried vegetables country type	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	b
2006	AJ12	Deep-frozen chips	+	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	b
2006	AP7	Deep-frozen chips	+	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+MA	+MA	+MA	+LA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	b

VEGETABLES

Year	Ref	Product	Global result	NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method											Agreement RL 24 h	Agreement RL 48 h	Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C	Category	Type
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations											
				O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h						
2006	AP8	Deep-frozen chips	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	5	b
2006	AP9	Deep-frozen chips	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	5	b
2006	B14	Vegetables for couscous	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	-LE	/	/	Ø	-	-	-	-	NA	NA	NA	NA	5	b
2019	2243	Broccoli	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	5	b
2019	2244	Broccoli	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	5	b
2019	2245	Raw fries	+	H+	+	H+	+	*L.monocytogenes/ L.innocua*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	5	b
2019	2246	Potatoes	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	5	b
2019	2247	Potatoes	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	5	b
2019	2250	Sliced carrots	-	st	st	st	st		-	st	st	st					-	-	-		NA	NA	NA		5	b
2019	2251	RTE radish	-	-	-	-	st		-	st	st	st					-	-	-		NA	NA	NA		5	b
2019	2252	Salad	-	st	st	st	st		-	st	st	st					-	-	-		NA	NA	NA		5	b
2019	2253	Baby leaves	-	H-	+d	H-d	+	*Catalase and Gram -*	-	st	+dark blue	+dark blue	+d dark blue	+d (yellow)	+d	Gram -	-	-	-	-	NA	NA	NA	NA	5	b
2019	**2994**	**Vegetables (cabbage, beet)**	+	H+	+d	H+	+	*L.monocytogenes*	+	+pd	+M	+M	+d	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	5	b
2019	**2995**	**Vegetables (cabbage, beet)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	PA	PA	PA	PA	5	b
2006	AM3	Salad celery cabbage carrots	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	5	c
2006	AO3	Grated carrot	+	+LA	+LA	+MA	+MA	*L.innocua*	+	+MA	+MA	+MA	+MA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	5	c
2006	AP4	Raw grated carrots	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	5	c
2006	L10	Mousse in 3 vegetables	-	-LE	-LE	-ME	-ME	/	-	-LE	-LE	-LE	-LE	/	/	/	-	-	-	-	NA	NA	NA	NA	5	c
2006	AL4	Ratatouille	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	5	c
2006	AL5	Soup of vegetables	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	5	c
2006	AL7	Salad of green beans	+	+LA	+LB	-MA	+MA	*L.innocua*	+	+MA	+MA	+MA	+MA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	5	c
2006	AL8	Salad of potatoes	+	+LA	+LB	-MA	+MA	*L.innocua*	+	+MA	+MA	+MA	+MA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	5	c
2006	AL10	Tabbouleh	+	+LB	+LB	+LA	+LB	*L.innocua*	+	+LA	+LA	+LA	+LB	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	5	c
2006	AM1	Carrot purée	-	-LE	-LE	Ø	-LE	/	-	-ME	-ME	-ME	/	/	/	/	-	-	-	-	NA	NA	NA	NA	5	c
2006	AM2	Salad of potatoes	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	5	c
2006	AM4	Fruit salad	-	-LE	-LE	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	NA	NA	NA	NA	5	c
2006	AO1	Celeriac in remoulade dressing	+	+LA(2)	+LB	+MA	+MA	*L.innocua*	+	+LA	+LA	+LA	+LA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	5	c
2006	AO2	Cucumber salad	+	+LA(1)	+LB	+MA	+MA	*L.innocua*	+	+LB	+LB	+LB	+LA	+blc	+	*L.innocua*	+	+	+	+	PA	PA	PA	PA	5	c

VEGETABLES																										
				NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method																
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
Year	Ref	Product	Global result	O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h	**Agreement RL 24 h**	**Agreement RL 48 h**	**Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C**	**Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C**	Category	Type
2006	AO6	Tomato salad	+	-LE	-LE	+MA	+MA	*L.innocua*	+	+LA(2)	+LB	+LB	+LA(2)	+blc	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	c
2006	AO7	Cooked zucchinis	+	+LA	+LA	+MA	+MA	*L.innocua*	+	+MA	+MA	+MA	+MA	+blc	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	c
2006	AO8	Salad of lenses	+	+LA	+LB	+MA	+MA	*L.innocua*	+	+MA	+MB	+MB	+MA	+blc	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	c
2006	AO9	Salad of rice	-	Ø	Ø	Ø	-LE	/	-	Ø	Ø	Ø	Ø	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	c
2006	AP1	Salad of potatoes	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	c
2006	AP3	Cucumber salad	-	-ME	-LE	-LE	-LE	/	-	-LE	-LE	-LE	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	c
2006	AP11	Camarguais rice	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	5	c
2019	2248	Vegetables for couscous	-	-	-	-	-		-	st	+d	-	+d dark blue)	+d yellow	+d	Gram -	-	-	-	-	**NA**	**PPNA**	**NA**	**PPNA**	5	c
2019	2249	Vegetables for couscous	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	5	c

PRODUCTION ENVIRONMENTAL SAMPLES																											
				NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method																	
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations													
Year	Ref	Product	Global result	O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h	**Agreement RL 24 h**	**Agreement RL 48 h**	**Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C**	**Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C**	Category	Type
2006	D6	Water of process	-	Ø	Ø	-LE	-LE	/	-	-LE	-LE	-LE	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	a
2006	G10	Water lines white hatch tub rinsing	-	-LE	-LE	-LE	Ø	/	-	Ø	-LE	-LE	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	a
2006	I5	Gutter zones stretch-wrapping machine	+	+LA	+MA	+MA	+MA	*L.monocytogenes*	+	+MA	+MA	+MA	+MB*	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	a
2006	I13	Central condensation ice-cold water	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	a
2006	I19	Stagnant water vibrating dispatching	+	+LB	+LB*	+MB	+MB	*L.monocytogenes L.innocua*	+	+HB*	+HB*	+HB*	+HA	+/+ blanc	+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	a
2006	I20	Water to epierreur against the current L2	+	+LB	+LB*	+MB	+MB	*L.monocytogenes L.innocua*	+	+HB*	+HB*	+HB*	+HA	+/+ blanc	+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	a
2006	J9	Water return hydraulic transfer	-	Ø	Ø	-LE	-LE	/	-	Ø	-LE	-LE	-LE	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	a
2006	J10	Water overflowing cooler	+	-LA	+LA	-MA	+LA	*L.innocua*	+	+MA	+MA	+MA	+MA	+	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	a
2006	J11	Water overflowing glazurage Gyro	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	a
2006	J12	Water jaccuzy overflowing	-	Ø	Ø	-LE	-LE	/	-	Ø	-LE	-LE	-LE	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	a
2006	AC20	Siphon water	+	+LA	+LA	+LB	+LB	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	a
2006	AD3	Stagnant water under kneading-machine	+	+LB	+LB	+LB	+LB	*L.innocua L.welshimeri*	+	+MB	+MB	+MB	+MB	+j/+ blc	+/+	*L.innocua/ L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	a
2006	AE9	Water Lines salmon tub rinsing	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	a
2019	2261	Wash water (slaugterhouse pork)	-	st	st	st	st		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		6	a
2019	2262	Process water (slaugterhouse pork)	-	-	-	-	-		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		6	a
2019	2263	Water (slaugterhouse pork)	-	st	st	st	st		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		6	a
2019	2264	Rinced water (slaugterhouse pork)	-	st	st	st	st		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		6	a
2019	2280	Rinced water (liver fabrication)	-	st	st	st	st		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		6	a
2019	2281	Rinced water (liver fabrication)	-	st	st	st	-		-	st	st	st					-	-	-		**NA**	**NA**	**NA**		6	a
2019	**3017**	**Process water (liver production)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+M	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	a
2019	**3018**	**Process water (liver production)**	+	H+	+	H+	+	*L.monocytogenes*	+	+p	+p	+p	+p	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	a
2006	C9	Surface hall unpacking cardboards	-	-LE	-LE	Ø	-ME	/	-	-LE	-LE	-LE	-ME	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	C10	Surface dirty tub	-	-LE	-ME	-LE	-HE	/	-	?(b, st)	-ME	-ME	-ME	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	D1	Seal cold room	-	Ø	-LE	-LE	-ME	/	-	-LE	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	D3	Surface stainless table	+	+LB	+LB	+MA	+HB	*L.monocytogenes L.innocua*	+	+MB	+MB	+MB	+MB	+	+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	D4	Ground cut workshop	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	D7	Surface nasty hanging up facilities	+	+LB	+LB	+MB	+LB	*L.monocytogenes L.innocua*	+	+MA	+MB	+MB	+MB	+ + blc	+ +	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	E9	Surface workshop cut fishmonger's shop	+	+MA	+MB	+MA	+HA	*L.innocua*	+	+MA	+MA	+MA	+HA	+ j	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	E11	Surface poultry plucker	+	+LA	+LA(4)	+LA	+LB	*L.monocytogenes*	+	+HB	+HB	+HB	+MB	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b

PRODUCTION ENVIRONMENTAL SAMPLES

Year	Ref	Product	Global result	NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method										Agreement RL 24 h	Agreement RL 48 h	Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C	Category	Type
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations											
				O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h						
2006	E12	Surface room hanging	+	+LB	+LB	+MB	+MB	*L.monocytogenes L.innocua*	+	+HA	+HA	+HA	+HB*	+ +j	+ +	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	G1	Surface lines white hatch turning table	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	-LE	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	G2	Surface lines salmon deck weighing nets	+	+MA	+MB*	+MB*	+MB*	*L.monocytogenes*	+	+MB*	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	G3	Surface lines salmon Booder 51	+	+LA	+LA	+MB*	+MB*	*L.monocytogenes*	+	+MB*	+MB*	+MB*	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	G4	Surface lines threading hand board	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	G5	Surface lines threading hand Tub rinsing	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	-LE	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	G6	Surface lines salmon stick facilities Holac	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	G7	Surface lines salmon deck weighing salmons	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	-LE	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	G8	Surface lines salmon blue conveyor	+	+MA	+MB*	+MA	+HB*	*L.monocytogenes*	+	+MB*	+MB*	+MB*	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	G9	Line siphon headless salmon	-	Ø	Ø	Ø	Ø	/	-	Ø	-LE	-LE	-LE	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	G13	Surface lines headless salmon	+	+LA (4)	Ø	+MA	+HA	*L.monocytogenes*	+	+LB*	+LA	+LA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	G14	Line salmon trimmings conveyor	+	+LA	+LB*	+MB*	+MB*	*L.monocytogenes*	+	+MB*	+MB*	+MB*	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	G15	Surface lines salmon Boader 200	+	+MA	+HB*	+MB*	+MB*	*L.monocytogenes L.innocua*	+	+HB*	+HB*	+HB*	+HA	+	+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	I1	Roller under conveyor salmon trimmings 1	+	+LB	+LB*	+MB	+MB	*L.monocytogenes L.innocua*	+	+MB*	+MB*	+MB*	+MB*	+/+ j	+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	I2	Roller under conveyor exit salmon trimmings	+	1+ LA	Ø	+MB	+LB	*L.welshimeri*	+	+ LB	+ LB	+ LB	+MB*			*L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	I3	Conveyor tunnel 3	+	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+MA	+HB	+HB	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	I4	Wet surface tunnel 3	+	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	I7	Conveyor salmon trimmings zone mixture	+	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+MB*	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	I9	Shovel zones mixture	+	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+ HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	I10	Partition tunnel 4	-	Ø	Ø	-LE	Ø	/	-	-LE	-ME	-ME	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	I11	Yellow shovel entrance T4	-	Ø	Ø	-LE	-LE	/	-	Ø	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	I12	Pipe watering entrance T4	+	+LA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HB*	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	I14	Rusty magnet lines 4	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	I16	Apron manufacturing	-	-LE	Ø	Ø	Ø	/	-	-ME	-ME	-ME	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	I18	Ventilator cooler 4	+	-LD (1)	+LB*	-LB	+MB	*L.innocua*	+	+HB*	+HB*	+HB*	+HA	j	+	*L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	AA10	Surface stand cheese dairy	+	+LA	+LA	+MB	+MB	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	AC19	Swab seal cold room	+	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	AD1	Surface works polypropylene	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b

PRODUCTION ENVIRONMENTAL SAMPLES																										
				NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method																
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
Year	Ref	Product	Global result	O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h	**Agreement RL 24 h**	**Agreement RL 48 h**	**Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C**	**Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C**	Category	Type
2006	AD2	Surface walls	+	+MA	+MA	+MB	+MB	*L.welshimeri L.monocytogenes*	+	+HA	+HA	+HA	+HA	+j	+	*L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	AD4	Internal walls red box	-	-LE	Ø	-LE	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	AD5	Internal walls stainless wagon	-	-LE	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	AD6	Internal walls bara	-	-LE	Ø	-LE	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	AD10	Sieve frost	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	AE2	Surface lines white hatch booder 184	-	-LE	-LE	-LE	Ø	/	-	Ø	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	AE8	Surface lines white headless	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	AE10	Surface lines threading	+	+LA	+LB	+MA	+MA	*L.monocytogenes*	+	+LA	+LA	+LA	+LA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	AE11	Surface lines threading conveyor waste	+	-LE	Ø	-LE	Ø	/	-	+LA(1)	+LA(1)	+LA(1)	Ø	+	+	*L.monocytogenes*	+	+	+	-	**PD**	**PD**	**PD**	**NA**	6	b
2006	AE12	Surface lines boned salmon	+	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	AE13	Surface lines salmon upstream conveyor boned salmon	+	+LA	+LA	+LA	+LA	*L.monocytogenes*	+	+MA	+MA	+MA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	AE14	Surface lines salmon conveyor net	+	+LA	+LA	+LA	+LA	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	AE15	Surface lines threading skinner trio	-	-LE	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	AE16	Surface lines salmon conveyor boned salmon	+	+LA	+LA	+LB	+LB	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	AE17	Surface lines salmon conveyor net	+	+LB	+LB	+MB	+MB	*L.monocytogenes L.innocua*	+	+MB	+MA	+MA	+MB	+/+blc	+	*L.monocytogenes L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	AE18	Surface lines salmon approval conveyor boned	+	+LA	+LA	+MB	+MA	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	AE20	Surface lines threading hand booder 51	-	-LE	-LE	-ME	Ø	/	-	-LE	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	b
2006	AE21	Surface lines salmon booder 52	+	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	b
2006	B17	Residues corn	-	-ME	-HE	-ME	-ME	/	-	-ME	-ME	-ME	-LE	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	c
2006	C11	Residues stainless table	+	+MB	-ME	+MB	+HB	*L.ivanovii*	+	+MB	+MB	+MB	+MB	+ hj	+	*L.ivanovii*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	D2	Residues peppers	-	Ø	Ø	Ø	-LE	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	c
2006	D5	Residues ground	+	+LB	+LB	+MB	+MB	*L.welshimeri*	+	+MB	+MB	+MB	+MB	+ j	+	*L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	E10	Residues fish dirty tub	+	+LA	+LB(1)	+MB	+HA	*L.monocytogenes*	+	+LA	+LB	+LB	+LA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	E13	Residues tub to warm up facilities	-	-LE	-LE	-LE	-LE	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	c
2006	F1	Residues for manufacturing pâté	+	+MB	+MA	+HB	+HB	*L.monocytogenes L.innocua*	+	+MB	+MB	+MB	+MB	+ +j	+ +	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	F2	Residues liver and pork's heart	+	+MB	+MB	+HB	+HB	*L.monocytogenes Li + Lw*	+	+HB	+HB	+HB	+HB	+ +j	+ +	*L.monocytogenes/Li + Lw*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	F3	Residues for manufacturing pâté	+	+LB	+LB	+MB	+MB	*L.monocytogenes L.innocua*	+	+MB	+MB	+MB	+MB	+ j	+	*L.monocytogenes*/L. innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c

PRODUCTION ENVIRONMENTAL SAMPLES																										
				NF EN ISO 11290-1						RAPID'*Listeria* spp alternative method																
				Fraser 1/2		Fraser				RAPID'Listeria plates				Confirmations												
Year	Ref	Product	Global result	O&A	Palcam	O&A	Palcam	*Identifications*	Result	22 h at 37°C ± 1°C	48 h at 37°C ± 1°C	Storage 48 h (initial) or 72 h (renewal) at 5°C ± 3°C	Half-Fraser storage for 72 h at 5°C ± 3°C + RL 22 h 37°C ± 1°C	spot on RLM	spot on Palcam	*Identifications*	Final result RL 22 h	Final result RL 48 h	Final result RL 48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C	Final result F1/2 72 h 5°C ± 3°C RL 48 h	**Agreement RL 24 h**	**Agreement RL 48 h**	**Agreement RL48 h + 48 h (initial) or 72 h (renewal) 5°C ± 3°C**	**Agreement F1/2 72 h 5°C+ RL 48 h 5°C ± 3°C**	Category	Type
2006	F4	Residues pork's fat	+	+MA	+MB	+MB	+HB	*L.monocytogenes L.welshimeri*	+	+MB	+MB	+MB	+HB	+ +j	+ +	*L.monocytogenes/ L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	F5	Residues crépinette	+	+LA	+LA	+MA	+HA	*L.monocytogenes*	+	+MA	+MA	+MA	+MA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	F6	Waste of parage of pork's throat	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	/	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	c
2006	G11	Siphon of Line salmon Boader 200	+	+MB *	+MB*	+LB*	+LB*	*L.monocytogenes L.innocua*	+	+MB*	+MB*	+MB*	+MA	+ +j	+ +	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	G12	Line salmon conveyor waste	+	+MB *	+MB*	+LB*	+MB*	*L.monocytogenes L.innocua*	+	+MB*	+MB*	+MB*	+HA	+ +j	+ +	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	I6	Residues gutter zones mixture	+	+MA	+MA	+MB	+MB	*L.monocytogenes L.innocua*	+	+ HA	+HA	+HA	+HA	+	+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	I8	Residues hopper zones mixture	+	+LB	+LB*	+MB	+MB	*L.monocytogenes L.innocua*	+	+MB*	+MB*	+MB*	+MB*	+/+ blanc	+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	I15	Conveyor residues Mec Parma	-	Ø	Ø	Ø	Ø	/	-	-LE	-LE	-LE	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	c
2006	I17	Residues tub waste entrance Gyro	+	+LB	+MB*	+MB	+MB	*L.monocytogenes L.innocua*	+	+MB*	+MB*	+MB*	+HB*	+/+ blanc	+	*L.monocytogenes/ L.innocua*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	AE19	Line salmon standard with waste	+	+MA	+LA	+MA	+MA	*L.monocytogenes*	+	+HA	+HA	+HA	+HA	+	+	*L.monocytogenes*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c
2006	AE22	Line white hatch standard with waste	-	-LE	Ø	Ø	Ø	/	-	Ø	Ø	Ø	/	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	c
2006	AD7	Opening waste water corridor	-	Ø	Ø	-LE	-LE	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	c
2006	AD8	Opening waste water workshop cuts	-	Ø	Ø	Ø	Ø	/	-	Ø	Ø	Ø	Ø	/	/	Ø	-	-	-	-	**NA**	**NA**	**NA**	**NA**	6	c
2006	AD9	Opening waste water workshop glazing	+	+LA (1)	+LA(1)	+MB	+MB	*L.welshimeri*	+	+LA	+LA	+LA	+LA	+j	+	*L.welshimeri*	+	+	+	+	**PA**	**PA**	**PA**	**PA**	6	c

Appendix 5 – Relative level of detection study: raw data

Composite: Tabbouleh **ADRIA (2019)**
Strain: *Listeria ivanovii* Ad2465
Aerobic mesophilic flora: 5,0 10^3 CFU/g

Sample N°	Inoculation level	ISO 11290-1/A1♦						RAPID' *Listeria spp*						
		Fraser 1/2		Fraser 1		Final result	Positive / total	RAPID' *Listeria spp* plates		Confirmation	Final result 22h	Final result 48h	Positive / total 22h	Positive / total 48h
		O&A	Palcam	O&A	Palcam			22h	48h					
2794	0	-	-	-	-	-	0/5	-	-		-	-	0/5	0/5
2795		-	-	-	-	-		-	-		-	-		
2796		-	-	-	-	-		+(1d)	-		-	-		
2797		-	-	-	-	-		-	-		-	-		
2798		-	-	-	-	-		-	-		-	-		
2946	0,4	-	-	-	-	-	6/20	-	-		-	-	5/20	5/20
2947		-	-	-	-	-		-	-		-	-		
2948		-	-	-	-	-		-	-		-	-		
2949		-	-	-	-	-		-	+(1d)	Gram-	-	-		
2950		-	-	-	-	-		-	-		-	-		
2951		-	-	-	-	-		-	-		-	-		
2952		-	-	-	-	-		-	-		-	-		
2953		+	+	+	+	+		+	+	+	+	+		
2954		+	+	+	+	+		+	+	+	+	+		
2955		-	-	-	-	-		-	-		-	-		
2956		-	-	-	-	-		-	-		-	-		
2957		-	-	-	-	-		-	-		-	-		
2958		+	-	+	+	+		+	+	+	+	+		
2959		-	-	-	-	-		-	+	-	-	-		
2960		+	-	+	+	+		+	+	+	+	+		
2961		-	-	-	-	-		-	+(1d)	Gram-	-	-		
2962		-	-	+	+	+		-	-		-	-		
2963		-	-	-	st	-		-	+(1d)	Gram-	-	-		
2964		-	-	-	-	-		-	-		-	-		
2965		+	+	+	+	+		+	+	+	+	+		
2966	2,6	-	-	-	-	-	4/5	-	-		-	-	4/5	4/5
2967		+	+	+	+	+		+	+	+	+	+		
2968		+	-	+	+	+		+	+	+	+	+		
2969		+	+	+	+	+		+	+	+	+	+		
2970		+	+	+	+	+		+	+	+	+	+		

♦ Analyses performed according to the COFRAC accreditation

Composite: Tabbouleh **ADRIA (2019)**
Strain: *Listeria monocytogenes* Ad1495
Aerobic mesophilic flora: 1,9 10^3 CFU/g

Sample N°	Inoculation level	ISO 11290-1/A1						RAPID' *Listeria spp*						
		Fraser 1/2		Fraser 1		Final result	Positive / total	RAPID' *Listeria spp* plates		Confirmation	Final result 22h	Final result 48h	Positive / total 22h	Positive / total 48h
		O&A	Palcam	O&A	Palcam			22h	48h					
2591	0	-	-	-	-	-	0/5	-	-		-	-	0/5	0/5
2592		-	-	-	-	-		-	-		-	-		
2593		-	-	-	-	-		-	-		-	-		
2594		-	-	-	+	- (*L.innocua*)		-	-		-	-		
2595		-	-	-	+	- (*L.innocua*)		-	-		-	-		
2730	0,6	+	+	/	/	+	8/20	+	+	+	+	+	9/20	9/20
2731		-	-	-	-	-		-	-		-	-		
2732		+	+	/	/	+		+	+	+	+	+		
2733		-	-	-	-	-		-	-		-	-		
2734		-	-	-	/	-		-	-		-	-		
2735		+	+	/	/	+		+	+	+	+	+		
2736		+	+	/	/	+		+	+	+	+	+		
2737		+	+	/	/	+		+	+	+	+	+		
2738		-	-	-	-	-		-	-		-	-		
2739		-	-	-	-	-		-	-		-	-		
2740		+	+	/	/	+		+	+	+	+	+		
2741		-	-	-	-	-		-	-		-	-		
2742		-	-	-	-	-		-	-		-	-		
2743		-	-	-	-	-		-	-		-	-		
2744		-	-	-	-	-		-	-		-	-		
2745		-	+	-	+	- (*L.innocua*)		+	+	+	+	+		
2746		+	+	/	/	+		+	+	+	+	+		
2747		-	-	-	-	-		-	-		-	-		
2748		+	+	/	/	+		+	+	+	+	+		
2749		-	-	-	-	-		-	-		-	-		
2750	4,0	+	+	/	/	+	5/5	+	+	+	+	+	5/5	5/5
2751		-	+	+	+	+		+	+	+	+	+		
2752		+	+	+	+	+		+	+	+	+	+		
2753		+	+	/	/	+		+	+	+	+	+		
2754		+	+	/	/	+		+	+	+	+	+		

IPL (2006)

Rillettes – *Listeria welshimeri* 6b (L90) – Aerobic mesophilic flora: 44 000 CFU/g

Level	Inoculation level (b/25g)	Reference method						Alternative method RLspp			
		Fraser ½ (10 µl)		Fraser		Result	Conclusion	Streaking 100 µl		Result	Conclusion
		O&A	Palcam	O&A	Palcam			22 h	48 h		
1	0.00	∅	∅	∅	∅	-	0/6	-ME	-ME	-	0/6
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		-ME	-ME	-	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
2	0.25	∅	∅	∅	∅	-	3/6	-LE	-ME	-	2/6 (22h) 3/6 (48h)
		+LA(1)	+LA(3)	+HA	+MA	+		∅	+MD	- (22h) + (48h)	
		+LA	+LA	+H	+HA	+		+MA	+MA	+	
		∅	∅	∅	∅	-		∅	-LE	-	
		∅	-LE	-LE	∅	-		-LE	-ME	-	
		+LA(1)	∅	+HA	+MA	+		+LA	-LB	+	
3	0.50	∅	∅	∅	∅	-	5/6	∅	-LE	-	4/6
		+LB	+LB	+MA	+MA	+		∅	-LE	-	
		+LA	+LA	+HA	+HA	+		+MA	+MA	+	
		+LA	+LA	+HA	+MA	+		+MA	+MA	+	
		+LA	+LA	+HA	+HA	+		+MA	+MA	+	
		+LA	+LA	+HA	+MA	+		+MA	+MA	+	
4	1.00	+MA	+LA	+HA	+MA	+	4/6	+MA	+MA	+	4/6
		+LA	+LA	+HA	+HA	+		+MA	+MA	+	
		+LA(2)	+LA(2)	+HA	+HA	+		+LA	+LB	+	
		+LA	+LA	+HA	+HA	+		+MA	+MA	+	
		∅	∅	∅	∅	-		∅	-LE	-	
		∅	∅	∅	∅	-		∅	∅	-	
5	1.50	+LA	+LA	+HA	+HA	+	6/6	+MA	+MA	+	6/6
		+MA	+MA	+HA	+HA	+		+MA	+MA	+	
		+LA	+LA	+HA	+HA	+		+MA	+MA	+	
		+LA	+LA	+HA	+HA	+		+MA	+MA	+	
		+LA	+LA	+HA	+HA	+		+MA	+MA	+	
		+LA	+LA	+HA	+HA	+		+MA	+MA	+	

Raw milk – *Listeria monocytogenes1/*2b (L37) – Aerobic mesophilic flora: 5 700 000 CFU/g

Level	Inoculation level (b/25g)	Reference method						Alternative method RLspp			
		Fraser ½ (10 µl)		Fraser		Result	Con-clusion	Streaking 100 µl		Result	Con-clusion
		O&A	Palcam	O&A	Palcam			22 h	48 h		
1	0.00	-LE	-LE	-LE	-ME	-	0/6	∅	-ME	-	0/6
		∅	-LE	∅	-ME	-		∅	-LE	-	
		-LE	∅	-LE	-ME	-		∅	∅	-	
		-LE	-LE	-LE	-ME	-		∅	-LE	-	
		-LE	-LE	-LE	-ME	-		∅	-LE	-	
		∅	-LE	∅	-LE	-		∅	∅	-	
2	0.36	-LE	∅	-LE	-ME	-	1/6	∅	-LE	-	1/9
		+LB	+LB	+MA	+MA	+		+LA	+MB	+	
		-LE	-LE	∅	-LE	-		∅	-LE	-	
		-LE	-LE	-LE	-ME	-		∅	-ME	-	
		-LE	-LE	-LE	-ME	-		∅	-ME	-	
		-LE	-LE	∅	∅	-		∅	-LE	-	
3	0.72	+LB	+LB	+MA	+MA	+	2/6	+MA	+MB	+	2/6
		+LB	+LB	+MA	+MA	+		+MA	+MB	+	
		∅	-LE	-LE	-LE	-		∅	-LE	-	
		-LE	-LE	∅	-LE	-		∅	-ME	-	
		-LE	-LE	-LE	-LE	-		∅	-ME	-	
		-LE	-LE	∅	∅	-		∅	-ME	-	
4	1.44	+LB	+LB	+MB	+MA	+	5/6	+MA	+MB	+	5/6
		+LB	+LB	+MB	+MA	+		+LA	+MB	+	
		+LB	+MB	+MB	+MA	+		+MA	+MB	+	
		+LB	+LB	+MA	+MA	+		+LA	+MB	+	
		+LB	∅	-LE	-ME	-		∅	-LE	-	
		+LB	+LB	+MB	+MA	+		+LA	+MB	+	
5	2.16	+LB	-LE	+MA	+MA	+	6/6	+LA	+MB	+	6/6
		+LB	+LB	+HA	+MA	+		+MA	+MB	+	
		+LB	+LB	+LB	+MA	+		+MA	+MB	+	
		+LB	+LB	+LB	+MA	+		+LA	+MB	+	
		+LB	+LB	+MB	+MA	+		+LA	+MB	+	
		+LB	+LB	+LB	+MA	+		+MA	+MB	+	

Raw milk – *Listeria ivanovii*– Aerobic mesophilic flora: 5 700 000 CFU/g

Level	Inoculation level (b/25g)	Reference method						Alternative method RLspp			
		Fraser ½ (10 µl)		Fraser		Result	Con-clusion	Streaking 100 µl		Result	Con-clusion
		O&A	Palcam	O&A	Palcam			22 h	48 h		
1	0.00	-LE	-LE	-LE	-ME	-	0/6	∅	-ME	-	0/6
		∅	-LE	∅	-ME	-		∅	-LE	-	
		-LE	∅	-LE	-ME	-		∅	∅	-	
		-LE	-LE	-LE	-ME	-		∅	-LE	-	
		-LE	-LE	-LE	-ME	-		∅	-LE	-	
		∅	-LE	∅	-LE	-		∅	∅	-	
2	0.48	∅	∅	∅	∅	-	1/6	∅	∅	-	1/6
		+LA	+MA	+LA	+LA	+		+LA	+LA	+	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
3	0.96	+LA	+LA	+	LA	+	3/6	+LA	+LA	+	3/6
		+LA	+LA	+MA	+MA	+		+LA	+LA	+	
		∅	+LA	+LA	LA	+		+LA	+LA	+	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
4	1.6	+LA	+LA	+MA	+LA	+	5/6	+MA	+MA	+	5/6
		+LA	+LA	+MA	+LA	+		+LA	+LA	+	
		∅	+LA	∅	+LA	+		+LA	+LA	+	
		∅	∅	∅	∅	-		∅	∅	-	
		+LA	+LA	+LA	+LA	+		+MA	+MA	+	
		∅	+LA	+MA	+LA	+		+MA	+MA	+	
5	2.4	+LA	+LA	+LA	+LA	+	6/6	+MA	+MA	+	6/6
		+LA	+LA	+LA	+LA	+		+MA	+MA	+	
		+LA	+LA	+LA	+LA	+		+MA	+MA	+	
		+LA	+LA	+LA	+LA	+		+MA	+MA	+	
		+LA	+LA	+LA	+LA	+		+MA	+MA	+	
		+LA	+LA	+LA	+LA	+		+MA	+MA	+	

Smoked salmon – *Listeria monocytogenes* 1/2a– Aerobic mesophilic flora: 2 000 CFU/g

Level	Inoculation level (b/25g)	Reference method						Alternative method RLspp			
		Fraser ½ (10 µl)		Fraser		Result	Con-clusion	Streaking 100 µl		Result	Con-clusion
		O&A	Palcam	O&A	Palcam			22 h	48 h		
1	0.00	∅	-LE	∅	-ME	-	0/6	-LE	-LE	-	0/6
		∅	∅	∅	-LE	-		-LE	-LE	-	
		∅	-LE	∅	∅	-		-LE	-LE	-	
		∅	∅	∅	∅	-		-LE	-LE	-	
		∅	∅	∅	∅	-		-LE	-LE	-	
		∅	∅	∅	∅	-		-LE	-LE	-	
2	0.43	∅	∅	∅	∅	-	2/6	∅	∅	-	2/6
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
		+LA	+LA	+MA	+MA	+		+MA	+MA	+	
		+LA	+LA	+HA	+MA	+		+MA	+MA	+	
		∅	∅	∅	∅	-		∅	∅	-	
3	1.29	+LA	+LA	+HA	+MA	+	4/6	+MA	+MA	+	4/6
		+LA	+LA	+MA	+MA	+		+MA	+MA	+	
		∅	∅	∅	∅	-		∅	∅	-	
		+LA	+LA	+HA	+MA	+		+LA	+LA	+	
		∅	∅	∅	∅	-		∅	∅	-	
		+LA	+LA	+HA	+MA	+		+MA	+MA	+	
4	1.63	+LB(3)	+LB	+HB	+MB	+	6/6	+LA	+LA	+	6/6
		+LB	+LB(3)	+MA	+MB	+		+LA	+LA	+	
		+LB	+LB	+MA	+MB	+		+LA	+LA	+	
		+LB	+LB	+HA	+MB	+		+LA	+LA	+	
		+LA(4)	+LA	+HA	+MA	+		+LA	+LA	+	
		+LB	+LA	+HA	+MA	+		+LA	+LA	+	

Crudeness mix – *Listeria seeligeri* (L140) – Aerobic mesophilic flora: 11 600 000 CFU/g

Level	Inoculation level (b/25g)	Reference method						Alternative method RLspp			
		Fraser ½ (10 µl)		Fraser		Result	Con-clusion	Etalement - Isolement 100 µl		Result	Con-clusion
		O&A	Palcam	O&A	Palcam			22 h	48 h		
1	0.00	∅	∅	∅	-ME	-	0/6	∅	-LE	-	0/6
		∅	∅	∅	∅	-		∅	-LE	-	
		∅	∅	∅	∅	-		∅	-LE	-	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	-LE	-	
		∅	∅	∅	∅	-		∅	-LE	-	
2	0.29	∅	+LA(1)	∅	+MC	+	1/6	+LA(1)	+LA	+	1/6
		∅	∅	∅	-ME	-		∅	-LE	-	
		∅	∅	∅	-LE	-		∅	-LE	-	
		∅	-LE	∅	∅	-		∅	-LE	-	
		∅	-LE	∅	∅	-		∅	-LE	-	
		∅	∅	∅	∅	-		∅	-LE	-	
3	0.58	∅	+LA(3)	-LE	+MB	+	2/6	+MA	+MA	+	2/6
		∅	∅	-LE	-LE	-		∅	-LE	-	
		∅	+LA	-LE	+MB	+		+MA	+MA	+	
		∅	∅	∅	∅	-		∅	-LE	-	
		∅	∅	∅	-LE	-		∅	-LE	-	
		∅	∅	∅	∅	-		∅	-LE	-	
4	1.16	∅	+LA(1)	∅	+LA	+	5/6	∅	+LA	-(24h)	4/6
		∅	+LA	∅	+MA	+		+MA	+MA	+	
		∅	∅	∅	∅	-		∅	-LE	-	
		∅	+LA	∅	+MA	+		+LA(1)	+LA	+	
		∅	+LA	+LA	+MA	+		+MA	+MA	+	
		∅	+LA	+LA	+LA	+		+MA	+MA	+	
5	1.74	∅	+LA	∅	+LA	+	6/6	+LA	+MA	+	6/6
		∅	+LA	+LA	+MC	+		+MA	+MA	+	
		∅	+LA	∅	+LB	+		+LA	+LA	+	
		∅	+LA	∅	+MA	+		+LA	+MA	+	
		∅	+MA	+LA	+LA	+		+MA	+MA	+	
		∅	+LB	∅	+LB	+		+MA	+LA	+	

Process water – *Listeria innocua* (L144) – Aerobic mesophilic flora: 200 CFU/ml

Level	Inoculation level (b/25g)	Reference method						Alternative method RLspp			
		Fraser ½ (10 µl)		Fraser		Result	Con-clusion	Streaking 100 µl		Result	Con-clusion
		O&A	Palcam	O&A	Palcam			22 h	48 h		
1	0.00	∅	∅	∅	∅	-	0/6	∅	∅	-	0/6
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	-LE	-	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
2	0,52	∅	∅	∅	∅	-	1/6	∅	∅	-	1/6
		∅	∅	∅	∅	-		∅	∅	-	
		+LA	+LA	+HA	+MA	+		+MA	+MA	+	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
		∅	∅	∅	∅	-		∅	∅	-	
3	1,04	∅	∅	∅	∅	-	3/6	∅	∅	-	3/6
		∅	∅	∅	∅	-		∅	∅	-	
		+LA	+LA	+HA	+MA	+		+HA	+HA	+	
		∅	∅	∅	∅	-		∅	∅	-	
		+LA	+LA	+MA	+MA	+		+MA	+HA	+	
		+LA	+LA	+MA	+MA	+		+HA	+HA	+	
4	1,24	+MA	+LA	+MA	+MA	+	5/6	+MA	+MA	+	5/6
		+LA	+LA	+LA	+MA	+		+MA	+MA	+	
		∅	∅	∅	∅	-		∅	∅	-	
		+MA	+LA	+HA	+MA	+		+HA	+HA	+	
		+MA	+LA	+HA	+MA	+		+HA	+HA	+	
		+LB	+LA	+MA	+MA	+		+HA	+HA	+	
5	4,50	+MA	+MA	+HA	+HA	+	6/6	+HA	+HA	+	6/6
		+MA	+MA	+HA	+HA	+		+HA	+HA	+	
		+MA	+MA	+HA	+HA	+		+HA	+HA	+	
		+MA	+MA	+HA	+HA	+		+HA	+HA	+	
		+MA	+MA	+HA	+HA	+		+HA	+HA	+	
		+MA	+MA	+HA	+HA	+		+HA	+HA	+	

Appendix 6 – Inclusivity and exclusivity study: raw data

INCLUSIVITY – IPL (2006)

Reference	Strain	Origin	Inoculation rate in 225 mL Half-Fraser broth	Colonies on RAPID'*Lspp* after 22 hours incubation at 37°C		Result
				Couleur	Aspect	
L 143	*Listeria grayi*	Deep-frozen chips	4,7E+05	Blue	Typical	+LA
L 81	*Listeria grayi*	ATCC 19120	81,0	Blue	Typical	+LA
L 108	*Listeria innocua*	Gorgonzola	10,3	Blue	Typical	+MA
L 113	*Listeria innocua*	Smoked halibut	12,9	Blue	Typical	+LA
L 3	*Listeria innocua*	Epoisses	84,0	Blue	Typical	+MA
L 64	*Listeria innocua*	Epoisses	8,4	Blue	Typical	+MA
L 66	*Listeria innocua*	Spinach	7,4	Blue	Typical	+MA
L 72	*Listeria innocua*	Boulettes d'Avesnes cheese	13,8	Blue	Typical	+MA
L 78	*Listeria innocua*	Young cockerel	10,0	Blue	Typical	+MA
L 77	*Listeria innocua 6 a*	Coarse pork sausage	7,4	Blue	Typical	+MA
L 76	*Listeria innocua 6 b*	Minced beef	1,4	Blue	Typical	+LA
L 1	*Listeria innocua 6a*	ATCC 33090	11,0	Blue	Typical	+MA
L 151	*Listeria ivanovii*	Minced beef	7,1	Blue	Typical	+MA
L 153	*Listeria ivanovii*	Environment sample	3,1	Blue	Typical	+MA
L 80	*Listeria ivanovii*	Collection	80,0	Blue	Typical	+MA
L185	*Listeria ivanovii*	Net anti-birds	6,0	Blue (48h)	Typical (48h)	+LA (48h)
L 116	*Listeria monocytogenes*	Scallop shell of fish	8,7	Blue	Typical	+HA
L 123	*Listeria monocytogenes*	Mozzarella	14,0	Blue	Typical	+MA
L 39	*Listeria monocytogenes*	Pork sausage	12,0	Blue	Typical	+HA
L 20	*Listeria monocytogenes ½*	Crack of smoked Salmon	12,0	Blue	Typical	+HA
L 25	*Listeria monocytogenes ½*	Hen	6,0	Blue	Typical	+MA
L 40	*Listeria monocytogenes ½ a*	Munster eats	9,0	Blue	Typical	+HA
L 10	*Listeria monocytogenes ½ a*	Rillettes	6,0	Blue	Typical	+MA
L 11	*Listeria monocytogenes ½ a*	Munster eats	7,0	Blue	Typical	+HA
L 12	*Listeria monocytogenes ½ a*	Smoked salmon	8,9	Blue	Typical	+HA
L 129	*Listeria monocytogenes ½ a*	Fried potatoes	3,3	Blue	Typical	+LA
L 4	*Listeria monocytogenes ½ a*	ATCC 35152	11,0	Blue	Typical	+MA
L 44	*Listeria monocytogenes ½ a*	Sausage	1,2	Blue	Typical	+MA
L 47	*Listeria monocytogenes ½ a*	Fried potatoes	14,7	Blue	Typical	+MA
L 5	*Listeria monocytogenes ½ a*	Smoked salmon	8,3	Blue	Typical	+MA
L 6	*Listeria monocytogenes ½ a*	Pizza	7,0	Blue	Typical	+HA
L 37	*Listeria monocytogenes ½ b*	Raw milk Maroilles cheese	13,4	Blue	Typical	+MA
L 51	*Listeria monocytogenes ½ b*	Affined Germain cheese	12,3	Blue	Typical	+MA

Reference	Strain	Origin	Inoculation rate in 225 mL Half-Fraser broth	Colonies on RAPID'*Lspp* after 22 hours incubation at 37°C		Result
				Couleur	Aspect	
L 117	*Listeria monocytogenes ½ c*	Sausage of Montbéliard	6,7	Blue	Typical	+MA
L 14	*Listeria monocytogenes ½ c*	Minced beef	12,0	Blue	Typical	+MA
L 17	*Listeria monocytogenes ½ c*	Pork fillet	10,8	Blue	Typical	+MA
L 18	*Listeria monocytogenes ½ c*	Munster eats	7,4	Blue	Typical	+HA
L 53	*Listeria monocytogenes ½ c*	Minced beef	10,8	Blue	Typical	+MA
L 61	*Listeria monocytogenes 4 e*	ATCC 19118	3,2	Blue	Typical	+LA
L 62	*Listeria monocytogenes 4 e*	Reblochon	10,6	Blue	Typical	+MA
L 58	*Listeria monocytogenes 4b*	Salad	8,0	Blue	Typical	+MA
L 115	*Listeria seeligeri*	Water of sewer	3,7	Blue	Typical	+LA
L 84	*Listeria seeligeri*	Minced beef	5,0	Blue	Typical	+MA
L 83	*Listeria seeligeri ½ b*	Tongue	6,4	Blue	Typical	+MA
L 100	*Listeria welshimeri*	Soft margarine	5,8	Blue	Typical	+MA
L 101	*Listeria welshimeri*	Ham in the former	5,1	Blue	Typical	+MA
L 91	*Listeria welshimeri*	Rosette Aoste (sausage)	9,5	Blue	Typical	+MA
L 89	*Listeria welshimeri 6 a*	Minced beef	2,8	Blue	Typical	+MA
L 86	*Listeria welshimeri 6 b*	ATCC 35897	11,0	Blue	Typical	+MA
L 87	*Listeria welshimeri 6 b*	Minced beef	7,6	Blue	Typical	+MA

EXCLUSIVITY – IPL (2006)

Reference	Strain	Origin	Inoculation rate in 225 mL of nutritive non-selective broth (CFU)	Colonies on RAPID'Lspp after 22 (48) hours incubation at 37°C		Result
				Color	Aspect	
BA5	*Bacillus sphaericus*	Meat product	3,00E+05	Ø	Ø	-
BA2	*Bacillus cereus*	Beets	3,00E+05	Ø	Ø	-
BA4	*Bacillus stearothermophilus*	Dairy product	2,00E+05	Ø	Ø	-
BA7	*Bacillus coagulans*	Collection	5,00E+05	Ø	Ø	-
15	*Brochotrix thermosphacta*	Ground beef	2,50E+05	Ø	Ø	-
Le1	*Rhodotorula rubra*	Cake	2,00E+05	white colonies	not typical	-
Le3	*Candida albicans*	Collection	9,00E+05	Ø	Ø	-
Le5	*Saccharomyces cerevisiae*	Extract of coffee	1,10E+05	Ø	Ø	-
E1	*Enterococcus faecalis*	Ovoproduct	3,00E+05	Ø (Blue trails)	Ø (not typical)	- (cocci)
E6	*Enterococcus faecalis*	Collection ATCC 19433	4,00E+05	Ø	Ø	-
E2	*Enterococcus faecium*	Collection ATCC 3286	3,00E+05	Ø	Ø	-
E7	*Enterococcus faecium*	Collection CIP 5433	6,70E+05	Ø (blue colonies)	Ø (typical)	- (cocci)
L139	*Jonesia denitrificans*	Collection	1,60E+05	Blue trails	not typical	-
33	*Lactobacillus casei*	Dairy product	2,30E+05	Ø	Ø	-
34	*Lactobacillus plantarum*	Dairy product	1,20E+05	Ø	Ø	-
35	*Lactobacillus paracasei*	Dairy product	2,80E+05	Ø	Ø	-
LL	*Lactococcus lactis*	Dairy product	1,60E+05	Ø	Ø	-
PS87	*Pseudomonas putida*	Fish	1,20E+05	Ø	Ø	-
PS90	*Pseudomonas putida*	Fish	2,30E+05	Ø	Ø	-
32	*Rhodococcus equi*	Meat product	9,00E+05	white colonies	not typical	-
R2	*Rhodococcus equi*	Collection	1,30E+05	Ø	Ø	-
COR1	*Corynebacterium*	Collection (695)	6,50E+05	Ø	Ø	-
COR2	*Corynebacterium*	Collection (102112)	1,40E+05	Ø	Ø	-
E3	*Streptococcus bovis*	Collection	2,30E+05	Ø	Ø	-
ST3	*Staphylococcus epidermidis*	Yoghurt	4,80E+05	Ø	Ø	-
ST17	*Staphylococcus aureus*	Yoghurt	2,40E+05	Ø (white colonies)	Ø (not typical)	-
ST16	*Staphylococcus*	Collection	2,80E+05	Ø	Ø	-
ST21	*Staphylococcus*	Collection	2,60E+05	Ø	Ø	-
BA22	*Bacillus*	Collection	1,10E+05	Ø (blue colonies)	Ø (not typical)	-
BA23	*Bacillus*	Collection	8,10E+05	Ø	Ø	-
Ø : no growth						

COMPLEMENTS OF EXCLUSIVITY - IPL (2007)

Reference	Strain	Origin	Inoculation rate in 225 mL of nutritive non-selective broth (CFU)	Colonies on RAPID'Lspp after 22 (48) hours incubation at 37°C	Spot on PALCAM	Colonies on TSAYE after 22 (48) hours incubation at 37°C	Spot sur PALCAM	Characteristic colonies of *Listeria* on PALCAM after 48 hours incubation at 37°C
Lb 2885	*Lactobacillus acidophilus*	/	1,50E+08	Ø	/	+	Ø	Ø
53	*Lactobacillus delbrurkii bulgar*	Collection (RDC 120)	1,00E+08	Ø	/	+	Ø	Ø
44	*Pediococcus damnosus*	Collection (29358)	2,30E+08	Ø	/	+	Ø	Ø
45	*Pediococcus damnosus*	Collection (102264)	3,50E+08	Ø	/	+	Ø	Ø
41	*Lactobacillus fermentum*	ATCC 9338	1,80E+08	Ø	/	+	Ø	Ø
51	*Lactobacillus spp*	ATCC 11506	4,80E+07	Ø	/	+	Ø	Ø
52	*Lactobacillus casei*	ATCC 9595	3,60E+07	Ø	/	+	Ø	Ø
50	*Lactococcus lactis*	CIP 7056	1,50E+08	Ø	/	+	Ø	Ø
E11	*Streptococcus intermedius*	Collection (SDP1201)	6,70E+08	Ø	/	++	Ø	Ø
E16	*Streptococcus salivarius*	Collection (SDP1115)	8,80E+08	Ø	/	++	Ø	Ø
E12	*Streptococcus bovis*	Collection (m637)	1,50E+07	Ø	/	++	Ø	Ø
E15	*Streptococcus anginosus*	Collection (1068)	4,80E+07	Ø	/	++	Ø	Ø
E13	*Streptococcus bovis*	CIP 5623	3,60E+07	Ø	/	++	Ø	Ø
E18	*Streptococcus salivarius*	Collection (SDP 1075)	1,50E+08	Ø	/	++	Ø	Ø
E17	*Streptococcus equinus*	Collection (SDP 1074)	1,50E+06	Ø	/	++	Ø	Ø
E14	*Streptococcus anginosus*	Collection (SDP 611)	1,50E+08	Ø	/	++	Ø	Ø
E8	*Enterococcus durans*	Meat product	4,80E+07	Ø	/	++	Ø	Ø
E9	*Enterococcus faecium*	Taramasalata	3,60E+07	Ø (blue colonies)	yellow	++	yellow	no (yellow colonies)
E10	*Enterococcus durans*	Meat product	1,50E+08	2 tiny pale blue colonies	Ø	++	yellow	no (yellow colonies)
BA1	*Bacillus cereus*	Whole egg	8,80E+06	Ø	/	++	white	Ø
BA3	*Bacillus cereus*	/	5,00E+06	Ø	/	++	Ø	Ø
BA9	*Bacillus cereus*	Flakes of potato	5,50E+06	Ø	/	++	Ø	Ø
BA14	*Bacillus cereus*	Egg	5,00E+06	Ø	/	++	yellow	Ø
BA15	*Bacillus cereus*	Custard	9,80E+06	Ø	/	++	Ø	Ø
BA19	*Bacillus cereus*	Environment	5,00E+06	Ø	/	++	white	Ø
BA21	*Bacillus cereus*	Poultry tabbouleh	1,50E+08	Ø	/	++	yellow	no (yellow colonies)
E331	*Enterococcus durans*	/	9,50E+07	Ø	/	++	Ø	Ø
E332	*Enterococcus durans*	/	1,50E+08	Ø	/	++	Ø	Ø
E19432	*Enterococcus durans*	/	1,40E+08	Ø	/	++	Ø	Ø
Str44	*Streptococcus bovis*	/	3,20E+08	Ø	/	++	Ø	Ø
BA6452	*Bacillus cereus*	/	8,80E+06	Ø	/	++	Ø	Ø
BA11778	*Bacillus cereus*	/	5,00E+06	Ø	/	++	Ø	Ø
BA123	*Bacillus coagulans*	/	1,00E+07	Ø	/	++	Ø	Ø
Pd240	*Pediococcus acidilactici*	/	4,80E+07	Ø	/	++	Ø	Ø
Pd119	*Pediococcus pentosaceus*	/	3,60E+07	Ø	/	++	Ø	Ø
Pd239	*Pediococcus pentosaceus*	/	1,30E+07	Ø	/	++	Ø	Ø

Ø : no growth

Appendix 7 – Inter-laboratory study: results obtained by the collaborative laboratories and the expert laboratory

Laboratory A

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	-	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	-	+	+	**+**	+	+	+	**+**	**PA**
11	+	-	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	-	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): 21										

Laboratory B

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): 940										

Laboratory C

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): <10										

Laboratory D

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): 140										

Laboratory E

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): 2										

Laboratory F

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	-	-	-	-	**-**	-	-	/	**-**	**NA**
4	-	-	-	-	**-**	-	-	/	**-**	**NA**
6	-	-	+	+	**+**	-	-	/	**-**	**ND**
11	-	-	+	+	**+**	-	-	/	**-**	**ND**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): <1										

Laboratory G

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): 25										

Laboratory H

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): NC										

Laboratory J

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): 18										

Laboratory K

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): 18										

Laboratory L

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): 31										

Laboratory M

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): 23										

Laboratory N

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): 50										

Laboratory O

Code	Reference method ISO 11290-1/A1					Alternative method RLSP				Agreement Ref/Alt
	Fraser 1/2		Fraser		**Result**	Blue colonies		Confirmation PALCAM	**Result**	
	AL	PALCAM	AL	PALCAM		24H	48H			
7	-	-	-	-	**-**	-	-	/	**-**	**NA**
8	-	-	-	-	**-**	-	-	/	**-**	**NA**
9	-	-	-	-	**-**	-	-	/	**-**	**NA**
13	-	-	-	-	**-**	-	-	/	**-**	**NA**
14	-	-	-	-	**-**	-	-	/	**-**	**NA**
18	-	-	-	-	**-**	-	-	/	**-**	**NA**
21	-	-	-	-	**-**	-	-	/	**-**	**NA**
24	-	-	-	-	**-**	-	-	/	**-**	**NA**
3	+	+	+	+	**+**	+	+	+	**+**	**PA**
4	+	+	+	+	**+**	+	+	+	**+**	**PA**
6	+	+	+	+	**+**	+	+	+	**+**	**PA**
11	+	+	+	+	**+**	+	+	+	**+**	**PA**
12	+	+	+	+	**+**	+	+	+	**+**	**PA**
15	+	+	+	+	**+**	+	+	+	**+**	**PA**
19	+	+	+	+	**+**	+	+	+	**+**	**PA**
22	+	+	+	+	**+**	+	+	+	**+**	**PA**
1	+	+	+	+	**+**	+	+	+	**+**	**PA**
2	+	+	+	+	**+**	+	+	+	**+**	**PA**
5	+	+	+	+	**+**	+	+	+	**+**	**PA**
10	+	+	+	+	**+**	+	+	+	**+**	**PA**
16	+	+	+	+	**+**	+	+	+	**+**	**PA**
17	+	+	+	+	**+**	+	+	+	**+**	**PA**
20	+	+	+	+	**+**	+	+	+	**+**	**PA**
23	+	+	+	+	**+**	+	+	+	**+**	**PA**
Enumeration of the milk (CFU/mL): 7										