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NF VALIDATION
Validation of alternative analytical methods
Application in food microbiology

Summary report

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

MicroSEQ® *Listeria monocytogenes*

(Certificate number: ABI 29/05 - 12/11)

for the detection of *Listeria monocytogenes* in meat products, dairy products, fishery products, vegetables and production environmental samples

Qualitative method

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This report consists of 122 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 **THERMO FISHER SCIENTIFIC**.

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 n° 7)
Reference method♦	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	**MicroSEQ® *Listeria monocytogenes***
Scope	☒ **Meat products** ☒ **Dairy products** ☒ **Fishery products** ☒ **Vegetables** ☒ **Production environmental samples**
Certification organism	AFNOR Certification (http://nf-validation.afnor.org/)

♦ Analyses performed according to the COFRAC accreditation

1 INTRODUCTION

The MicroSEQ® *Listeria monocytogenes* method was validated according to the ISO 16140 (2003) on the 1st of December 2011 (certificate number: ABI 29/05 - 12/11) for broad range of foods and production environmental samples.
The validation stages are the following:

Date	**Validation**	**Reference method**	**Validation standard**
2011	Initial validation for: • Broad range of foods • Production environmental samples	ISO 11290-1 (1997) ISO 11290-1/A1 (2005)	ISO 16140 (2003)
2015	Renewal study without additional testing	ISO 11290-1 (1997) ISO 11290-1/A1 (2005)	ISO 16140 (2003)
2018	Extension for the use of the Thermo Scientific™ KingFisher™ Flex-96 Deep well instrument	/	/

2020	Renewal for:
	• Selected food categories:
	  ○ Meat products (excluding raw poultry meat for the Rapid Spin protocol)
	  ○ Dairy products
	  ○ Fishery products
	  ○ Vegetables
	• Production environmental samples
		ISO 11290-1 (2017)	ISO 16140-2 (2016)

2023	Renewal study	ISO 11290-1 (2017)	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 MicroSEQ *Listeria monocytogenes* tests are based on PCR principle with TaqMan probes.

2.1.2 Protocols

Two protocols are available: the manual PrepSEQ® Rapid Spin Bead-Beating Sample Preparation protocol (Rapid Spin protocol) and the automated PrepSEQ® Nucleic Acid Extraction kit (NAE protocol).

> ***For the manual extraction protocol (Rapid Spin protocol)*:**

- Pre-enrichment of 1x g sample in 9x ml Half Fraser broth at 37°C ± 1°C for 24 h to 28 h for food samples and environmental samples.
- Extraction on 750 µL of enriched sample using the PrepSEQ® Rapid Spin Bead-Beating sample preparation kit. Note that the Extra Clean sample preparation was used for high fat matrices (mostly cheeses and meat products).
- Real time PCR detection using the 7500 Fast Instrument with RapidFinder Express version 1.1.
- Confirmation tests by streaking 100 µl of Half Fraser broth onto O&A plates. If necessary, subcultures are performed in Fraser broth before streaking (10 µl) onto O&A. The presence of typical colonies on the O&A plates is sufficient to confirm the positive PCR result.

> ***For the automated extraction protocol (NAE protocol)*:**

- Pre-enrichment of 1 x g sample in 9 x ml Half Fraser broth at 30°C ± 1°C for 24 h to 28 h for all samples.
- Transfer 100 µl to 9.9 ml of Fraser Broth. Incubate at 37°C ± 1°C for 16 h to 24 h.
- Extraction on 250 µl enriched sample using the PreSEQ™ Nucleic Acid Extraction kit.
- Confirmation tests by streaking 10 µl of Fraser broth onto O&A plates. The presence of typical colonies on the O&A plates is sufficient to confirm the positive PCR result.

It is possible to store the enrichment broth for 72 h at 5°C ± 3°C: Half Fraser for the Rapid Spin protocol and Fraser for the NAE protocol, in order to offer sufficient practicability to the lab users.

2.1.3 Restriction

There is no restriction for use.

2.2 Reference method

The initial validation and the extension studies were run according to the EN ISO 11290-1/A1 (2005): Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of *Listeria monocytogenes* – Part 1: detection method.

The renewal study was run with the ISO 11290-1 (2017): Microbiology of the food chain - Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp. - Part 1: detection method. The flow diagram is provided in **Appendix 2**.

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

2.3 Study design

The study is **an unpaired study design** for the manual extraction protocol (**Rapid Spin**) as the reference and the alternative methods have different enrichment procedures.
The study is **a paired study design** for the automated extraction protocol (**NAE**) as the reference and the alternative methods have the same pre-enrichment procedure.

3 INITIAL VALIDATION STUDY AND RENEWAL/EXTENSION STUDIES: RESULTS

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

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 the samples

391 samples were analysed for the initial validation study using the manual extraction protocol (Rapid Spin) and 407 samples using the automated extraction protocol (NAE).

17 samples tested with the Rapid Spin protocol and 17 samples tested with the NAE have been removed for the renewal study as they were either impossible to classify or inoculated at a high level.

For the Rapid Spin protocol, 68 samples have been tested in 2019 providing 38 positive and 30 negative results.
Taking into account all the validation studies, 431 samples have been tested providing 180 positive and 251 negative results.

For the NAE protocol, 38 samples were tested in 2019 providing 19 positive and 19 negative results.
Combining all the studies, 428 samples have been tested with 170 positive and 258 negative samples.

The distribution per tested category and type is given in Table 1 (Rapid Spin) and Table 2 (NAE).

Table 1 – Distribution per tested category and type – Rapid Spin

Category		Type		Positive samples	Negative samples	Total
1	Meat products (except raw poultry meat)	a	Raw	18	15	33
		b	RTE, RTRH, seasoned	9	11	20
		c	Delicatessen	14	17	31
			Total	41	43	84
2	Dairy products	a	Raw milk cheeses and fermented milk	10	20	30
		b	Raw milk	10	15	25
		c	Heat treated dairy products	11	15	26
			Total	31	50	81
3	Fishery products	a	Raw fish	7	13	20
		b	Smoked and seasoned fish	7	13	20
		c	RTE, RTRH	16	14	30
			Total	30	40	70
4	Vegetables products	a	Fresh and frozen vegetables	13	17	30
		b	Spices, aromatic herbs	7	29	36
		c	RTE, RTRH	17	12	29
			Total	37	58	95
5	Production environmental samples	a	Process water	10	18	28
		b	Sponges, swabs	24	29	53
		c	Dusts, residues, siphon water	7	13	20
			Total	41	60	101
All categories				**180**	**251**	**431**

Table 2 – Distribution per tested category and type - NAE

Category		Type		Positive samples	Negative samples	Total
1	Meat products	a	Raw	26	32	58
		b	RTE, RTRH, seasoned	7	13	20
		c	Delicatessen	12	17	29
			Total	45	62	107
2	Dairy products	a	Raw milk cheeses and fermented milk	10	18	28
		b	Raw milk	9	16	25
		c	Heat treated dairy products	11	18	29
			Total	30	52	82
3	Fishery products	a	Raw fish	9	13	22
		b	Smoked and seasoned fish	9	14	23
		c	RTE, RTRH	12	10	22
			Total	30	37	67
4	Vegetables products	a	Fresh and frozen vegetables	13	13	26
		b	Spices, aromatic herbs	7	30	37
		c	RTE, RTRH	11	16	27
			Total	31	59	90
5	Production environmental samples	a	Process water	9	12	21
		b	Sponges, swabs	18	23	41
		c	Dusts, residues, siphon water	7	13	20
			Total	34	48	82
All categories				**170**	**258**	**428**

3.1.1.2 *Artificial contamination of the samples*

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

For the Rapid Spin protocol, 115 samples were artificially contaminated; 63 gave a positive result. For the NAE protocol, 94 samples were artificially contaminated; 55 gave a positive result. The repartition of the positive samples per inoculation protocol is given in Table 3.

Table 3 - Repartition of the positive samples per inoculation protocol

		Naturally contaminated	Artificial contaminated							Total
			Cross-contamination	Spiking			Seeding protocol			
				≤5	5<x≤10	10<x≤30	≤3	3<x≤10	10<x≤30	
Rapid Spin	Number of samples	121	0	10	18	5	23	3	0	180
	%	67,2%	0,0%	5,6%	10,0%	2,8%	12,8%	1,7%	0,0%	100,0%
NAE	Number of samples	115	0	17	16	7	13	2	0	170
	%	67,6%	0,0%	10,0%	9,4%	4,1%	7,6%	1,2%	0,0%	100,0%

67.2 % and 67.6 % of the samples were naturally contaminated respectively for the Rapid Spin and the NAE extraction protocols.

3.1.1.3 *Protocol applied during the validation study*

> ***Incubation times***

The minimum incubation times were applied:

- Rapid Spin protocol
  - Half Fraser: 24 h at 37°C ± 1°C for all samples,
- NAE protocol:
  - Half Fraser: 24 h at 30°C ± 1°C;
  - Fraser: 16 h at 37°C ± 1°C.

> ***Extraction protocol***

The Rapid Spin (manual extraction) and the NAE (automated extraction) protocols were applied during the validation study.

> ***Confirmation protocols***

Confirmation was performed by streaking 100 µl of Half Fraser for Rapid Spin protocol and 10 µL of Fraser for NAE protocol onto O&A plates. If necessary, subcultures were performed in Fraser broth before streaking (10 µl) onto O&A for the NAE protocol. The typical colonies were confirmed by biochemical tests.

For the Rapid Spin protocol, a subculture for 24 h in Fraser broth was performed in order to have the same incubation time as the reference method before streaking onto selective agar plates for the samples giving negative PCR results.

> ***Enrichment broth storage***

The enrichment broth storages (Half Fraser for Rapid Spin and Fraser for NAE protocols) of positive and discordant samples were tested again after storage for 72 h at 5°C ± 3°C (PCR and confirmatory tests).

3.1.1.4 Test results

Raw data per category are given in **Appendix 4**. The results are given in Table 4 (Rapid Spin) and Table 5 (NAE).

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

Category		PA	NA*	PD	ND**	PPND	PPNA	Total
1	Meat products (except raw poultry meat)	23	41	8	10	0	2	**84**
2	Dairy products	23	47	5	3	0	3	**81**
3	Fishery products	25	39	2	2	1	1	**70**
4	Vegetables	26	57	6	5	0	1	**95**
5	Production environmental samples	33	59	3	5	0	1	**101**
TOTAL		**130**	**243**	**24**	**25**	**1**	**8**	**431**

* PPNA: not included ** PPND not included

Table 5 – Interpretation of sample results between the reference and alternative method (based on the confirmed alternative method results) – NAE

Category		PA	NA*	PD	ND**	PPND	PPNA	Total
1	Meat products	42	62	2	1	0	0	**107**
2	Dairy products	28	51	0	2	0	1	**82**
3	Fishery products	30	37	0	0	0	0	**67**
4	Vegetables	31	59	0	0	0	0	**90**
5	Production environmental samples	34	47	0	0	0	1	**82**
TOTAL		**165**	**256**	**2**	**3**	**0**	**2**	**428**

* 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 6 (Rapid Spin) and Table 7 (NAE).

Table 6 – Calculation of the relative trueness (RT), the sensitivity (SE) and the false positive ratio (FPR) – Rapid Spin

Category		Type		PA	NA*	PD	ND**	PPND	PPNA	SE $_{alt}$ %	SE $_{ref}$ %	RT %	FPR %
1	Meat products (except raw poultry meat)	a	Raw	10	14	2	6	0	1	66,7	88,9	75,8	6,7
		b	RTE, RTRH, seasoned	3	10	4	2	0	1	77,8	55,6	70,0	9,1
		c	Delicatessen	10	17	2	2	0	0	85,7	85,7	87,1	0,0
			Total	23	41	8	10	0	2	75,6	80,5	78,6	4,7
2	Dairy products	a	Raw milk cheeses and fermented milk	10	20	0	0	0	0	100,0	100,0	100,0	0,0
		b	Raw milk	5	12	2	3	0	3	70,0	80,0	80,0	20,0
		c	Heat treated dairy products	8	15	3	0	0	0	100,0	72,7	88,5	0,0
			Total	23	47	5	3	0	3	90,3	83,9	90,1	6,0
3	Fishery products	a	Raw fish	7	13	0	0	0	0	100,0	100,0	100,0	0,0
		b	Smoked and seasoned fish	6	12	0	0	1	1	85,7	100,0	95,0	15,4
		c	RTE, RTRH	12	14	2	2	0	0	87,5	87,5	86,7	0,0
			Total	25	39	2	2	1	1	90,0	93,3	92,9	5,0
4	Vegetables products	a	Fresh and frozen vegetables	10	16	1	2	0	1	84,6	92,3	90,0	5,9
		b	Spices, aromatic herbs	3	29	3	1	0	0	85,7	57,1	88,9	0,0
		c	RTE, RTRH	13	12	2	2	0	0	88,2	88,2	86,2	0,0
			Total	26	57	6	5	0	1	86,5	83,8	88,4	1,7
5	Production environmental samples	a	Process water	7	18	2	1	0	0	90,0	80,0	89,3	0,0
		b	Sponges, swabs	22	28	1	1	0	1	95,8	95,8	96,2	3,4
		c	Dusts, residues, siphon water	4	13	0	3	0	0	57,1	100,0	85,0	0,0
			Total	33	59	3	5	0	1	87,8	92,7	92,1	1,7
All categories				**130**	**243**	**24**	**25**	**1**	**8**	**85,6**	**86,7**	**88,4**	**3,6**

* PPNA: not included ** PPND not included

Table 7 – Calculation of the relative trueness (RT), the sensitivity (SE) and the false positive ratio (FPR) - NAE

Category		Type		PA	NA*	PD	ND**	PPND	PPNA	SE $_{alt}$ %	SE $_{ref}$ %	RT %	FPR %
1	Meat products	a	Raw	25	32	1	0	0	0	100,0	96,2	98,3	0,0
		b	RTE, RTRH, seasoned	7	13	0	0	0	0	100,0	100,0	100,0	0,0
		c	Delicatessen	10	17	1	1	0	1	91,7	91,7	93,1	5,9
			Total	42	62	2	1	0	1	97,8	95,6	97,2	1,6
2	Dairy products	a	Raw milk cheeses and fermented milk	9	18	0	1	0	0	90,0	100,0	96,4	0,0
		b	Raw milk	9	16	0	0	0	0	100,0	100,0	100,0	0,0
		c	Heat treated dairy products	10	17	0	1	0	1	90,9	100,0	96,6	5,6
			Total	28	51	0	2	0	1	93,3	100,0	97,6	1,9
3	Fishery products	a	Raw fish	9	13	0	0	0	0	100,0	100,0	100,0	0,0
		b	Smoked and seasoned fish	9	14	0	0	0	0	100,0	100,0	100,0	0,0
		c	RTE, RTRH	12	10	0	0	0	0	100,0	100,0	100,0	0,0
			Total	30	37	0	0	0	0	100,0	100,0	100,0	0,0
4	Vegetables products	a	Fresh and frozen vegetables	13	13	0	0	0	0	100,0	100,0	100,0	0,0
		b	Spices, aromatic herbs	7	30	0	0	0	0	100,0	100,0	100,0	0,0
		c	RTE, RTRH	11	16	0	0	0	0	100,0	100,0	100,0	0,0
			Total	31	59	0	0	0	0	100,0	100,0	100,0	0,0
5	Production environmental samples	a	Process water	9	12	0	0	0	0	100,0	100,0	100,0	0,0
		b	Sponges, swabs	18	22	0	0	0	1	100,0	100,0	100,0	4,3
		c	Dusts, residues, siphon water	7	13	0	0	0	0	100,0	100,0	100,0	0,0
			Total	34	47	0	0	0	1	100,0	100,0	100,0	2,1
All categories				**165**	**256**	**2**	**3**	**0**	**3**	**98,2**	**98,8**	**98,8**	**1,2**

* PPNA: not included ** PPND not included

A summary of the results is given in Table 8.

Table 8 - Summary of results

		Rapid Spin	NAE
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA+PD)}{(PA+ND+PD)} \times 100\,\%$	85.6 %	98.2 %
Sensitivity for the reference method	$SE_{ref} = \frac{(PA+ND)}{(PA+ND+PD)}\ x\ 100\ \%$	86.7 %	98.8 %
Relative trueness	$RT = \frac{(PA+NA)}{N} \times 100\,\%$	88.4 %	98.8 %
False positive ratio for the alternative method* **FP = PPNA + PPND**	$FPR = \frac{(FP)}{NA} \times 100\,\%$	3.6 %	1.2 %

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

3.1.1.6 Analysis of discordant results

For the **Rapid Spin protocol**, the negative deviations are given in Table 9 and the positive deviations in Table 10.

> *Negative deviations (unpaired study design)*

26 negative deviations were observed; 16 concerned naturally contaminated samples and 10 artificially contaminated samples. For 2 samples (4559: chicken meat, 1170: fish and vegetable pie), the presence of *Listeria monocytogenes* was confirmed in the enrichment broth.
For one sample (7219: smoked salmon), positive PCR results were observed twice but it was impossible to confirm the presence of *Listeria monocytogenes* in the enrichment broth.
Note that for samples giving a negative PCR result, a subculture was performed in Fraser broth for 24 h at 37°C before streaking onto O&A and Palcam plates was applied in order to have the same incubation time as for the reference method but none of these samples was confirmed positive.

- *Positive deviations*

24 positive deviations were observed: 11 for naturally contaminated samples and 13 for artificially contaminated samples.

Most of the discordant samples were probably linked to the unpaired study design and the heterogeneity of the sampling.

Table 9 - Negative deviations – Rapid Spin

Year of analysis	Sample N°	Product	Artificial contaminations		Reference method: ISO 11290-1♦	Alternative method: MicroSEQ *Listeria monocytogenes* -Rapid Spin					Category	Type
			Strain	Inoculation level CFU/sample		Half Fraser-24H 37°c						
						PCR		Confirmation	Final result	**Agreement**		
						Ct	Result					
2011	4559	Chicken meat	/	/	+	N/A	-	*L.innocua/ L.monocytogenes*	-	**ND**	1	a
2011	4582	Roast poultry meat	/	/	+	N/A	-	-	-	**ND**	1	a
2011	4586	Chicken meat	/	/	+	N/A	-	-	-	**ND**	1	a
2011	4589	Turkey fillet	/	/	+	N/A	-	-	-	**ND**	1	a
2011	4710	Pork meat	/	/	+	N/A	-	*L.innocua*	-	**ND**	1	a
2011	4713	Turkey fillet	/	/	+	N/A	-	-	-	**ND**	1	a
2011	4630	Ready to eat chicken wings	/	/	+	N/A	-	-	-	**ND**	1	b
2019	**7978**	**RTRH (Seasoned chicken)**	*L.monocytogenes* Ad666	1,6	+	N/A	-	-	-	**ND**	1	b
2011	3655	Delicatessen (Andouille)	/	/	+	N/A	-	*L.innocua*	-	**ND**	1	c
2011	4581	Merguez	/	/	+	N/A	-	-	-	**ND**	1	c
2011	**4646**	**Raw milk**	*L.monocytogenes* A00L097	2,6	+	N/A	-	-	-	**ND**	2	b
2019	**7009**	**Raw milk**	*L.monocytogenes* Ad665 + *L.innocua* Ad1789	1,2+1,4	+	N/A	-	*L.innocua*	-	**ND**	2	b
2019	**7251**	**Raw milk**	*L.monocytogenes* Ad250 + *L.innocua* Ad1786	0,6+0,6	+	N/A	-	*L.innocua*	-	**ND**	2	b
2019	**7249**	**Smoked salmon**	*L.monocytogenes* Ad1187	0,6	+	36,58/ 36,67/ 36,40	+/+/+	-	-	**PPND**	3	b
2011	3386	Tarama (salmon flavour)	/	/	+	N/A	-	-	-	**ND**	3	c
2011	3658	Salmon terrine	/	/	+	N/A	-	-	-	**ND**	3	c
2011	1127	Mushrooms	/	/	+	N/A	-	*L.innocua*	-	**ND**	4	a
2011	4482	Frozen peas and carrots	/	/	+	N/A	-	-	-	**ND**	4	a
2019	**8000**	**Sweet paprika**	*L.monocytogenes* Ad1238	5,6	+	N/A	-	-	-	**ND**	4	b

♦ Analyses performed according to the COFRAC accreditation

Year of analysis	Sample N°	Product	Artificial contaminations		Reference method: ISO 11290-1♦	Alternative method: MicroSEQ *Listeria monocytogenes* -Rapid Spin					Category	Type
			Strain	Inoculation level CFU/sample		Half Fraser-24H 37°c						
						PCR		Confirmation	Final result	**Agreement**		
						Ct	Result					
2011	1170	Fish and vegetable pie	/	/	+	N/A	-	*L.monocytogenes/ L.grayi*	-	**ND**	4	c
2011	3634	Ready-to-cook vegetables (leek and cream)	/	/	+	N/A	-	-	-	**ND**	4	c
2011	**4694**	**Process water**	*L.monocytogenes* Ad1271	4,6	+	N/A	-	*L.welshimeri*	-	**ND**	5	a
2011	4473	Sponge (salmon industry)	/	/	+	N/A	-	*L.monocytogenes*	-	**ND**	5	b
2011	**4685**	**Dusts (Dairy industry)**	*L.monocytogenes* Ad615	4,4	+	N/A	-	-	-	**ND**	5	c
2011	**4699**	**Dusts (Salmon industry)**	*L.monocytogenes* A00E008	4,0	+	N/A	-	-	-	**ND**	5	c
2019	**7628**	**Dusts fish**	*L.monocytogenes* Ad1679	1,6	+	N/A	-	-	-	**ND**	5	c

Table 10 - Positive deviations– Rapid Spin

Year of analysis	Sample N°	Product	Artificial contaminations		Reference method : ISO 11290-1♦	Extraction protocol applied	Alternative method: MicroSEQ *Listeria monocytogenes* - Rapid Spin					Category	Type
							Half Fraser-24H 37°c						
			Strain	Inoculation level CFU/sample			PCR		Confirmation	Final result	Agreement		
							Ct	Result					
2011	4570	Red turkey meat	/	/	-	Extra-clean	27,4	+	*L.monocytogenes/ L.welshimeri*	+	**PD**	1	a
2011	4629	Chicken leg	/	/	-	Extra-clean	23,43	+	*L.monocytogenes*	+	**PD**	1	a
2019	**7246**	**RTRH (couscous)**	*L.monocytogenes* Ad668	2,4	-	Standard	11,76	+	*L.monocytogenes*	+	**PD**	1	b
2019	7666	RTE (wrap chicken)	/	/	-	Extra-clean	19,25	+	*L.monocytogenes*	+	**PD**	1	b
2019	**7977**	**RTRH (Couscous)**	*L.monocytogenes* Ad666	1,6	-	Standard	17,40	+	*L.monocytogenes*	+	**PD**	1	b
2019	**7979**	**RTRH (Choucroute)**	*L.monocytogenes* Ad669	0,4	-	Standard	19,58	+	*L.monocytogenes*	+	**PD**	1	b
2011	3657	Ready-to-cook vegetables	/	/	-	Extra-clean	36,22	+	*L.monocytogenes/ L.welshimeri*	+	**PD**	1	c
2011	4584	Sausages	/	/	-	Extra-clean	26,49	+	*L.monocytogenes*	+	**PD**	1	c
2011	**3934**	**Raw milk**	*L.monocytogenes* Ad909		-	Standard	28,06	+	*L. monocytogenes*	+	**PD**	2	b
2019	**7250**	**Raw milk**	*L.monocytogenes* Ad630	0,6	-	Standard	28,59	+	*L.monocytogenes*	+	**PD**	2	b
2011	**3935**	**Fermented milk**	*L.monocytogenes* Ad909	8,2	-	Standard	15,23	+	*L. monocytogenes*	+	**PD**	2	c
2011	**3937**	**Fermented milk**	*L.monocytogenes* Ad904	7,6	-	Standard	29,92	+	*L. monocytogenes*	+	**PD**	2	c
2019	**7012**	**Pasteurised cheese**	*L.monocytogenes* Ad665	1,2	-	Extra-clean	19,89	+	*L.monocytogenes*	+	**PD**	2	c
2011	1166	Fish croquettes	/	/	-	Standard	23,11	+	*L.mono/L.innocua*	+	**PD**	3	c
2011	3381	Breaded fish	/	/	-	Standard	29,21	+	*L.innocua/ L.monocytogenes*	+	**PD**	3	c
2011	3640	Ready-to-cook vegetables (cabbage)	/	/	-	Standard	21,63	+	*L.monocytogenes*	+	**PD**	4	a
2011	1152	Parsley	/	/	-	Standard	25,9	+	*L.monocytogenes*	+	**PD**	4	b
2019	**7257**	**Parsley**	*L.monocytogenes* Ad2643	2,8	-	Standard	22,43	+	*L.monocytogenes*	+	**PD**	4	b
2019	**7258**	**Parsley**	*L.monocytogenes* Ad2598	1,6	-	Standard	14,61	+	*L.monocytogenes*	+	**PD**	4	b

♦ Analyses performed according to the COFRAC accreditation

Year of analysis	Sample N°	Product	Artificial contaminations		Reference method : ISO 11290-1♦	Extraction protocol applied	Alternative method: MicroSEQ *Listeria monocytogenes* - Rapid Spin					Category	Type
							Half Fraser-24H 37°c						
			Strain	Inoculation level CFU/sample			PCR		Confirmation	**Final result**	Agreement		
							Ct	Result					
2011	3643	Ready-to-cook vegetables (Spinach with cream)	/	/	-	Standard	19,45	+	*L.monocytogenes*	+	**PD**	4	c
2011	3644	Ready-to-cook vegetables	/	/	-	Standard	15,40	+	*L.monocytogenes*	+	**PD**	4	c
2011	1591	Chilling water	/	/	-	Standard	25,11	+	*L.innocua/ L.monocytogenes*	+	**PD**	5	a
2011	4469	Process water (Salmon industry)	/	/	-	Standard	21,84	+	*L.monocytogenes*	+	**PD**	5	a
2011	**4691**	**Sponge (Poultry industry)**	*L.monocytogenes* Ad1271	4,6	-	Standard	20,29	+	*L.monocytogenes*	+	**PD**	5	b

For the **NAE protocol**, the negative deviations are given in Table11 and the positive deviations in Table 12.

- *Negative deviations (paired study design)*

Three negative deviations were obtained using the NAE protocol, one for a naturally contaminated sample (merguez) and 2 for artificially contaminated samples. The presence of *Listeria monocytogenes* was confirmed in the enrichment broth for two of them.

For sample 4581, typical colonies were observed mainly on selective agar plates from Fraser broth for the reference method (only 1 colony observed on O&A plate from Half Fraser); the contamination level in the Half Fraser broth was probably too low to be detected by PCR.

For sample 4060 (raw milk cheese), only one typical colony was observed on O&A plate from Half Fraser broth (ISO method) after 24 h incubation time indicating that the contamination level was also very low for this sample.

For sample 5910 (pasteurised milk cheese), three PCR tests were run; one negative and two positive results were obtained. The contamination level was in this case probably just at the limit of detection of the MicroSEQ method.

- *Positive deviations*

Two positive deviations were observed for naturally contaminated samples.

Table 11 - Negative deviations – NAE

Year of analysis	Sample N°	Product	Artificial contaminations		Reference method: ISO 11290-1♦			Alternative method: MicroSEQ *Listeria monocytogenes* - NAE					category	type
								Half- Fraser 24h 30°C+ Fraser-16H 37°c						
			Strain	Inoculation level CFU/sample	Half Fraser O&A / Palcam	Fraser O&A / Palcam	**Final result**	PCR Ct	PCR Result	Confirmation	Final result	**Agreement**		
2011	4581	Merguez	/	/	H+(1)/-	H+/+	**+**	N/A	-	-	**-**	**ND**	1	c
2011	**4060**	**Raw milk cheese (Morbier)**	*L.monocytogenes 910*	10,2	-/-	H+/+	**+**	N/A	-	*L.monocytogenes*	**-**	**ND**	2	a
2019	**5910**	**Pasteurised milk cheese**	*L.monocytogenes* Ad2858	1,4	H+/+(1)	H+/+	**+**	-/36,40/36,31	-/+/+	*L.monocytogenes*	**-**	**ND**	2	c

Table 12 - Positive deviations – NAE

Year of analysis	Sample N°	Product	Reference method: ISO 11290-1♦	MicroSEQ *Listeria monocytogenes* - NAE					category	type
				Half Fraser 24h 30°C+ Fraser-16H 37°c						
				PCR			Final result	**Agreement**		
				Ct	Result	Confirmation				
2011	4249	Poultry meat	**-**	24,68	+	*L.welshimeri/L.monocytogenes*	**+**	**PD**	1	a
2011	4573	Sausages with herbs	**-**	27,67	+	*L.monocytogenes*	**+**	**PD**	1	c

♦ Analyses performed according to the COFRAC accreditation

The analyses of discordant results according to the EN ISO 16140-2:2016 is the following (See Table 13 for Rapid Spin and Table 14 for NAE).

Table 13 - Analyses of discordant results – Rapid Spin

Category		Type		N+	ND	PPND	PD	Unpaired study (ND+PPND)-PD	Unpaired study AL
1	Meat products (except raw poultry meat)	a	Raw	18	6	0	2		
		b	RTE, RTRH, seasoned	9	2	0	4		
		c	Delicatessen	14	2	0	2		
			Total	41	10	0	8	2	3
2	Dairy products	a	Raw milk cheeses and fermented milk	10	0	0	0		
		b	Raw milk	10	3	0	2		
		c	Heat treated dairy products	11	0	0	3		
			Total	31	3	0	5	-2	3
3	Fishery products	a	Raw fish	7	0	0	0		
		b	Smoked and seasoned fish	7	0	1	0		
		c	RTE, RTRH	16	2	0	2		
			Total	30	2	1	2	1	3
4	Vegetables products	a	Fresh and frozen vegetables	13	2	0	1		
		b	Spices, aromatic herbs	7	1	0	3		
		c	RTE, RTRH	17	2	0	2		
			Total	37	5	0	6	-1	3
5	Production environmental samples	a	Process water	10	1	0	2		
		b	Sponges, swabs	24	1	0	1		
		c	Dusts, residues, siphon water	7	3	0	0		
			Total	41	5	0	3	2	3
All categories				**180**	**25**	**1**	**24**	**2**	**5**

With ND = ND + PPND

The observed values for ((ND + PPND) - PD) meet the acceptability limit for each individual category and for the five combined categories (calculated values ≤ AL) for the Rapid Spin protocol.

Table 14 - Analyses of discordant results – NAE

Category		Type		N+	ND	PPND	PD	Paired study (ND+PPND) -PD	AL	(ND+PPND) +PD	AL
1	Meat products	a	Raw	26	0	0	1				
		b	RTE, RTRH, seasoned	7	0	0	0				
		c	Delicatessen	12	1	0	1				
			Total	45	1	0	2	-1	3	3	6
2	Dairy products	a	Raw milk cheeses and fermented milk	10	1	0	0				
		b	Raw milk	9	0	0	0				
		c	Heat treated dairy products	11	1	0	0				
			Total	30	2	0	0	2	3	2	6
3	Fishery products	a	Raw fish	9	0	0	0				
		b	Smoked and seasoned fish	9	0	0	0				
		c	RTE, RTRH	12	0	0	0				
			Total	30	0	0	0	0	3	0	6
4	Vegetables products	a	Fresh and frozen vegetables	13	0	0	0				
		b	Spices, aromatic herbs	7	0	0	0				
		c	RTE, RTRH	11	0	0	0				
			Total	31	0	0	0	0	3	0	6
5	Production environmental samples	a	Process water	9	0	0	0				
		b	Sponges, swabs	18	0	0	0				
		c	Dusts, residues, siphon water	7	0	0	0				
			Total	34	0	0	0	0	3	0	6
All categories				**170**	**3**	**0**	**2**	**1**	**5**	**5**	**14**

With ND = ND + PPND

The observed values for ((ND + PPND) - PD) and ((ND + PPND+ PD) meet the acceptability limit for each individual category and for the five combined categories (calculated values ≤ AL) for the NAE protocol.

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

The following changes were observed (See Table 15 for the Rapid Spin protocol and Table 16 for the NAE protocol).

Table 15 - Enrichment broth storage - Rapid Spin

N° sample	Before storage	After storage	Category	Type
1190	PA	ND	2	c
1170	ND	PA	4	c
8002	PA	ND	4	b
8004	PA	ND	4	b
4473	ND	PA	5	b

Table 16 - Enrichment broth storage - NAE

N° sample	Before storage	After storage	Category	Type
5910	ND	PA	2	c
5915	PA	PPND	5	a

The analyses of discordant results become (See Table 17 for the Rapid Spin protocol and Table 18 for the NAE protocol).

Table 17 - Analysis of discordant results after storage 72 h at 5 ± 3°C - Rapid Spin

								Unpaired study	
Category		Type		N+	ND	PPND	PD	(ND+PPND)-PD	AL
1	Meat products (except raw poultry meat)	a	Raw	18	6	0	2		
		b	RTE, RTRH, seasoned	9	2	0	4		
		c	Delicatessen	14	2	0	2		
			Total	41	10	0	8	2	3
2	Dairy products	a	Raw milk cheeses and fermented milk	10	0	0	0		
		b	Raw milk	10	2	1	2		
		c	Heat treated dairy products	11	1	0	3		
			Total	31	3	1	5	-1	3
3	Fishery products	a	Raw fish	7	0	0	0		
		b	Smoked and seasoned fish	7	1	0	0		
		c	RTE, RTRH	16	2	0	2		
			Total	30	3	0	2	1	3
4	Vegetables products	a	Fresh and frozen vegetables	13	2	0	1		
		b	Spices, aromatic herbs	7	3	0	3		
		c	RTE, RTRH	17	1	0	2		
			Total	37	6	0	6	0	3
5	Production environmental samples	a	Process water	10	1	0	2		
		b	Sponges, swabs	24	0	0	1		
		c	Dusts, residues, siphon water	7	3	0	0		
			Total	41	4	0	3	1	3
All categories				**180**	**26**	**1**	**24**	**3**	**5**

With ND = ND + PPND

Table 18 - Analysis of discordant results after storage 72 h at 5 ± 3°C - NAE

Category		Type		N+	ND	PPND	PD	Paired study (ND+PPND) -PD	AL	(ND+PPND) +PD	AL
1	Meat products	a	Raw	26	0	0	1				
		b	RTE, RTRH, seasoned	7	0	0	0				
		c	Delicatessen	12	1	0	1				
			Total	45	1	0	2	-1	3	3	6
2	Dairy products	a	Raw milk cheeses and fermented milk	10	1	0	0				
		b	Raw milk	9	0	0	0				
		c	Heat treated dairy products	11	0	0	0				
			Total	30	1	0	0	1	3	1	6
3	Fishery products	a	Raw fish	9	0	0	0				
		b	Smoked and seasoned fish	9	0	0	0				
		c	RTE, RTRH	12	0	0	0				
			Total	30	0	0	0	0	3	0	6
4	Vegetables products	a	Fresh and frozen vegetables	13	0	0	0				
		b	Spices, aromatic herbs	7	0	0	0				
		c	RTE, RTRH	11	0	0	0				
			Total	31	0	0	0	0	3	0	6
5	Production environmental samples	a	Process water	9	0	1	0				
		b	Sponges, swabs	17	0	0	0				
		c	Dusts, residues, siphon water	7	0	0	0				
			Total	33	0	1	0	1	3	1	6
All categories				**169**	**2**	**1**	**2**	**1**	**5**	**5**	**14**

With ND = ND + PPND

The observed values for ((ND + PPND) - PD) meet the acceptability limit for each individual category and for the five combined categories (calculated values ≤ AL) for the Rapid Spin protocol.

The observed values for ((ND + PPND) - PD) and ((ND + PPND) + PD) meet the acceptability limit for each individual category and for the five combined categories (calculated values ≤ AL) for the NAE protocol.

3.1.1.8 Confirmation

The positive PCR results were confirmed by steaking 100 µl of Half Fraser broth for the Rapid Spin protocol and 10 µl of Fraser broth for the NAE protocol onto O&A and Palcam plates. The number of plates showing typical colonies on each selective agar plate is provided in Table 19.

Table 19 - Number of plates showing typical colonies

	Extraction protocol (after incubation time)	
	Rapid Spin	NAE
Number of positive PCR results	163	170
Number of samples confirmed using O&A plates	154 (1) (2)	165 (2)
Number of samples confirmed using Palcam plates	0	2
Number of samples not confirmed	9	3

(1) 2 samples confirmed after enrichment broth storage,

(2) 1 sample confirmed from Half Fraser (ISO)

For 9 samples (Rapid Spin) and 3 samples (NAE), it was impossible to confirm the presence of *Listeria monocytogenes* in the enrichment both even when proceeding to additional subcultures and streaking on selective agar plates.

3.1.1.9 PCR inhibition

651 and 609 lysates were tested respectively for the Rapid Spin and the NAE protocols.

Inhibitions were observed for 19 lysates prepared using the Rapid Spin protocol, representing 2.9 % of inhibition (See Table 20) and for 6 lysates prepared using the NAE protocol, representing 1 % of inhibition (See Table 21).

Table 20 - PCR inhibitions - Rapid spin

Inhibition: dilution 1/5* and 1/10** if necessary, of the enrichment broth before extraction
NLBL: Non-Linear Base Line: R&D recommend diluting the sample and rerun
Extra clean protocol

Year of analysis	Sample N°	Product	Enrichment	MicroSEQ *Listeria monocytogenes* - Rapid Spin	
				PCR	
				Ct	Result
2011	1132	Ready-to-cook vegetables (couscous)	24H 37°C	i/+	i/+
2011	1137	Scallops terrine		i/+	i/+
2011	1192	Raw milk		i/N/A	i/-
2011	**3962**	**Chocolate ice cream**		i/26,62	i / +
2011	**4056**	**Spices for couscous**		i/N/A	i/-
2011	4560	Pork liver		i/N/A	i/-
2011	4564	VSM		i/N/A	i/-
2011	4566	Pork meat		i/N/A	i/-
2011	4641	Roast pork meat		i/N/A	i/-
2011	**4668**	**Tiramisu with raspberries**		i/28,38	i/+
2019	**8004**	**Mild red pepper**		i/31,73*	i/+*
2011	1139	Salmon terrine	24H 37°C and 72h storage	i/+	i/+
2011	4630	Ready to eat chicken wings		i/N/A	i/-
2019	**7977**	**RTRH (Couscous)**		i/i*/23,08**	+**
2019	**7978**	**RTRH (Seasoned chicken)**		i/i*/N/A**	i/i*/-**
2019	**7979**	**RTRH (Choucroute)**		i/i*/23,56**	i/i*/ +**
2019	**8000**	**Sweet paprika**		i/i*/N/A**	i/i*/-**
2019	**8002**	**Cumin powder**		i/i*/N/A**	i/i*/-**
2019	**8004**	**Mild red pepper**		i/i*/N/A**	i/ i*/-**
Number of inhibitions				**19**	
Number of lysates tested (431+220)				**651**	
Percentage of inhibition				**2,9%**	

Table 21 - PCR inhibitions - NAE

Year of analysis	Sample N°	Product	Enrichment	MicroSEQ *Listeria monocytogenes*-NAE	
				PCR	
				Ct	Result
2011	4440	Fish fillet (Panga)	Half Fraser 24h 30°C+ Fraser 16H 37°C	i/N/A	i/-
2019	**5917**	**Turmeric**		i/N/A	i/-
2019	**5919**	**Curry**		i/N/A	i/-
2019	**7131**	**Dehydrated oregano**		i/ N/A*	i/ -*
2019	**8000**	**Sweet paprika**		i/31,18*	i/ +*
2019	**7129**	**Raw milk**	After storage	i/19,04*	+*
Number of inhibitions				**6**	
Number of lysates tested (428+181)				**609**	
Percentage of inhibition				**1,0%**	

3.1.2 Relative Level of Detection (RLOD)

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.

3.1.2.1 Experimental design

The matrix/strain pairs are listed in Table 22.

Table 22 - Matrix/strain pairs tested

Category		Type	Matrix	Strain	Origin	Storage conditions prior to analysis
1	**Meat products**	Delicatessen	Rillettes	*Listeria monocytogenes* Ad669	Rillettes	/
2	**Dairy products**	Raw milk	Raw milk	*Listeria monocytogenes* 153	Raw milk cheese	/
3	**Fishery products**	Smoked and seasoned fish	Smoked salmon	*Listeria monocytogenes* BR32	Smoked salmon	/
4	**Vegetables**	Fresh and frozen vegetables	Zucchini	*Listeria monocytogenes* 1016/1413	Frozen broccoli	/
5	**Production environmental samples**	Process water	Process water	*Listeria monocytogenes* 877/113	Surface	/

Four contamination levels were tested:

- Level 1: 0 UFC/g or /ml,
- Level 2: level necessary to obtain 0 to 50% positives,
- Level 3: level necessary to obtain 50 to 75% positives,
- Level 4: level necessary to obtain 100% positives.

The mesophilic aerobic microflora was enumerated for each matrix.

3.1.2.2 Results

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

The RLOD calculations for the matrix/strain pairs tested for the initial validation study 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 Table 23.

Table 23 - Presentation of RLOD before and after confirmation of the alternative method results

Rapid Spin								
Matrix/strain	**RLOD**	**RLODL**	**RLODU**	**b=ln(RLOD)**	**sd(b)**	**z-Test statistic**	**p-value**	**AL**
Rillettes / *Listeria monocytogenes* Ad669	1,191	0,519	2,734	0,175	0,415	0,421	0,673	2,5
Raw milk / *Listeria monocytogenes* 153	2,047	0,708	5,920	0,716	0,531	1,349	0,177	
Smoked salmon / *Listeria monocytogenes* BR32	1,624	0,492	5,367	0,485	0,598	0,812	0,417	
Zucchini / *Listeria monocytogenes* 1016/1413	1,000	0,342	2,920	0,000	0,536	0,000	1,000	
Process water / *Listeria monocytogenes* 877/113	1,956	0,774	4,943	0,671	0,463	1,448	0,148	
Combined	1,470	0,961	2,248	0,385	0,212	1,814	0,070	

NAE								
Matrix/strain	**RLOD**	**RLODL**	**RLODU**	**b=ln(RLOD)**	**sd(b)**	**z-Test statistic**	**p-value**	**AL**
Rillettes / *Listeria monocytogenes* Ad669	1,000	0,342	2,920	0,000	0,536	0,000	1,000	1,5
Raw milk / *Listeria monocytogenes* 153	0,792	0,253	2,479	-0,234	0,571	0,409	1,318	
Smoked salmon / *Listeria monocytogenes* BR32	1,000	0,382	2,616	0,000	0,481	0,000	1,000	
Zucchini / *Listeria monocytogenes* 1016/1413	1,000	0,342	2,920	0,000	0,536	0,000	1,000	
Process water / *Listeria monocytogenes* 877/113	1,245	0,561	2,760	0,219	0,398	0,550	0,582	
Combined	1,109	0,712	1,728	0,103	0,222	0,466	0,642	

The RLOD met the Acceptability Limit (AL) for all the matrix/strain pairs tested for both protocols (Rapid Spin and NAE).

The $LOD_{50\,\%}$ calculations according to Wilrich & Wilrich POD-LOD calculation program - version 9, 2017-09-23 test are given in Table 24.

Table 24 - LOD_{50} results

Matrix	Strain	Alternative method	Level of detection at 50% (CFU / sample size) according to Wilrich & Wilrich[1]	
		Extraction protocol	Reference method	Alternative method
Rillettes	*L. monocytogenes* Ad669	Rapid Spin	0,7 [0,3;1,3]	0,7 [0,3;1,3]
		NAE	0,7 [0,4;1,2]	0,7 [0,4;1,2]
Raw milk	*L. monocytogenes* 153	Rapid Spin	0,3 [0,2;0,7]	0,6 [0,3;1,1]
		NAE	0,4 [0,2;0,7]	0,3 [0,2;0,6]
Salmon	*L. monocytogenes* BR32	Rapid Spin	0,3 [0,2;0,6]	0,4 [0,2;0,8]
		NAE	0,3 [0,2;0,6]	0,3 [0,2;0,6]
Zucchini	*L. monocytogenes* 1016/1413	Rapid Spin	0,4 [0,2;0,8]	0,6 [0,3;1,1]
		NAE	0,4 [0,2;0,8]	0,4 [0,2;0,8]
Process water	*L. monocytogenes* 877/113	Rapid Spin	0,6 [0,3;1,0]	1,1 [0,6;2,3]
		NAE	0,5 [0,3;1,0]	0,5 [0,3;1,0]

The LOD50% varies from 0,3 to 0,7 CFU/sample for the reference method and from 0,3 to 1,1 CFU for the alternative method (Rapid Spin and NAE protocols).

3.1.3 Inclusivity and exclusivity

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

3.1.3.1 Protocols

- **Protocol for inclusivity**: 50 *Listeria monocytogenes* strains were tested. Cultures were performed in BHI medium at 37°C. Dilutions were done in Half Fraser broth in order to inoculate between 10 to 100 cells/225 ml Half Fraser broth. The alternative method protocol was then performed using the Rapid Spin protocol.

- **Protocol for exclusivity**: 30 *Listeria spp.* strains and 20 negative strains not belonging to *Listeria* genus were tested. Cultures were performed in BHI, incubated at 37°C. Dilutions were done in order to inoculate between 10 to 100 cells/225 ml Half Fraser broth for *Listeria* strains and in order to inoculate 10^5 cell/ml BPW for the other strains. The alternative method protocol was then performed using the Rapid Spin protocol.

[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.

3.1.3.2 Results

The raw data are given in **Appendix 6**.

The 50 *Listeria monocytogenes* strains gave positive results.

The 30 *Listeria* spp strains not identified to *L. monocytogenes*, as well as the 20 other non-target strains gave negative results.

Since the tested *Brochotrix compressis* and *Carnobacterium piscicola* strains were not able to grow in Half-Fraser, the cultures were done in a non-selective broth (BHI).

3.2 Practicability

MicroSEQ® *Listeria monocytogenes* method practicability was evaluated according to the AFNOR criteria relative to method comparison study.

Storage conditions and shelf-life	- Lysis buffer: 2 – 8°C - Proteinase K: - 15 – 25°C - Nuclease free water: room temperature - Box NAE: room temperature - Magnetic particles: 2 – 8°C - Pathogen negative control: 2 – 8°C The shelf life is given on the package - Box NAE: 12 months after manufacturing - MicroSEQ *Listeria monocytogenes* detection kit: 18 months after manufacturing All the reagents shall be stored at the temperature mentioned on the package.

Time to result	Steps	Reference method ISO 11290-1	Alternative method MicroSEQ® *Listeria monocytogenes*	
			Rapid Spin	NAE
	Negative samples			
	Sampling Half Fraser	D0	D0	D0
	Fraser	D1	/	D1
	Extraction	/	D1	D2
	PCR	/	D1	D2
	First streaking onto O&A/Palcam (O1/P1)	D1	/	/
	Second streaking onto O&A / Palcam (O2/P2)	D2	/	/
	Reading plates (first streaking)	D2-D3	/	/
	Reading plates (second streaking)	D3-D4	/	/
	Presumptive positive or positive results			
	Subculture of typical colonies on TSAYE from O1/P1	D2-D3	/	/
	Streaking onto Palcam plates	/	D1	D2
	Subculture of typical colonies from O2/P2 on TSAYE	D3-D4	/	/
	Reading Palcam plates	/	D2-D3	D3-D4
	Confirmatory tests	D3-D5	/	/
	Results	D4-D6 D8-D10 1)	/	/
	1) In the case of the Rhamnose and xylose tests are realised in tubes.			
Common step with the reference method	Enrichment in Half Fraser for the Rapid Spin protocol, enrichment in Half Fraser and Fraser for NAE protocol			

The negative results are available in 1 day (Rapid Spin) or 2 days (NAE) for the alternative protocol, while 4 days are required for the reference method.

The positive results are obtained in 2 or 4 days using the MicroSEQ *Listeria monocytogenes* method, and 4 to 6 days for the reference method when using biochemical galleries.

3.3 Inter-laboratory study

The aim of the inter-Laboratory study is to determine the variability of the results obtained in different laboratories using identical samples and to compare these results with those obtained in the methods comparison study.

The inter-laboratory study was carried out in 2011. The study was done with chicken ham samples contaminated by *Listeria monocytogenes* Ad668 isolated from poultry wings. **The results were interpreted according to the ISO 16140-2:2016.**

3.3.1 Study organisation

Samples were sent to 17 laboratories. The study was done with chicken ham samples contaminated by *Listeria monocytogenes* Ad 668 isolated from poultry wings.

Samples were inoculated and sent on Monday 17 October 2011, as described below:

- 24 codified samples for *Listeria monocytogenes* research by MicroSEQ® *Listeria monocytogenes* methods (RED LABEL)
- 24 codified samples for *Listeria monocytogenes* by the reference method (NF EN ISO 11290-1/A1) (BLUE LABEL)
- 1 sample for aerobic mesophilic flora enumeration by ISO 4833 method,
- 1 water flask labelled “Temperature Control” with a temperature probe.

The analyses were started on Wednesday 18 October 2011.

The targeted inoculation levels were:

- Level 0: 0 CFU/g,
- Level 1: 5 CFU/g,
- Level 2: 25 CFU/g.

8 samples were prepared per inoculation level, per method and per laboratory. Each laboratory received 24 samples to analyse by the reference method and 24 samples to analyse by the alternative method.

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

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

Samples were shipped in 24 h to 48 h to the involved laboratories. The temperature conditions had to stay lower or equal to 8.4°C during transport, and between 0°C – 8.4°C in the labs.

Collaborators and ADRIA carried out the analyses with the alternative and reference methods at day 2.

3.3.2 Experimental parameters controls

3.3.2.1 Strain stability and background microflora stability

Strain stability was checked by inoculating the matrix at 300 CFU/g and 5 CFU/g. Enumerations were performed for the high contamination level and detection analyses were performed for the low contamination level after 24 h and 48 h storage at 3 ± 2°C. *Triplicates* were analysed. The aerobic mesophilic flora was also enumerated; the results are given in Table 25.

Table 25 - Sample stability

Day	Reference method (detection)			O&A enumeration (CFU/g)			Aerobic mesophilic flora (CFU/g)
	Sample 1	Sample 2	Sample 3	Sample 1	Sample 2	Sample 3	
Day 0	+	+	+	350	340	320	$2.4\ 10^{6}$
Day 1	+	+	+	310	440	440	$1.3\ 10^{7}$
Day 2	+	+	+	121	122	115	$9.8\ 10^{7}$

An evolution was observed after 2 days storage at 3°C ± 2°C; the contamination level decreased by 3-fold.

3.3.2.2 Contamination levels

The contamination levels and the sample codification were the following (see Table 26).

Table 26 - Contamination levels

Level	Samples	Theoretical target level (CFU/25 g)	True level (CFU/25 g)	Low limit / CFU/25 g	High limit / CFU/25 g
Level 0 (L0)	2 – 5 – 9 – 10 – 14 – 19 – 21 - 24	0	/	/	/
Low level (L1)	3 – 6 – 7 – 12 – 13 – 15 – 17 - 18	5	5.7	4.9	6.5
High level (L2)	1 – 4 – 8 – 11 – 16 – 20 – 22 – 23	25	26.2	22.7	30.1

3.3.2.3 Logistic conditions

Temperature conditions are given in Table 27.

Table 27 - Sample temperatures at receipt

Laboratories	Temperature measured by the probe (°C)	Temperature measured at receipt (°C)	Receipt date and time	
A	4.0	5.0	18/10/11	15h03
B	0.5	5.4	18/10/11	11h00
C	2.0	2.8	18/10/11	11h00
D	2.0	3.5	18/10/11	09h10
E	2.5	6.5	18/10/11	09h30
F	2.0	5.1	18/10/11	16h30
G	2.5	4.4	18/10/11	10h00
H	*Thermo probe lost*	2.4	18/10/11	09h45
I	3.0	- 0.2	18/10/11	10h45
J	2.5	6.8	18/10/11	10h00
K	3.5	12.0	19/10,/11	13h00
L	3.0	*5.2*	18/10/11	12h00
M	2.0	3.3	18/10/11	10h00
N	2.0	6.3	18/10/11	11h50
O	2.0	3.3	18/10/11	11h00
P	3.0	11.8	18/10/11	11h00
Q	1.0	6.6	18/10/11	11h00

No problem was encountered during the transport or at receipt.

Two labs (K and P) measured a temperature at receipt above 8.4°C but the thermo probe indicated clearly that the temperature was correct.

3.3.3 Results analysis

The raw data are given in **Appendix 7**.

3.3.3.1 Expert laboratory results

The results obtained by the expert laboratory are given in Table 28.

Table 28 – Results obtained by the expert Lab.

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

All the inoculated samples gave a positive result. All the results were in agreement between the reference and the alternative methods.

3.3.3.2 Results observed by the collaborative laboratories

> ***Aerobic mesophilic flora enumeration***

Depending on the Lab results, the enumeration levels varied from 1.0 10^6 to 2.2 10^8 CFU/g.

> ***Listeria monocytogenes detection***

17 collaborators participated to the study. The results obtained are provided in Table 29 (reference method) and Table 30 (alternative method).

Table 29 - Positive results by the reference method (ALL the collaborators)

Collaborator	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	8	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
O	0	8	8
P	0	8	8
Q	0	8	8
Total	**CP_0 = 0**	**CP_1 = 136**	**CP_2 = 136**

Table 30 - Positive results (before and after confirmation) by the alternative method (ALL the collaborators)

Collabo-rator	Contamination level								
	L0			*L1*			*L2*		
	PCR result	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*
A	1	0	0	8	8	8	8	8	8
B	1	0	0	8	8	8	8	8	8
C	1	1	1	8	8	8	8	8	8
D	1	0	0	8	8	8	8	8	8
E	3	0	0	8	8	8	8	8	8
F	0	0	0	8	8	8	8	8	8
G	0	0	0	8	8	8	8	8	8
H	3	0	0	8	8	8	8	8	8
I	0	0	0	8	8	8	8	8	8
J	1	0	0	8	8	8	8	8	8
K	0	0	0	8	8	8	8	8	8
L	3	0	0	8	8	8	8	8	8
M	0	0	0	8	8	8	8	8	8
N	1	0	0	8	8	8	8	8	8
O	0	0	0	8	8	8	8	8	8
P	0	0	0	8	8	8	8	8	8
Q	0	0	0	8	8	8	8	8	8
Total	**P_0=15**	**C_0=1**	**CP_0=1**	**P_1=136**	**C_1=136**	**CP_1=136**	**P_2=136**	**C_2=136**	**CP_2=136**

14 control samples gave positive PCR results while the confirmatory tests were negative. For these samples, the Ct values were higher than 34. Some Labs proceeded to a second DNA extraction and found negative PCR results.

One Lab (C) found one control sample (C21) positive with the PCR as well as the confirmatory tests; we asked to this lab to identify the 2 colonies observed on Palcam plates. The plates were already discarded.

Note that the kit insert provides clear advice regarding the positive PCR results which are not confirmed with the first confirmation test (see kit insert).

According to the AFNOR technical rules, it is possible to include the results from a collaborator with maximum one cross contamination at Level 0. For this study, this rule was applied and the data from Labs E, H and L were not kept for interpretation as they obtained 3 positive PCR results on unspiked samples.

3.3.3.3 Results of the collaborators retained for interpretation

The results obtained with the 14 labs kept for interpretation are presented in Table 31 (reference method) and Table 32 (alternative method).

Table 31 - Positive results by the reference method (Without Labs E, H and L)

Collaborator	Contamination level		
	L0	*L1*	*L2*
A	0	8	8
B	0	8	8
C	0	8	8
D	0	8	8
F	0	8	8
G	0	8	8
I	0	8	8
J	0	8	8
K	0	8	8
M	0	8	8
N	0	8	8
O	0	8	8
P	0	8	8
Q	0	8	8
Total	**CP_0 = 0**	**CP_1 = 112**	**CP_2 = 112**

Table 32 - Positive results (before and after confirmation) by the alternative method (Without Labs E, H and L)

Collabo-rator	Contamination level								
	L0			*L1*			*L2*		
	PCR result	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*
A	1	0	0	8	8	8	8	8	8
B	1	0	0	8	8	8	8	8	8
C	1	1	1	8	8	8	8	8	8
D	1	0	0	8	8	8	8	8	8
F	0	0	0	8	8	8	8	8	8
G	0	0	0	8	8	8	8	8	8
I	0	0	0	8	8	8	8	8	8
J	1	0	0	8	8	8	8	8	8
K	0	0	0	8	8	8	8	8	8
M	0	0	0	8	8	8	8	8	8
N	1	0	0	8	8	8	8	8	8
O	0	0	0	8	8	8	8	8	8
P	0	0	0	8	8	8	8	8	8
Q	0	0	0	8	8	8	8	8	8
Total	**P_0=6**	**C_0=1**	**CP_0=1**	**P_1=112**	**C_1=112**	**CP_1=112**	**P_2=112**	**C_2=112**	**CP_2=112**

3.3.4 Calculation and interpretation

3.3.4.1 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 33).

Table 33 - Percentage specificity

Specificity for the reference method	$SP_{ref} = \left(1 - \left(\frac{P_0}{N\_}\right)\right) x\ 100\ \% =$	100.0 %
Specificity for the alternative method	$SP_{alt} = \left(1 - \left(\frac{CP_0}{N\_}\right)\right) x\ 100\ \% =$	99.1 %

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

3.3.4.2 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)

No fractional positive results were obtained for the low or the high inoculation levels (L1 + L2). The two inoculation levels were thus 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 and Level 2 is provided in Table 34.

Table 34 - Summary of the obtained results with the reference method and the alternative method for Level 1 and Level 2

Level	Response	Reference method positive (R+)	Reference method negative (R-)
1	Alternative method positive (A+)	Positive agreement (A+/R+) **PA = 112**	Positive deviation (R-/A+) **PD = 0**
	Alternative method negative (A-)	Negative deviation (A-/R+) **ND = 0 (PPND=0)**	Negative agreement (A-/R-) **NA = 0 (PPNA=0)**
2	Alternative method positive (A+)	Positive agreement (A+/R+) **PA = 112**	Positive deviation (R-/A+) **PD = 0**
	Alternative method negative (A-)	Negative deviation (A-/R+) **ND = 0 (PPND=0)**	Negative agreement (A-/R-) **NA = 0 (PPNA=0)**

Based on the data summarised in Table 34, 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 35).

Table 35 - Sensitivity, relative trueness and false positive ratio percentages

		Level 1	Level 2
Sensitivity for the alternative method:	$SE_{alt} = \frac{(PA+PD)}{(PA+PD+ND)} x\ 100\% =$	100.0 %	100.0 %
Sensitivity for the reference method:	$SE_{ref} = \frac{(PA+ND)}{(PA+PD+ND)} x\ 100\% =$	100.0 %	100.0 %
Relative trueness	$RT = \frac{(PA+NA)}{N} x\ 100\% =$	100.0 %	100.0 %
False positive ratio for the alternative method	$FPR = \frac{FP}{NA} x\ 100\% =$	/	/

3.3.4.3 Interpretation of data

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

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

where

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

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

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

where

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

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

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

where

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

The AL is not met when the observed value is higher than the AL. When the AL is not met, investigations should be made (e.g. root cause analysis) in order to provide an explanation of the observed results. Based on the AL and the additional information, it is decided whether the alternative method is regarded as not fit for purpose. The reasons for acceptance of the alternative method when the AL is not met shall be stated in the study report.

In this study, no fractional recovery was observed for Level 1 and Level 2. The calculations are the following, according to the EN ISO 16140-2:2016 (See Table 36).

Table 36 - Calculations

	Level 1	Level 2
N_X	112	112
$(p+)_{ref}$	1.0	1.0
$(p+)_{alt}$	1.0	1.0
AL = (ND - PD) max	0.00	0.00
ND - PD	0	0
Conclusion	ND - PD = AL	ND - PD = AL

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

There is indeed no difference between the sensitivity of the compared methods, and the alternative method complies with the reproducibility conditions.

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

The LOD $_{50\%}$, the LOD $_{95\%}$ and 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 calculations are not possible as positive results were observed for unspiked samples.

3.4 General conclusion

The **method comparison study conclusions** are:

☒ The method comparison study scheme corresponds to:
- an UNPAIRED STUDY design for Rapid Spin protocol,
- a PAIRED STUDY design for the NAE protocol.

☒ In the sensitivity study, 5 categories were tested: 4 food categories and production environmental samples. The protocol of the alternative method shows:
- for the Rapid Spin protocol, 24 positive deviations (PD) and 26 negative deviations (ND) for the overall categories. The ((ND + PPND) - PD) meet the acceptability limits (AL) whatever the categories, and as well for the 5 tested categories.
- for the NAE protocol, 2 positive deviations and 3 negative deviations. The ((ND + PPND) - PD) and ((ND + PPND) + PD meet the

acceptability limits (AL) whatever the categories, and as well for the 5 tested categories.

☒ The Relative Levels of Detection (RLOD) are all below the AL whatever the matrix/strain pairs and the protocol applied (Rapid Spin or NAE).

☒ The inclusivity and exclusivity testing gave the expected results for the 50 target strains and the 30 non-target strains.

☒ It is possible to store the primary enrichment broth for 72 h at 5 ± 3°C for the Rapid Spin protocol and the secondary enrichment for the NAE protocol.

☒ The alternative method allows a one-day screening of the negative samples for the Rapid Spin protocol and a two-days screening for the NAE protocol.

☒ 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 MicroSEQ® *Listeria monocytogenes* 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: MicroSEQ *Listeria monocytogenes*

> Manual extraction protocol (Rapid Spin)

Food samples	Environmental swab samples	Environmental sponge samples
Combine food sample with Half Fraser broth (1:9) ↓ Homogenize the sample ↓ Incubate at 37 ± 1°C for 24-28 h ↓	Add swab to 10 mL Half Fraser broth ↓ Incubate at 37 ± 1°C for 24-28 h ↓	Add sponge to 100mL Half Fraser broth ↓ Homogenize the sample ↓ Incubate at 37 ± 1°C for 24-28 h

Preparation of DNA – standard protocol (all samples)	Preparation of DNA – extra-clean protocol (food samples with high fat content or inhibitory)
Filter the enriched sample through the spin column	Filter the enriched sample through the spin column
Load 750 µL of enriched sample onto spin column/tube assembly (*with* zirconium beads) ↓ Spin at 12,000-16,000 x *g* for ~ 3 min ↓ Aspirate and discard the supernatant ↓	Load 750 µL of enriched sample onto spin column/tube assembly (*without* zirconium beads) ↓ Spin at 12,000-16,000 x *g* for ~ 3 min ↓ Aspirate and discard the supernatant ↓
Wash the pellet	**Wash the pellet and transfer to the zirconium beads**
Resuspend in 500 µL of Nuclease-free Water (No transfer; zirconium beads already present) ↓ Spin at 12,000-16,000 x *g* for ~ 3 min ↓ Aspirate and discard the supernatant ↓	Resuspend in 500 µL of Nuclease-free Water ↓ Transfer to a clean tube with zircomium beads ↓ Spin at 12,000-16,000 x *g* for ~ 3 min ↓ Aspirate and discard the supernatant ↓

Lyse the sample

Add 50 µL of Lysis Buffer to the pellet, bead-beat for ~ 5 min and spin down (~ 10 sec)
↓
Incubate at 97 ± 2°C for ~ 10 min, cool at room temp. For ~ 2 min and spin down (~ 1 min)
↓
Add 250 µL of Nuclease-free Water and spin at 12,000-16,000 x *g* for ~ 1 min (DNA is in supernatant)
↓

Proceed to PCR or store the DNA sample

Confirmation

Streaking 100 µl of Half Fraser onto O&A plates.
The presence of typical colonies on the plates is sufficient to confirm the positive PCR result.

Automated extraction protocol (NAE)

Food samples and other environmental samples	Environmental swab samples	Environmental sponge samples
Combine 25 g of food sample with 225 mL Half Fraser Broth ↓ Homogenize the sample ↓ Incubate at 30 ± 1°C for 24-28 h ↓ Transfer 100 µL to 9.9 mL of Fraser Broth and incubate at 37 ± 1°C for 16-24 h ↓	Add swab to 10 mL of Half Fraser Broth ↓ Incubate at 30 ± 1°C for 24-28 h ↓ Transfer 100 µL to 9.9 mL of Fraser Broth and incubate at 37 ± 1°C for 16-24 h ↓	Add sponge to 100mL of Half Fraser Broth ↓ Homogenize the sample ↓ Incubate at 30 ± 1°C for 24-28 h ↓ Transfer 100 µL to 9.9 mL of Fraser Broth and incubate at 37 ± 1°C for 16-24 h ↓
Preparation of DNA		
Incubate PK Buffer Mix and sample in the Lysis Plate		
Add 150µL of prepared PK Buffer Mix to each sample well in the Lysis Plate ↓ Add 250 µL of enriched sample and pipet to mix ↓ Incubate at 23 ± 5°C for 15 ± 5 min ↓		
Set up the MagMAX™ Express-96 processing plates or the KingFisher™ Deepwell 96 processing plates		
Tip Plate : Tip comb Elution Plate: 100µL of Elution Buffer Wash Plate 1: 300 µL of Wash Buffer Wash Plate 2: 300 µL of Wash Buffer ↓		
Process samples on the Applied Biosystems™ MagMAX™ Express-96 instrument Or Thermo Scientific™ KingFisher™ Flex-96 Deep well instrument		
Select program **4428176DWPrepSEQFA (MagMax)** and **4412637PrepSEQ_Lmono (KingFisher)** and select **Start** ↓ Load the prepared processing plate into the instrument ↓ Add 605 µL of prepared Lysis Buffer Premix to each sample well in the Lysis Plate and pipet to mix ↓ Load the Lysis Plate, select **Start** and run the program (45 min) ↓ Sample DNA is in 100 µL Elution Buffer (Elution Plate) ↓		
Proceed to PCR or seal the plate and store the DNA below -18°C		

Confirmation
Streaking 10 µl of Fraser broth onto O&A plates. The only presence of typical colonies on the plates is sufficient to confirm the positive PCR result.

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

Test portion (25 g or 25 ml)
1 swab + 10 ml Half Fraser broth[2]
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 monocytogenes	x	Optional	x	Optional	x

[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)

Appendix 3 - Artificial contamination of the samples

samples analysed with Extra clean protocol

RAPID SPIN PROTOCOL

Year of analysis	Sample N°	Product (French name)	Product	Artificial contaminations						Global result Rapid Spin Protocol L. mono	Category	Type
				Strain	Origin	Injury applied	Injury evaluation	Inoculation level CFU/sample				
								Enumeration	Mean			
2019	7242	Bœuf bourguignon	RTRH (bourguignon)	*L.monocytogenes* Ad1208	Frozen ground beef	Seeding 48h 3± 2°C	/	1-1-2-1-3	1,6	-	1	b
2019	7243	Bœuf bourguignon	RTRH (bourguignon)	*L.monocytogenes* Ad265	Beef meat	Seeding 48h 3± 2°C	/	1-2-1-1-0	1,0	+	1	b
2019	7244	Bœuf bourguignon	RTRH (bourguignon)	*L.monocytogenes* Ad1208	Frozen ground beef	Seeding 48h 3± 2°C	/	1-1-2-1-3	1,6	-	1	b
2019	7245	Bœuf bourguignon	RTRH (bourguignon)	*L.monocytogenes* Ad265	Beef meat	Seeding 48h 3± 2°C	/	1-2-1-1-0	1,0	+	1	b
2019	7246	Couscous royal	RTRH (couscous)	*L.monocytogenes* Ad668	Chicken	Seeding 48h 3± 2°C	/	3-2-2-0-5	2,4	+	1	b
2019	7247	Grignotte de poulet mexicaine	RTRH (marinated chicken)	*L.monocytogenes* Ad668	Chicken	Seeding 48h 3± 2°C	/	3-2-2-0-5	2,4	+	1	b
2019	7977	Couscous au poulet	RTRH (Couscous)	*L.monocytogenes* Ad666	Poultry meat	Seeding 48h 3± 2°C	/	1-0-2-3-2	1,6	+	1	b
2019	7978	Emincés de poulet assaisonnés	RTRH (Seasoned chicken)	*L.monocytogenes* Ad666	Poultry meat	Seeding 48h 3± 2°C	/	1-0-2-3-2	1,6	+	1	b
2019	7979	Choucroute	RTRH (Choucroute)	*L.monocytogenes* Ad669	Rillettes	Seeding 48h 3± 2°C	/	0-1-0-0-1	0,4	+	1	b
2011	1660	Morbier au lait cru	Raw milk cheese	*L.seeligeri* Ad1237	Raw milk	10%NaCl 5 days	>3,74	7-4-4-12-9(7,2)	7,2	-	2	a
2011	1663	Comté au lait cru	Raw milk cheese	*L.seeligeri* Ad1237	Raw milk	10%NaCl 5 days	>3,74	7-4-4-12-9(7,2)	7,2	-	2	a
2011	1664	Salers au lait cru	Raw milk cheese	*L.ivanovii* Ad680	Raw milk	10%NaCl 5 days	0,86	11-12-7-12(10,8)	10,8	-	2	a
2011	1666	Roquefort au lait cru	Raw milk cheese	*L.ivanovii* Ad680	Raw milk	10%NaCl 5 days	0,86	11-12-7-12(10,8)	10,8	-	2	a
2011	1667	Selles sur cher au lait cru	Raw milk cheese	*L.ivanovii* Ad680	Raw milk	10%NaCl 5 days	0,86	11-12-7-12(10,8)	10,8	-	2	a
2011	4058	Reblochon au lait cru	Raw milk cheese (Reblochon)	*L.monocytogenes* 910	Raw milk	4°c 4 months	1,18	11-8-10-13-9(10,2)	10,2	-	2	a
2011	4059	Laguiole au lait cru	Raw milk cheese (Laguiole)	*L.monocytogenes* 910	Raw milk	4°c 4 months	1,18	11-8-10-13-9(10,2)	10,2	-	2	a
2011	4061	Crottin chavignol	Raw milk cheese (Crottin de Chavignol)	*L.monocytogenes* 910	Raw milk	4°c 4 months	1,18	11-8-10-13-9(10,2)	10,2	-	2	a
2011	4650	Lait ribot	Fermented milk	*L.monocytogenes* A00L097	Raw milk	pH4-5days	0,88	0-4-2-3-4(2,6)	2,6	+	2	a
2011	4665	Saint Félicien au lait cru	Raw milk cheese (Saint Félicien)	*L.monocytogenes* A00L097	Raw milk	pH4-5days/HT56°c 10min	0,78	8-5-6-10-7(7,2)	7,2	-	2	a
2011	4666	Salers	Raw milk cheese (Salers)	*L.monocytogenes* A00L101	Raw milk	pH4-5days/HT56°c 10min	0,34	4-5-8-9-4(6,0)	6,0	-	2	a
2011	3934	Lait cru	Raw milk	*L.monocytogenes* Ad909	Milk	pH4 48 days	0,45	6-10-8-11-6 (8,2)	8,2	+	2	b
2011	4062	Lait cru	Raw milk	*L.monocytogenes* 910	Raw milk	NaCl 4°c 4 months	0,38	3-11-5-14-15(9,6)	9,6	+	2	b
2011	4646	Lait cru	Raw milk	*L.monocytogenes* A00L097	Raw milk	pH4-5days	0,88	0-4-2-3-4(2,6)	2,6	+	2	b
2011	4647	Lait cru	Raw milk	*L.monocytogenes* 17501	Raw milk	pH4-5days	0,6	13-3-10-9-10(9,0)	9,0	-	2	b
2019	7009	Lait cru	Raw milk	*L.monocytogenes* Ad665 + *L.innocua* Ad1789	Raw milk + Raw milk	Seeding 48h 3± 2°C	/	1-3-3-0-0+2-4-1-0-0	2,6	+	2	b
2019	7010	Lait cru	Raw milk	*L.monocytogenes* Ad2858 + *L.innocua* Ad1789	Milk + Raw milk	Seeding 48h 3± 2°C	/	1-1-2-1-3+2-4-1-0-0	3,0	-	2	b
2019	7011	Lait cru	Raw milk	*L.monocytogenes* Ad632 + *L.welshimeri* Ad1667	Milk + Raw milk cheese	Seeding 48h 3± 2°C	/	3-3-1-0-04-2-1-1-1	3,2	-	2	b
2019	7250	Lait cru	Raw milk	*L.monocytogenes* Ad630	Cheese	Seeding 48h 3± 2°C	/	2-1-0-0-0	0,6	+	2	b
2019	7251	Lait cru	Raw milk	*L.monocytogenes* Ad250 + *L.innocua* Ad1786	Dairy product + Raw milk	Seeding 48h 3± 2°C	/	1-1-1-0-0+0-1-1-1-0	0,6+0,6	+	2	b
2019	7252	Lait cru	Raw milk	*L.monocytogenes* Ad630 + *L.innocua* Ad1786	Cheese + Raw milk	Seeding 48h 3± 2°C	/	0-0-1-0-2+0-1-1-1-0	0,6+0,6	+	2	b
2019	7253	Lait cru	Raw milk	*L.monocytogenes* Ad250	Dairy product	Seeding 48h 3± 2°C	/	2-3-1-1-2	1,8	+	2	b
2011	3935	Lait ribot	Fermented milk	*L.monocytogenes* Ad909	Milk	pH4 48 days	0,45	6-10-8-11-6 (8,2)	8,2	+	2	c
2011	3937	Gros lait fermier	Fermented milk	*L.monocytogenes* Ad904	Milk	pH4 48 days	0,44	7-13-6-4-8 (7,6)	7,6	+	2	c
2011	3959	Crème glacée noix de coco	Coco ice cream	*L.monocytogenes* Ad637	Milk	-20°C 4 days	4,19	10-3-6-8-8(7,0)	7,0	-	2	c
2011	3960	Crème glacée vanille noix de pécan	Vanilla ice cream	*L.monocytogenes* Ad637	Milk	-20°C 4 days	4,19	10-3-6-8-8(7,0)	7,0	-	2	c
2011	3961	Crème glacée au café	Coffee ice cream	*L.monocytogenes* 910	Milk	-20°C 4 days	0,57	12-12-13-7-14(11,6)	11,6	+	2	c
2011	3962	Crème glacée au chocolat	Chocolate ice cream	*L.monocytogenes* 910	Milk	-20°C 4 days	0,57	12-12-13-7-14(11,6)	11,6	+	2	c
2011	3963	Crème glacée créole	Ice bream	*L.monocytogenes* 906	Milk	-20°C 4 days	0,46	4-6-2-4-1(3,4)	3,4	-	2	c
2011	4063	Crème anglaise	English cream	*L.monocytogenes* 910	Raw milk	NaCl 4°c 4 months	0,38	3-11-5-14-15(9,6)	9,6	+	2	c
2011	4106	Crème anglaise	English cream	*L.ivanovii* Ad680	Raw milk	HT 10min 56°c	2,54	1-1-0-0-0(0,4)	0,4	-	2	c

RAPID SPIN PROTOCOL

Year of analysis	Sample N°	Product (French name)	Product	Artificial contaminations						Global result Rapid Spin Protocol L. mono	Category	Type
				Strain	Origin	Injury applied	Injury evaluation	Inoculation level CFU/sample				
								Enumeration	Mean			
2011	4107	Gâteau semoule au lait	Dessert	*L.ivanovii* Ad680	Raw milk	HT 10min 56°c	2,54	1-1-0-0-0(0,4)	0,4	-	2	c
2011	4108	Riz au lait	Milk rice	*L.ivanovii* Ad680	Raw milk	HT 10min 56°c	2,54	1-1-0-0-0(0,4)	0,4	-	2	c
2011	4648	Lait fermenté	Fermented milk	*L.monocytogenes* 17501	Raw milk	pH4-5days	0,6	13-3-10-9-10(9,0)	9,0	-	2	c
2011	4649	Lait fermenté	Fermented milk	*L.monocytogenes* A00L101	Raw milk	pH4-5days	0,41	25-15-20-13-26(19,8)	19,8	+	2	c
2011	4668	Tiramisu à la framboise	Tiramisu with raspberries	*L.monocytogenes* A00L097	Raw milk	pH4-5days/HT56°c 10min	0,78	8-5-6-10-7(7,2)	7,2	+	2	c
2019	7012	Fromage au lait pasteurisé	Pasteurised cheese	*L.monocytogenes* Ad665	Raw milk	Seeding 48h 3± 2°C	/	2-0-1-2-1	1,2	+	2	c
2019	7013	Fromage au lait pasteurisé	Pasteurised cheese	*L.monocytogenes* Ad2858	Milk	Seeding 48h 3± 2°C	/	3-2-2-4-1	2,4	-	2	c
2019	7014	Fromage au lait pasteurisé	Pasteurised cheese	*L.monocytogenes* Ad632	Milk	Seeding 48h 3± 2°C	/	2-0-1-2-1	1,2	-	2	c
2019	7015	Fromage au lait pasteurisé	Pasteurised cheese	*L.monocytogenes* Ad665	Raw milk	Seeding 48h 3± 2°C	/	2-0-1-2-1	1,2	+	2	c
2019	7016	Lait demi-écrémé pasteurisé	Pasteurised half-skimmed milk	*L.monocytogenes* Ad2858	Milk	Seeding 48h 3± 2°C	/	3-2-2-4-1	2,4	+	2	c
2011	4296	Filet de hareng fumé aux aromates	Smoked herring	*L.monocytogenes* Ad141	Smoked salmon	HT 10min 56°c/4°c 11 days	0,55	7-7-4-3-6(5,4)	5,4	+	3	b
2011	4297	Maquereaux cuisinés au vin blanc et aromates	Marinated mackerel	*L.monocytogenes* Ad141	Smoked salmon	HT 10min 56°c/4°c 11 days	0,55	7-7-4-3-6(5,4)	5,4	+	3	b
2011	4298	Saumon fumé	Smoked salmon	*L.monocytogenes* Ad995	smoked trout	HT 10min 56°c/4°c 11 days	0,67	10-9-9-15-10(10,6)	10,5	+	3	b
2011	4299	Filets de maquereaux fumés	Smoked mackerel fillets	*L.monocytogenes* Ad995	smoked trout	HT 10min 56°c/4°c 11 days	0,67	10-9-9-15-10(10,6)	10,5	+	3	b
2019	7248	Truite fumée	Smoked truite	*L.monocytogenes* Ad1187	Squid	Seeding 48h 3± 2°C	/	0-2-0-1-0	0,6	-	3	b
2019	7249	Saumon fumé	Smoked salmon	*L.monocytogenes* Ad1187	Squid	Seeding 48h 3± 2°C	/	0-2-0-1-0	0,6	+	3	b
2011	3930	Fumet de poisson	Ambient culinary product (fish aroma)	*L.monocytogenes* Ad623	Bread-crumbs	HT 56°c 10min	0,48	10-9-11-11-6 (9,4)	9,4	-	3	c
2011	3938	Riz au crabe	Ready-to-eat food (rice with crab)	*L.monocytogenes* Ad1213	Cooked rice	HT 56°c 10min	0,95	5-7-7-12-8 (7,8)	7,8	+	3	c
2011	3928	Mélange épices grillées pour wok	Spices (wok)	*L.monocytogenes* Ad544	Onion	HT 56°c 10min	0,65	8-7-6-8-10 (8,2)	8,2	-	4	b
2011	3929	Mélange épices grillées pour tandoori	Spices (tandoori)	*L.monocytogenes* Ad544	Onion	HT 56°c 10min	0,65	8-7-6-8-10 (8,2)	8,2	-	4	b
2011	4054	Poivre concassé	Pepper	*L.monocytogenes* Ad544	Onions	HT 10min 56°c	1,49	2-4-2-3-3(2,8)	2,8	-	4	b
2011	4055	Epices riz parfumé	Spices for rice	*L.monocytogenes* Ad544	Onions	HT 10min 56°c	1,49	2-4-2-3-3(2,8)	2,8	-	4	b
2011	4056	Epices couscous	Spices for couscous	*L.monocytogenes* Ad279	Vegetables mix	HT 10min 56°c	1,49	5-4-6-9-4(5,8)	5,8	-	4	b
2011	4057	Epices tajine	Spices for tagine	*L.monocytogenes* Ad279	Vegetable mix	HT 10min 56°c	1,49	5-4-6-9-4(5,8)	5,8	-	4	b
2019	7026	Origan	Oregano	*L.monocytogenes* Ad2598	Salad	Spiking-15min 56°C	1,0	1-1-1-1-3	1,8	-	4	b
2019	7027	Origan	Oregano	*L.monocytogenes* Ad2643	Salad	Spiking-15min 56°C	2,3	0-0-0-0-0	0,0	-	4	b
2019	7028	Coriandre	Coriander	*L.monocytogenes* Ad2598	Salad	Spiking-15min 56°C	1,0	1-1-1-1-3	1,8	-	4	b
2019	7029	Coriandre	Coriander	*L.monocytogenes* Ad2643	Salad	Spiking-15min 56°C	2,3	0-0-0-0-0	0,0	-	4	b
2019	7030	Cannelle	Cinnamon	*L.monocytogenes* Ad2598	Salad	Spiking-15min 56°C	1,0	1-1-1-1-3	1,8	-	4	b
2019	7031	Curcuma	Turmeric	*L.monocytogenes* Ad2643	Salad	Spiking-15min 56°C	2,3	0-0-0-0-0	0,0	-	4	b
2019	7256	Persil plat	Parsley	*L.monocytogenes* Ad2598	Salad	Seeding 48h 3± 2°C	/	0-3-1-3-1	1,6	+	4	b
2019	7257	Persil plat	Parsley	*L.monocytogenes* Ad2643	Salad	Seeding 48h 3± 2°C	/	3-3-2-1-5	2,8	+	4	b
2019	7258	Persil frisé	Parsley	*L.monocytogenes* Ad2598	Salad	Seeding 48h 3± 2°C	/	0-3-1-3-1	1,6	+	4	b
2019	7259	Paprika doux	Paprika	*L.monocytogenes* Ad1238	Vegetable mix	Spiking-15min 56°C	0,46	1-1-0-0-0	0,2	-	4	b
2019	7260	Cannelle déshydratée	Cinnamon	*L.monocytogenes* Ad1238	Vegetable mix	Spiking-15min 56°C	0,46	1-1-0-0-0	0,2	-	4	b
2019	7261	Curcuma déshydratée	Turmeric	*L.monocytogenes* Ad1238	Vegetable mix	Spiking-15min 56°C	0,46	1-1-0-0-0	0,2	-	4	b
2019	8000	Paprika doux	Sweet paprika	*L.monocytogenes* Ad1238	Vegetables	Seeding 2 weeks at ambient temperature	/	/	5,6	+	4	b
2019	8002	Cumin moulu	Cumin powder	*L.monocytogenes* Ad1238	Vegetables	Seeding 2 weeks at ambient temperature	/	/	5,6	+	4	b
2019	8004	Piment doux	Mild red pepper	*L.monocytogenes* Ad1498	Vegetable mix	Seeding 2 weeks at ambient temperature	/	/	6,0	+	4	b
2011	3939	Riz cantonnais	Ready-to-eat food (tabbouleh)	*L.monocytogenes* Ad1213	Cooked rice	HT 56°c 10min	0,95	5-7-7-12-8 (7,8)	7,8	+	4	c
2011	3940	Taboulé à l'oriental	Ready-to-eat food (Chinese rice)	*L.monocytogenes* Ad1213	Cooked rice	HT 56°c 10min	0,95	5-7-7-12-8 (7,8)	7,8	+	4	c
2011	3956	Poêlée méridionale	Ready-to-cook vegetables	*L.monocytogenes* Ad279	Vegetables	HT 56°c 10min	0,55	8-10-3-8-6 (7,0)	7,0	+	4	c
2011	3957	Poêlée parisienne	Ready-to-cook vegetables	*L.monocytogenes* Ad279	Vegetables	HT 56°c 10min	0,55	8-10-3-8-6 (7,0)	7,0	+	4	c
2011	1655	Eau de rinçage plaque inox	Process water	*L.welshimeri* Ad1270	Poultry environmental sample	HT 50°c 8min	0,61	10-9-5-11-11(9,2)	9,2	-	5	a
2011	1656	Eau de refroidissement	Chilling water	*L.welshimeri* Ad1270	Poultry environmental sample	HT 50°c 8min	0,61	10-9-5-11-11(9,2)	9,2	-	5	a
2011	1657	Eau de rinçage plaque inox	Process water	*L.welshimeri* Ad1262	Environmental sample	HT 50°c 8min	0,55	9-13-8-16-10(11,2)	11,2	-	5	a
2011	1658	Eau de refroidissement	Process water	*L.welshimeri* Ad1262	Environmental sample	HT 50°c 8min	0,55	9-13-8-16-10(11,2)	11,2	-	5	a
2011	1659	Eau de rinçage cutter	Process water	*L.welshimeri* Ad1262	Environmental sample	HT 50°c 8min	0,55	9-13-8-16-10(11,2)	11,2	-	5	a
2011	4694	Eau refroidissement	Process water	*L.monocytogenes* Ad1271	Environmental sample(poultry)	HT 56°c 7min	0,8	4-3-7-4-5(4,6)	4,6	+	5	a
2011	4702	Eau rinçage machine	Cleaning water	*L.monocytogenes* Ad243	Environmental sample(pork)	HT 56°c 7min	0,52	10-5-8-10-9(8,4)	8,4	+	5	a
2011	4703	Eau lavage table de saignée	Cleaning water (beef industry)	*L.monocytogenes* Ad243	Environmental sample(pork)	HT 56°c 7min	0,52	10-5-8-10-9(8,4)	8,4	+	5	a

RAPID SPIN PROTOCOL

Year of analysis	Sample N°	Product (French name)	Product	Artificial contaminations						Global result Rapid Spin Protocol L. mono	Category	Type
				Strain	Origin	Injury applied	Injury evaluation	Inoculation level CFU/sample				
								Enumeration	Mean			
2011	**4704**	**Eau de lavage table à berf**	**Cleaning water (beef industry)**	*L.monocytogenes* Ad243	Environmental sample(pork)	HT 56°c 7min	0,52	10-5-8-10-9(8,4)	8,1	+	5	a
2011	**4690**	**Lingette environnement volaille**	**Sponge (poultry industry)**	*L.monocytogenes* Ad1271	Environmental sample(poultry)	HT 56°c 7min	0,8	4-3-7-4-5(4,6)	4,6	+	5	b
2011	**4691**	**Lingette environnement volaille**	**Sponge (poultry industry)**	*L.monocytogenes* Ad1271	Environmental sample(poultry)	HT 56°c 7min	0,8	4-3-7-4-5(4,6)	4,6	+	5	b
2011	**4692**	**Lingette environnement volaille**	**Sponge (poultry industry)**	*L.monocytogenes* Ad1271	Environmental sample(poultry)	HT 56°c 7min	0,8	4-3-7-4-5(4,6)	4,6	+	5	b
2011	**4693**	**Lingette environnement volaille**	**Sponge (poultry industry)**	*L.monocytogenes* Ad1271	Environmental sample(poultry)	HT 56°c 7min	0,8	4-3-7-4-5(4,6)	4,6	-	5	b
2011	**4695**	**Lingette tapis sortie peleuse**	**Sponge (salmon industry)**	*L.monocytogenes* A00E008	Environmental sample(fish)	HT 56°c 7min	0,74	7-4-4-3-2(4,0)	4,0	+	5	b
2011	**4696**	**Lingette filetage(tapis parage)**	**Sponge (salmon industry)**	*L.monocytogenes* A00E008	Environmental sample(fish)	HT 56°c 7min	0,74	7-4-4-3-2(4,0)	4,0	+	5	b
2011	**4697**	**Lingette table lardons saumon**	**Sponge (salmon industry)**	*L.monocytogenes* A00E008	Environmental sample(fish)	HT 56°c 7min	0,74	7-4-4-3-2(4,0)	4,0	-	5	b
2011	**4700**	**Lingette frigo découpe**	**Sponge (salmon industry)**	*L.monocytogenes* Ad243	Environmental sample(pork)	HT 56°c 7min	0,52	10-5-8-10-9(8,4)	8,4	+	5	b
2011	**4701**	**Lingette baratte salle saumure**	**Sponge (salmon industry)**	*L.monocytogenes* Ad243	Environmental sample(pork)	HT 56°c 7min	0,52	10-5-8-10-9(8,4)	8,4	+	5	b
2019	**7023**	**Chiffonnette avant nettoyage (découpe viande)**	**Wipe before cleaning (meat cutting)**	*L.monocytogenes* Ad2453	Poultry	Seeding 48h 3± 2°C	/	1-4-2-3-2	2,4	+	5	b
2019	**7024**	**Chiffonnette avant nettoyage (cutter viande)**	**Wipe before cleaning (meat cutting)**	*L.monocytogenes* Ad2453	Poultry	Seeding 48h 3± 2°C	/	1-4-2-3-2	2,4	-	5	b
2019	**7025**	**Chiffonnette avant nettoyage (balance fromage)**	**Wipe before cleaning(cheese)**	*L.monocytogenes* Ad2643	Salad	Seeding 48h 3± 2°C	/	2-4-2-5-1	2,8	+	5	b
2011	**4685**	**Poussières environnement laitier**	**Dusts (Dairy industry)**	*L.monocytogenes* Ad615	Environmental sample(dairy)	HT 56°c 7min	0,51	1-6-5-8-2(4,4)	4,4	+	5	c
2011	**4686**	**Poussières environnement laitier**	**Dusts (Dairy industry)**	*L.monocytogenes* Ad615	Environmental sample(dairy)	HT 56°c 7min	0,51	1-6-5-8-2(4,4)	4,4	-	5	c
2011	**4688**	**Poussières environnement laitier**	**Dusts (Dairy industry)**	*L.monocytogenes* Ad615	Environmental sample(dairy)	HT 56°c 7min	0,51	1-6-5-8-2(4,4)	4,4	-	5	c
2011	**4699**	**Poussières fumoir**	**Dusts (Salmon industry)**	*L.monocytogenes* A00E008	Environmental sample(fish)	HT 56°c 7min	0,74	7-4-4-3-2(4,0)	4,0	+	5	c
2019	**7254**	**Déchets (cous de poulet)**	**Dusts (chicken)**	*L.monocytogenes* Ad265	Beef meat	Seeding 48h 3± 2°C	/	1-2-1-1-0	1,0	+	5	c
2019	**7255**	**Déchets viande**	**Dusts (meat)**	*L.monocytogenes* Ad1208	Frozen ground beef	Seeding 48h 3± 2°C	/	1-1-2-1-3	1,6	-	5	c
2019	**7628**	**Déchet de poisson**	**Dusts fish**	*L.monocytogenes* Ad1679	Environment (Fish)	Seeding 48h 3± 2°C	/	3-1-2-2-0	1,6	+	5	c

NAE PROTOCOL

Year of analysis	Sample N°	Product (French name)	Product	Artificial contaminations						Global result NAE protocol	category	type
				Strain	Origin	Injury applied	Injury evaluation	Inoculation level CFU/sample				
								Enumeration	Mean CFU/ sample			
2011	**3928**	**Mélange épices grillées pour wok**	**Spices (wok)**	*L.monocytogenes* Ad544	Onion	Spiking-10 min 56°C	0,65	8-7-6-8-10 (8,2)	8,2	-	4	b
2011	**3929**	**Mélange épices grillées pour tandoori**	**Spices (tandoori)**	*L.monocytogenes* Ad544	Onion	Spiking-10 min 56°C	0,65	8-7-6-8-10 (8,2)	8,2	-	4	b
2011	**3930**	**Fumet de poisson**	**Ambient culinary product (fish aroma)**	*L.monocytogenes* Ad623	Bread-crumbs	Spiking-10 min 56°C	0,48	10-9-11-11-6 (9,4)	9,4	-	3	c
2011	**3931**	**Fond volaille**	**Ambient culinary product (poultry aroma)**	*L.monocytogenes* Ad623	Bread-crumbs	Spiking-10 min 56°C	0,48	10-9-11-11-6 (9,4)	9,4	+	1	**c**
2011	**3934**	**Lait cru**	**Raw milk**	*L.monocytogenes* Ad909	Milk	Spiking-pH4 48 days	0,45	6-10-8-11-6 (8,2)	8,2	-	2	b
2011	**3935**	**Lait ribot**	**Fermented milk**	*L.monocytogenes* Ad909	Milk	Spiking-pH4 48 days	0,45	6-10-8-11-6 (8,2)	8,2	-	2	c
2011	**3937**	**Gros lait fermier**	**Fermented milk**	*L.monocytogenes* Ad904	Milk	Spiking-pH4 48 days	0,44	7-13-6-4-8 (7,6)	7,6	-	2	c
2011	**3938**	**Riz au crabe**	**Ready-to-eat food (rice with crab)**	*L.monocytogenes* Ad1213	Rice cokked	Spiking-10 min 56°C	0,95	5-7-7-12-8 (7,8)	7,8	+	3	c
2011	**3939**	**Riz cantonnais**	**Ready-to-eat food (tabbouleh)**	*L.monocytogenes* Ad1213	Rice cokked	Spiking-10 min 56°C	0,95	5-7-7-12-8 (7,8)	7,8	+	4	c
2011	**3940**	**Taboulé à l'oriental**	**Ready-to-eat food (Chinese rice)**	*L.monocytogenes* Ad1213	Rice cokked	Spiking-10 min 56°C	0,95	5-7-7-12-8 (7,8)	7,8	+	4	c
2011	**3956**	**Poêlée méridionale**	**Ready-to-cook vegetables**	*L.monocytogenes* Ad279	Vegetable	Spiking-10 min 56°C	0,55	8-10-3-8-6 (7,0)	7,0	+	4	c
2011	**3957**	**Poêlée parisienne**	**Ready-to-cook vegetables**	*L.monocytogenes* Ad279	Vegetable	Spiking-10 min 56°C	0,55	8-10-3-8-6 (7,0)	7,0	+	4	c
2011	**3959**	**Crème glacée noix de coco**	**Coco ice cream**	*L.monocytogenes* Ad637	Milk	Spiking- -20°C 4 days	4,19	10-3-6-8-8(7,0)	7,0	-	2	c
2011	**3960**	**Crème glacée vanille noix de pécan**	**Vanilla ice cream**	*L.monocytogenes* Ad637	Milk	Spiking- -20°C 4 days	4,19	10-3-6-8-8(7,0)	7,0	-	2	c
2011	**3961**	**Crème glacée au café**	**Coffee ice cream**	*L.monocytogenes* 910	Milk	Spiking- -20°C 4 days	0,57	12-12-13-7-14(11,6)	11,6	+	2	c
2011	**3962**	**Crème glacée au chocolat**	**Chocolate ice cream**	*L.monocytogenes* 910	Milk	Spiking- -20°C 4 days	0,57	12-12-13-7-14(11,6)	11,6	+	2	c
2011	**3963**	**Crème glacée créole**	**Ice cream**	*L.monocytogenes* 906	Milk	Spiking- -20°C 4 days	0,46	4-6-2-4-1(3,4)	3,4	-	2	c
2011	**3968**	**Moussaka congelée**	**Frozen moussaka**	*L.monocytogenes* Ad1218	Raw beef	Spiking-10% NaCl 4 days	1,75	26-26-23-26-33(26,8)	26,8	+	1	b
2011	**3969**	**Hachis parmentier boeuf surgelé**	**Ready to eat meal (Parmentier)**	*L.monocytogenes* Ad1218	Raw beef	Spiking-10% NaCl 4 days	1,75	26-26-23-26-33(26,8)	26,8	+	1	b
2011	**3972**	**Boeuf haché surgelé aux oignons**	**Frozen ground beef aromates**	*L.monocytogenes* Ad1218	Raw beef	Spiking- -20°C 4 days	3,25	3-0-1-1-2(1,4)	1,4	+	1	b
2011	**3973**	**Tomates farcies surgelées**	**Ready-to-cook meat (tomatoes)**	*L.monocytogenes* Ad1218	Raw beef	Spiking- -20°C 4 days	3,25	3-0-1-1-2(1,4)	1,4	-	1	b
2011	**4054**	**Poivre concassé**	**Pepper**	*L.monocytogenes* Ad544	Onions	Spiking-10 min 56°C	1,49	2-4-2-3-3(2,8)	2,8	-	4	b
2011	**4055**	**Epices riz parfumé**	**Spices for rice**	*L.monocytogenes* Ad544	Onions	Spiking-10 min 56°C	1,49	2-4-2-3-3(2,8)	2,8	-	4	b
2011	**4056**	**Epices couscous**	**Spices for couscous**	*L.monocytogenes* Ad279	Vegetables mix	Spiking-10 min 56°C	1,49	5-4-6-9-4(5,8)	5,8	-	4	b
2011	**4057**	**Epices tajine**	**Spices for tagine**	*L.monocytogenes* Ad279	Vegetables mix	Spiking-10 min 56°C	1,49	5-4-6-9-4(5,8)	5,8	-	4	b
2011	**4058**	**Reblochon au lait cru**	**Raw milk cheese (Reblochon)**	*L.monocytogenes* 910	Raw milk	Spiking- 4°C 4 months	1,18	11-8-10-13-9(10,2)	10,2	-	2	a
2011	**4059**	**Laguiole au lait cru**	**Raw milk cheese (Laguiole)**	*L.monocytogenes* 910	Raw milk	Spiking- 4°C 4 months	1,18	11-8-10-13-9(10,2)	10,2	-	2	a
2011	**4060**	**Morbier au lait cru**	**Raw milk cheese (Morbier)**	*L.monocytogenes* 910	Raw milk	Spiking- 4°C 4 months	1,18	11-8-10-13-9(10,2)	10,2	+	2	a
2011	**4061**	**Crottin chavignol**	**Raw milk cheese (Crottin de Chavignol)**	*L.monocytogenes* 910	Raw milk	Spiking- 4°C 4 months	1,18	11-8-10-13-9(10,2)	10,2	-	2	a
2011	**4062**	**Lait cru**	**Raw milk**	*L.monocytogenes* 910	Raw milk	Spiking-NaCl 4°C 4 months	0,38	3-11-5-14-15(9,6)	9,6	+	2	b
2011	**4063**	**Crème anglaise**	**English cream**	*L.monocytogenes* 910	Raw milk	Spiking-NaCl 4°C 4 months	0,38	3-11-5-14-15(9,6)	9,6	+	2	c
2011	**4106**	**Crème anglaise**	**English cream**	*L.ivanovii* Ad680	Raw milk	Spiking-10 min 56°C	2,54	1-1-0-0-0(0,4)	0,4	-	2	c
2011	**4107**	**Gâteau semoule au lait**	**Dessert**	*L.ivanovii* Ad680	Raw milk	Spiking-10 min 56°C	2,54	1-1-0-0-0(0,4)	0,4	-	2	c
2011	**4108**	**Riz au lait**	**Milk rice**	*L.ivanovii* Ad680	Raw milk	Spiking-10 min 56°C	2,54	1-1-0-0-0(0,4)	0,4	-	2	c
2011	**4296**	**Filet de hareng fumé aux aromates**	**Smoked herring**	*L.monocytogenes* Ad141	Smoked salmon	Spiking-HT 10min 56°C/4°C 11 days	0,55	7-7-4-3-6(5,4)	5,4	+	3	b
2011	**4297**	**Maquereaux cuisinés au vin blanc et aromates**	**Marinated mackerel**	*L.monocytogenes* Ad141	Smoked salmon	Spiking-HT 10min 56°C/4°C 11 days	0,55	7-7-4-3-6(5,4)	5,4	+	3	b
2011	**4298**	**Saumon fumé**	**Smoked salmon**	*L.monocytogenes* Ad995	smoked trout	Spiking-HT 10min 56°C/4°C 11 days	0,67	10-9-9-15-10(10,6)	10,6	+	3	b
2011	**4299**	**Filets de maquereaux fumés**	**Smoked mackerel fillets**	*L.monocytogenes* Ad995	smoked trout	Spiking-HT 10min 56°C/4°C 11 days	0,67	10-9-9-15-10(10,6)	10,6	+	3	b
2011	**4300**	**Truite fumée**	**Smoked trout**	*L.monocytogenes* Ad995	smoked trout	Spiking-HT 10min 56°C/4°C 11 days	0,67	10-9-9-15-10(10,6)	10,6	-	3	b
2011	**4302**	**Haddock fumé**	**Smoked haddock**	*L.monocytogenes* Ad492	Smoked trout	Spiking-HT 10min 56°C/4°C 11 days	0,33	0-6-2-4-1(2,6)	2,6	-	3	b
2011	**4303**	**Emincés de saumon fumé aneth et citron**	**Marinated salmon**	*L.monocytogenes* Ad492	Smoked trout	Spiking-HT 10min 56°C/4°C 11 days	0,33	0-6-2-4-1(2,6)	2,6	+	3	b
2011	**4304**	**Truite fumée**	**Smoked trout**	*L.monocytogenes* Ad492	Smoked trout	Spiking-HT 10min 56°C/4°C 11 days	0,33	0-6-2-4-1(2,6)	2,6	+	3	b
2011	**4305**	**Thon humé**	**Smoked tuna**	*L.monocytogenes* Ad492	Smoked trout	Spiking-HT 10min 56°C/4°C 11 days	0,33	0-6-2-4-1(2,6)	2,6	+	3	b
2011	**4645**	**Morbier au lait cru**	**Raw milk cheese (Morbier)**	*L.monocytogenes* A00L097	Raw milk	Spiking-pH4-5days	0,88	0-4-2-3-4(2,6)	2,6	+	2	a
2011	**4646**	**Lait cru**	**Raw milk**	*L.monocytogenes* A00L097	Raw milk	Spiking-pH4-5days	0,88	0-4-2-3-4(2,6)	2,6	+	2	b
2011	**4647**	**Lait cru**	**Raw milk**	*L.monocytogenes* 17501	Raw milk	Spiking-pH4-5days	0,6	13-3-10-9-10(9,0)	9,0	-	2	b
2011	**4648**	**Lait fermenté**	**Fermented milk**	*L.monocytogenes* 17501	Raw milk	Spiking-pH4-5days	0,6	13-3-10-9-10(9,0)	9,0	-	2	c
2011	**4650**	**Lait ribot**	**Fermented milk**	*L.monocytogenes* A00L097	Raw milk	Spiking-pH4-5days	0,88	0-4-2-3-4(2,6)	2,6	+	2	c
2011	**4665**	**Saint Félicien au lait cru**	**Raw milk cheese (Saint Félicien)**	*L.monocytogenes* A00L097	Raw milk	Spiking-pH4-5days/HT56°C 10min	0,78	8-5-6-10-7(7,2)	7,2	-	2	a
2011	**4666**	**Salers**	**Raw milk cheese (Salers)**	*L.monocytogenes* A00L101	Raw milk	Spiking-pH4-5days/HT56°C 10min	0,34	4-5-8-9-4(6,0)	6,0	-	2	a
2011	**4667**	**Bethmale**	**Raw milk cheese (Bethmale)**	*L.monocytogenes* 17501	Raw milk	Spiking-pH4-5days/HT56°C 10min	0,71	19-18-12-9-13(14,2)	14,2	-	2	c

NAE PROTOCOL

Year of analysis	Sample N°	Product (French name)	Product	Artificial contaminations						Global result NAE protocol	category	type
				Strain	Origin	Injury applied	Injury evaluation	Inoculation level CFU/sample				
								Enumeration	Mean CFU/ sample			
2011	**4668**	**Tiramisu à la framboise**	**Tiramisu with raspberries**	*L.monocytogenes* A00L097	Raw milk	Spiking-pH4-5days/HT56°C 10min	0,78	8-5-6-10-7(7,2)	7,2	+	2	c
2011	**4685**	**Poussières environnement laitier**	**Dusts (dairy industry)**	*L.monocytogenes* Ad615	Environmental sample(dairy)	Spiking-HT 56°C 7min	0,51	1-6-5-8-2(4,4)	4,4	+	5	c
2011	**4686**	**Poussières environnement laitier**	**Dusts (dairy industry)**	*L.monocytogenes* Ad615	Environmental sample(dairy)	Spiking-HT 56°C 7min	0,51	1-6-5-8-2(4,4)	4,4	-	5	c
2011	**4687**	**Poussières environnement laitier**	**Dusts (dairy industry)**	*L.monocytogenes* Ad615	Environmental sample(dairy)	Spiking-HT 56°C 7min	0,51	1-6-5-8-2(4,4)	4,4	+	5	c
2011	**4688**	**Poussières environnement laitier**	**Dusts (dairy industry)**	*L.monocytogenes* Ad615	Environmental sample(dairy)	Spiking-HT 56°C 7min	0,51	1-6-5-8-2(4,4)	4,4	-	5	c
2011	**4689**	**Poussières environnement laitier**	**Dusts (dairy industry)**	*L.monocytogenes* Ad615	Environmental sample(dairy)	Spiking-HT 56°C 7min	0,51	1-6-5-8-2(4,4)	4,4	+	5	c
2011	**4690**	**Lingette environnement volaille**	**Sponge (poultry industry)**	*L.monocytogenes* Ad1271	Environmental sample(poultry)	Spiking-HT 56°C 7min	0,8	4-3-7-4-5(4,6)	4,6	+	5	b
2011	**4691**	**Lingette environnement volaille**	**Sponge (poultry industry)**	*L.monocytogenes* Ad1271	Environmental sample(poultry)	Spiking-HT 56°C 7min	0,8	4-3-7-4-5(4,6)	4,6	-	5	b
2011	**4692**	**Lingette environnement volaille**	**Sponge (poultry industry)**	*L.monocytogenes* Ad1271	Environmental sample(poultry)	Spiking-HT 56°C 7min	0,8	4-3-7-4-5(4,6)	4,6	+	5	b
2011	**4693**	**Lingette environnement volaille**	**Sponge (poultry industry)**	*L.monocytogenes* Ad1271	Environmental sample(poultry)	Spiking-HT 56°C 7min	0,8	4-3-7-4-5(4,6)	4,6	-	5	b
2011	**4694**	**Eau refroidissement**	**Process water**	*L.monocytogenes* Ad1271	Environmental sample(poultry)	Spiking-HT 56°C 7min	0,8	4-3-7-4-5(4,6)	4,6	+	5	a
2011	**4695**	**Lingette tapis sortie peleuse**	**Sponge (salmon industry)**	*L.monocytogenes* A00E008	Environmental sample(fish)	Spiking-HT 56°C 7min	0,74	7-4-4-3-2(4,0)	4,0	+	5	b
2011	**4696**	**Lingette filetage(tapis parage)**	**Sponge (salmon industry)**	*L.monocytogenes* A00E008	Environmental sample(fish)	Spiking-HT 56°C 7min	0,74	7-4-4-3-2(4,0)	4,0	+	5	b
2011	**4697**	**Lingette table lardons saumon**	**Sponge (salmon industry)**	*L.monocytogenes* A00E008	Environmental sample(fish)	Spiking-HT 56°C 7min	0,74	7-4-4-3-2(4,0)	4,0	-	5	b
2011	**4698**	**Lingette**	**Sponge (salmon industry)**	*L.monocytogenes* A00E008	Environmental sample(fish)	Spiking-HT 56°C 7min	0,74	7-4-4-3-2(4,0)	4,0	+	5	b
2011	**4699**	**Poussières fumoir**	**Dusts (salmon industry)**	*L.monocytogenes* A00E008	Environmental sample(fish)	Spiking-HT 56°C 7min	0,74	7-4-4-3-2(4,0)	4,0	+	5	c
2011	**4700**	**Lingette frigo découpe**	**Sponge (salmon industry)**	*L.monocytogenes* Ad243	Environmental sample(pork)	Spiking-HT 56°C 7min	0,52	10-5-8-10-9(8,4)	8,4	+	5	b
2011	**4701**	**Lingette baratte salle saumure**	**Sponge (salmon industry)**	*L.monocytogenes* Ad243	Environmental sample(pork)	Spiking-HT 56°C 7min	0,52	10-5-8-10-9(8,4)	8,4	+	5	b
2011	**4702**	**Eau rinçage machine**	**Cleaning water**	*L.monocytogenes* Ad243	Environmental sample(pork)	Spiking-HT 56°C 7min	0,52	10-5-8-10-9(8,4)	8,4	+	5	a
2011	**4703**	**Eau lavage table de saignée**	**Cleaning water (beef industry)**	*L.monocytogenes* Ad243	Environmental sample(pork)	Spiking-HT 56°C 7min	0,52	10-5-8-10-9(8,4)	8,4	+	5	a
2011	**4704**	**Eau de lavage table à berf**	**Cleaning water (beef industry)**	*L.monocytogenes* Ad243	Environmental sample(pork)	Spiking-HT 56°C 7min	0,52	10-5-8-10-9(8,4)	8,4	+	5	a
2019	**5908**	**Lait demi-écrémé pasteurisé**	**Pasteurised half-skimmed milk**	*L.monocytogenes* Ad665	Raw milk	Seeding-48h 3±2°C	/	3-2-1-2-3	2,2	+	2	c
2019	**5909**	**Lait pasteurisé**	**Pasteurised milk**	*L.monocytogenes* Ad1236	Raw milk cheese	Seeding-48h 3±2°C	/	2-2-3-2-3	2,4	+	2	c
2019	**5910**	**Fromage au lait pasteurisé**	**Pasteurised milk cheese**	*L.monocytogenes* Ad2858	Milk	Seeding-48h 3±2°C	/	2-0-1-3-1	1,4	+	2	c
2019	**5911**	**Emmental au lait pasteurisé**	**Pasteurised milk cheese**	*L.monocytogenes* Ad665	Raw milk	Seeding-48h 3±2°C	/	3-2-1-2-3	2,2	+	2	c
2019	**5912**	**Emmental au lait pasteurisé**	**Pasteurised milk cheese**	*L.monocytogenes* Ad1236	Raw milk cheese	Seeding-48h 3±2°C	/	2-2-3-2-3	2,4	+	2	c
2019	**5913**	**Filet de merlan**	**Raw fish**	*L.monocytogenes* Ad2599	Salmon	Seeding-48h 3±2°C	/	5-3-4-3-1	3,2	+	3	a
2019	**5914**	**Eau de process (rinçage découpe végétaux)**	**Process water**	*L.monocytogenes* Ad2598	Salad	Seeding-48h 3±2°C	/	1-4-0-1-3	1,8	+	5	a
2019	**5915**	**Eau de rinçage bol de lait**	**Rinse water**	*L.monocytogenes* Ad2858	Milk	Seeding-48h 3±2°C	/	2-0-1-3-1	1,4	+	5	a
2019	**5916**	**Eau de rinçage laitier**	**Rinsed water**	*L.monocytogenes* Ad2858	Milk	Seeding-48h 3±2°C	/	2-0-1-3-1	1,4	+	5	a
2019	**5917**	**Curcuma moulue**	**Turmeric**	*L.monocytogenes* Ad2598	Salad	Spiking-10 min 56°C	0,7	2-1-4-3-3	2,6	-	4	b
2019	**5918**	**Piment doux**	**Chili pepper**	*L.monocytogenes* Ad2598	Salad	Spiking-10 min 56°C	0,7	2-1-4-3-3	2,6	-	4	b
2019	**5919**	**Curry**	**Curry**	*L.monocytogenes* Ad2598	Salad	Spiking-10 min 56°C	0,7	2-1-4-3-3	2,6	-	4	b
2019	**5920**	**Coriandre déshydratée**	**Dehydrated coriander**	*L.monocytogenes* Ad2598	Salad	Spiking-10 min 56°C	0,7	2-1-4-3-3	2,6	-	4	b
2019	**7125**	**Aiguillette de poulet cuisinées**	**RTRH (chicken)**	*L.monocytogenes* Ad293	Delicatessen	Seeding-48h 3±2°C	/	1-2-3-2-1	1,8	+	1	b
2019	**7126**	**Rougaille de saucisses**	**RTRH (sausages)**	*L.monocytogenes* Ad293	Delicatessen	Seeding-48h 3±2°C	/	1-2-3-2-1	1,8	+	1	b
2019	**7129**	**Lait cru**	**Raw milk**	*L.monocytogenes* Ad2642 + *L.innocua* Ad1789	Cheese+Raw milk	Seeding-48h 3±2°C	/	0-0-0-1-0+1-0-0-1-1	0,8	+	2	b
2019	**7130**	**Lait cru**	**Raw milk**	*L.monocytogenes* Ad2858 + *L.welshimeri* Ad1667	Milk+Raw milk cheese	Seeding-48h 3±2°C	/	0-1-1-1-1+0-0-3-0-2	1,8	+	2	b
2019	**7131**	**Origan déshydraté**	**Dehydrated oregano**	*L.monocytogenes* Ad543	Sweet pepper	Spiking-15 min 56°C	0,6	9-13-10-5-6	8,6	-	4	b
2019	**7132**	**Basilic déshydraté**	**Dehydrated basil**	*L.monocytogenes* Ad1238	Vegetables	Spiking-15 min 56°C	1,3	8-21-13-19-17	15,6	-	4	b
2019	**7627**	**Lait cru**	**Raw milk**	*L.monocytogenes* Ad2642	Cheese	Seeding-48h 3±2°C	/	2-2-1-1-2	1,6	-	2	b
2019	**7626**	**Lait pasteurisé**	**Pasteurised milk**	*L.innocua* Ad657	Cheese	Seeding-48h 3±2°C	/	1-2-1-1-0	1,0	+	2	c
2019	**8000**	**Paprika doux**	**Sweet paprika**	*L.monocytogenes* Ad1238	Vegetables	Seeding 2 weeks at ambient temperature	/	/	5,6	+	4	b

Appendix 4 - Sensitivity study: raw data

Bold typing:	artificially inoculated samples
m:	minority level of target analyte
M:	majority level of target analyte
P:	pure culture level of target analyte
1/2 :	50% level of target analyte
(x):	number of colonies in the plate
H+:	on O&A blue/green colony WITH halo
H-:	on O&A blue/green colony WITHOUT halo
-:	no typical colonies but presence of background microflora
st:	plate without any colony
d:	doubtful result
PA:	positive agreement
NA:	negative agreement
ND:	negative deviation
PD:	positive deviation
PPNA:	positive presumptive negative agreement
PPND :	positive presumptive negative deviation
i:	inhibition of PCR occurred
N/A:	Not Applicable
*	1/5 enrichment dilution
**	1/10 enrichment dilution
NC:	uncharacteristic colonies on TSYA
NLBL:	NonLinear Base Line

samples analysed with Extra clean protocol

MEAT PRODUCTS																									
Date	Sample N°	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes* -Rapid Spin													Category	Type
				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24 h at 37°C								Half Fraser for 24 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	3879	Steak haché 15%MG	Ground beef	H+d/NC	+ (1)	H+	+	*L. monocytogenes / L. welshimeri*	+	29,29	+	+	H+	*L. monocytogenes/ L. welshimeri*	+	/	**PA**	29,35	+	+	H+	+	**PA**	1	a
2011	4559	Viande triée de poulet	Chicken meat	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	N/A	-	+	H+/H-	*L.innocua/ L.monocytogenes*	-	/	**ND**	N/A	-	+	H+/H-	-	**ND**	1	a
2011	4560	Foie	Pork liver	-	-	-	-	/	-	i/N/A	i/-	-	-	/	-	/	**NA**							1	a
2011	4561	Jambon	Ham	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**							1	a
2011	4562	Maigre de jarret	Pork meat	H-d	-	-	-	-	-	N/A	-	-	H-d	-	-	/	**NA**							1	a
2011	4563	Maigre de mouton	Sheep meat	H-	+	H-	+	*L.welshimeri*	-	N/A	-	-	-	/	-	/	**NA**							1	a
2011	4564	VSM	VSM	H-	+	H-	+	*L.welshimeri*	-	i/N/A	i/-	+	H-	*L.innocua*	-	/	**NA**							1	a
2011	4565	Gésiers	Gizzards	H+/H-	+	H+	+	*L.monocytogenes*	+	24,6	+	+	H+/H-	*L.monocytogenes*	+	/	**PA**	25,12	+		H+	+	**PA**	1	a
2011	4566	Steak de porc	Pork meat	-	-	-	-	/	-	i/N/A	i/-	-	H-d	-	-	/	**NA**							1	a
2011	4567	Steak de porc	Pork meat	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	a
2011	4568	Ris de veau	Sweat bread	H+/H-	+	H+	+	*L.welshimeri/ L.monocytogenes*	+	22,23	+	+	H+	*L.monocytogenes*	+	/	**PA**	23,15	+	+	H+	+	**PA**	1	a
2011	4569	Viande gros grain de dinde	Turkey meat	H-	+	H+	+	*L.monocytogenes*	+	32,67	+	+	H+	*L.monocytogenes*	+	/	**PA**	33,01	+	+	H+	+	**PA**	1	a
2011	4570	Viande rouge de dinde	Red turkey meat	H-	+	H-	+	*L.welshimeri*	-	27,4	+	+	H+/H-	*L.monocytogenes/ L.welshimeri*	+	/	**PD**	27,62	+	+	H+/H-	+	**PD**	1	a
2011	4571	Viande triée de poulet	Chicken meat	H+/H-	+(1)	H+	+	*L.welshimeri/ L.monocytogenes*	+	31,14	+	+	H+/H-	*L.monocytogenes*	+	/	**PA**	30,79	+	+	H+/H-	+	**PA**	1	a
2011	4577	Filet de porc	Pork fillet	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	25,98	+	+	H+/H-	*L.monocytogenes*	+	/	**PA**	24,87	+	+	H+	+	**PA**	1	a
2011	4580	Viande triée de poulet	Chicken meat	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	28,05	+	+	H+/H-	*L.monocytogenes*	+	/	**PA**	29,71	+	+	H+/H-	+	**PA**	1	a
2011	4582	Steak de volaille pané	Roast poultry meat	H+	-	H+	-	*L.monocytogenes*	+	N/A	-	-	-	/	-	/	**ND**	N/A	-	-	-	-	**ND**	1	a
2011	4583	viande rouge de dinde	Red turkey meat	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**							1	a
2011	4585	Tendergrill	Beef meat	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	37,16	+	+	H+(1)	*L.monocytogenes*	+	/	**PA**	26,51	+	+	H+/H-	+	**PA**	1	a
2011	4586	Viande triée de poulet	Chicken meat	H+/H-	+	-	+	*L.welshimeri/ L.monocytogenes*	+	N/A	-	+	H-d	-	-	/	**ND**	N/A	-	+	-	-	**ND**	1	a
2011	4588	Filet de dinde	Turkey fillet	H-	+(1)	H-(2)	+(2)	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**							1	a
2011	4589	Filet de dinde	Turkey fillet	H+	+	H+	+	*L.monocytogenes*	+	N/A	-	-	-	/	-	/	**ND**	N/A	-	-	H-	-	**ND**	1	a
2011	4629	Cuisse	Chicken leg	H-	+	H-	+	*L.welshimeri*	-	23,43	+	+	H+	*L.monocytogenes*	+	/	**PD**	24,47	+	+	H+	+	**PD**	1	a
2011	4631	Pilon	Chicken drumsticks	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	a
2011	4635	Sauté de dinde	Ready to eta turkey meat	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**							1	a
2011	4636	Viande rouge avec peau	Red meat with skin	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	34,12	+	+	H+/H-	*L.monocytogenes*	+	/	**PA**	30,85	+	+	H+/H-	+	**PA**	1	a
2011	4638	Araignée de porc	Pork meat	H-	+	H-	+	*L.welshimeri*	-	29,79	+	+	H-	*L.welshimeri*	-	/	**PPNA**	29,43	+	+	H-	-	**PPNA**	1	a
2011	4642	Gras dur frais	Pork fat	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	a
2011	4710	Viande de porc	Pork meat	H-d	+	H+	+	*L.monocytogenes*	+	N/A	-	+	-	*L.innocua*	-	/	**ND**	N/A	-	+	-	-	**ND**	1	a
2011	4712	Langue de porc	Pork tongue	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	a
2011	4713	Filet de dinde	Turkey fillet	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	N/A	-	+	-	/	-	/	**ND**	N/A	-	-	-	-	**ND**	1	a
2011	4714	Blanc de poulet	Chicken white meat	H-	+	H-	+	*L.welshimeri*	-	N/A	-	-	-	/	-	/	**NA**							1	a

♦ Analyses performed according to the COFRAC accreditation

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										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	4715	Viande de poulet broyée	Ground chicken meat	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	26,31	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	/	**PA**	26,33	+	+	H+/H-	+	**PA**	1	a
2011	4587	Emincé de dinde au basilic	Turkey meat with basil	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	b
2011	4628	Ailes de poulet tex Mex	Ready to eat chicken wings	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	b
2011	4630	Ailes de poulet tex Mex	Ready to eat chicken wings	H+/H-	+	H+	+	*L.monocytogenes*	+	N/A	-	-	H-d	-	-	/	**ND**	i/N/A	i/-	-	-	-	**ND**	1	b
2011	4632	Manchons de poulets rôtis	Slices roast chicken	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	b
2011	4633	Jambonneau pané	Breaded ham	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	b
2011	4634	Araignée de porc marinée	Marinated pork meat	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	b
2011	4641	Poitrine rôtie	Roast pork meat	-	-	-	-	/	-	i/N/A	i/-	-	-	/	-	/	**NA**							1	b
2019	**7242**	**Bœuf bourguignon**	**RTRH (bourguignon)**	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	-	**NA**							1	b
2019	**7243**	**Bœuf bourguignon**	**RTRH (bourguignon)**	H+	+	H+	+	*L.monocytogenes*	+	12,03	+	+	H+	*L.monocytogenes*	+	/	**PA**	11,78	+	+	H+	+	**PA**	1	b
2019	**7244**	**Bœuf bourguignon**	**RTRH (bourguignon)**	st	st	st	st	/	-	N/A	-	+	H-	*L.welshimeri*	-	-	**NA**							1	b
2019	**7245**	**Bœuf bourguignon**	**RTRH (bourguignon)**	H+	+	H+	+	*L.monocytogenes*	+	13,22	+	+	H+	*L.monocytogenes*	+	/	**PA**	11,66	+	+	H+	+	**PA**	1	b
2019	**7246**	**Couscous royal**	**RTRH (couscous)**	-	st	-	st	/	-	11,76	+	+	H+	*L.monocytogenes*	+	/	**PD**	12,11	+	+	H+	+	**PD**	1	b
2019	**7247**	**Grignotte de poulet mexicaine**	**RTRH (marinated chicken)**	H+	+	H+	+	*L.monocytogenes*	+	13,75	+	+	H+	*L.monocytogenes*	+	/	**PA**	13,43	+	+	H+	+	**PA**	1	b
2019	7629	Porc au caramel	RTRH (pork)	-	st	st	st	/	-	20,61/ 26,81/26,48 (atypical curves)	+/+/+	-	st	5x (OCLA/ Palcam/F1: -)	-	-	**PPNA**	26,01/2 4,80/25,62 (atypical curves)	+/+/+	-	5x(OCLA/ Palcam/F1:-)	-	**PPNA**	1	b
2019	7630	Aiguillette de poulet	RTRH (poultry)	st	st	st	st	/	-	N/A	-	-	-	/	-	-	**NA**							1	b
2019	7665	Sandwich jambon emmenthal	RTE (sandwich ham cheese)	st	st	st	st	/	-	N/A	-	-	-	/	-	-	**NA**							1	b
2019	7666	Wrap de poulet	RTE (wrap chicken)	-	-	-	st	/	-	19,25	+	+	H+	*L.monocytogenes*	+	/	**PD**	18,13	+	H+	+	+	**PD**	1	b
2019	**7977**	**Couscous au poulet**	**RTRH (Couscous)**	-	-	-	-	/	-	17,40	+	+	H+	*L.monocytogenes*	+	/	**PD**	i/i*/23,08**	i/i*/ +**	+	H+	+	**PD**	1	b
2019	**7978**	**Emincés de poulet assaisonnés**	**RTRH (seasoned chicken)**	H+	+	H+	+	*L.monocytogenes*	+	N/A	-	-	-	/	-	-	**ND**	i/i*/N/A**	i/i*/- **	-	-	-	**ND**	1	b
2019	**7979**	**Choucroute**	**RTRH (Choucroute)**	st	st	st	st	/	-	19,58	+	+	H+	*L.monocytogenes*	+	/	**PD**	i/i*/23,56**	+**	+	H+	+	**PD**	1	b
2011	1594	Chorizo	Chorizo	-	-	-	-	/	-	N/A	-	-	H-	-	-	/	**NA**	N/A	-	-	-	-	**NA**	1	c
2011	1598	Saucisson sec	Dehydrated sausage	-	-	-	-	/	-	N/A	-	-	H-d	-	-	/	**NA**	N/A	-	-	H-d	-	**NA**	1	c
2011	1599	Poitrine lardons	Bacon	H+	+	H+	+	*L.monocytogenes*	+	24,39	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	/	**PA**	24,23	+	+	H+/H-	+	**PA**	1	c
2011	1601	Lardons fumés	Smoked bacon	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	c
2011	3402	Saucisse	Sausage	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	33,61	+	-	H+	*L.monocytogenes*	+	/	**PA**	32,20	+	+	H+	+	**PA**	1	c
2011	3403	Museau de porc	Pâté	H+	+	H+	+	*L.monocytogenes*	+	13,30	+	+	H+	*L.monocytogenes*	+	/	**PA**	13,29	+	+	H+	+	**PA**	1	c

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										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	3404	Merguez	Merguez	H+	+	H+	+	*L.ivanovii/ L.monocytogenes*	+	35,11	+	+	H+	*L.monocytogenes*	+	/	**PA**	32,68	+	+	H+	+	**PA**	1	c
2011	3655	Andouille	Delicatessen (chitterling)	H+	+	H+	+	*L.monocytogenes*	+	N/A	-	+	-	*L.innocua*	-	/	**ND**	N/A	-	+	-	-	**ND**	1	c
2011	3656	Gras de tête	Pork fat	H+	+	H+	+	*L.monocytogenes*	+	25,76	+	+	H+	*L.monocytogenes*	+	/	**PA**	24,10	+	+	H+	+	**PA**	1	c
2011	3657	Farce légumes	Ready-to-cook vegetables	H-	+	H-	+	*L.welshimeri*	-	36,22	+	+	H+	*L.monocytogenes/ L.welshimeri*	+	/	**PD**	34,66	+	+	H+	+	**PD**	1	c
2011	3795	Saucisson à l'ail	Delicatessen (Cooked sausage)	H+	+	H+	+	*L. monocytogenes*	+	24,44	+	-(x5:+)	-(X5:1H+)	*L.monocytogenes*	+	/	**PA**	24,51	+	-	-(x5:H+)	+	**PA**	1	c
2011	3796	Merguez bio	Merguez	H+(1)/H-d	-	H+	+	*L. monocytogenes / L. innocua*	+	31,47	+	-	-(+ at 72H)	*L.monocytogenes* (Fraser 1)	+	/	**PA**	32,13	+	-	H-d (+ Fraser1)	+	**PA**	1	c
2011	3797	Saucisson d'Auvergne	Delicatessen (cooked sausage)	-	-	-	-	/	-	N/A	-	+ (4)	H+(1)	*L.welshimeri*	-	/	**NA**	N/A	-	+ (1)	-	-	**NA**	1	c
2011	4042	Salami fumé	Delicatessen (salami)	-	-	H-d	-	-	-	N/A	-	-	-	/	-	/	**NA**							1	c
2011	4043	Lardons fumés allumettes	Smoked sliced bacon	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	31,71	+	+	-(H+ at 72H)	*L.welshimeri/ L.monocytogenes*	+	/	**PA**	32,57	+	+	H+	+	**PA**	1	c
2011	4044	Jambon sec italien	Delicatessen (Cured ham)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	c
2011	4045	Pancetta	Delicatessen (Pancetta)	H-d	-	H-d	-	-	-	N/A	-	-	-	/	-	/	**NA**							1	c
2011	4046	Rosette	Delicatessen(rosette)	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**							1	c
2011	4572	Saucisson sec de bœuf	Beef dehydrated sausage	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	c
2011	4573	Chipos aux herbes	Sausages with herbs	H-	-	-	-	-	-	N/A	-	-	-	/	-	/	**NA**							1	c
2011	4574	Andouillette nature	Chitterlings	H+	+	H+	+	*L.monocytogenes*	+	34,18	+	-	H+	*L.monocytogenes*	+	/	**PA**	33,47	+	-	H+	+	**PA**	1	c
2011	4575	Fromage de tête	Delicatessen	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	c
2011	4576	Farce		-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	c
2011	4578	Saucisson à l'ail	Big sausage	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							1	c
2011	4579	Terrine de lapin au vin blanc	Rabbit terrine	H-	-	-	-	-	-	N/A	-	-	-	/	-	/	**NA**							1	c
2011	4581	Merguez	Merguez	-	-	H+	+	*L.monocytogenes*	+	N/A	-	-	H-d	-	-	/	**ND**	N/A	-	-	-	-	**ND**	1	c
2011	4584	Chipolatas natures	Sausages	-	-	H-	+	*L.welshimeri*	-	26,49	+	+	H+/H-	*L.monocytogenes*	+	/	**PD**	26,31	+	+	H+	+	**PD**	1	c
2011	4637	Saucisse fumée	Smoked sausage	H-	+	H-	+	*L.welshimeri*	-	N/A	-	-	H-	-	-	/	**NA**							1	c
2011	4639	Poitrine 1/2 sel en tranches	Cured meat	-	-	-	-	/	-	N/A	-	+	H-d	*L.welshimeri*	-	/	**NA**							1	c
2011	4640	Maigre de tête	Delicatessen	H+	+	H+	+	*L.monocytogenes*	+	17,03	+	+	H+	*L.monocytogenes*	+	/	**PA**	16,5	+	+	H+/H-	+	**PA**	1	c
2011	4711	Chipolatas	sausages	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	-	-	/	**NA**	N/A	-	-	-	-	**NA**	1	c

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										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	1196	Fromage au lait cru de vache n°8	Raw milk cheese	H-d	-	-	-	-	-	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	H-d(NC)	-	**NA**	2	a
2011	1197	Fromage au lait cru n°9	Raw milk cheese	H-d	-	H-d	-	-	-	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	-	-	**NA**	2	a
2011	1198	Fromage à raclette	Raw milk cheese	H-d	-	H-d	-	*L.seeligeri*	-	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	H-d(NC)	-	**NA**	2	a
2011	1199	Fromage au lait cru n°8	Raw milk cheese	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+	+	+	H+/H-	*L.monocytogenes/*	+	/	**PA**	35,96	+	+	H+/H-	+	**PA**	2	a
2011	**1660**	**Morbier au lait cru**	**Raw milk cheese**	H-	-	H-	+(1)	*L.seeligeri*	-	N/A	-	-	H-	*L.seeligeri*	-	/	**NA**	N/A	-	-	-	-	**NA**	2	a
2011	**1663**	**Comté au lait cru**	**Raw milk cheese**	H-	-	H-	+(2)	*L.seeligeri*	-	N/A	-	-	H-	*-(L.seeligeri at 72H)*	-	/	**NA**	N/A	-	+d	H-d (*L.seeligeri*)	-	**NA**	2	a
2011	**1664**	**Salers au lait cru**	**Raw milk cheese**	H+	+	H+	+	*L.ivanovii*	-	N/A	-	+3col	H+	*L.ivanovii*	-	/	**NA**	N/A	-	+d	H-d (*L.ivanovii*)	-	**NA**	2	a
2011	**1666**	**Roquefort au lait cru**	**Raw milk cheese**	H+/H-d	+	H+	+	*L.ivanovii*	-	N/A	-	-	H-	*L.ivanovii(72H)*	-	/	**NA**	N/A	-	+d	H+ (*L.ivanovii*)	-	**NA**	2	a
2011	**1667**	**Selles sur cher au lait cru**	**Raw milk cheese**	H-d(1)	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	a
2011	1668	Brie de Meaux au lait cru	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	H-	-	-	/	**NA**							2	a
2011	1669	Laguiole au lait cru	Raw milk cheese	H-d	-	H-(1)	-	-	-	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	-	-	**NA**	2	a
2011	3792	Fromage au lait cru n°15	Raw milk cheese	H+	+	H+	+	*L. monocytogenes*	+	35,22	+	+	H+	*L.monocytogenes*	+	/	**PA**	35,20	+	+	+	+	**PA**	2	a
2011	3793	Fromage au lait cru n°17	Raw milk cheese	H+	+	H+	+	*L. monocytogenes*	+	28,96	+	+	H+	*L.monocytogenes*	+	/	**PA**	28,34	+	+	+	+	**PA**	2	a
2011	3794	Fromage au lait cru n°7	Raw milk cheese	H+/H-d(1)	+	H+	+	*L. monocytogenes*	+	29,43	+	+	H+	*L.monocytogenes*	+	/	**PA**	29,09	+	+	+	+	**PA**	2	a
2011	3974	Laguiole au lait cru de vache	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	a
2011	3975	Crottin chavignol au lait cru de vache	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	a
2011	3976	Morbier au lait cru de vache	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	a
2011	3977	Reblochon au lait cru	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	a
2011	3978	Fromage chèvre lait cru	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	a
2011	**4058**	**Reblochon au lait cru**	**Raw milk cheese (Reblochon)**	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	a
2011	**4059**	**Laguiole au lait cru**	**Raw milk cheese (Laguiole)**	H-d	-	H-d	-	-	-	N/A	-	-	-	/	-	/	**NA**							2	a
2011	**4061**	**Crottin chavignol**	**Raw milk cheese (Crottin de Chavignol)**	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	a
2011	**4650**	**Lait ribot**	**Fermented milk**	H+	+	H+	+	*L.monocytogenes*	+	17,88	+	+	H+	*L.monocytogenes*	+	/	**PA**	17,2	+	+	H+	+	**PA**	2	a

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				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24 h at 37°C								Half Fraser for 24 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	**4665**	**Saint Félicien au lait cru**	**Raw milk cheese (Saint Félicien)**	H-	-	-	-	-	-	N/A	-	-	-	/	-	/	**NA**							2	a
2011	**4666**	**Salers**	**Raw milk cheese (Salers)**	-	-	H-d	-	-	-	N/A	-	-	-	/	-	/	**NA**							2	a
2019	7037	Fromage au lait cru	Raw milk cheese	H+	+	H+	+	*L.monocytogenes*	+	24,03	+	+	H+	*L.monocytogenes*	+	/	**PA**	24,54	+	H+	+	+	**PA**	2	a
2019	7038	Fromaga au lait cru	Raw milk cheese	H+	+	H+	+	*L.monocytogenes*	+	28,17	+	+	H+	*L.monocytogenes*	+	/	**PA**	29,18	+	H+	+	+	**PA**	2	a
2019	7669	Fromage au lait cru de vache	Raw milk cheese	H+	+	H+	+	*L.monocytogenes*	+	33,04	+	+	H+	*L.monocytogenes*	+	/	**PA**	33,22	+	H+	+	+	**PA**	2	a
2019	7670	Fromage au lait cru de vache	Raw milk cheese	H+	+	H+	+	*L.monocytogenes*	+	29,86	+	+	H+	*L.monocytogenes*	+	/	**PA**	29,79	+	H+	+	+	**PA**	2	a
2019	7671	Fromage au lait cru de vache	Raw milk cheese	H+	+	H+	+	*L.monocytogenes*	+	27,33	+	+	H+	*L.monocytogenes*	+	/	**PA**	26,33	+	H+	+	+	**PA**	2	a
2011	1191	Lait cru 32/1	Raw milk	-	-	H+d/H-d	-	-	-	N/A	-	-	-	/	-	/	**NA**							2	b
2011	1192	Lait cru 34/2	Raw milk	-	-	-	-	/	-	i/N/A	i/-	-	-	/	-	/	**NA**							2	b
2011	1193	Lait cru 38/1	Raw milk	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	b
2011	1194	Lait cru 31/1	Raw milk	H+	+	H+	+	*L.monocytogenes*	+	20,25	+	+	H+	*L.monocytogenes*	+	/	**PA**	19,71	+	+	H+	+	**PA**	2	b
2011	1195	Lait cru 32/2	Raw milk	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	b
2011	3628	Lait cru	Raw milk	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	b
2011	3629	Lait cru	Raw milk	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	b
2011	3630	Lait cru	Raw milk	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	b
2011	3631	Lait cru	Raw milk	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	b
2011	3632	Lait cru	Raw milk	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	22,55	+	+	H+	*L.monocytogenes*	+	/	**PA**	18,36	+	+	H+	+	**PA**	2	b
2011	3788	Lait cru	Raw milk	-	-	-	-	/	-	32,59	+	+(10 camp-)	H-	*L.innocua*	-	/	**PPNA**	31,64	+	+(x5) (10 Camp-)	H-(x5)	-	**PPNA**	2	b
2011	3789	Lait cru	Raw milk	-	-	-	-	/	-	N/A	-	-	H-	-	-	/	**NA**							2	b
2011	3790	Lait cru T32/2	Raw milk	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	b
2011	3791	Lait cru T23/1	Raw milk	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	b
2011	**3934**	**Lait cru**	**Raw milk**	-	-	-	-	/	-	28,06	+	+	H+	*L. monocytogenes*	+	/	**PD**	32,02	+	+	H+	+	**PD**	2	b
2011	**4062**	**Lait cru**	**Raw milk**	H+	+	H+	+	*L.monocytogenes*	+	20,38	+	+	H+	*L. monocytogenes*	+	/	**PA**	18,24	+	+	H+	+	**PA**	2	b
2011	**4646**	**Lait cru**	**Raw milk**	H+	+	H+	+	*L.monocytogenes*	+	N/A	-	-	-	/	-	/	**ND**	27,48/ 27,65/ 27,28	+/+/+	-(x5)	-(x5)	-	**PPND**	2	b
2011	**4647**	**Lait cru**	**Raw milk**	H-d	-	-	-	-	-	N/A	-	-	-	/	-	/	**NA**							2	b
2019	**7009**	**Lait cru**	**Raw milk**	H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	N/A	-	+	H-	*L.innocua*	-	-	**ND**	N/A	-	H-	+	-	**ND**	2	b
2019	**7010**	**Lait cru**	**Raw milk**	H-	+	H-	+	*L.innocua*	-	35,35/ 35,31/ 36,53	+/+/+	+	H-	5x (OCLA/ Palcam/F1: -)	-	-	**PPNA**	33,84/ 34,74/ 34,27	+/+/+	5x(OCLA/ Palcam/F1: -)	H-	-	**PPNA**	2	b
2019	**7011**	**Lait cru**	**Raw milk**	-	-	st	st	/	-	N/A	-	+	H-	*L.welshimeri*	-	-	**NA**	N/A	-	H-	+	-	**NA**	2	b
2019	**7250**	**Lait cru**	**Raw milk**	st	st	st	st	/	-	28,59	+	+	H+	*L.monocytogenes*	+	/	**PD**	23,1	+	+	H+	+	**PD**	2	b
2019	**7251**	**Lait cru**	**Raw milk**	H+/H-	+	H-	+	*L.monocytogenes /L.innocua*	+	N/A	-	+	H-	*L.innocua*	-	-	**ND**	N/A	-	+	H-	-	**ND**	2	b
2019	**7252**	**Lait cru**	**Raw milk**	H+	+	H+	+	*L.monocytogenes*	+	16,31	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	**PA**	14,41	+	+	H+/H-(1)	+	**PA**	2	b
2019	**7253**	**Lait cru**	**Raw milk**	H+	+	H+	+	*L.monocytogenes*	+	18,42	+	+	H+	*L.monocytogenes*	+	/	**PA**	20,41	+	+	H+	+	**PA**	2	b
2011	1190	Poudre de lait 773479	Milk powder	H+	+	H+	+	*L.monocytogenes*	+	31,49	+	+	H+	*L.monocytogenes*	+	/	**PA**	N/A	-	+	H+	-	**ND**	2	c
2011	3857	Glace vanille	Ice cream (vanilla)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							2	c

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										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	3858	Crème glacée menthe chocolat	Ice cream (mint-chocolate)	-	-	H-	-	-	-	N/A	-	-	H-d	-	-	/	NA							2	c
2011	3859	Yaourt au lait entier	Goat fermented milk	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							2	c
2011	3860	Faisselle moulée à la louche	Fresh cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							2	c
2011	3861	Fromage blanc lisse	Fresh cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							2	c
2011	3862	Yaourt au lait de chèvre	Goat fermented milk	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							2	c
2011	**3935**	**Lait ribot**	**Fermented milk**	-	-	-	-	/	-	15,23	+	+	H+	*L. monocytogenes*	+	/	PD	16,46	+	+	H+	+	PD	2	c
2011	**3937**	**Gros lait fermier**	**Fermented milk**	-	-	-	-	/	-	29,92	+	+	H+	*L. monocytogenes*	+	/	PD	29,79	+	+	H+	+	PD	2	c
2011	**3959**	**Crème glacée noix de coco**	**Coco ice cream**	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							2	c
2011	**3960**	**Crème glacée vanille noix de pécan**	**Vanilla ice cream**	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							2	c
2011	**3961**	**Crème glacée au café**	**Coffee ice cream**	H+	+	H+	-	*L.monocytogenes*	+	+	+	+	H+	*L. monocytogenes*	+	/	PA	14,02	+	+	H+	+	PA	2	c
2011	**3962**	**Crème glacée au chocolat**	**Chocolate ice cream**	H+	+	H+	+	*L.monocytogenes*	+	i/26,62	i/+	+	H+	*L. monocytogenes*	+	/	PA	27,2	+	+	H+	+	PA	2	c
2011	**3963**	**Crème glacée créole**	**Ice bream**	H-	+	H-	+	*L.innocua*	-	N/A	-	+	H-	*L. innocua*	-	/	NA							2	c
2011	**4063**	**Crème anglaise**	**English cream**	H+	+	H+	+	*L.monocytogenes*	+	14,13	+	+	H+	*L. monocytogenes*	+	/	PA	15,46	+	+	H+	+	PA	2	c
2011	**4106**	**Crème anglaise**	**English cream**	-	-	H+	+	*L.ivanovii*	-	N/A	-	+(1)	-	*L.ivanovii*	-	/	NA							2	c
2011	**4107**	**Gâteau semoule au lait**	**Dessert**	H+(2)	+	H+	+	*L.ivanovii*	-	N/A	-	+	H+	*L.ivanovii*	-	/	NA							2	c
2011	**4108**	**Riz au lait**	**Milk rice**	-	+(1)	H+	+	*L.ivanovii*	-	N/A	-	+	H+	*L.ivanovii*	-	/	NA							2	c
2011	**4648**	**Lait fermenté**	**Fermented milk**	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							2	c
2011	**4649**	**Lait fermenté**	**Fermented milk**	H+	+	H+	+	*L.monocytogenes*	+	27,05	+	+	H+	*L.monocytogenes*	+	/	PA	26,93	+	+	H+	+	PA	2	c
2011	**4668**	**Tiramisu à la framboise**	**Tiramisu with raspberries**	H+	+	H+	+	*L.monocytogenes*	+	i/28,38	i/+	-	H+	*L.monocytogenes*	+	/	PA	22	+	+	H+	+	PA	2	c
2019	**7012**	**Fromage au lait pasteurisé**	**Pasteurised cheese**	-	-	st	st	/	-	19,89	+	+	H+	*L.monocytogenes*	+	/	PD	17,06	+	+	H+	+	PD	2	c
2019	**7013**	**Fromage au lait pasteurisé**	**Pasteurised cheese**	-	-	st	st	/	-	N/A	-	-	-	/	-	-	NA							2	c
2019	**7014**	**Fromage au lait pasteurisé**	**Pasteurised cheese**	-	-	-	-	/	-	N/A	-	-	-	/	-	-	NA							2	c
2019	**7015**	**Fromage au lait pasteurisé**	**Pasteurised cheese**	H+	+	H+	+	*L.monocytogenes*	+	24,53	+	-	H+	*L.monocytogenes*	+	/	PA	24,21	+	H+	+	+	PA	2	c
2019	**7016**	**Lait demi-écrémé pasteurisé**	**Pasteurised semi-skimmed milk**	H+	+	H+	+	*L.monocytogenes*	+	17,79	+	+	H+	*L.monocytogenes*	+	/	PA	16,82	+	H+	+	+	PA	2	c

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										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	1135	Filet de Colin d'Alaska	Hake fillet	H+	+	H+	+	*L.monocytogenes*	+	+	+	+	H+/H-	*L.monocytogenes/ L.innocua*	+	/	**PA**	25,59	+	+	H+/H-	+	**PA**	3	a
2011	1138	Colin d'Alaska	Hake	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	+	+	+	H+/H-	*L.monocytogenes/ L.innocua*	+	/	**PA**	14,83	+	+	H+	+	**PA**	3	a
2011	1141	Bloc de saumon	Raw salmon	H+	+	H+	+	*L.monocytogenes*	+	+	+	+	H+	*L.monocytogenes*	+	/	**PA**	26,57	+	+	H+	+	**PA**	3	a
2011	1142	Cabillaud	Cod	H+	-	H+	-	*L.monocytogenes*	+	+	+	+	H+	*L.monocytogenes*	+	/	**PA**	21,38	+	+	H+	+	**PA**	3	a
2011	3382	Filet de Panga	Raw fish	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	+	15,83	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	**PA**	16,01	+	+	H+/H-	+	**PA**	3	a
2011	3385	Filet de carrelet	Raw fish	H+	+	H+	+	*L.monocytogenes*	+	19,79	+	+	H+	*L.monocytogenes*	+	/	**PA**	14,68	+	+	H+	+	**PA**	3	a
2011	3645	Filet Panga	raw fish	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	18,10	+	+	H+	*L.monocytogenes*	+	/	**PA**	18,75	+	+	H+	+	**PA**	3	a
2011	3870	Filet de julienne frais	Raw fish	H-d	-	-	-	-	-	N/A	-	-	-	/	-	/	**NA**							3	a
2011	3871	Darne de peau bleue fraîche	Raw fish	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	a
2011	3874	Cœurs de filet de merlu blanc	Raw fish	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	a
2011	3875	Pavés de saumon	Raw salmon	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	a
2011	3876	Filet de Colin d'Alaska	Raw fish	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	a
2011	3877	Cœurs de filets de cabillaud	Raw fish	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	a
2011	3878	Steak de thon blanc	Raw tuna	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	a
2011	3885	Filet de colin	Raw fish	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	a
2019	7632	Filet de Julienne	Raw fish	st	st	st	st	/	-	N/A	-	-	-	/	-	-	**NA**							3	a
2019	7633	Pavé de saumon	Raw fish	st	st	st	st	/	-	N/A	-	-	st	/	-	-	**NA**							3	a
2019	7634	Filet de rouget	Raw fish	-	st	st	st	/	-	N/A	-	-	st	/	-	-	**NA**							3	a
2019	7635	Filet de truite	Raw fish	-	st	st	st	/	-	N/A	-	-	-	/	-	-	**NA**	N/A	-	-	-	-	**NA**	3	a
2019	7636	Filet d'Eglefin	Raw fish	-	st	-	-	/	-	N/A	-	-	-	/	-	-	**NA**	N/A	-	-	-	-	**NA**	3	a
2011	3383	Saumon fumé	smoked salmon	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	+	26,85	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	**PA**	24,55	+	+	H+/H-	+	**PA**	3	b
2011	3872	Mini tranches de truite fumée	Smoked truite	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	b
2011	3873	Harengs fumés au naturel	Smoked haddock	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	b
2011	3884	Saumon fumé	Smoked salmon	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	b
2011	3892	Saumon fumé	Smoked salmon	H-	+	H-	+	*L. innocua*	-	N/A	-	-	-	/	-	/	**NA**							3	b
2011	3893	Saumon fumé	Smoked salmon	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	b
2011	3894	Saumon fumé	Smoked salmon	-	-	-	-	/	-	N/A	-	+	H-	*L. innocua*	-	/	**NA**							3	b
2011	3951	Saumon frais mariné non fumé	Cured salmon	H-	-	-	-	-	-	N/A	-	-	H-	-	-	/	**NA**							3	b
2011	3952	Filets maquereaux fumés au poivre	Smoked mackerel	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	b

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				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	3953	Emincés saumon fumé aneth citron	Smoked salmon	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	b
2011	3954	Emincés saumon fumé aux 5 baies	Smoked salmon	H-	-	H-	-	-	-	N/A	-	-	H-d	-	-	/	**NA**							3	b
2011	3955	Haddock fumé	Smoked haddock	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	b
2011	4109	Saumon fumé	Smoked salmon	H+	+	H+	+	*L.monocytogenes*	+	16,74	+	+	H+	*L. monocytogenes*	+	/	**PA**	17,55	+	+	H+	+	**PA**	3	b
2011	**4296**	**Filet de hareng fumé aux aromates**	**Smoked herring**	H+	-	H+	+	*L.monocytogenes*	+	29,42	+	+(1)	H+	*L.monocytogenes*	+	/	**PA**	29,15	+	+	H+	+	**PA**	3	b
2011	**4297**	**Maquereaux cuisinés au vin blanc et aromates**	**Marinated mackerel**	H+	+	H+	+	*L.monocytogenes*	+	26,59	+	+	H+	*L.monocytogenes*	+	/	**PA**	27,2	+	+	H+	+	**PA**	3	b
2011	**4298**	**Saumon fumé**	**Smoked salmon**	H+	+	H+	+	*L.monocytogenes*	+	16,87	+	+	H+	*L.monocytogenes*	+	/	**PA**	16,31	+	+	H+	+	**PA**	3	b
2011	**4299**	**Filets de maquereaux fumés**	**Smoked mackerel fillets**	H+	+	H+	+	*L.monocytogenes*	+	23,25	+	+	H+	*L.monocytogenes*	+	/	**PA**	21,11	+	+	H+	+	**PA**	3	b
2019	7039	Anchois marinées	Marinated anchovies	st	-	st	st	/	-	N/A	-	-	-	/	-	-	**NA**							3	b
2019	**7248**	**Truite fumée**	**Smoked truite**	st	st	st	st	/	-	36,59/N/A/N/A	+/-/-	st	st	5x (OCLA/ Palcam/F1: -)	-	-	**PPNA**							3	b
2019	**7249**	**Saumon fumé**	**Smoked salmon**	H+	+	H+	+	*L.monocytogenes*	+	36,58/ 36,67/ 36,40	+/+/+	st	st	5x (OCLA/ Palcam/F1: -)	-	/	**PPND**	N/A	-	-	st	-	**ND**	3	b
2011	1136	Poisson pané cuit	Breaded fish	H+/H-	+	H+/H-	+	*L.mono/ L.seeligeri*	+	+	+	+	H+/H-	*L.monocytogenes/ L.innocua*	+	/	**PA**	16,6	+	+	H+/H-	+	**PA**	3	c
2011	1137	Terrine de Saint Jacques	Scallops terrine	H+	+	H+	+	*L.monocytogenes*	+	i/+	i/+	+	H+	*L.monocytogenes*	+	/	**PA**	15,13	+	+	H+	+	**PA**	3	c
2011	1139	Terrine de saumon	Salmon terrine	H+	+	H+	+	*L.monocytogenes*	+	+	+	+	H+	*L.monocytogenes*	+	/	**PA**	i/+	i/+	+	H+	+	**PA**	3	c
2011	1140	Tartare de saumon et saint jacques	Salmon and scallop tartar	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**	N/A	-	+	H-	-	**NA**	3	c
2011	1143	Tarama nature	Tarama	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c
2011	1162	Riz au crabe	Rice with crab	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c
2011	1163	Poisson pané tomate	Fish terrine with tomato	H+	+	H+	+	*L.monocytogenes*	+	25,25	+	+(3)	H+	*L.monocytogenes*	+	/	**PA**	26,37	+	+	H+	+	**PA**	3	c
2011	1164	Pithiviers Saint Jacques crevettes	Ready to eat food (salmon and scallops)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c
2011	1165	Coline pané	Breaded hake	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c
2011	1166	Croquettes de poisson natures	Fish croquettes	H-	+	H-	+	*L.innocua*	-	23,11	+	+	H+/H-	*L.monocytogenes/ L.innocua*	+	/	**PD**	19,99	+	+	H+/H-	+	**PD**	3	c
2011	1167	Paupiettes de saumon	Stuffed salmon	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c
2011	1168	Panier de saumon	Ready-to-eat food (salmon)	H+d/NC	-	H+	-	*L.monocytogenes*	+	30,74	+	-(+ at72H)	-(+ at72H)	*L.monocytogenes*	+	/	**PA**	31,77	+	+	H+ (*L.mono*)	+	**PA**	3	c
2011	1169	Terrine de saumon	Salmon terrine	H+	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	18,98	+	+	H+	*L.monocytogenes*	+	/	**PA**	19,62	+	+	H+	+	**PA**	3	c

FISHERY PRODUCTS																									
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				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24 h at 37°C								Half Fraser for 24 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	1171	Feuilleté de Saint Jacques	Pastry with scallops	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	25,87	+	+	H+d/H-	*L.monocytogenes/ L.innocua*	+	/	**PA**	25,59	+	+	H+/H-	+	**PA**	3	c
2011	3377	Poisson pané	Breaded fish	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c
2011	3378	Croquettes de poisson nature	Fish croquettes	H+	+	H+	-	*L.monocytogenes*	+	23,68	+	-	H+	*L.monocytogenes*	+	/	**PA**	23,61	+	+	H+	+	**PA**	3	c
2011	3379	Colin pané	Breaded fish	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c
2011	3380	Batônnets de colin	Breaded fish	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	+	19,63	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	**PA**	18,12	+	+	H+/H-	+	**PA**	3	c
2011	3381	Colin pané	Breaded fish	H-	+	H-	+	*L.innocua*	-	29,21	+	+	-(x5:H-/H+)	*L.innocua/ L.monocytogenes*	+	/	**PD**	25,68	+	+	(x5)H-/H+	+	**PD**	3	c
2011	3384	Tarama nature	Tarama	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c
2011	3387	Tarama de saumon	Tarama (salmon flavor)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c
2011	3386	Tarama de saumon	Tarama (salmon flavor)	H+	+	H+	+	*L.monocytogenes*	+	N/A	-	-	-	/	-	/	**ND**	N/A	-	-	-	-	**ND**	3	c
2011	3405	Meunière de poisson	Ready-to-cook food (fish)	H+	+(2)	H+	+(1)	*L.monocytogenes*	+	26,75	+	-	H+	*L.monocytogenes*	+	/	**PA**	27,27	+	+	H+	+	**PA**	3	c
2011	3639	Aumonières de Saint Jacques	Ready-to-eat food (scallops)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c
2011	3647	Colin pané	Breaded fish	H+/H-	+	H+/H-d	+	*L.monocytogenes/ L.innocua*	+	28,30	+	+	H+	*L.monocytogenes*	+	/	**PA**	29,11	+	+	H+	+	**PA**	3	c
2011	3658	Terrine de saumon	Salmon terrine	-	+d(1)	H+	+	*L.monocytogenes*	+	N/A	-	-	-	/	-	/	**ND**	N/A	-	+d (1)(*L.mono*)	-	-	**ND**	3	c
2011	3864	Fumet de poisson poudre	Ambient culinary product (fish aroma)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c
2011	**3930**	**Fumet de poisson**	**Ambient culinary product (fish aroma)**	H-	-	-	-	-	-	N/A	-	-	-	/	-	/	**NA**							3	**c**
2011	**3938**	**Riz au crabe**	**Ready-to-eat food (rice with crab)**	H+ / H-	-	H+	+	*L.innocua/ L.monocytogenes*	+	32,91	+	+	H+	*L. monocytogenes*	+	/	**PA**	25,2	+	+	H+	+	**PA**	3	c
2011	3950	Maquereaux marinés	Ready-to-eat food (fish)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							3	c

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				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	1125	Tomates quartier	Raw tomatoes	-	-	-	-	/	-	+	+	-	-	/	-	/	PPNA	N/A	-	-	-	-	NA	4	a
2011	1127	Champignons	Mushrooms	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	N/A	-	+	H-	*L.innocua*	-	/	ND	N/A	-	+	H-	-	ND	4	a
2011	1132	Légumes pour couscous	Ready-to-cook vegetables (couscous)	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	i/+	i/+	+	H+	*L.monocytogenes*	+	/	PA	14,01	+	+	H+	+	PA	4	a
2011	1133	Carottes en cubes	Cubes of carrots	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							4	a
2011	1134	Courgettes surgelées	Frozen marrow	-	-	H-	+	*L.innocua*	-	N/A	-	-	-	/	-	/	NA	N/A	-	-	-	-	NA	4	a
2011	1154	Haricots verts	Beans	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							4	a
2011	1160	Tomates quartier	Raw tomatoes	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							4	a
2011	3366	Choux fleur fleurette	Ready-to-cook cabbage	H+	+	H+	+	*L.monocytogenes*	+	22,15	+	+	H+	*L.monocytogenes*	+	/	PA	22,01	+	+	H+	+	PA	4	a
2011	3367	Carottes	Carrots	-	-	H-	-	-	-	N/A	-	-	-	/	-	/	NA							4	a
2011	3370	Champignons	Mushrooms	H-	+	H-	+	*L.innocua*	-	N/A	-	+	H-	*L.innocua*	-	/	NA							4	a
2011	3371	Haricots beurre	Beans	H+	+	H+	+	*L.monocytogenes*	+	21,14	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	PA	21,99	+	+	H+/H-	+	PA	4	a
2011	3372	Courgettes	Zucchini	H+/H-	+	H-	+	*L.innocua/ L.monocytogenes*	+	27,34	+	+	H+	*L.monocytogenes*	+	/	PA	26,27	+	+	H+	+	PA	4	a
2011	3373	Tomates tranchées	Tomatoes	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							4	a
2011	3375	Légumes ratatouille	Ready-to-cook vegetables (ratatouille)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							4	a
2011	3376	Oignons	Onions	-	-	H-	+	*L.innocua*	-	N/A	-	-	-	/	-	/	NA							4	a
2011	3406	Champignons	Mushrooms	H+	+	H+	+	*L.monocytogenes*	+	33,90	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	PA	33,72	+	+	H+/H-	+	PA	4	a
2011	3407	Carottes	Carrots	H-	-	-	-	/	-	N/A	-	-	H-	-	-	/	NA	N/A	-	-	-	-	NA	4	a
2011	3635	Tomate crue	Raw tomatoes	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							4	a
2011	3636	Légumes couscous	Ready-to-cook vegetables (couscous)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							4	a
2011	3637	Oignons	Onions	-	-	-	-	/	-	N/A	-	-	-	/	-	/	NA							4	a
2011	3640	Romanesco mix	Ready-to-cook vegetables (cabbage)	H-	+	H-	+	*L.innocua*	-	21,63	+	+	H+	*L.monocytogenes*	+	/	PD	23,25	+	+	H+	+	PD	4	a
2011	3642	Brocolis fleurettes	Ready-to-cook vegetables (cabbage)	H+	-	H+	+	*L.monocytogenes*	+	19,46	+	+	H+	*L.monocytogenes*	+	/	PA	20,44	+	+	H+	+	PA	4	a
2011	4115	Légumes pour ratatouille	Vegetables for ratatouille	-	-	H+	+	*L.monocytogenes*	+	33,12	+	+	H+	*L. monocytogenes*	+	/	PA	32,9	+	+	H+	+	PA	4	a
2011	4175	Haricots verts surgelés	Frozen beans	H-	+	H-	+	*L.innocua*	-	N/A	-	+	H-	*L.innocua*	-	/	NA							4	a
2011	4482	Pois carottes surgelés	Frozen peas and carrots	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	+	N/A	-	-	-	/	-	/	ND	N/A	-	-	-	-	ND	4	a
2011	4483	Concombre	Cucumber	-	-	-	-	/	-	N/A	-	-	H-	-	-	/	NA							4	a

♦ Analyses performed according to the COFRAC accreditation

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										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	4485	Céleris surgelés	Frozen celery	H+/H-	+	H+	+	*L.seeligeri/ L.monocytogenes*	+	18,61	+	+	H+	*L.monocytogenes*	+	/	**PA**	27,69	+	+	H+	+	**PA**	4	a
2011	4486	Lanières de poivrons verts	Sliced green pepper	H+	+	H+/H-	+	*L.monocytogenes*	+	22,06	+	+	H+	*L.monocytogenes*	+	/	**PA**	22,27	+	+	H+	+	**PA**	4	a
2011	4487	Tomates rondelles	Tomato slices	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	a
2011	4488	Courgettes rondelles	Zucchini slices	H+/H-	+	H-	+	*L.innocua/ L.monocytogenes*	+	20,11	+	+	H+/H-	*L.monocytogenes*	+	/	**PA**	20,23	+	+	H+/H-	+	**PA**	4	a
2011	1126	Ciboulette	Chives	H-	-	-	-	-	-	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	-	-	**NA**	4	b
2011	1152	Persil plat	Parsley	H-d	-	-	-	-	-	25,9	+	+	H+	*L.monocytogenes*	+	/	**PD**	26,62	+	+	H+/H-	+	**PD**	4	b
2011	3365	Ciboulette	Chives	-	-	-	-	/	-	N/A	-	-	H-	-	-	/	**NA**							4	b
2011	3638	Persil plat	Parsley	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	b
2011	3772	Ciboulette	Chives	H-d	-	H-d	-	-	-	N/A	-	-	H-	/	-	/	**NA**							4	b
2011	3773	Ciboulette	Chives	H-d(1)	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	b
2011	3774	Ciboulette	Chives	H-d	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	b
2011	3775	Persil plat	Parsley	H-d	-	H-d	-	-	-	N/A	-	-	H-d	/	-	/	**NA**							4	b
2011	3776	Persil	Parsley	H-d	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	b
2011	3777	Persil plat	Parsley	H-d	-	H-d	-	-	-	N/A	-	-	-	/	-	/	**NA**							4	b
2011	3778	Persil	Parsley	-	-	-	-	/	-	N/A	-	+	H-	/	-	/	**NA**							4	b
2011	3779	Persil plat	Parsley	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	b
2011	3780	Estragon	Tarragon	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	b
2011	3863	Ail semoule	Garlic	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	b
2011	3865	Mélange épices grillées pour Tajine	Spices for tajine	H-d	-	-	-	-	-	N/A	-	-	-	/	-	/	**NA**							4	b
2011	**3928**	**Mélange épices grillées pour wok**	**Spices (wok)**	H-	-	H-	-	-	-	N/A	-	-	H-d	-	-	/	**NA**							4	b
2011	**3929**	**Mélange épices grillées pour tandoori**	**Spices (tandoori)**	H-	-	H-d	-	-	-	N/A	-	-	H-d	-	-	/	**NA**							4	b
2011	**4054**	**Poivre concassé**	**Pepper**	H-d	-	H-d	-	-	-	N/A	-	-	H-	-	-	/	**NA**							4	b
2011	**4055**	**Epices riz parfumé**	**Spices for rice**	-	-	-	-	/	-	16,68	+	-	H-d	-	-	/	**PPNA**							4	b
2011	**4056**	**Epices couscous**	**Spices for couscous**	H-d	-	H-(1)	-	-	-	i/N/A	i/-	-	H-d	-	-	/	**NA**							4	b
2011	**4057**	**Epices tajine**	**Spices for tagine**	H-d	-	-	-	-	-	N/A	-	-	H-d	-	-	/	**NA**							4	b
2019	**7026**	**Origan**	**Oregano**	-	-	-	-	/	-	N/A	-	-	-	/	-	-	**NA**							4	b
2019	**7027**	**Origan**	**Oregano**	st	-	st	st	/	-	N/A	-	-	-	/	-	-	**NA**							4	b
2019	**7028**	**Coriandre**	**Coriander**	-	-	-	st	/	-	N/A	-	-	-	/	-	-	**NA**							4	b
2019	**7029**	**Coriandre**	**Coriander**	-	-	st	st	/	-	N/A	-	-	-	/	-	-	**NA**							4	b
2019	**7030**	**Cannelle**	**Cinnamon**	st	st	st	st	/	-	N/A	-	st	-	/	-	-	**NA**							4	b
2019	**7031**	**Curcuma**	**Turmeric**	st	-	st	st	/	-	N/A	-	-	-	/	-	-	**NA**							4	b
2019	**7256**	**Persil plat**	**Parsley**	H+	+	H+	+	*L.monocytogenes*	+	19,42	+	+	H+	*L.monocytogenes*	+	/	**PA**	21,05	+	+	H+	+	**PA**	4	b
2019	**7257**	**Persil plat**	**Parsley**	-	+d	-	-	/	-	22,43	+	+	H+	*L.monocytogenes*	+	/	**PD**	22,93	+	+	H+	+	**PD**	4	b
2019	**7258**	**Persil frisé**	**Parsley**	-	-	-	-	/	-	14,61	+	+	H+	*L.monocytogenes*	+	/	**PD**	15,66	+	+	H+	+	**PD**	4	b
2019	**7259**	**Paprika doux**	**Paprika**	-	-	-	-	/	-	N/A	-	-	-	/	-	-	**NA**							4	b
2019	**7260**	**Cannelle déshydratée**	**Cinnamon**	st	st	st	st	/	-	i/N/A*	i/-*	st	st	/	-	-	**NA**							4	b

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										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2019	**7261**	**Curcuma déshydratée**	**Turmeric**	-	st	st	st	/	-	N/A	-	-	-	/	-	-	**NA**							4	b
2019	**8000**	**Paprika doux**	**Sweet paprika**	H+	-	H+	-	*L.monocytogenes*	+	N/A	-	-	-	/	-	-	**ND**	i/i*/N/A**	i/i*/-**	-	-	-	**ND**	4	b
2019	**8002**	**Cumin moulu**	**Cumin powder**	H+	-	H+		*L.monocytogenes*	+	31,16	+	-	H+	*L.monocytogenes*	+	/	**PA**	i/i*/N/A**	i/i*/-**	-	H+	-	**ND**	4	b
2019	**8004**	**Piment doux**	**Mild red pepper**	H+	-	H+		*L.monocytogenes*	+	i/31,73*	i/+*	-	H+	*L.monocytogenes*	+	/	**PA**	i/i*/N/A**	i/i*/-**	+	H+	-	**ND**	4	b
2011	1128	Fagots d'asperges vertes	Asparagus	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	+	+	+	H+	*L.monocytogenes*	+	/	**PA**	22,16	+	+	H+	+	**PA**	4	c
2011	1129	Epinards branches	Spinach	H+/H-	+	H-	-	*L.monocytogenes/ L.innocua*	+	+	+	+	H+/H-	*L.monocytogenes/ L.innocua*	+	/	**PA**	29,65	+	+	H+/H-	+	**PA**	4	c
2011	1130	Poëlée méridionale	Ready-to-cook vegetables	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	-	-	**NA**	4	c
2011	1131	Epinards hachés à la crème	Spinach with cream	H-	-	-	-	-	-	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	-	-	**NA**	4	c
2011	1153	Taboulé au poulet	Chicken tabbouleh	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	c
2011	1155	Epinards hachés à la crème	Spinach with cream	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	25,71	+	+	H+	*L.monocytogenes*	+	/	**PA**	26,38	+	+	H+	+	**PA**	4	c
2011	1156	Brunoise méditerranéenne	Ready-to-cook vegetables	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	c
2011	1157	Jardinière de légumes	Ready-to-cook vegetables	H+	+	-	-	*L.monocytogenes*	+	19,37	+	+	H+	*L.monocytogenes*	+	/	**PA**	20,01	+	+	H+	+	**PA**	4	c
2011	1158	Velouté de champignons	Mushroom soup	H+	+	H+	+	*L.monocytogenes*	+	17,62	+	+	H+	*L.monocytogenes*	+	/	**PA**	18,01	+	+	H+	+	**PA**	4	c
2011	1159	Petits pois lardons	Ready-to-cook food (peas and bacon)	H-d(3)	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	-	-	**NA**	4	c
2011	1161	Soupe de tomates	Tomato soup	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	c
2011	1170	Tarte légumes poisson	Fish and vegetable pie	H+	+(3)	H+	-	*L.monocytogenes*	+	N/A	-	+	H+/H-	*L.monocytogenes/ L.grayi*	-	/	**ND**	31,61	+	+	H+/H-	+	**PA**	4	c
2011	3368	Epinards hachés à la crème	Spinach with cream	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	c
2011	3369	Poêlée méridionale	Ready-to-cook vegetables	-	-	-	-	/	-	N/A	-	-	H-	-	-	/	**NA**							4	c
2011	3374	Purée de patates douces	Purée	H+	+	H+	+	*L.monocytogenes*	+	15,94	+	+	H+	*L.monocytogenes*	+	/	**PA**	12,88	+	+	H+	+	**PA**	4	c
2011	3634	Poireau à la crème	Ready-to cook vegetables (leek and cream)	H+	+	H+	+	*L.monocytogenes*	+	N/A	-	-	-	/	-	/	**ND**	N/A	-	-	-	-	**ND**	4	c
2011	3641	Ratatouille	Ready-to-cook vegetables (ratatouille)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	c
2011	3643	Epinards à la crème	Ready-to-cook vegetables (spinach with cream)	-	-	-	-	/	-	19,45	+	+	H+	*L.monocytogenes*	+	/	**PD**	20,37	+	+	H+	+	**PD**	4	c
2011	3644	Poêlée à la Bretonne	Ready-to-cook vegetables	H-	+	H-	+	*L.innocua*	-	15,40	+	+	H+	*L.monocytogenes*	+	/	**PD**	15,68	+	+	H+	+	**PD**	4	c

VEGETABLE PRODUCTS																										
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				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24 h at 37°C								Half Fraser for 24 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	3855	Sorbet au citron avec morceaux	Lemon sorbet	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	c
2011	3856	Sorbet à la fraise avec morceaux	Strawberry sorbet	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							4	c
2011	**3939**	**Riz cantonnais**	**Ready-to-eat food (tabbouleh)**	H+	+	H+	+	*L. monocytogenes*	+	24,24	+	+	H+	*L. monocytogenes*	+	/	**PA**	24,02	+	+	H+	+	**PA**	4	c
2011	**3940**	**Taboulé à l'oriental**	**Ready-to-eat food (Chinese rice)**	H+ / H-d	-	H+	+	*L. monocytogenes*	+	31,55	+	+	H+	*L. monocytogenes*	+	/	**PA**	29,73	+	+	H+	+	**PA**	4	c
2011	**3956**	**Poêlée méridionale**	**Ready-to-cook vegetables**	H+	+	H+	+	*L. monocytogenes*	+	18,21	+	-	H+	*L. monocytogenes*	+	/	**PA**	15,88	+	+	H+	+	**PA**	4	c
2011	**3957**	**Poêlée parisienne**	**Ready-to-cook vegetables**	H+	-	H+	-	*L. monocytogenes*	+	18,30	+	+	H+	*L. monocytogenes*	+	/	**PA**	20,29	+	+	H+	+	**PA**	4	c
2011	3958	Poêlée légumes champignons	Ready-to-cook vegetables	H-	-	H-	+	*L. innocua*	-	N/A	-	+	H-	*L. innocua*	-	/	**NA**							4	c
2011	4000	Epinards hachés	Spinach	H+	+	H+	+	*L.monocytogenes*	+	16,13	+	+	H+	*L. monocytogenes*	+	/	**PA**	16,26	+	+	H+	+	**PA**	4	c
2011	4005	Epinards hachés	Spinach	H+	+	H+	+	*L.monocytogenes*	+	16,14	+	+	H+	*L. monocytogenes*	+	/	**PA**	16,25	+	+	H+	+	**PA**	4	c
2011	4484	Pois chiches	Chickpeas	H+	+	H+/H-	+	*L.monocytogenes*	+	19,06	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	**PA**	16,47	+	+	H+/H-	+	**PA**	4	c

PRODUCTION ENVIRONMENTAL SAMPLES																											
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										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	1589	Eau de rinçage plaque inox	Process water	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	1590	Eau de refroidissement	Chilling water	H+/H-	+	H-	+	*L.innocua/ L.monocytogenes*	+	24,09	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	**PA**	23,13	+	+	H+/H-	+	**PA**	5	a
2011	1591	Eau de refroidissement	Chilling water	H-	+	H-	+	*L.innocua*	-	25,11	+	+	H-(H+ at 72H)	*L.innocua/ L.monocytogenes*	+	/	**PD**	24,12	+	+	H+ (*L.mono*)/ H-	+	**PD**	5	a
2011	1592	Eau de refroidissement	Chilling water	H+	+	H+	+	*L.monocytogenes*	+	16,33	+	+	H+	*L.monocytogenes*	+	/	**PA**	14,8	+	+	H+	+	**PA**	5	a
2011	1593	Eau refroidisseur cous	Chilling water	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	**1655**	**Eau de rinçage plaque inox**	**Process water**	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**	N/A	-	+	H-	-	**NA**	5	a
2011	**1656**	**Eau de refroidissement**	**Chilling water**	H-	+(2)	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**	N/A	-	+	H-	-	**NA**	5	a
2011	**1657**	**Eau de rinçage plaque inox**	**Process water**	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	**1658**	**Eau de refroidissement**	**Process water**	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**	N/A	-	+	H-	-	**NA**	5	a
2011	**1659**	**Eau de rinçage cutter**	**Process water**	H-	-	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**	N/A	-	+	H-	-	**NA**	5	a
2011	3979	Eau laveuse poisson	Process water	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	3980	Eau rampe dessalage	Process water	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	3981	Eau lave main	Cleaning water (smoked salmon industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	3982	Eau lave filet	Process water (smoked salmon industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	3983	Eau peleuse	Process water (smoked salmon industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	4047	Eau saucisserie (atelier bovin/porcin)	Process water (meat industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	4312	Eau tapis dessous peleuse	Process water (salmon industry)	H+	+	H+	+	*L.monocytogenes*	+	14,09	+	+	H+	*L.monocytogenes*	+	/	**PA**	13,45	+	+	H+	+	**PA**	5	a
2011	4313	Eau dessous tapis après parage	Process water (salmon industry)	H+	+	H+	+	*L.monocytogenes*	+	13,37	+	+	H+	*L.monocytogenes*	+	/	**PA**	13,53	+	+	H+	+	**PA**	5	a
2011	4425	Eau caniveau dessalage	Gutter water	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	4467	Eau peleuse	Process water (salmon industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a

♦ Analyses performed according to the COFRAC accreditation

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										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	4468	Eau lave mains	Cleaning water (smoked salmon industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	4469	Eau laveuse poissons	Process water (salmon industry)	-	-	-	-	/	-	21,84	+	+	H+	*L.monocytogenes*	+	/	**PD**	15,86	+	+	H+	+	**PD**	5	a
2011	4470	Eau lave filets	Process water (salmon industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	4471	Eau rampe dessalage	Process water (salmon industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	a
2011	**4694**	**Eau refroidissement**	**Process water**	-	-	H+	+	*L.monocytogenes*	+	N/A	-	+(1)	H-	*L.welshimeri*	-	/	**ND**	N/A	-	+d	H-	-	**ND**	5	a
2011	**4702**	**Eau rinçage machine**	**Cleaning water**	H+	+	H+	+	*L.monocytogenes*	+	23,7	+	+	H+	*L.monocytogenes*	+	/	**PA**	18,43	+	+	H+	+	**PA**	5	a
2011	**4703**	**Eau lavage table de saignée**	**Cleaning water (beef industry)**	H+	+	H+	+	*L.monocytogenes*	+	18,71	+	+	H+	*L.monocytogenes*	+	/	**PA**	22,13	+	+	H+	+	**PA**	5	a
2011	**4704**	**Eau de lavage table à berf**	**Cleaning water (beef industry)**	H+	+	H+	+	*L.monocytogenes*	+	20,98	+	+	H+	*L.monocytogenes*	+	/	**PA**	15,9	+	+	H+	+	**PA**	5	a
2011	1242	Chiffonnette sol 1 (volaille)	Sponge (slaughterhouse environmental sample)	H+	+	H+	+	*L.monocytogenes*	+	21,23	+	-	H+	*L.monocytogenes*	+	/	**PA**	22,65	+	-	H+	+	**PA**	5	b
2011	1243	Chiffonnette chariot (volaille)	Sponge (slaughterhouse environmental sample)	H+	+	H+	+	*L.monocytogenes*	+	18,61	+	+	H+	*L.monocytogenes*	+	/	**PA**	17,66	+	+	H+	+	**PA**	5	b
2011	1244	Chiffonnette hotte (volaille)	Sponge (slaughterhouse environmental sample)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	b
2011	1245	Chiffonnette tapis montant (volaille)	Sponge (slaughterhouse environmental sample)	H+	+	H+	+	*L.monocytogenes*	+	19,22	+	+	H+	*L.monocytogenes*	+	/	**PA**	16,5	+	+	H+	+	**PA**	5	b
2011	1246	Chiffonnette carters chargeur (volaille)	Sponge (slaughterhouse environmental sample)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	b
2011	1247	Chiffonnette sol 2 (volaille)	Sponge (slaughterhouse environmental sample)	H+	+	H+	+	*L.monocytogenes*	+	30,59	+	+	H+	*L.monocytogenes*	+	/	**PA**	25,37	+	+	H+	+	**PA**	5	b
2011	1248	Chiffonnette tapis L1 Meyn (volaille)	Sponge (slaughterhouse environmental sample)	-	-	-	-	/	-	N/A	-	+	H-	*L.innocua*	-	/	**NA**	N/A	-	+	H-	-	**NA**	5	b
2011	1249	Chiffonnette tapis entrée surgel L1 (volaille)	Sponge (slaughterhouse environmental sample)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	-	-	**NA**	5	b

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										PCR		Confirmation						PCR		Confirmation					
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API	Final result	Subculture in Fraser	**Agree-ment**	Ct	Result	Palcam	O&A	Final result	**Agree-ment**		
2011	1250	Chiffonnette tapis sortie L1 (volaille)	Sponge (slaughterhouse environmental sample)	H-	+	H-	+	*L.innocua*	**-**	N/A	-	+	H-	*L.innocua*	-	/	**NA**	N/A	-	+	H-	-	**NA**	5	b
2011	1251	Chiffonnette lave-semelle (volaille)	Sponge (slaughterhouse environmental sample)	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	b
2011	3798	Chiffonnette sol	Environmental surface	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	-	-	**NA**	5	b
2011	3799	Chiffonnette chariot	Environmental surface	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	-	-	**NA**	5	b
2011	3800	Chiffonnette roues chariot	Environmental surface	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**	N/A	-	-	-	-	**NA**	5	b
2011	3801	Chiffonnette mur	Environmental surface	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	b
2011	3802	Chiffonnette étagères	Environmental surface	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	b
2011	3984	Chiffonnette surface tapis entrée peleuse	Sponge (smoked salmon industry)	H+	+	H+	+	*L.monocytogenes*	**+**	16,58	+	+	H+	*L. monocytogenes*	+	/	**PA**	18,15	+	+	H+	+	**PA**	5	b
2011	3985	Chiffonnette surface tapis lake away	Sponge (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	b
2011	3986	Chiffonnette surface paroi laveuse chariot	Sponge (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	b
2011	4306	Chiffonnette environnement porc	Sponge (poultry industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	b
2011	4307	Chiffonnette siphon environnement porc	Sponge (pork industry)	H-	+	H-	+	*L.welshimeri*	**-**	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**							5	b
2011	4308	Chiffonnette tapis saucisserie	Sponge (pork industry)	H-	+	H+(1)/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	20,28	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	/	**PA**	21,95	+	+	H+/H-	+	**PA**	5	b
2011	4309	Chiffonnette siphon saucisserie	Sponge (pork industry)	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	18,05	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	**PA**	17,89	+	+	H+/H-	+	**PA**	5	b
2011	4310	Chiffonnette sol matière première environnement poisson	Sponge (fish industry)	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	16,79	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	**PA**	16,8	+	+	H+/H-	+	**PA**	5	b
2011	4311	Chiffonnette sol environnement poisson	Sponge (pork industry)	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	17,37	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	/	**PA**	17,29	+	+	H+/H-	+	**PA**	5	b
2011	4314	Chiffonnette désossage épaule	Sponge (pork industry)	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	20,9	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	/	**PA**	19,98	+	+	H+/H-	+	**PA**	5	b
2011	4426	Lingettes sol coproduit	Floor sponge	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	b

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										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	4427	Lingette sol après parage	Sponge (pork industry)	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**							5	b
2011	4428	Lingette siphon atelier brochette	Sponge (pork industry)	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**							5	b
2011	4429	Lingette tapis gorge découpe	Sponge (pork industry)	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**							5	b
2011	4430	Lingette tapis montant saucisse	Sponge (pork industry)	H+	+	H+	+	*L.monocytogenes*	+	20,06	+	+	H+	*L.monocytogenes*	+	/	**PA**	19,89	+	+	H+	+	**PA**	5	b
2011	4431	Lingette table égouttage	Sponge (pork industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	b
2011	4472	Lingette filetage poste décaissage	Sponge (salmon industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	b
2011	4473	Lingette filetage réception poisson	Sponge (salmon industry)	H+	+	H+/H-	+	*L.monocytogenes*	+	N/A	-	+	H+	*L.monocytogenes*	-	/	**ND**	16,38	+	+	H+	+	**PA**	5	b
2011	4474	Lingette table sortie peleuse	Sponge (salmon industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	b
2011	4475	Lingette tapis barde découpe	Sponge (salmon industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	b
2011	4476	Lingette siphon salle saumure	Sponge (salmon industry)	H-	+	H-	-	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**	N/A	-	+	H-	-	**NA**	5	b
2011	4477	Lingette sol près injecteuse	Sponge (salmon industry)	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	16,13	+	+	H+/H-	*L.monocytogenes*	+	/	**PA**	17,32	+	+	H+/H-	+	**PA**	5	b
2011	4478	Lingette sol maturation salage	Sponge (salmon industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	b
2011	4479	Lingette ergoloader panés	Sponge (pork industry)	H-	+	H-	+	*L.innocua*	-	32,65	+	+(X5) 50 colonies (camp-)	H-(x5)	*L.innocua*	-	/	**PPNA**	33,11	+	+(x5)(50 Camp-)	H-(x5)	-	**PPNA**	5	b
2011	4480	Lingette petit tapis avant montant saucisses	Sponge (pork industry)	H+	+	H+/H-	+	*L.monocytogenes*	+	26,39	+	+	H+	*L.monocytogenes*	+	/	**PA**	23,05	+	+	H+	+	**PA**	5	b
2011	4481	Lingette tapis au dessus chargeur	Sponge (pork industry)	H+	+	H+/H-	+	*L.monocytogenes*	+	21,5	+	+	H+	*L.monocytogenes*	+	/	**PA**	18,11	+	+	H+	+	**PA**	5	b
2011	**4690**	**Lingette environnement volaille**	**Sponge (poultry industry)**	H+	+	H+	+	*L.monocytogenes*	+	24,63	+	+	H+	*L.monocytogenes*	+	/	**PA**	21,98	+	+	H+	+	**PA**	5	b
2011	**4691**	**Lingette environnement volaille**	**Sponge (poultry industry)**	-	-	-	-	/	-	20,29	+	+	H+	*L.monocytogenes*	+	/	**PD**	16,24	+	+	H+	+	**PD**	5	b
2011	**4692**	**Lingette environnement volaille**	**Sponge (poultry industry)**	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	24,65	+	+	H+	*L.monocytogenes*	+	/	**PA**	25,04	+	+	H+/H-	+	**PA**	5	b
2011	**4693**	**Lingette environnement volaille**	**Sponge (poultry industry)**	-	-	-	-	/	-	N/A	-	-	-	/	-	/	**NA**							5	b

PRODUCTION ENVIRONMENTAL SAMPLES																											
Date	Sample N°	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes* -Rapid Spin														Category	Type
				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24 h at 37°C								Half Fraser for 24 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	**4695**	**Lingette tapis sortie peleuse**	**Sponge (salmon industry)**	H+	+	H+	+	*L.monocytogenes*	**+**	28,05	+	+	H+	*L.monocytogenes*	+	/	**PA**	27,43	+	+	H+	+	**PA**	5	b
2011	**4696**	**Lingette filetage(tapis parage)**	**Sponge (salmon industry)**	-	-	H+	+	*L.monocytogenes*	**+**	34,31	+	+	H+	*L.monocytogenes*	+	/	**PA**	28,61	+	+	H+	+	**PA**	5	b
2011	**4697**	**Lingette table lardons saumon**	**Sponge (salmon industry)**	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	b
2011	**4700**	**Lingettevrfrigo découpe**	**Sponge (salmon industry)**	H+/H-	+	H+	+	*L.monocytogenes*	**+**	24,23	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	/	**PA**	22,86	+	+	H+/H-	+	**PA**	5	b
2011	**4701**	**Lingette baratte salle saumure**	**Sponge (salmon industry)**	H+/H-	+	H+	+	*L.monocytogenes*	**+**	27,39	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	/	**PA**	20,94	+	+	H+/H-	+	**PA**	5	b
2019	**7023**	**Chiffonnette avant nettoyage (découpe viande)**	**Wipe before cleaning (meat cutting)**	H+	+	H+	+	*L.monocytogenes*	**+**	15,22	+	+	H+	*L.monocytogenes*	+	/	**PA**	12,75	+	H+	+	+	**PA**	5	b
2019	**7024**	**Chiffonnette avant nettoyage (cutter viande)**	**Wipe before cleaning (meat cutting)**	st	st	st	st	/	**-**	N/A	-	st	st	/	-	-	**NA**							5	b
2019	**7025**	**Chiffonnette avant nettoyage (balance fromage)**	**Wipe before cleaning (cheese)**	H+	+	H+/H-	+	*L.monocytogenes/ L.innocua*	**+**	19,43	+	+	H+	*L.monocytogenes*	+	/	**PA**	14,26	+	H+	+	+	**PA**	5	b
2011	3987	Poussières atelier	Dusts (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	c
2011	3988	Poussières combles	Dusts (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	c
2011	4048	Poussières balance (atelier bovin/porcin)	Dusts (bovine and pork industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	c
2011	4049	Poussières frigo produits finis (atelier bovin/porcin)	Dusts (bovine and pork industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	c
2011	4050	Poussière carton découpe (atelier bovin/porcin)	Dusts (bovine and pork industry)	H-	+	H-	+	*L.welshimeri*	**-**	N/A	-	+	H-	*L.welshimeri*	-	/	**NA**							5	c
2011	4051	Poussière stock barquette (atelier bovin/porcin)	Dusts (bovine and pork industry)	H+/H-	+	H+	+	*L.welshimeri/ L.monocytogenes*	**+**	18,54	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	**PA**	21,19	+	+	H+/H-	+	**PA**	5	c
2011	4052	Poussière machine carton (atelier bovin/porcin)	Dusts (bovine and pork industry))	H+/H-	-	H+/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	19,22	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	**PA**	20,17	+	+	H+/H-	+	**PA**	5	c

PRODUCTION ENVIRONMENTAL SAMPLES																											
Date	Sample N°	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes* -Rapid Spin														Category	Type
				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24 h at 37°C								Half Fraser for 24 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Subculture in Fraser	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API				Ct	Result	Palcam	O&A				
2011	4053	Eau caniveau réception matière première (atelier saumon fumé)	Gutter water (smoked salmon industry)	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	18,12	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	/	**PA**	17,72	+	+	H+/H-	+	**PA**	5	c
2011	4064	Poussières rangement panés (atelier volaille)	Dusts(poultry industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	c
2011	4065	Poussières rangement poulet (atelier volaille)	Dusts (poultry industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	c
2011	4066	Poussières stock emballage (atelier volaille)	Dusts (poultry industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	c
2011	4432	Poussières rebords fenêtre panés 1	Dusts	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	c
2011	4433	Poussières rebords fenêtre panés 2	Dusts	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	c
2011	**4685**	**Poussières environnement laitier**	**Dusts (dairy industry)**	-	-	H+	+	*L.monocytogenes*	**+**	N/A	-	-	-	/	-	/	**ND**	N/A	-	-	-	-	**ND**	5	c
2011	**4686**	**Poussières environnement laitier**	**Dusts (dairy industry)**	-	-	-	-	/	**-**	N/A	-	-	H+	*L.monocytogenes*	-	/	**NA**	N/A	-	-	-	-	**NA**	5	c
2011	**4688**	**Poussières environnement laitier**	**Dusts (dairy industry)**	-	-	-	-	/	**-**	N/A	-	-	-	/	-	/	**NA**							5	c
2011	**4699**	**Poussières fumoir**	**Dusts (salmon industry)**	H+	-	H+	+	*L.monocytogenes*	**+**	N/A	-	-	-	/	-	/	**ND**	N/A	-	-	-	-	**ND**	5	c
2019	**7254**	**Déchets (cous de poulet)**	**Wastes (chicken)**	H+	+	H+	+	*L.monocytogenes*	**+**	21,45	+	+	H+/H-	*L.monocytogenes/ L.grayi*	+	/	**PA**	22,01	+	+	H+/H-	+	**PA**	5	c
2019	**7255**	**Déchets viande**	**Wastes (meat)**	-	-	-	-	/	**-**	N/A	-	-	-	/	-	-	**NA**							5	c
2019	**7628**	**Déchet de poisson**	**Wastes (fish)**	H+	+	H+	+	*L.monocytogenes*	**+**	N/A	-	-	-	/	-	-	**ND**	N/A	-	-	-	-	**ND**	5	c

MEAT PRODUCTS																									
Year of analysis	Sample N°	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*-NAE													category	type
				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API			Ct	Result	Palcam	O&A				
2011	3633	Jambon brut	Ham	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	30,19	+	+	H+	*L.welshimeri/ L.monocytogenes*	+	**PA**	29,78	+	+	H+	+	**PA**	1	a
2011	3646	Maigre de jarret	Raw pork meat	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	3648	Foie	Liver	H+	+	H+	+	*L.monocytogenes*	+	20,71	+	+	H+	*L.monocytogenes*	+	**PA**	20,51	+	+	H+	+	**PA**	1	a
2011	3649	Jambon	Ham	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	32,03	+	+	H+	*L.welshimeri/ L.monocytogenes*	+	**PA**	31,99	+	+	H+	+	**PA**	1	a
2011	3650	Viande rouge de dinde	Turkey meat	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	-	*L.welshimeri*	-	**NA**	N/A	-	+	-	-	**NA**	1	a
2011	3651	Viande gros grain de dinde	Turkey meat	H+	+	H+	+	*L.monocytogenes*	+	30,27	+	+	H+	*L.monocytogenes*	+	**PA**	29,26	+	+	H+	+	**PA**	1	a
2011	3652	Gésiers	Gizzards	H+	+	H+	+	*L.monocytogenes*	+	24,29	+	+	H+	*L.monocytogenes*	+	**PA**	24,30	+	+	H+	+	**PA**	1	a
2011	3653	VSM	Poultry meat	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	-	*L.welshimeri*	-	**NA**							1	a
2011	3654	Viande de poulet	Poultry meat	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.welshimeri*	+	26,59	+	+	H+	*L.monocytogenes*	+	**PA**	27,06	+	+	H+	+	**PA**	1	a
2011	3656	Gras de tête	Pork fat	H+	+	H+	+	*L.monocytogenes*	+	21,37	+	+	H+	*L.monocytogenes*	+	**PA**	24,56	+	+	H+	+	**PA**	1	a
2011	3781	Aiguillettes	Raw beef meat	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	3782	Filet de volaille sans peau	Poultry meat	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	3783	Foie	Liver	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	3784	Cœur	Heart	H+	+	H+	+	*L. monocytogenes*	+	22,09	+	+	H+	*L.monocytogenes*	+	**PA**	19,82	+	+	H+	+	**PA**	1	a
2011	3785	Steak de porc	Raw pork meat	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	3786	Cession minerai agneau	Raw sheep meat	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	3879	Steak haché 15%MG	Ground beef	H+d	+ (1)	H+	+	*L. monocytogenes / L. welshimeri*	+	22,77	+	+	H+	*L. monocytogenes / L. welshimeri*	+	**PA**	20,21	+	+	H+	+	**PA**	1	a
2011	3880	Tartare de bœuf	Ground beef with aromates (Tartar)	H+ / H-	+	H+ / H-	+	*L. monocytogenes / L. welshimeri*	+	25,24	+	+	H+	*L. monocytogenes / L. welshimeri*	+	**PA**	21,66	+	+	H+	+	**PA**	1	a
2011	3881	Steak haché de veau 15%MG	Ground beef	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	3882	Maigre de mouton	Raw sheep meat	H+	+	H-	+	*L. ivanovii / L. welshimeri*	-	N/A	-	+	H+	*L. innocua / L. ivanovii*	-	**NA**	N/A	-	+	H+/H-	-	**NA**	1	a
2011	3883	Riz de veau	Giblets	H+	+	H+	+	*L. monocytogenes / L. welshimeri*	+	21,60	+	+	H+	*L. monocytogenes*	+	**PA**	17,40	+	+	H+	+	**PA**	1	a
2011	3945	Escalope de poulet	Raw poultry meat	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	3946	Escalope de dinde	Raw turkey meat	H-d	+	H-d	-	*L. welshimeri*	-	N/A	-	+d	-	*L. welshimeri*	-	**NA**	N/A	-	+d	H-d	-	**NA**	1	a
2011	3947	Filet de poulet	Raw poultry meat	-	-	H-d	+	*L. welshimeri*	-	N/A	-	-	-	/	-	**NA**	N/A	-	-	-	-	**NA**	1	a
2011	3965	Paillettes de bœuf haché surgelées	Frozen ground beef	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	a
2011	3966	Steak haché bœuf surgelé	Frozen ground beef	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	a
2011	3967	Boulettes de bœuf surgelées	Frozen beef balls	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	a
2011	3989	Menu de mouton	Sheep meat	H+ (1)	+	H+	+	*L.monocytogenes*	+	19,36	+	+	H+	*L.monocytogenes*	+	**PA**	21,24	+	+	H+	+	**PA**	1	a
2011	4247	Steak de porc	Pork meat	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	4248	Jambon	Ham	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a

♦ Analyses performed according to the COFRAC accreditation

MEAT PRODUCTS																									
Year of analysis	Sample N°	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*-NAE													category	type
				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation					PCR		Confirmation					
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API	Final result	Agree-ment	Ct	Result	Palcam	O&A	Final result	Agree-ment		
2011	4249	Escalope de volaille	Poultry meat	H-	+	H-	+	*L.welshimeri*	-	24,68	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	**PD**	25,46	+	+	H+	+	**PD**	1	a
2011	4250	Viande triée de poulet	Chicken meat	H+/H-	+	H+/H-	+	*L.innocua / L.monocytogenes*	+	32,26	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	**PA**	32,34	+	+	H+	+	**PA**	1	a
2011	4251	Aiguillettes de poulet	Chicken meat	H+	+	H+	+	*L.monocytogenes*	+	27,51	+	+	H+	*L.monocytogenes*	+	**PA**	30,08	+	+	H+	+	**PA**	1	a
2011	4559	Viande triée de poulet	Chicken meat	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	28,72	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	**PA**	35,04	+	+	H+/H-	+	**PA**	1	a
2011	4560	Foie	Pork liver	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	4561	Jambon	Ham	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	a
2011	4562	Maigre de jarret	Pork meat	H-d	-	-	-	-	-	N/A	-	-	-	/	-	**NA**							1	a
2011	4563	Maigre de mouton	Sheep meat	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	a
2011	4564	VSM	VSM	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	a
2011	4565	Gésiers	Gizzards	H+/H-	+	H+	+	*L.monocytogenes*	+	22,98	+	+	H+	*L.monocytogenes*	+	**PA**	28,29	+	+	H+	+	**PA**	1	a
2011	4566	Steak de porc	Pork meat	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	4567	Steak de porc	Pork meat	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	4568	Ris de veau	Sweat bread	H+/H-	+	H+	+	*L.welshimeri/ L.monocytogenes*	+	28,77	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	**PA**	23,21	+	+	H+/H-	+	**PA**	1	a
2011	4569	Viande gros grain de dinde	Turkey meat	H-	+	H+	+	*L.monocytogenes*	+	34,87	+	+	H+	*L.monocytogenes*	+	**PA**	28,07	+	+	H+	+	**PA**	1	a
2011	4570	Viande rouge de dinde	Rad turkey meat	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	a
2011	4571	Viande triée de poulet	Chicken meat	H+/H-	+(1)	H+	+	*L.welshimeri/ L.monocytogenes*	+	32,17	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	**PA**	27,54	+	+	H+/H-	+	**PA**	1	a
2011	4578	Saucisson à l'ail	Big sausage	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	a
2011	4580	Viande triée de poulet	Chicken meat	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	27,52	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	**PA**	32,17	+	+	H+/H-	+	**PA**	1	a
2011	4583	viande rouge de dinde	Red turkey meat	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	a
2011	4585	Tendergrill	Beef meat	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	28,27	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	**PA**	25,14	+	+	H+/H-	+	**PA**	1	a
2011	4586	Viande triée de poulet	Chicken meat	H+/H-	+	-	+	*L.welshimeri/ L.monocytogenes*	+	25,65	+	+	-	*L.innocua/ L.monocytogenes*	+	**PA**	32,28	+	+	-	+	**PA**	1	a
2011	4588	Filet de dinde	Turkey fillet	H-	+(1)	H-(2)	+2col	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	a
2011	4589	Filet de dinde	Turkey fillet	H+/H-	+	H+	+	*L.monocytogenes*	+	34,64	+	+	H+	*L.monocytogenes*	+	**PA**	27,31	+	+	H+	+	**PA**	1	a
2011	4629	Cuisse	Chicken leg	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	a
2011	4636	Viande rouge avec peau	Red meat with skin	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	+	31,22	+	+	H+/H-	*L.monocytogenes*	+	**PA**	30,60	+	+	H+/H-	+	**PA**	1	a
2011	4638	Araignée de porc	Pork meat	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	a
2011	4640	Maigre de tête	Delicatessen	H+	+	H+	+	*L.monocytogenes*	+	19,63	+	+	H+	*L.monocytogenes*	+	**PA**	19,80	+	+	H+	+	**PA**	1	a
2011	4642	Gras dur frais	Pork fat	-	-	-	-	/	-	N/A	-			/	-	**NA**							1	a
2011	3948	Escalope de poulet marinée pesto	Ready-to-cook meat (poultry meat)	H-	+ (3)	-	+	*L. welshimeri*	-	N/A	-	+	-	*L. welshimeri*	-	**NA**	N/A	-	+	H-d	-	**NA**	1	b
2011	3949	Escalope de dinde marinée tomate basilic	Ready-to-cook meat (turkey meat)	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							1	b
2011	3964	Viande hachée de bœuf à	Ground beef with onions	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							1	b

MEAT PRODUCTS																								
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				Half Fraser		Fraser 1				Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C								
										PCR		Confirmation					PCR		Confirmation					
Year of analysis	Sample N°	Product (French name)	Product	O&A	Palcam	O&A	Palcam	Identification	**Result**	Ct	Result	Palcam	O&A	API	Final result	**Agree-ment**	Ct	Result	Palcam	O&A	Final result	**Agree-ment**	category	type
		l'oignon surgelée																						
2011	**3968**	**Moussaka congelée**	**Frozen moussaka**	H+	+	H+	+	*L.monocytogenes*	**+**	20,52	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,67	+	+	H+	+	**PA**	1	b
2011	**3969**	**Hachis parmentier bœuf surgelé**	**Ready to eat meal (Parmentier)**	H+	+	H+	+	*L.monocytogenes*	**+**	19,98	+	+	H+	*L.monocytogenes*	**+**	**PA**	22,07	+	+	H+	+	**PA**	1	b
2011	**3972**	**Bœuf haché surgelé aux oignons**	**Frozen ground beef aromates**	H-d	+	H+	+	*L.monocytogenes*	**+**	22,98	+	+	H+	*L.monocytogenes*	**+**	**PA**	23,53	+	+	H+	+	**PA**	1	b
2011	**3973**	**Tomates farcies surgelées**	**Ready-to-cook meat (tomatoes)**	H-d	-	-	-	-	**-**	N/A	-	-	-	-	**-**	**NA**							1	b
2011	4582	Steak de volaille pané	Roast poultry meat	H+	-	H+	-	*L.monocytogenes*	**+**	34,21	+	-	H+	*L.monocytogenes*	**+**	**PA**	27,33	+	-	H+	+	**PA**	1	b
2011	4587	Emincé de dinde au basilic	Turkey meat with basil	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							1	b
2011	4628	Ailes de poulet tex Mex	Ready to eat chicken wings	-	-	-	-	/	**-**	N/A	-			/	**-**	**NA**							1	b
2019	5926	Cordon bleu	RTRH (chicken)	H+	+d	H+	+	*L.monocytogenes*	**+**	34,43	+	+	H+	*L.monocytogenes*	**+**	**PA**	32,62	+	+	H+	+	**PA**	1	b
2019	5927	Cordon bleu	RTRH (chicken)	st	-	st	st	/	**-**	N/A	-	st	st	/	**-**	**NA**							1	b
2019	5928	Saucisses cocktail de volaille	Cooked sausages	st	st	st	st	/	**-**	N/A	-	st	st	/	**-**	**NA**							1	b
2019	**7125**	**Aiguillette de poulet cuisinées**	**RTRH (chicken)**	H+	+	H+	+	*L.monocytogenes*	**+**	20,11	+	+	H+	*L.monocytogenes*	**+**	**PA**	19,10	+	+	H+	+	**PA**	1	b
2019	**7126**	**Rougaille de saucisses**	**RTRH (sausages)**	H+	+	H+	+	*L.monocytogenes*	**+**	20,68	+	+	H+	*L.monocytogenes*	**+**	**PA**	18,41	+	+	H+	+	**PA**	1	b
2019	7133	Aiguillette de poulet cuisinées	RTRH (chicken)	st	st	st	st	/	**-**	N/A	-	st	st	/	**-**	**NA**							1	b
2019	7134	Rougaille de saucisses	RTRH (sausages)	st	st	st	st	/	**-**	N/A	-	st	st	/	**-**	**NA**							1	b
2019	7135	Poulet au curry et légumes	RTRH (chicken)	st	st	st	-	/	**-**	N/A	-	st	st	/	**-**	**NA**							1	b
2019	7136	Fricadelles sauce tomate	RTRH (pork)	st	st	st	st	/	**-**	N/A	-	st	st	/	**-**	**NA**							1	b
2019	7137	Bœuf bourguignon	RTRH (beef)	st	st	st	st	/	**-**	N/A	-	st	st	/	**-**	**NA**							1	b
2011	3402	Saucisse	Sausage	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	**+**	27,32	+	+	H+/H-	*L.monocyogenes/ L.innocua*	**+**	**PA**	24,77	+	+	H+/H-	+	**PA**	1	c
2011	3403	Museau de porc	Delicatessen	H+	+	H+	+	*L.monocytogenes*	**+**	22,12	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,42	+	+	H+	+	**PA**	1	c
2011	3404	Merguez	Merguez	H+	+	H+	+	*L.ivanovii/ L.monocytogenes*	**+**	22,34	+	+	H+	*L.monocytogenes*	**+**	**PA**	20,21	+	+	H+	+	**PA**	1	c
2011	3655	Andouille	Delicatessen (chitterling)	H+	+	H+	+	*L.monocytogenes*	**+**	18,68	+	+	H+	*L.monocytogenes*	**+**	**PA**	22,06	+	+	H+	+	**PA**	1	c
2011	3657	Farce légumes	Ready-to-cook vegetables	H-	+	H-	+	*L.welshimeri*	**-**	39,36	+	+d	-(X5)	*L.welshimeri*	**-**	**PPNA**							1	c
2011	3795	Saucisson à l'ail	Delicatessen (cooked sausage)	H+	+	H+	+	*L. monocytogenes*	**+**	21,36	+	+	H+	*L.monocytogenes*	**+**	**PA**	20,56	+	+	H+	+	**PA**	1	c

MEAT PRODUCTS																									
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				Half Fraser		Fraser 1				Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C								
										PCR		Confirmation					PCR		Confirmation						
Year of analysis	Sample N°	Product (French name)	Product	O&A	Palcam	O&A	Palcam	Identification	**Result**	Ct	Result	Palcam	O&A	API	Final result	**Agree-ment**	Ct	Result	Palcam	O&A	Final result	**Agree-ment**	category	type
2011	3796	Merguez bio	Merguez	H+(1)/H-d	-	H+	+	*L. monocytogenes / L. innocua*	**+**	24,73	+	+	H+	*L.monocytogenes*	**+**	**PA**	20,07	+	+	H+	+	**PA**	1	c
2011	3797	Saucisson d'Auvergne	Delicatessen (Saucisson)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							1	c
2011	**3931**	**Fond volaille**	**Ambient culinary product (poultry aroma)**	-	-	H+	+	*L. monocytogenes*	**+**	22,52	+	+	H+	*L. monocytogenes*	**+**	**PA**	18,94	+	+	H+	+	**PA**	1	**c**
2011	3932	Fond veau	Ambient culinary product (veal aroma)	H-	-	-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							1	**c**
2011	3933	Fond veau	Ambient culinary product (veal aroma)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							1	**c**
2011	4042	Salami fumé	Delicatessen (salami)	-	-	H-d	-	-	**-**	N/A	-	-	H-d	-	**-**	**NA**							1	c
2011	4043	Lardons fumés allumettes	Smoked sliced bacon	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	25,72	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	**+**	**PA**	24,17	+	+	H+/H-	+	**PA**	1	c
2011	4044	Jambon sec italien	Delicatessen (cured ham)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							1	c
2011	4045	Pancetta	Delicatessen (Pancetta)	H-d	-	H-d	-	-	**-**	N/A	-	-	-	-	**-**	**NA**							1	c
2011	4046	Rosette	Delicatessen (rosette)	H-	+	H-	+	*L.welshimeri*	**-**	N/A	-	+	H-	*L.welshimeri*	**-**	**NA**							1	c
2011	4252	Lardons nature	Sliced bacon	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							1	c
2011	4572	Saucisson sec de bœuf	Beef dehydrated sausage	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							1	c
2011	4573	Chipos aux herbes	Sausages with herbs	H-	-	-	-	-	**-**	27,67	+	+	H+	*L.monocytogenes*	**+**	**PD**	31,64	+	+	H+	+	**PD**	1	c
2011	4574	Andouillette nature	Chitterlings	H+	+	H+	+	*L.monocytogenes*	**+**	27,63	+	+	H+	*L.monocytogenes*	**+**	**PA**	32,46	+	+	H+	+	**PA**	1	c
2011	4575	Fromage de tête	Delicatessen	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							1	c
2011	4576	Farce		-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							1	c
2011	4577	Filet de porc	Pork fillet	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	19,13	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	**+**	**PA**	24,12	+	+	H+/H-	+	**PA**	1	c
2011	4579	Terrine de lapin au vin blanc	Rabbit terrine	H-	-	-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							1	c
2011	4581	Merguez	Merguez	-	-	H+	+	*L.monocytogenes*	**+**	N/A	-	-	-	/	**-**	**ND**	N/A	-	-	-	-	**ND**	1	c
2011	4584	Chipolatas natures	Sausages	-	-	H-	+	*L.welshimeri*	**-**	N/A	-	+	H-	*L.welshimeri*	**-**	**NA**							1	c
2011	4637	Saucisse fumée	Smoked sausage	H-	+	H-	+	*L.welshimeri*	**-**	N/A	-			/	**-**	**NA**							1	c
2011	4639	Poitrine 1/2 sel en tranches	Cured meat	-	-	-	-	/	**-**	N/A	-			/	**-**	**NA**							1	c
2011	4641	Poitrine rôtie	Roast pork meat	-	-	-	-	/	**-**	N/A	-			/	**-**	**NA**							1	c

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				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API			Ct	Result	Palcam	O&A				
2011	3792	Fromage au lait cru n°15	Raw milk cheese	H+	+	H+	+	*L. monocytogenes*	+	27,10	+	+	H+	*L.monocytogenes*	+	**PA**	21,78	+	+	H+	+	**PA**	2	a
2011	3793	Fromage au lait cru n°17	Raw milk cheese	H+	+	H+	+	*L. monocytogenes*	+	21,43	+	+	H+	*L.monocytogenes*	+	**PA**	19,56	+	+	H+	+	**PA**	2	a
2011	3794	Fromage au lait cru n°7	Raw milk cheese	H+/H-d(1)	+	H+	+	*L. monocytogenes*	+	21,73	+	+	H+	*L.monocytogenes*	+	**PA**	20,17	+	+	H+	+	**PA**	2	a
2011	3974	Laguiole au lait cru de vache	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	-	-	**NA**							2	a
2011	3975	Crottin chavignol au lait cru de vache	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	-	-	**NA**							2	a
2011	3976	Morbier au lait cru de vache	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	-	-	**NA**							2	a
2011	3977	Reblochon au lait cru	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	-	-	**NA**							2	a
2011	3978	Fromage chèvre lait cru	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	-	-	**NA**							2	a
2011	**4058**	**Reblochon au lait cru**	**Raw milk cheese (Reblochon)**	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							2	a
2011	**4059**	**Laguiole au lait cru**	**Raw milk cheese (Laguiole)**	H-d	-	H-d	-	-	-	N/A	-	-	-	-	-	**NA**							2	a
2011	**4060**	**Morbier au lait cru**	**Raw milk cheese (Morbier)**	1H+	-	H+	+	*L.monocytogenes*	+	N/A	-	+(3)	1H+	*L.monocytogenes*	-	**ND**	N/A	-	4+	H+	-	**ND**	2	a
2011	**4061**	**Crottin chavignol**	**Raw milk cheese (Crottin de Chavignol)**	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							2	a
2011	4253	Fromage non affiné au lait cru	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							2	a
2011	4254	Fromage au lait cru	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							2	a
2011	4255	Fromage au lait cru	Raw milk cheese	H-	+	H+	+	*L.welshimeri/ L.monocytogenes*	+	27,12	+	+	H+	*L.monocytogenes*	+	**PA**	29,80	+	+	H+	+	**PA**	2	a
2011	4256	Fromage non affiné au lait cru	Raw milk cheese	H-d	+	H+	+	*L.ivanovii*	-	N/A	-	+(3)	H+	*L.ivanovii*	-	**NA**							2	a
2011	4257	Fromage non affiné au lait cru	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							2	a
2011	4258	Fromage non affiné au lait cru	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							2	a
2011	4259	Fromage au lait cru	Raw milk cheese	-	-	H+	+	*L.monocytogenes*	+	25,25	+	+	H+	*L.monocytogenes*	+	**PA**	24,66	+	+	H+	+	**PA**	2	a
2011	4260	Fromage au lait cru	Raw milk cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							2	a
2011	**4645**	**Morbier au lait cru**	**Raw milk chees(Morbier)**	H+/H-	+	H+	+	*L.monocytogenes*	+	34,83	+	+	H+	*L.monocytogenes*	+	**PA**	36,25	+	+	H+	+	**PA**	2	a
2011	**4665**	**Saint Félicien au lait cru**	**Raw milk cheese(Saint Félicien)**	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							2	a

♦ Analyses performed according to the COFRAC accreditation

DAIRY PRODUCTS																									
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				Half Fraser		Fraser 1				Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C								
										PCR		Confirmation					PCR		Confirmation						
Year of analysis	Sample N°	Product (French name)	Product	O&A	Palcam	O&A	Palcam	Identification	**Result**	Ct	Result	Palcam	O&A	API	Final result	**Agree-ment**	Ct	Result	Palcam	O&A	Final result	**Agree-ment**	category	type
2011	**4666**	**Salers**	**Raw milk cheese(Salers)**	-	-	H-d	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							2	a
2011	4734	Fromage au lait cru	Raw milk cheese	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	a
2011	4735	Fromage au lait cru	Raw milk cheese	H+	+	H+	+	*L.monocytogenes*	**+**	20,25	+	+	H+	*L.monocytogenes*	**+**	**PA**	18,65	+	+	H+	+	**PA**	2	a
2019	5929	Fromage au lait cru	Raw milk cheese	-	st	st	st	/	**-**	N/A	-	st	st	/	**-**	**NA**							2	a
2019	5930	Fromage au lait cru	Raw milk cheese	H+	+	H+	+	*L.monocytogenes*	**+**	21,08	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,23	+	+	H+	+	**PA**	2	a
2019	5931	Fromage au lait cru	Raw milk cheese	H+	+	H+	+	*L.monocytogenes*	**+**	21,11	+	+	H+	*L.monocytogenes*	**+**	**PA**	23,59	+	+	H+	+	**PA**	2	a
2011	3628	Lait cru	Raw milk	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	3629	Lait cru	Raw milk	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	3630	Lait cru	Raw milk	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	3631	Lait cru	Raw milk	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	3632	Lait cru	Raw milk	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	**+**	22,22	+	+	H+	*L.innocua/ L.monocytogenes*	**+**	**PA**	20,91	+	+	H+	+	**PA**	2	b
2011	3788	Lait cru	Raw milk	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	3789	Lait cru	Raw milk	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	3790	Lait cru T32/2	Raw milk	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	3791	Lait cru T23/1	Raw milk	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	**3934**	**Lait cru**	**Raw milk**	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	**4062**	**Lait cru**	**Raw milk**	H+	+	H+	+	*L.monocytogenes*	**+**	19,68	+	+	H+	*L.monocytogenes*	**+**	**PA**	20,12	+	+	H+	+	**PA**	2	b
2011	4261	Lait cru	Raw milk	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	4262	Lait cru	Raw milk	H+	+	H+	+	*L.monocytogenes*	**+**	19,84	+	+	H+	*L.monocytogenes*	**+**	**PA**	22,00	+	+	H+	+	**PA**	2	b
2011	4263	Lait cru	Raw milk	H+	+	H+	+	*L.monocytogenes*	**+**	17,47	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,09	+	+	H+	+	**PA**	2	b
2011	4264	Lait cru	Raw milk	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	4265	Lait cru	Raw milk	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	**4646**	**Lait cru**	**Raw milk**	H+	+	H+	+	*L.monocytogenes*	**+**	21,37	+	+	H+	*L.monocytogenes*	**+**	**PA**	22,71	+	+	H+	+	**PA**	2	b
2011	**4647**	**Lait cru**	**Raw milk**	H-d	-	-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							2	b
2011	4733	Lait cru de brebis	Raw ewe milk	H+	+	H+	+	*L.monocytogenes*	**+**	22,81	+	+	H+	*L.monocytogenes*	**+**	**PA**	22,04	+	+	H+	+	**PA**	2	b
2019	5933	Lait cru	Raw milk	st	st	st	st	/	**-**	N/A	-	st	st	/	**-**	**NA**							2	b
2019	5934	Lait cru de brebis	Sheep milk	H+	+	H+	+	*L.monocytogenes*	**+**	21,35	+	+	H+	*L.monocytogenes*	**+**	**PA**	22,58	+	+	H+	+	**PA**	2	b
2019	5935	Lait cru de brebis	Sheep milk	st	st	st	st	/	**-**	N/A	-	st	st	/	**-**	**NA**							2	b
2019	**7129**	**Lait cru**	**Raw milk**	H+	+	H+	+	*L.monocytogenes*	**+**	35,56	+	+	H+	*L.monocytogenes*	**+**	**PA**	i/19,04*	i/+*	+	H+	+	**PA**	2	b
2019	**7130**	**Lait cru**	**Raw milk**	H+/H-	+	H+	+	*L.monocytogenes/ L.welshimeri*	**+**	23,06	+	+	H+	*L.monocytogenes*	**+**	**PA**	16,08	+	+	H+	+	**PA**	2	b
2019	**7627**	**Lait cru**	**Raw milk**	st	-	st	-	/	**-**	N/A	-	st	st	/	**-**	**NA**							2	b
2011	3787	Pâte à galette	Prepation for pancake	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	c
2011	3857	Glace vanille	Ice cream (vanilla)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	c
2011	3858	Crème glacée menthe chocolat	Ice cream (mint-chocolate)	-	-	H-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**	N/A	-	-	-	-	**NA**	2	c
2011	3859	Yaourt au lait entier	Yoghurt	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							2	c
2011	3860	Faisselle moulée à la louche	Fresh cheese	-	-	-	-	/	**-**	29,95	+	-	-	/	**-**	**PPNA**							2	c

DAIRY PRODUCTS																									
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				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API			Ct	Result	Palcam	O&A				
2011	3861	Fromage blanc lisse	Fresh cheese	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							2	c
2011	3862	Yaourt au lait de chèvre	Yoghurt	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							2	c
2011	**3935**	**Lait ribot**	**Fermented milk**	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							2	c
2011	**3937**	**Gros lait fermier**	**Fermented milk**	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							2	c
2011	**3959**	**Crème glacée noix de coco**	**Coco ice cream**	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							2	c
2011	**3960**	**Crème glacée vanille noix de pécan**	**Vanilla ice cream**	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							2	c
2011	**3961**	**Crème glacée au café**	**Coffee ice cream**	H+	+	H+	-	*L.monocytogenes*	+	17,88	+	+	H+	*L.monocytogenes*	+	PA	18,09	+	+	H+	+	PA	2	c
2011	**3962**	**Crème glacée au chocolat**	**Chocolate ice cream**	H+	+	H+	+	*L.monocytogenes*	+	18,5	+	+	H+	*L.monocytogenes*	+	PA	17,87	+	+	H+	+	PA	2	c
2011	**3963**	**Crème glacée créole**	**Ice cream**	H-	+	H-	+	*L.innocua*	-	N/A	-	+	H-	*L.innocua*	-	NA							2	c
2011	**4063**	**Crème anglaise**	**English cream**	H+	+	H+	+	*L.monocytogenes*	+	20,19	+	+	H+	*L.monocytogenes*	+	PA	20,22	+	+	H+	+	PA	2	c
2011	**4106**	**Crème anglaise**	**English cream**	-	-	H+	+	*L.ivanovii*	-	N/A	-	+	H+	*L.ivanovii*	-	NA							2	c
2011	**4107**	**Gâteau semoule au lait**	**Dessert**	H+(2)	+	H+	+	*L.ivanovii*	-	N/A	-	+	H+	*L.ivanovii*	-	NA							2	c
2011	**4108**	**Riz au lait**	**Milk rice**	-	+(1)	H+	+	*L.ivanovii*	-	N/A	-	+	H+	*L.ivanovii*	-	NA							2	c
2011	**4648**	**Lait fermenté**	**Fermented milk**	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							2	c
2011	**4650**	**Lait ribot**	**Fermented milk**	H+	+	H+	+	*L.monocytogenes*	+	18,16	+	+	H+	*L.monocytogenes*	+	PA	18,91	+	+	H+	+	PA	2	c
2011	**4667**	**Bethmale**	**Raw milk cheese (Bethmale)**	H-d	-	-	-	-	-	N/A	-	-	-	/	-	NA							2	c
2011	**4668**	**Tiramisu à la framboise**	**Tiramisu with raspberries**	H+	+	H+	+	*L.monocytogenes*	+	19,79	+	+	H+	*L.monocytogenes*	+	PA	18,78	+	+	H+	+	PA	2	c
2019	**5908**	**Lait demi-écrémé pasteurisé**	**Pasteurised half-skimmed milk**	H+	+	H+	+	*L.monocytogenes*	+	18,08	+	+	H+	*L.monocytogenes*	+	PA	21,39	+	+	H+	+	PA	2	c
2019	**5909**	**Lait pasteurisé**	**Pasteurised milk**	H+	+	H+	+	*L.monocytogenes*	+	20,27	+	+	H+	*L.monocytogenes*	+	PA	23,51	+	+	H+	+	PA	2	c
2019	**5910**	**Fromage au lait pasteurisé**	**Pasteurised milk cheese**	H+	+(1)	H+	+	*L.monocytogenes*	+	N/A/36,40/36,31	-/+/+	+	H+	*L.monocytogenes*	-	ND	34,55	+	+	H+	+	PA	2	c
2019	**5911**	**Emmental au lait pasteurisé**	**Pasteurised milk cheese**	H+	+	H+	+	*L.monocytogenes*	+	24,16	+	+	H+	*L.monocytogenes*	+	PA	18,61	+	+	H+	+	PA	2	c
2019	**5912**	**Emmental au lait pasteurisé**	**Pasteurised milk cheese**	H+	+	H+	+	*L.monocytogenes*	+	18,64	+	+	H+	*L.monocytogenes*	+	PA	21,45	+	+	H+	+	PA	2	c
2019	5932	Fromage pasteurisé	Pasteurised milk cheese	st	st	st	-	/	-	N/A	-	st	st	/	-	NA							2	c
2019	**7626**	**Lait pasteurisé**	**Pasteurised milk**	H+	+	H+	+	*L.monocytogenes*	+	17,16	+	+	H+	*L.monocytogenes*	+	PA	20,07	+	+	H+	+	PA	2	c

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										PCR		Confirmation			Final result	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API			Ct	Result	Palcam	O&A				
2011	3382	Filet de Panga	Raw fish	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	+	23,16	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	**PA**	24,62	+	+	H+/H-	+	**PA**	3	a
2011	3385	Filet de carrelet	Raw fish	H+	+	H+	+	*L.monocytogenes*	+	20,64	+	+	H+	*L.monocytogenes*	+	**PA**	21,01	+	+	H+	+	**PA**	3	a
2011	3645	Filet Panga	raw fish	H+/H-	+	H+/H-	+	*L.monocytogenes/ L.innocua*	+	27,61	+	+	H+	*L.innocua/ L.monocytogenes*	+	**PA**	28,50	+	+	H+	+	**PA**	3	a
2011	3870	Filet de julienne frais	Raw fish	H-d	-	-	-	-	-	N/A	-	-	-	/	-	**NA**							3	a
2011	3871	Darne de peau bleue fraîche	Raw fish	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	a
2011	3874	Cœurs de filet de merlu blanc	Raw fish	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	a
2011	3875	Pavés de saumon	Raw salmon	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	a
2011	3876	Filet de Colin d'Alaska	Raw fish	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	a
2011	3877	Cœurs de filets de cabillaud	Raw fish	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	a
2011	3878	Steak de thon blanc	Raw tuna	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	a
2011	3885	Filet de colin	Raw fish	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	a
2011	4434	Saumon	Salmon	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	19,37	+	+	H+	*L.monocytogenes*	+	**PA**	18,58	+	+	H+	+	**PA**	3	a
2011	4435	Filet de panga	Fish fillet(Panga)	H+	+	H+	+	*L.monocytogenes*	+	18,99	+	+	H+	*L.monocytogenes*	+	**PA**	20,10	+	+	H+	+	**PA**	3	a
2011	4436	Hoki	Fish (Hoki)	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	a
2011	4437	Filet de panga	Fish fillet(Panga)	H+/H-	+	H+/H-	+	*L.monocytogenes*	+	22,55	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	**PA**	24,28	+	+	H+/H-	+	**PA**	3	a
2011	4438	Pavé de lieu noir	Fish	H-	+	H-	+	*L.welshimeri*	-	N/A	-	+	H-	*L.welshimeri*	-	**NA**							3	a
2011	4439	Filet de panga	Fish fillet (Panga)	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	a
2011	4440	Filet de panga	Fish fillet (Panga)	-	-	-	-	/	-	i/N/A	i/-	-	-	/	-	**NA**							3	a
2011	4441	Filet d'Eglefin	Haddock fillet	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	a
2011	4442	Morceaux de filet de colin	Hake fillet	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	+	19,03	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	**PA**	22,23	+	+	H+	+	**PA**	3	a
2011	4443	Bloc de saumon	Salmon	H+	+	H+	+	*L.monocytogenes*	+	19,64	+	+	H+	*L.monocytogenes*	+	**PA**	21,02	+	+	H+	+	**PA**	3	a
2019	**5913**	**Filet de merlan**	**Raw fish**	H+	+(2)	H+	+	*L.monocytogenes*	+	16,78	+	+	H+	*L.monocytogenes*	+	**PA**	21,38	+	+	H+	+	**PA**	3	a
2011	3383	Saumon fumé	Smoked salmon	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	+	24,24	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	**PA**	26,26	+	+	H+/H-	+	**PA**	3	b
2011	3872	Mini tranches de truite fumée	Smoked truite	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	b
2011	3873	Harengs fumés au naturel	Smoked haddock	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	b
2011	3884	Saumon fumé	Smoked salmon	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	b
2011	3892	Saumon fumé	Smoked salmon	H-	+	H-	+	*L. innocua*	-	N/A	-	+	H-	*L. innocua*	-	**NA**							3	b
2011	3893	Saumon fumé	Smoked salmon	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	b
2011	3894	Saumon fumé	Smoked salmon	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	b
2011	3950	Maquereaux marinés	Ready-to-eat food (fish)	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							3	b
2011	3951	Saumon frais mariné non fumé	Cured salmon	H-	-	-	-	-	-	N/A	-	-	-	/	-	**NA**							3	b

♦ Analyses performed according to the COFRAC accreditation

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										PCR		Confirmation			Final result	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API			Ct	Result	Palcam	O&A				
2011	3952	Filets maquereaux fumés au poivre	Smoked mackerel	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							3	b
2011	3953	Emincés saumon fumé aneth citron	Smoked salmon	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							3	b
2011	3954	Emincés saumon fumé aux 5 baies	Smoked salmon	H-	-	H-	-	-	-	N/A	-	-	-	/	-	NA							3	b
2011	3955	Haddock fumé	Smoked haddock	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							3	b
2011	4109	Saumon fumé	Smoked salmon	H+	+	H+	+	*L.monocytogenes*	+	20,44	+	+	H+	*L.monocytogenes*	+	PA	19,53	+	+	H+	+	PA	3	b
2011	**4296**	**Filet de hareng fumé aux aromates**	**Smoked herring**	H+	-	H+	+	*L.monocytogenes*	+	26,51	+	+	H+	*L.monocytogenes*	+	PA	20,00	+	+	H+	+	PA	3	b
2011	**4297**	**Maquereaux cuisinés au vin blanc et aromates**	**Marinated mackerel**	H+	+	H+	+	*L.monocytogenes*	+	19,45	+	+	H+	*L.monocytogenes*	+	PA	19,28	+	+	H+	+	PA	3	b
2011	**4298**	**Saumon fumé**	**Smoked salmon**	H+	+	H+	+	*L.monocytogenes*	+	21,23	+	+	H+	*L.monocytogenes*	+	PA	19,38	+	+	H+	+	PA	3	b
2011	**4299**	**Filets de maquereaux fumés**	**Smoked mackerel fillets**	H+	+	H+	+	*L.monocytogenes*	+	20,06	+	+	H+	*L.monocytogenes*	+	PA	19,04	+	+	H+	+	PA	3	b
2011	**4300**	**Truite fumée**	**Smoked trout**	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							3	b
2011	**4302**	**Haddock fumé**	**Smoked haddock**	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							3	b
2011	**4303**	**Emincés de saumon fumé aneth et citron**	**Marinated salmon**	-	-	H+	+	*L.monocytogenes*	+	35,3	+	+	H+	*L.monocytogenes*	+	PA	31,97	+	+	H+	+	PA	3	b
2011	**4304**	**Truite fumée**	**Smoked trout**	-	+(1)	H+	+	*L.monocytogenes*	+	26,46	+	+	H+	*L.monocytogenes*	+	PA	21,60	+	+	H+	+	PA	3	b
2011	**4305**	**Thon humé**	**Smoked tuna**	H-d	-	H+	+	*L.monocytogenes*	+	25,56	+	+	H+	*L.monocytogenes*	+	PA	19,79	+	+	H+	+	PA	3	b
2011	3377	Poisson pané	Breaded fish	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							3	c
2011	3378	Croquettes de poisson nature	Fish croquettes	H+	+	H+	-	*L.monocytogenes*	+	33,01	+	-	H+	*L.monocytogenes*	+	PA	27,11	+	+	H+	+	PA	3	c
2011	3379	Colin pané	Breaded fish	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							3	c
2011	3380	Batônnets de colin	Breaded fish	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	+	28,70	+	+	H+/H-	*L.innocua/ L.monocytogenes*	+	PA	29,05	+	+	H+/H-	+	PA	3	c
2011	3381	Colin pané	Breaded fish	H-	+	H-	+	*L.innocua*	-	N/A	-	+	H-	*L.innocua*	-	NA							3	c
2011	3384	Tarama nature	Tarama	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							3	c
2011	3386	Tarama de saumon	Tarama (salmon flavour)	H+	+	H+	+	*L.monocytogenes*	+	25,93	+	+	H+	*L.monocytogenes*	+	PA	28,10	+	+	H+	+	PA	3	c
2011	3387	Tarama de saumon	Tarama (salmon flavour)	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							3	c
2011	3405	Meunière de poisson	Ready-to-cook food (fish)	H+	+(2)	H+	+1col	*L.monocytogenes*	+	21,20	+	+	H+	*L.monocytogenes*	+	PA	19,02	+	+	H+	+	PA	3	c
2011	3639	Aumonières de Saint Jacques	Ready-to-eat food (scallops)	-	-	-	-	/	-	N/A	-	-	-	-	-	NA							3	c
2011	3647	Colin pané	Breaded fish	H+/H-	+	H+/H-d	+	*L.monocytogenes/ L.innocua*	+	21,10	+	+	H+	*L.innocua/ L.monocytogenes*	+	PA	22,76	+	+	H+	+	PA	3	c
2011	3658	Terrine de saumon	Salmon terrine	-	+(1)	H+	+	*L.monocytogenes*	+	26,26	+	+	H+	*L.monocytogenes*	+	PA	23,92	+	+	H+	+	PA	3	c
2011	3864	Fumet de poisson poudre	Ambient culinary product (fish aroma)	-	-	-	-	/	-	N/A	-	-	-	/	-	NA							3	c

FISHERY PRODUCTS																									
Year of analysis	Sample N°	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*-NAE													category	type
				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API			Ct	Result	Palcam	O&A				
2011	**3930**	**Fumet de poisson**	**Ambient culinary product (fish aroma)**	H-	-	-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							3	c
2011	**3938**	**Riz au crabe**	**Ready-to-eat food (rice with crab)**	H+ / H-	-	H+	+	*L.innocua/ L.monocytogenes*	**+**	25,24	+	+	H+	*L. monocytogenes*	**+**	**PA**	25,06	+	+	H+	+	**PA**	3	c
2011	4489	Paniers aux deux saumons	Ready to eat meat (Salmon)	-	-	H+/H-	-	*L.monocytogenes*	**+**	29,09	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	**+**	**PA**	30,22	+	+	H+/H-	+	**PA**	3	c
2011	4490	Tranche de colin pané	Slice of breaded collock	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	19,78	+	+	H+/H-	*L.innocua/ L.monocytogenes*	**+**	**PA**	25,24	+	+	H+/H-	+	**PA**	3	c
2011	4491	Coquille Saint Jacques	Scallops	H-d	-	H+	-	*L.monocytogenes*	**+**	22,19	+	+	H+	*L.monocytogenes*	**+**	**PA**	24,65	+	+	H+	+	**PA**	3	c
2011	4492	Paniers de Saint Jacques	Ready to eat meal (scallops)	H-d	-	-	-	-	**-**	N/A	-	-	H-d	-	**-**	**NA**							3	c
2011	4655	Colin pané	Breaded hake	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	22,43	+	+	H+/H-	*L.innocua/ L.monocytogenes*	**+**	**PA**	24,42	+	+	H+/H-	+	**PA**	3	c
2011	4656	Feuilleté saumon crevettes	Salmon and shrimp puff	H-	+	H-	+	*L.innocua*	**-**	N/A	-	+	H-	*L.innocua*	**-**	**NA**							3	c
2011	4657	Terrine de Saint-Jacques	Scallops terrine	H+	-	H+	+	*L.monocytogenes*	**+**	18,75	+	+	H+	*L.monocytogenes*	**+**	**PA**	18,45	+	+	H+	+	**PA**	3	c

VEGETABLE PRODUCTS																									
				Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*-NAE															
				Half Fraser		Fraser 1				Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C								
										PCR		Confirmation					PCR		Confirmation						
Year of analysis	Sample N°	Product (French name)	Product	O&A	Palcam	O&A	Palcam	Identification	**Result**	Ct	Result	Palcam	O&A	API	Final result	**Agree-ment**	Ct	Result	Palcam	O&A	Final result	**Agree-ment**	category	type
2011	3366	Choux fleur fleurette	Ready-to-cook cabbage	H+	+	H+	+	*L.monocytogenes*	**+**	25,18	+	+	H+	*L.monocytogenes*	**+**	**PA**	26,04	+	+	H+	+	**PA**	4	a
2011	3367	Carottes	Carrots	-	-	H-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	a
2011	3370	Champignons	Mushrooms	H-	+	H-	+	*L.innocua*	**-**	N/A	-	+	H-	*L.innocua*	**-**	**NA**							4	a
2011	3371	Haricots beurre	Beans	H+	+	H+	+	*L.monocytogenes*	**+**	22,58	+	+	H+	*L.monocytogenes*	**+**	**PA**	24,30	+	+	H+/H-	+	**PA**	4	a
2011	3372	Courgettes	Zucchini	H+/H-	+	H-	+	*L.innocua/ L.monocytogenes*	**+**	28,47	+	+	H+(1)/H-	*L.innocua/ L.monocytogenes*	**+**	**PA**	30,30	+	+	H+/H-	+	**PA**	4	a
2011	3373	Tomates tranchées	Tomatoes	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	a
2011	3375	Légumes ratatouille	Ready-to-cook vegetables (ratatouille)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	a
2011	3376	Oignons	Onions	-	-	H-	+	*L.innocua*	**-**	N/A	-	-	H-	*L.innocua*	**-**	**NA**							4	a
2011	3406	Champignons	Mushrooms	H+	+	H+	+	*L.monocytogenes*	**+**	21,27	+	+	H+	*L.monocytogenes*	**+**	**PA**	20,45	+	+	H+	+	**PA**	4	a
2011	3407	Carottes	Carrots	H-	-	-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**	N/A	-	-	-	-	**NA**	4	a
2011	3635	Tomate crue	Raw tomatoes	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							4	a
2011	3636	Légumes couscous	Ready-to-cook vegetables (couscous)	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							4	a
2011	3637	Oignons	Onions	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							4	a
2011	3640	Romanesco mix	Ready-to-cook vegetables (cabbage)	H-	+	H-	+	*L.innocua*	**-**	N/A	-	+	-	*L.innocua*	**-**	**NA**							4	a
2011	3642	Brocolis fleurettes	Ready-to-cook vegetables (cabbage)	H+	-	H+	+	*L.monocytogenes*	**+**	20,28	+	+	H+	*L.monocytogenes*	**+**	**PA**	20,20	+	+	H+	+	**PA**	4	a
2011	4115	Légumes pour ratatouille	Vegetables for ratatouille	-	-	H+	+	*L.monocytogenes*	**+**	19,09	+	+	H+	*L.monocytogenes*	**+**	**PA**	17,09	+	+	H+	+	**PA**	4	a
2011	4175	Haricots verts surgelés	Frozen beans	H-	+	H-	+	*L.innoxua*	**-**	N/A	-	+	H-	*L.innocua*	**-**	**NA**							4	a
2011	4451	Haricots verts	Beans	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	19,04	+	+	H+/H-	*L.innocua/ L.monocytogenes*	**+**	**PA**	21,37	+	+	H+/H-	+	**PA**	4	a
2011	4482	Pois carottes surgelés	Frozen peas and carrots	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	18,46	+	+	H+/H-	*L.monocytogenes*	**+**	**PA**	26,23	+	+	H+/H-	+	**PA**	4	a
2011	4483	Concombre	Cucumber	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	a
2011	4484	Pois chiches	Chick peas	H+	+	H+/H-	+	*L.monocytogenes*	**+**	19,85	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,31	+	+	H+	+	**PA**	4	a
2011	4485	Céleris surgelés	Frozen celery	H+/H-	+	H+	+	*L.seeligeri/ L.monocytogenes*	**+**	21,46	+	+	H+	*L.monocytogenes*	**+**	**PA**	24,56	+	+	H+	+	**PA**	4	a
2011	4486	Lanières de poivrons verts	Sliced green pepper	H+	+	H+/H-	+	*L.monocytogenes*	**+**	21,06	+	+	H+	*L.monocytogenes*	**+**	**PA**	25,85	+	+	H+	+	**PA**	4	a
2011	4487	Tomates rondelles	Tomato slices	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	a
2011	4488	Courgettes rondelles	Zucchini slices	H+/H-	+	H-	+	*L.innocua/ L.monocytogenes*	**+**	26,33	+	+	H+/H-	*L.innocua/ L.monocytogenes*	**+**	**PA**	29,63	+	+	H+/H-	+	**PA**	4	a
2011	4653	Jeunes carottes	Carrots	H+/H-	+	H+	+	*L.monocytogenes*	**+**	20,91	+	+	H+	*L.monocytogenes*	**+**	**PA**	20,15	+	+	H+	+	**PA**	4	a
2011	3365	Ciboulette	Chives	-	-	-	-	/	**-**	N/A	-	-		/	**-**	**NA**							4	b
2011	3638	Persil plat	Parsley	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							4	b
2011	3772	Ciboulette	Chives	H-d	-	H-d	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	b

♦ Analyses performed according to the COFRAC accreditation

VEGETABLE PRODUCTS																									
				Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*-NAE															
				Half Fraser		Fraser 1				Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C								
										PCR		Confirmation					PCR		Confirmation						
Year of analysis	Sample N°	Product (French name)	Product	O&A	Palcam	O&A	Palcam	Identification	**Result**	Ct	Result	Palcam	O&A	API	Final result	**Agree-ment**	Ct	Result	Palcam	O&A	Final result	**Agree-ment**	category	type
2011	3773	Ciboulette	Chives	H-d(1)	-	-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	3774	Ciboulette	Chives	H-d	-	-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	3775	Persil plat	Parsley	H-d	-	H-d	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	3776	Persil	Parsley	H-d	-	-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	3777	Persil plat	Parsley	H-d	-	H-d	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	3778	Persil	Parsley	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	3779	Persil plat	Parsley	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	3780	Estragon	Tarragon	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	3863	Ail semoule	Garlic	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	3865	Mélange épices grillées pour Tajine	Spices for tajine	H-d	-	-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	**3928**	**Mélange épices grillées pour wok**	**Spices (wok)**	H-	-	H-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	**3929**	**Mélange épices grillées pour tandoori**	**Spices (tandoori)**	H-	-	H-d	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	**4054**	**Poivre concassé**	**Pepper**	H-d	-	H-d	-	-	**-**	N/A	-	-	-	-	**-**	**NA**							4	b
2011	**4055**	**Epices riz parfumé**	**Spices for rice**	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	**4056**	**Epices couscous**	**Spices for couscous**	H-d	-	1H-	-	-	**-**	N/A	-	-	-	-	**-**	**NA**							4	b
2011	**4057**	**Epices tajine**	**Spices for tagine**	H-d	-	-	-	-	**-**	N/A	-	-	-	-	**-**	**NA**							4	b
2011	4317	Persil plat	Parsley	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	4319	Persil plat	Parsley	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	4321	Persil plat	Parsley	H-d	+	-	+	*L.seeligeri*	**-**	N/A	-	+	H-	*L.seeligeri*	**-**	**NA**							4	b
2011	4324	Ciboulette	Chives	H-d	+(1)	H+	+	*L.monocytogenes*	**+**	27,89	+	+	H+	*L.monocytogenes*	**+**	**PA**	23,57	+	+	H+	+	**PA**	4	b
2011	4326	Persil plat	Parsley	H+	+	H+	+	*L.monocytogenes*	**+**	34,05	+	+	H+	*L.monocytogenes*	**+**	**PA**	31,34	+	+	H+	+	**PA**	4	b
2011	4444	Persil plat	Parsley	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	23,0	+	+	H+/H-	*L.innocua/ L.monocytogenes*	**+**	**PA**	24,47	+	+	H+/H-	+	**PA**	4	b
2011	4445	Persil plat	Parsley	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	25,6	+	+	H+/H-	*L.innocua/ L.monocytogenes*	**+**	**PA**	28,83	+	+	H+/H-	+	**PA**	4	b
2011	4446	Persil plat	Parsley	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	26,89	+	+	H+/H-	*L.innocua/ L.monocytogenes*	**+**	**PA**	28,69	+	+	H+/H-	+	**PA**	4	b
2011	4447	Ciboulette	Chives	H-	-	-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	4448	Ciboulette	Chives	H-d	-	-	-	-	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2011	4651	Persil plat	Parsley	H+/H-d(1)	+	H+/H-	+	*L.monocytogenes*	**+**	29,36	+	+	H+/H-	*L.seeligeri/ L.monocytogenes*	**+**	**PA**	29,27	+	+	H+	+	**PA**	4	b
2019	**5917**	**Curcuma moulue**	**Turmeric**	st	st	st	st	/	**-**	i/N/A	i/-	st	st	/	**-**	**NA**							4	b
2019	**5918**	**Piment doux**	**Chili pepper**	st	-	st	st	/	**-**	N/A	-	st	-	/	**-**	**NA**							4	b
2019	**5919**	**Curry**	**Curry**	st	st	st	st	/	**-**	i/N/A	i/-	st	st	/	**-**	**NA**							4	b
2019	**5920**	**Coriandre déshydratée**	**Dehydrated coriander**	-	-	st	-	/	**-**	N/A	-	st	st	/	**-**	**NA**	N/A	-	-	st	-	**NA**	4	b
2019	**7131**	**Origan déshydraté**	**Dehydrated oregano**	st	st	st	-	/	**-**	i/N/A*	i/ -*	st	st	/	**-**	**NA**							4	b
2019	**7132**	**Basilic déshydraté**	**Dehydrated basil**	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	b
2019	**8000**	**Paprika doux**	**Sweet paprika**	H+	-	H+	-	*L.monocytogenes*	**+**	i/31,18*	i/ +*	+(3)	H+	*L.monocytogenes*	**+**	**PA**	29,40	+	+	H+	+	**PA**	4	b

VEGETABLE PRODUCTS																									
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				Half Fraser		Fraser 1				Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C								
										PCR		Confirmation					PCR		Confirmation						
Year of analysis	Sample N°	Product (French name)	Product	O&A	Palcam	O&A	Palcam	Identification	**Result**	Ct	Result	Palcam	O&A	API	Final result	**Agree-ment**	Ct	Result	Palcam	O&A	Final result	**Agree-ment**	category	type
2011	3368	Epinards hachés à la crème	Spinach with cream	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	c
2011	3369	Poêlée méridionale	Ready-to-cook vegetables	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	c
2011	3374	Purée de patates douces	Purée	H+	+	H+	+	*L.monocytogenes*	**+**	17,77	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,49	+	+	H+	+	**PA**	4	c
2011	3634	Poireau à la crème	Ready-to cook vegetables (leek and cream)	H+	+	H+	+	*L.monocytogenes*	**+**	21,46	+	+	H+	*L.monocytogenes*	**+**	**PA**	22,32	+	+	H+	+	**PA**	4	c
2011	3641	Ratatouille	Ready-to-cook vegetables (ratatouille)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	c
2011	3643	Epinards à la crème	Ready-to-cook vegetables (spinach with cream)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	c
2011	3644	Poêlée à la Bretonne	Ready-to-cook vegetables	H-	+	H-	+	*L.innocua*	**-**	N/A	-	+	-	*L.innocua*	**-**	**NA**							4	c
2011	3855	Sorbet au citron avec morceaux	Lemon sorbet	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	c
2011	3856	Sorbet à la fraise avec morceaux	Strawberry sorbet	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	c
2011	**3939**	**Riz cantonnais**	**Ready-to-eat food (tabbouleh)**	H+	+	H+	+	*L. monocytogenes*	**+**	21,32	+	+	H+	*L. monocytogenes*	**+**	**PA**	25,84	+	+	H+	+	**PA**	4	c
2011	**3940**	**Taboulé à l'oriental**	**Ready-to-eat food (Chinese rice)**	H+ / H-d	-	H+	+	*L. monocytogenes*	**+**	20,2	+	+	H+	*L. monocytogenes*	**+**	**PA**	18,91	+	+	H+	+	**PA**	4	c
2011	**3956**	**Poêlée méridionale**	**Ready-to-cook vegetables**	H+	+	H+	+	*L. monocytogenes*	**+**	20,37	+	+	H+	*L. monocytogenes*	**+**	**PA**	20,14	+	+	H+	+	**PA**	4	c
2011	**3957**	**Poêlée parisienne**	**Ready-to-cook vegetables**	H+	-	H+	-	*L. monocytogenes*	**+**	20,29	+	+	H+	*L. monocytogenes*	**+**	**PA**	19,05	+	+	H+	+	**PA**	4	c
2011	3958	Poêlée légumes champignons	Ready-to-cook vegetables	H-	-	H-	+	*L. innocua*	**-**	N/A	-	+	-	*L. innocua*	**-**	**NA**	N/A	-	+	-	-	**NA**	4	c
2011	4000	Epinards hachés	Spinach	H+	+	H+	+	*L.monocytogenes*	**+**	21,02	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,02	+	+	H+	+	**PA**	4	c
2011	4005	Epinards hachés	Spinach	H+	+	H+	+	*L.monocytogenes*	**+**	21,23	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,23	+	+	H+	+	**PA**	4	c
2011	4315	Poêlée riz à la Bretonne	Ready to eat mea l (vegetables and rice)	H-d	+d	-	-	-	**-**	N/A	-	-(X5)	-(X5)	/	**-**	**NA**							4	c
2011	4316	Piémontaise	Salad (Piémontaise)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	c
2011	4318	Epinards hachés à la crème	Spinaches with cream	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	c
2011	4320	Panier chèvre épinards	Ready to eat meal (goat cheese and spinaches)	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	30,2	+	+	H+	*L.innocua/ L.monocytogenes*	**+**	**PA**	27,37	+	+	H+/H-	+	**PA**	4	c
2011	4322	Epinards hachés à la crème	spinaches with cream	H-	+	H-	+	*L.innocua*	**-**	N/A	-	+	H-	*L.innocua*	**-**	**NA**							4	c
2011	4323	Fagots de haricots	Beans	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	22,24	+	+	H+/H-	*L.innocua/ L.monocytogenes*	**+**	**PA**	21,72	+	+	H+/H-	+	**PA**	4	c
2011	4325	Soupe aux céréales	Cereals soup	H+	+	H+	+	*L.monocytogenes*	**+**	19,33	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,15	+	+	H+	+	**PA**	4	c
2011	4449	Piémontaise	Salad (Piémontaise)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							4	c
2011	4450	Ratatouille	Vegetables for ratatouille	H-	-	H-d	-	-	**-**	N/A	-	-	H-	-	**-**	**NA**							4	c

VEGETABLE PRODUCTS																									
Year of analysis	Sample N°	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*-NAE													category	type
				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API			Ct	Result	Palcam	O&A				
2011	4652	Potage tomates basilic	Tomato basil soup	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							4	c
2011	4654	Poireaux à la crème	Links with cream	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							4	c

PRODUCTION ENVIRONMENTAL SAMPLES																									
				Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*-NAE															
				Half Fraser		Fraser 1				Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C								
										PCR		Confirmation					PCR		Confirmation						
Year of analysis	Sample N°	Product (French name)	Product	O&A	Palcam	O&A	Palcam	Identification	**Result**	Ct	Result	Palcam	O&A	API	Final result	**Agree-ment**	Ct	Result	Palcam	O&A	Final result	**Agree-ment**	category	type
2011	3979	Eau laveuse poisson	Process water	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							5	a
2011	3980	Eau rampe dessalage	Process water	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							5	a
2011	3981	Eau lave main	Cleaning water (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							5	a
2011	3982	Eau lave filet	Process water (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							5	a
2011	3983	Eau peleuse	Process water (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							5	a
2011	4047	Eau saucisserie (atelier bovin/porcin)	Process water ((bovine and pork industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	a
2011	4312	Eau tapis dessous peleuse	Process water (salmon industry)	H+	+	H+	+	*L.monocytogenes*	**+**	21,14	+	+	H+	*L.monocytogenes*	**+**	**PA**	18,80	+	+	H+	+	**PA**	5	a
2011	4313	Eau dessous tapis après parage	Process water (almon industry)	H+	+	H+	+	*L.monocytogenes*	**+**	21,46	+	+	H+	*L.monocytogenes*	**+**	**PA**	19,25	+	+	H+	+	**PA**	5	a
2011	4467	Eau peleuse	Process water (salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	a
2011	4468	Eau lave mains	Cleaning water (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	a
2011	4469	Eau laveuse poissons	Process water (salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	a
2011	4470	Eau lave filets	Process water (salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	a
2011	4471	Eau rampe dessalage	Process water (salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	a
2011	**4694**	**Eau refroidissement**	**Process water**	-	-	H+	+	*L.monocytogenes*	**+**	23,28	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,25	+	+	H+	+	**PA**	5	a
2011	**4702**	**Eau rinçage machine**	**Cleaning water**	H+	+	H+	+	*L.monocytogenes*	**+**	17,95	+	+	H+	*L.monocytogenes*	**+**	**PA**	18,23	+	+	H+	+	**PA**	5	a
2011	**4703**	**Eau lavage table de saignée**	**Cleaning water (beef industry)**	H+	+	H+	+	*L.monocytogenes*	**+**	19,29	+	+	H+	*L.monocytogenes*	**+**	**PA**	18,90	+	+	H+	+	**PA**	5	a
2011	**4704**	**Eau de lavage table à berf**	**Cleaning water (beef industry)**	H+	+	H+	+	*L.monocytogenes*	**+**	16,51	+	+	H+	*L.monocytogenes*	**+**	**PA**	19,32	+	+	H+	+	**PA**	5	a
2019	**5914**	**Eau de process (rinçage découpe végétaux)**	**Process water**	H+	+	H+	+	*L.monocytogenes*	**+**	18,03	+	+	H+	*L.monocytogenes*	**+**	**PA**	20,95	+	+	H+	+	**PA**	5	a

♦ Analyses performed according to the COFRAC accreditation

PRODUCTION ENVIRONMENTAL SAMPLES																									
				Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*-NAE															
				Half Fraser		Fraser 1				Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C								
										PCR		Confirmation					PCR		Confirmation						
Year of analysis	Sample N°	Product (French name)	Product	O&A	Palcam	O&A	Palcam	Identification	**Result**	Ct	Result	Palcam	O&A	API	Final result	**Agree-ment**	Ct	Result	Palcam	O&A	Final result	**Agree-ment**	category	type
2019	**5915**	**Eau de rinçage bol de lait**	**Rinsed water**	H+(1)/H-	+	H-	+	*L.monocytogenes/ L.innocua*	**+**	28,59/29,16/29,89	+/+/+	+	H-	5x(OCLA/Palcam/F1:-) *L.monocytogenes/L.innocua* (ISO)	**+**	**PA**	31,4/ 29,28/ 29,31	+/+/+	+	5x(OCLA/ Palcam/F1:-) *L.monocytogenes* (ISO)	-	**PA**	5	a
2019	**5916**	**Eau de rinçage laitier**	**Rinsed water**	H+	+	H+	+	*L.monocytogenes*	**+**	22,11	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,96	+	+	H+	+	**PA**	5	a
2019	7138	Eau de rinçage (produit laitier)	Rinsed water (dairy)	H-	+	H-	+	*L.innocua*	**-**	N/A	-	+	H-	*L.innocua*	**-**	**NA**	32,42/ 33,92/ 33,80	+/+/+	+	5x(OCLA/ Palcam/F1:H-)	-	**PPNA**	5	a
2011	3798	Chiffonnette sol	Environmental surface	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	3799	Chiffonnette chariot	Environmental surface	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	3800	Chiffonnette roues chariot	Environmental surface	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	3801	Chiffonnette mur	Environmental surface	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	3802	Chiffonnette étagères	Environmental surface	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	3984	Chiffonnette surface tapis entrée peleuse	Sponge (smoked salmon industry)	H+	+	H+	+	*L.monocytogenes*	**+**	19,73	+	+	H+	*L.monocytogenes*	**+**	**PA**	20,93	+	+	H+	+	**PA**	5	b
2011	3985	Chiffonnette surface tapis lake away	Sponge (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							5	b
2011	3986	Chiffonnette surface paroi laveuse chariot	Sponge (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							5	b
2011	4306	Chiffonnette environnement porc	Sponge (poultry industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	4307	Chiffonnette siphon environnement porc	Sponge (pork industry)	H-	+	H-	+	*L.welshimeri*	**-**	N/A	-	+	H-	*L.welshimeri*	**-**	**NA**							5	b
2011	4308	Chiffonnette tapis saucisserie	Sponge (pork industry)	H-	+	H+(1)/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	33,00	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	**+**	**PA**	29,17	+	+	H+/H-	+	**PA**	5	b
2011	4309	Chiffonnette siphon saucisserie	Sponge (pork industry)	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	29,26	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	**+**	**PA**	23,98	+	+	H+/H-	+	**PA**	5	b
2011	4310	Chiffonnette sol matière première environnement poisson	Sponge (fish industry)	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	23,26	+	+	H+/H-	*L.innocua/ L.monocytogenes*	**+**	**PA**	23,01	+	+	H+/H-	+	**PA**	5	b
2011	4311	Chiffonnette sol environnement porc	Sponge (pork industry)	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	25,24	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	**+**	**PA**	20,78	+	+	H+/H-	+	**PA**	5	b
2011	4314	Chiffonnette désossage épaule	Sponge (pork industry)	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	32,97	+	+	H+	*L.monocytogenes*	**+**	**PA**	31,13	+	+	H+/H-	+	**PA**	5	b

PRODUCTION ENVIRONMENTAL SAMPLES																									
				Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*-NAE															
				Half Fraser		Fraser 1				Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C								
										PCR		Confirmation					PCR		Confirmation						
Year of analysis	Sample N°	Product (French name)	Product	O&A	Palcam	O&A	Palcam	Identification	**Result**	Ct	Result	Palcam	O&A	API	Final result	**Agree-ment**	Ct	Result	Palcam	O&A	Final result	**Agree-ment**	category	type
2011	4426	Lingettes sol coproduit	Floor sponge	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	4427	Lingette sol près parage	Sponge (pork industry)	H-	+	H-	+	*L.welshimeri*	**-**	N/A	-	+	H-	*L.welshimeri*	**-**	**NA**							5	b
2011	4428	Lingette siphon atelier brochette	Sponge (pork industry)	H-	+	H-	+	*L.welshimeri*	**-**	N/A	-	+	H-	*L.welshimeri*	**-**	**NA**							5	b
2011	4429	Lingette tapis gorge découpe	Sponge (pork industry)	H-	+	H-	+	*L.welshimeri*	**-**	N/A	-	+	H-	*L.welshimeri*	**-**	**NA**							5	b
2011	4430	Lingette tapis montant saucisse	Sponge (pork industry)	H+	+	H+	+	*L.monocytogenes*	**+**	17,16	+	+	H+	*L.monocytogenes*	**+**	**PA**	17,75	+	+	H+	+	**PA**	5	b
2011	4431	Lingette table égouttage	Sponge (pork industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	4472	Lingette filetage poste décaissage	Sponge (salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	4473	Lingette filetage réception poisson	Sponge (salmon industry)	H+	+	H+/H-	+	*L.monocytogenes*	**+**	25,48	+	+	H+	*L.monocytogenes*	**+**	**PA**	23,22	+	+	H+	+	**PA**	5	b
2011	4474	Lingette table sortie peleuse	Sponge (salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	4475	Lingette tapis barde découpe	Sponge (salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	4476	Lingette siphon salle saumure	Sponge (salmon industry)	H-	+	H-	-	*L.welshimeri*	**-**	N/A	-	+	H-	*L.welshimeri*	**-**	**NA**	N/A	-	+	H-	-	**NA**	5	b
2011	4477	Lingette sol près injecteuse	Sponge (salmon industry)	H+/H-	+	H+/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	26,92	+	+	H+/H-	*L.monocytogenes*	**+**	**PA**							5	b
2011	4478	Lingette sol maturation salage	Sponge (salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	4479	Lingette ergoloader panés	Sponge (Pork industry)	H-	+	H-	+	*L.innocua*	**-**	31,33	+	+	H-	*L.innocua*	**-**	**PPNA**	33,43	+	+	H-	-	**PPNA**	5	b
2011	4480	Lingette petit tapis avant montant saucisses	Sponge (Pork industry)	H+	+	H+/H-	+	*L.monocytogenes*	**+**	25,0	+	+	H+	*L.monocytogenes*	**+**	**PA**	28,42	+	+	H+	+	**PA**	5	b
2011	4481	Lingette tapis au-dessus chargeur	Sponge (Pork industry)	H+	+	H+/H-	+	*L.monocytogenes*	**+**	18,78	+	+	H+	*L.monocytogenes*	**+**	**PA**	28,04	+	+	H+	+	**PA**	5	b
2011	**4690**	**Lingette environnement volaille**	**Sponge (Poultry industry)**	H+	+	H+	+	*L.monocytogenes*	**+**	20,07	+	+	H+	*L.monocytogenes*	**+**	**PA**	19,14	+	+	H+	+	**PA**	5	b
2011	**4691**	**Lingette environnement volaille**	**Sponge (Poultry industry)**	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	**4692**	**Lingette environnement volaille**	**Sponge (Poultry industry)**	H+/H-	+	H+/H-	+	*L.monocytogenes*	**+**	25,21	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	**+**	**PA**	24,94	+	+	H+/H-	+	**PA**	5	b

PRODUCTION ENVIRONMENTAL SAMPLES																								
Year of analysis	Sample N°	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*-NAE													category	type
				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API			Ct	Result	Palcam	O&A				
2011	**4693**	**Lingette environnement volaille**	**Sponge (Poultry industry)**	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	**4695**	**Lingette tapis sortie peleuse**	**Sponge (Salmon industry)**	H+	+	H+	+	*L.monocytogenes*	**+**	18,43	+	+	H+	*L.monocytogenes*	**+**	**PA**	18,01	+	+	H+	+	**PA**	5	b
2011	**4696**	**Lingette filetage (tapis parage)**	**Sponge (Salmon industry)**	-	-	H+	+	*L.monocytogenes*	**+**	27,31	+	+	H+	*L.monocytogenes*	**+**	**PA**	21,14	+	+	H+	+	**PA**	5	b
2011	**4697**	**Lingette table lardons saumon**	**Sponge (Salmon industry)**	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	b
2011	**4698**	**Lingette**	**Sponge (Salmon industry)**	H+	+	H+	+	*L.monocytogenes*	**+**	19,36	+	+	H+	*L.monocytogenes*	**+**	**PA**	17,76	+	+	H+	+	**PA**	5	b
2011	**4700**	**Lingette frigo découpe**	**Sponge (Salmon industry)**	H+/H-	+	H+	+	*L.monocytogenes*	**+**	19,86	+	+	H+	*L.monocytogenes*	**+**	**PA**	18,20	+	+	H+	+	**PA**	5	b
2011	**4701**	**Lingette baratte salle saumure**	**Sponge (Salmon industry)**	H+/H-	+	H+	+	*L.monocytogenes*	**+**	21,26	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	**+**	**PA**	18,88	+	+	H+/H-	+	**PA**	5	b
2011	3987	Poussières atelier	Dusts (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							5	c
2011	3988	Poussières combles	Dusts (smoked salmon industry)	-	-	-	-	/	**-**	N/A	-	-	-	-	**-**	**NA**							5	c
2011	4048	Poussières balance (atelier bovin/porcin)	Dusts (Bovine and pork industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	c
2011	4049	Poussières frigo produits finis (atelier bovin/porcin)	Dusts (Bovine and pork industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	c
2011	4050	Poussière carton découpe (atelier bovin/porcin)	Dusts (Bovine and pork industry)	H-	+	H-	+	*L.welshimeri*	**-**	N/A	-	+	H-	*L.welshimeri*	**-**	**NA**							5	c
2011	4051	Poussière stock barquette (atelier bovin/porcin)	Dusts (Bovine and pork industry)	H+/H-	+	H+	+	*L.welshimeri/ L.monocytogenes*	**+**	27,19	+	+	H+	*L.welshimeri/ L.monocytogenes*	**+**	**PA**	27,39	+	+	H+/H-	+	**PA**	5	c
2011	4052	Poussière machine carton (atelier bovin/porcin)	Dusts (Bovine and pork industry)	H+/H-	-	H+/H-	+	*L.welshimeri/ L.monocytogenes*	**+**	30,4	+	+	H-	*L.welshimeri/ L.monocytogenes*	**+**	**PA**	29,25	+	+	H+/H-	+	**PA**	5	c
2011	4053	Eau caniveau réception matière première (atelier saumon fumé)	Water (Salmon industry)	H+/H-	+	H+/H-	+	*L.innocua/ L.monocytogenes*	**+**	24,48	+	+	H+/H-	*L.innocua/ L.monocytogenes*	**+**	**PA**	25,00	+	+	1H+/H-	+	**PA**	5	c
2011	4064	Poussières rangement panés (atelier volaille)	Dusts (Poultry industry)	-	-	-	-	/	**-**	N/A	-	-	-	/	**-**	**NA**							5	c

PRODUCTION ENVIRONMENTAL SAMPLES																								
Year of analysis	Sample N°	Product (French name)	Product	Reference method: ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*-NAE													category	type
				Half Fraser		Fraser 1		Identification	Result	Half Fraser for 24h at 30°C + Fraser for 16 h at 37°C							Fraser for 16 h at 37°C/72 h at 5°C ± 3°C							
										PCR		Confirmation			Final result	Agree-ment	PCR		Confirmation		Final result	Agree-ment		
				O&A	Palcam	O&A	Palcam			Ct	Result	Palcam	O&A	API			Ct	Result	Palcam	O&A				
2011	4065	Poussières rangement poulet (atelier volaille)	Dusts (Poultry industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							5	c
2011	4066	Poussières stock emballage (atelier volaille)	Dusts (Poultry industry)	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							5	c
2011	4425	Eau caniveau dessalage	Gutter water	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							5	c
2011	4432	Poussières rebords fenêtre panés 1	Dusts	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							5	c
2011	4433	Poussières rebords fenêtre panés 2	Dusts	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							5	c
2011	**4685**	**Poussières environnement laitier**	**Dusts (Dairy industry)**	-	-	H+	+	*L.monocytogenes*	+	24,1	+	+	H+	*L.monocytogenes*	+	**PA**	20,28	+	+	H+	+	**PA**	5	c
2011	**4686**	**Poussières environnement laitier**	**Dusts (Dairy industry)**	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							5	c
2011	**4687**	**Poussières environnement laitier**	**Dusts (Dairy industry)**	H+/H-	-	H+	+	*L.monocytogenes*	+	31,82	+	+	H+/H-	*L.welshimeri/ L.monocytogenes*	+	**PA**	27,45	+	+	H+/H-	+	**PA**	5	c
2011	**4688**	**Poussières environnement laitier**	**Dust s(Dairy industry)**	-	-	-	-	/	-	N/A	-	-	-	/	-	**NA**							5	c
2011	**4689**	**Poussières environnement laitier**	**Dusts (Dairy industry)**	H+/H-	-	H+	+	*L.monocytogenes*	+	22,95	+	+	H+	*L.monocytogenes*	+	**PA**	20,70	+	+	H+	+	**PA**	5	c
2011	**4699**	**Poussières fumoir**	**Dusts (Salmon industry)**	H+	-	H+	+	*L.monocytogenes*	+	23,74	+	+	H+	*L.monocytogenes*	+	**PA**	20,03	+	+	H+	+	**PA**	5	c

Appendix 5 - Relative level of detection: raw data

Rillettes
Listeria monocytogenes Ad669 Extra- clean protocol
Aerobic mesophilic flora: 400 cfu/g

N° Sample	Level	Inoculation (cfu/25g)	NF EN ISO 11290-1◆						MicroSEQ *Listeria monocytogenes*							
			Fraser 1/2		Fraser		Result	Positive/total	Manual extraction protocol - Rapid Spin				Automated extraction protocol - NAE			
			O&A	PALCAM	O&A	PALCAM			PCR	O&A	Result	Positive/Total	PCR (Ct)	O&A	Result	Positive/Total
3532	0	/	-	-	-	-	-	0/6	-	-	-	0/6	-	-	-	0/6
3533			-	-	-	-	-		-	-	-		-	-	-	
3534			-	-	-	-	-		-	-	-		-	-	-	
3535			-	-	-	-	-		-	-	-		-	-	-	
3536			-	-	-	-	-		-	-	-		-	-	-	
3537			-	-	-	-	-		-	-	-		-	-	-	
3886	1	0,2	+	+	+	+	+	1/6	/	/	/	/	+ (16.52)	+	+	1/6
3887			-	-	-	-	-		/	/	/		-	-	-	
3888			-	-	-	-	-		/	/	/		-	-	-	
3889			-	-	-	-	-		/	/	/		-	-	-	
3890			-	-	-	-	-		/	/	/		-	-	-	
3891			-	-	-	-	-		/	/	/		-	-	-	
3538	2	0,8	+	+	+	+	+	4/6	-	-	-	3/6	+ (21.56)	+	+	4/6
3539			+	+	+	+	+		+	+	+		+ (21.58)	+	+	
3540			+	+	+	+	+		-	-	-		+ (20.38)	+	+	
3541			-	-	-	-	-		+	+	+		-	-	-	
3542			-	-	-	-	-		-	-	-		-	-	-	
3543			+	+	+	+	+		+	+	+		+ (18.16)	+	+	
3544	3	1,7	+	+	+	+	+	6/6	+	+	+	5/6	+ (19.03)	+	+	6/6
3545			+	+	+	+	+		+	+	+		+ (19.48)	+	+	
3546			+	+	+	+	+		+	+	+		+ (19.14)	+	+	
3547			+	+	+	+	+		+	+	+		+ (20.79)	+	+	
3548			+	+	+	+	+		-	-	-		+ (21.31)	+	+	
3549			+	+	+	+	+		+	+	+		+ (20.36)	+	+	

◆ Analysis performed according to the COFRAC accreditation

Rillettes
Listeria monocytogenes Ad669 Extra- clean protocol
Aerobic mesophilic flora: 400 cfu/g

N° Sample	Level	Inoculation (cfu/25g)	NF EN ISO 11290-1◆						MicroSEQ *Listeria monocytogenes*							
			Fraser 1/2		Fraser		Result	Positive/total	Manual extraction protocol - Rapid Spin				Automated extraction protocol - NAE			
			O&A	PALCAM	O&A	PALCAM			PCR	O&A	Result	Positive/Total	PCR (Ct)	O&A	Result	Positive/Total
3550	4	3,4	+	+	+	+	+	5/6	+	+	+	6/6	+ (20.24)	+	+	5/6
3551			+	+	+	+	+		+	+	+		+ (19.83)	+	+	
3552			+	+	+	+	+		+	+	+		+ (17.75)	+	+	
3553			-	-	-	-	-		+	+	+		-	-	-	
3554			+	+	+	+	+		+	+	+		+ (18.72)	+	+	
3555			+	+	+	+	+		+	+	+		+ (20.84)	+	+	
3556	5	8,5	+	+	+	+	+	6/6	+	+	+	6/6	+ (20.12)	+	+	6/6
3557			+	+	+	+	+		+	+	+		+ (20.23)	+	+	
3558			+	+	+	+	+		+	+	+		+ (19.57)	+	+	
3559			+	+	+	+	+		+	+	+		+ (18.79)	+	+	
3560			+	+	+	+	+		+	+	+		+ (19.55)	+	+	
3561			+	+	+	+	+		+	+	+		+ (19.23)	+	+	

Raw milk
Listeria monocytogenes 153
Aerobic mesophilic flora:1,0.10^7 /ml-5,2.10^6/ml (4415 to 4420)

N° Sample	Level	Inoculation (cfu/25g)	NF EN ISO 11290-1◆						MicroSEQ *Listeria monocytogenes*							
			Fraser 1/2		Fraser		Result	Positive/total	Manual extraction protocol - Rapid Spin				Automated extraction protocol - NAE			
			O&A	PALCAM	O&A	PALCAM			PCR (Ct)	O&A	Result	Positive/Total	PCR (Ct)	O&A	Result	Positive/Total
4266	0	/	-	-	-	-	-	0/6	-	-	-	0/6	-	-	-	0/6
4267			-	-	-	-	-		-	-	-		-	-	-	
4268			-	-	-	-	-		-	-	-		-	-	-	
4269			-	-	-	-	-		-	-	-		-	-	-	
4270			-	-	-	-	-		-	-	-		-	-	-	
4271			-	-	-	-	-		-	-	-		-	-	-	
4415	1	0,4	-	-	-	-	-	2/6	/	/	/	/	-	-	-	2/6
4416			-	-	-	-	-		/	/	/		-	-	-	
4417			-	-	-	-	-		/	/	/		-	-	-	
4418			-	-	-	-	-		/	/	/		-	-	-	
4419			H+	+	/	/	+		/	/	/		+ (30.06)	H+	+	
4420			H+	+	/	/	+		/	/	/		+ (31.67)	H+	+	
4272	2	0,7	-	-	-	-	-	5/6	-	-	-	1/6	-	-	-	5/6
4273			H+	+	/	/	+		+ (36)	H+	+		+ (37.3)	H+	-	
4274			H+	+	/	/	+		-	-	-		+ (32.81)	H+	+	
4275			H+	+	/	/	+		-	-	-		+ (30.55)	H+	+	
4276			H+	+	/	/	+		-	-	-		+ (31.08)	H+	+	
4277			H+	+	/	/	+		-	-	-		+ (30.45)	H+	+	
4278	3	1,4	H+	+	/	/	+	6/6	+ (35.92)	H+	+	6/6	+ (25.13)	H+	+	6/6
4279			H+	+	/	/	+		+ (30.42)	H+	+		+ (28.13)	H+	+	
4280			H+	+	/	/	+		+ (36.29)	H+	+		+ (35.33)	H+	+	
4281			H+	+	/	/	+		+ (38.81)	H+(4col)	-		+ (30.91)	H+	+	
4282			H+	+	/	/	+		+ (27.88)	H+	+		+ (31.88)	H+	+	
4283			H+	+	/	/	+		+ (35.63)	H+	+		+ (30.5)	H+	+	

◆ Analysis performed according to the COFRAC accreditation

Raw milk
Listeria monocytogenes 153
Aerobic mesophilic flora:1,0.10^7 /ml-5,2.10^6/ml (4415 to 4420)

N° Sample	Level	Inoculation (cfu/25g)	NF EN ISO 11290-1◆						MicroSEQ *Listeria monocytogenes*							
			Fraser 1/2		Fraser		Result	Positive/total	Manual extraction protocol - Rapid Spin				Automated extraction protocol - NAE			
			O&A	PALCAM	O&A	PALCAM			PCR (Ct)	O&A	Result	Positive/Total	PCR (Ct)	O&A	Result	Positive/Total
4284	4	2,7	H+	+	/	/	+	6/6	+ (30.43)	H+	+	6/6	+ (29.65)	H+	+	6/6
4285			H+	+	/	/	+		+ (36.91)	H+(1col)	-		+ (29.19)	H+	+	
4286			H+	+	/	/	+		+ (36.7)	H+	-		+ (26.76)	H+	+	
4287			H+	+	/	/	+		+ (32.3)	H+	+		+ (20.98)	H+	+	
4288			H+	+	/	/	+		+ (33.42)	H+	+		+ (22.83)	H+	+	
4289			H+	+	/	/	+		+ (34.09)	H+	+		+ (23.74)	H+	+	
4290	5	6,8	H+	+	/	/	+	6/6	+ (30.57)	H+	+	6/6	+ (25.77)	H+	+	6/6
4291			H+	+	/	/	+		+ (30.47)	H+	+		+ (28.32)	H+	+	
4292			H+	+	/	/	+		+ (30.15)	H+	+		+ (21.79)	H+	+	
4293			H+	+	/	/	+		+ (27.68)	H+	+		+ (24.2)	H+	+	
4294			H+	+	/	/	+		+ (30.49)	H+	+		+ (20.8)	H+	+	
4295			H+	+	/	/	+		+ (32.37)	H+	+		+ (21.33)	H+	+	

Smoked salmon
Listeria monocytogenes BR32 Extra clean protocol
Aerobic mesophilic flora: 9,0.10⁴ cfu/g

N° Sample	Level	Inoculation (cfu/25g)	NF EN ISO 11290-1◆						MicroSEQ *Listeria monocytogenes*							
			Fraser 1/2		Fraser		Result	Positive/total	Manual extraction protocol - Rapid Spin				Automated extraction protocol - NAE			
			O&A	PALCAM	O&A	PALCAM			PCR (Ct)	O&A	Result	Positive/Total	PCR (Ct)	O&A	Result	Positive/Total
4181	0	/	-	-	-	-	-	0/6	-	-	-	0/6	-	-		0/6
4182			-	-	-	-	-		-	-	-		-	-		
4183			-	-	-	-	-		-	-	-		-	-		
4184			-	-	-	-	-		+(atypical curve)	-	-		-	-		
4185			-	-	-	-	-		-	-	-		-	-		
4186			-	-	-	-	-		-	-	-		-	-		
4409	1	0,4	-	-	-	-	-	3/6	+ (16.96)	H+	+	2/6	-	-	-	3/6
4410			-	-	-	-	-		+ (18.08)	H+	+		-	-	-	
4411			H+	+	/	/	+		-	-	-		+ (19.88)	H+	+	
4412			H+	+	/	/	+		-	-	-		+ (20.03)	H+	+	
4413			-	-	-	-	-		-	-	-		-	-	-	
4414			H+	+	/	/	+		-	-	-		+ (21.75)	H+	+	
4187	2	0,6	-	-	-	-	-	4/6	-	-	-	3/6	-	-	0	4/6
4188			H+	+	H+	+	+		-	-	-		+ (29.65)	H+	+	
4189			H+	+	H+	+	+		-	-	-		+ (21.86)	H+	+	
4190			H+	+	H+	+	+		+ (21.09)	H+	+		+ (24.43)	H+	+	
4191			-	-	-	-	-		+ (27.87)	H+	+		-	-	-	
4192			H+	+	H+	+	+		+ (24.56)	H+	+		+ (23.92)	H+	+	
4193	3	1,3	H+	+	H+	+	+	6/6	+ (23.81)	H+	+	6/6	+ (20.35)	H+	+	6/6
4194			H+	+	H+	+	+		+ (23.2)	H+	+		+ (26.97)	H+	+	
4195			H+	+	H+	+	+		+ (26.13)	H+	+		+ (20.52)	H+	+	
4196			H+	+	H+	+	+		+ (24.46)	H+	+		+ (20.35)	H+	+	
4197			H+	+	H+	+	+		+ (20.35)	H+	+		+ (20.24)	H+	+	
4198			H+	+	H+	+	+		+ (26.3)	H+	+		+ (22.61)	H+	+	

◆ Analysis performed according to the COFRAC accreditation

Smoked salmon
Listeria monocytogenes BR32 Extra clean protocol
Aerobic mesophilic flora: 9,0.10^4 cfu/g

N° Sample	Level	Inoculation (cfu/25g)	NF EN ISO 11290-1◆						MicroSEQ *Listeria monocytogenes*							
			Fraser 1/2		Fraser		Result	Positive/total	Manual extraction protocol - Rapid Spin				Automated extraction protocol - NAE			
			O&A	PALCAM	O&A	PALCAM			PCR (Ct)	O&A	Result	Positive/Total	PCR (Ct)	O&A	Result	Positive/Total
4199	4	2,6	H+	+	H+	+	+	6/6	+ (23.17)	H+	+	6/6	+ (19.25)	H+	+	6/6
4200			H+	+	H+	+	+		+ (25.22)	H+	+		+ (27.38)	H+	+	
4201			H+	+	H+	+	+		+ (23.9)	H+	+		+ (21.99)	H+	+	
4202			H+	+	H+	+	+		+ (28.15)	H+	+		+ (28.03)	H+	+	
4203			H+	+	H+	+	+		+ (24.56)	H+	+		+ (22.51)	H+	+	
4204			H+	+	H+	+	+		+ (28.46)	H+	+		+ (21.58)	H+	+	
4205	5	6,5	H+	+	H+	+	+	6/6	+ (23.01)	H+	+	6/6	+ (23.21)	H+	+	6/6
4206			H+	+	H+	+	+		+ (25.16)	H+	+		+ (23.15)	H+	+	
4207			H+	+	H+	+	+		+ (18.12)	H+	+		+ (20.46)	H+	+	
4208			H+	+	H+	+	+		+ (19.33)	H+	+		+ (21.07)	H+	+	
4209			H+	+	H+	+	+		+ (25.82)	H+	+		+ (20.68)	H+	+	
4210			H+	+	H+	+	+		+ (24.72)	H+	+		+ (20.6)	H+	+	

Zucchini
Listeria monocytogenes 1016/1413
Aerobic mesophilic flora: 4,0.10^{5}cfu/g

N°Sample	Level	Inoculation (cfu/25g	NF EN ISO 11290-1◆						MicroSEQ *Listeria monocytogenes*							
			Fraser 1/2		Fraser		Result	Positive/total	Manual extraction protocol - Rapid Spin				Automated extraction protocol - NAE			
			O&A	PALCAM	O&A	PALCAM			PCR (Ct)	O&A	Result	Positive/Total	PCR (Ct)	O&A	Result	Positive/Total
4379	0	/	-	-	-	-	-	0/6	-	-	-	0/6	-	-	-	0/6
4380			-	-	-	-	-		-	-	-		-	-	-	
4381			-	-	-	-	-		-	-	-		-	-	-	
4382			-	-	-	-	-		-	-	-		-	-	-	
4383			-	-	-	-	-		-	-	-		-	-	-	
4384			-	-	-	-	-		-	-	-		-	-	-	
4461	1	0,2	-	-	-	-	-	1/6	-	-	-	1/6	-	-	-	1/6
4462			-	-	-	-	-		+ (22.25)	+	+		-	-	-	
4463			-	-	-	-	-		-	-	-		-	-	-	
4464			-	-	-	-	-		-	-	-		-	-	-	
4465			H+	+	/	/	+		-	-	-		+ (21.88)	+	+	
4466			-	-	-	-	-		-	-	-		-	-	-	
4385	2	0,8	H+	+	/	/	+	4/6	+ (23.92)	H+	+	4/6	+ (19.81)	+	+	4/6
4386			-	-	-	-	-		-	-	-		-	*-	-	
4387			-	-	-	-	-		-	-	-		-	-	-	
4388			H+	+	/	/	+		+ (23.72)	H+	+		+ (22.61)	+	+	
4389			H+	+	/	/	+		+ (23.39)	H+	+		+ (21.16)	+	+	
4390			H+	+	/	/	+		+ (25.86)	H+	+		+ (20.64)	+	+	
4391	3	1.5	H+	+	/	/	+	6/6	+ (21.93)	H+	+	6/6	+ (26.69)	+	+	6/6
4392			H+	+	/	/	+		+ (19.14)	H+	+		+ (21.34)	+	+	
4393			H+	+	/	/	+		+ (22.69)	H+	+		+ (21.02)	+	+	
4394			H+	+	/	/	+		+ (23.7)	H+	+		+ (20.8)	+	+	
4395			H+	+	/	/	+		+ (22.1)	H+	+		+ (20.44)	+	+	
4396			H+	+	/	/	+		+ (20.37)	H+	+		+ (20.04)	+	+	
4397	4	3	H+	+	/	/	+	6/6	+ (21.69)	H+	+	5/6	+ (18.89)	+	+	6/6
4398			H+	+	/	/	+		+ (29.78)	H+	+		+ (21.39)	+	+	
4399			H+	+	/	/	+		+ (19.87)	H+	+		+ (19.76)	+	+	
4400			H+	+	/	/	+		-	-	-		+ (20.48)	+	+	
4401			H+	+	/	/	+		+ (23.3)	H+	+		+ (21.44)	+	+	
4402			H+	+	/	/	+		+ (19.01)	H+	+		+ (19.51)	+	+	

◆ Analysis performed according to the COFRAC accreditation

Zucchini
Listeria monocytogenes 1016/1413
Aerobic mesophilic flora: 4,0.10^{5}cfu/g

N°Sample	Level	Inoculation (cfu/25g	NF EN ISO 11290-1◆						MicroSEQ *Listeria monocytogenes*							
			Fraser 1/2		Fraser		Result	Positive/total	Manual extraction protocol - Rapid Spin				Automated extraction protocol - NAE			
			O&A	PALCAM	O&A	PALCAM			PCR (Ct)	O&A	Result	Positive/Total	PCR (Ct)	O&A	Result	Positive/Total
4403	5	7.5	H+	+	/	/	+	6/6	+ (19.1)	H+	+	6/6	+ (19.21)	+	+	6/6
4404			H+	+	/	/	+		+ (18.44)	H+	+		+ (21.02)	+	+	
4405			H+	+	/	/	+		+ (21.38)	H+	+		+ (23.74)	+	+	
4406			H+	+	/	/	+		+ (19.44)	H+	+		+ (18.03)	+	+	
4407			H+	+	/	/	+		+ (20.09)	H+	+		+ (22.62)	+	+	
4408			H+	+	/	/	+		+ (21.79)	H+	+		+ (19.72)	+	+	

Process water
Listeria monocytogenes 877/113
Aerobic mesophilic flora: 1,0.10^{5}cfu/g

N° Sample	Level	Inoculation (cfu/25g)	NF EN ISO 11290-1◆						MicroSEQ *Listeria monocytogenes*							
			Fraser 1/2		Fraser		Result	Positive/total	Manual extraction protocol - Rapid Spin				Automated extraction protocol - NAE			
			O&A	PALCAM	O&A	PALCAM			PCR (Ct)	O&A	Result	Positive/Total	PCR (Ct)	O&A	Result	Positive/Total
3898	0	/	-	-	-	-	-	0/6	-	-	-	0/6	-	-	-	0/6
3899			-	-	-	-	-		-	-	-		-	-	-	
3900			-	-	-	-	-		-	-	-		-	-	-	
3901			-	-	-	-	-		-	-	-		-	-	-	
3902			-	-	-	-	-		-	-	-		-	-	-	
3903			-	-	-	-	-		-	-	-		-	-	-	
3904	1	0,3	-	-	-	-	-	0/6	-	-	-	1/6	-	-	-	0/6
3905			-	-	-	-	-		-	-	-		-	-	-	
3906			-	-	-	-	-		-	-	-		-	-	-	
3907			-	-	-	-	-		+ (16.93)	+	+		-	-	-	
3908			-	-	-	-	-		-	-	-		-	-	-	
3909			-	-	-	-	-		-	-	-		-	-	-	
4036	2	0,3	-	-	-	-	-	1/6	/	/	/	/	-	-	-	1/6
4037			-	-	-	-	-		/	/	/		-	-	-	
4038			-	-	-	-	-		/	/	/		-	-	-	
4039			H+	+	H+	+	+		/	/	/		+ (19.54)	+	+	
4040			-	-	-	-	-		/	/	/		-	-	-	
4041			-	-	-	-	-		/	/	/		-	-	-	
3910	3	0,6	-	-	-	-	-	5/6	-	-	-	3/6	-	-	-	5/6
3911			H+	+	H+	+	+		-	-	-		+ (18.56)	+	+	
3912			H+	+	H+	+	+		+ (15.31)	+	+		+ (19.18)	+	+	
3913			H+	+	H+	+	+		-	-	-		+ (17.02)	+	+	
3914			H+	+	H+	+	+		+ (15.12)	+	+		+ (19.14)	+	+	
3915			H+	+	H+	+	+		+ (16.16)	+	+		+ (19.44)	+	+	
3916	4	1,2	-	-	-	-	-	4/6	-	-	-	2/6	-	-	-	4/6
3917			H+	+	H+	+	+		+ (15.23)	+	+		+ (17.85)	+	+	
3918			H+	+	H+	+	+		-	-	-		+ (18.04)	+	+	
3919			-	-	-	-	-		-	-	-		-	-	-	
3920			H+	+	H+	+	+		+ (21.74)	+	+		+ (19)	+	+	
3921			H+	+	H+	+	+		-	-	-		+ (18.1)	+	+	

◆ Analysis performed according to the COFRAC accreditation

Process water
Listeria monocytogenes 877/113
Aerobic mesophilic flora: 1,0.10^{5}cfu/g

N° Sample	Level	Inoculation (cfu/25g)	NF EN ISO 11290-1◆						MicroSEQ *Listeria monocytogenes*							
			Fraser 1/2		Fraser		Result	Positive/total	Manual extraction protocol - Rapid Spin				Automated extraction protocol - NAE			
			O&A	PALCAM	O&A	PALCAM			PCR (Ct)	O&A	Result	Positive/Total	PCR (Ct)	O&A	Result	Positive/Total
3922	5	3,1	H+	+	H+	+	+	6/6	+ (14.72)	+	+	5/6	+ (19.21)	+	+	6/6
3923			H+	+	H+	+	+		-	-	-		+ (19.26)	+	+	
3924			H+	+	H+	+	+		+ (14.99)	+	+		+ (18.65)	+	+	
3925			H+	+	H+	+	+		+ (15.05)	+	+		+ (19.93)	+	+	
3926			H+	+	H+	+	+		-	-	-		+ (18.49)	+	+	
3927			H+	+	H+	+	+		+ (19.05)	+	+		+ (18.8)	+	+	

Appendix 6 - Inclusivity / exclusivity: raw data

INCLUSIVITY - Rapid Spin protocol							
No	Strain	Species	Reference	Origin	Inoculation level (CFU/225mL Half Fraser)	PCR result	Streaking on O&A
1	*Listeria*	*monocytogenes*	1011/1410	Frozen broccoli	26	+	H+
2	*Listeria*	*monocytogenes*	153	Soft cheese (Munster)	15	+	H+
3	*Listeria*	*monocytogenes*	1972/2399	Pie with mushrooms	17	+	H+
4	*Listeria*	*monocytogenes*	1973/2400	Egg and ham pastry (Quiche Lorraine)	29	+	H+
5	*Listeria*	*monocytogenes*	2760/3145	Raw pork meat	32	+	H+
6	*Listeria*	*monocytogenes*	32.183	Croque Monsieur	52	+	H+
7	*Listeria*	*monocytogenes*	38/181	Toulouse sausages	31	+	H+
8	*Listeria*	*monocytogenes*	5721/6179	Smoked bacon	53	+	H+
9	*Listeria*	*monocytogenes*	7111/7516	Pâté (Rillettes)	35	+	H+
10	*Listeria*	*monocytogenes*	850/109	Nordic salad	62	+	H+
11	*Listeria*	*monocytogenes*	877/113	Food industry environment	18	+	H+
12	*Listeria*	*monocytogenes*	913/1 048	Black pudding	27	+	H+
13	*Listeria*	*monocytogenes*	A00C022	Merguez	16	+	H+
14	*Listeria*	*monocytogenes*	A00C036	Poultry (guinea)	11	+	H+
15	*Listeria*	*monocytogenes*	A00C039	Sausages (Diots de Savoie)	11	+	H+
16	*Listeria*	*monocytogenes*	A00C040	Pâté	6	+	H+
17	*Listeria*	*monocytogenes*	A00C041	Sausage	34	+	H+
18	*Listeria*	*monocytogenes*	A00C042	Toulouse sausage	33	+	H+
19	*Listeria*	*monocytogenes*	A00C043	Smoked bacon	20	+	H+
20	*Listeria*	*monocytogenes*	A00C044	Poultry (Duck)	37	+	H+
21	*Listeria*	*monocytogenes*	A00C052	Poultry	33	+	H+
22	*Listeria*	*monocytogenes*	A00C053	Poultry	40	+	H+
23	*Listeria*	*monocytogenes*	A00E082	Environment (smoked salmon)	35	+	H+
24	*Listeria*	*monocytogenes*	A00L097	Milk	59	+	H+
25	*Listeria*	*monocytogenes*	A00M009	Smoked salmon	28	+	H+
26	*Listeria*	*monocytogenes*	A00M032	Smoked salmon	50	+	H+
27	*Listeria*	*monocytogenes*	Ad235	Poultry	44	+	H+
28	*Listeria*	*monocytogenes*	Ad249	Environment (Meat product)	27	+	H+
29	*Listeria*	*monocytogenes*	Ad253	Semi-hard cheese	20	+	H+
30	*Listeria*	*monocytogenes*	Ad260	Semi-hard cheese	16	+	H+
31	*Listeria*	*monocytogenes*	Ad265	Pork	15	+	H+
32	*Listeria*	*monocytogenes*	Ad266	Poultry	8	+	H+
33	*Listeria*	*monocytogenes*	Ad267	Fermented sausage	41	+	H+
34	*Listeria*	*monocytogenes*	Ad268	Cured ham	45	+	H+
35	*Listeria*	*monocytogenes*	Ad270	Fermented sausage	30	+	H+
36	*Listeria*	*monocytogenes*	Ad273	Cured delicatessen	21	+	H+
37	*Listeria*	*monocytogenes*	Ad274	Ready-to-eat food (Asiatic meal)	16	+	H+

INCLUSIVITY - Rapid Spin protocol							
No	**Strain**	**Species**	**Reference**	**Origin**	**Inoculation level (CFU/225mL Half Fraser)**	**PCR result**	**Streaking on O&A**
38	*Listeria*	*monocytogenes*	Ad285	Ready-to-eat food	15	+	H+
39	*Listeria*	*monocytogenes*	Ad494	Ready-to-eat food (Piemontaise salad)	22	+	H+
40	*Listeria*	*monocytogenes*	Ad534	Fruits	34	+	H+
41	*Listeria*	*monocytogenes*	Ad544	Cooked vegetables	68	+	H+
42	*Listeria*	*monocytogenes*	Ad546	Flour	47	+	H+
43	*Listeria*	*monocytogenes*	Ad548	Environment (Seafood)	47	+	H+
44	*Listeria*	*monocytogenes*	Ad551	Environment (Pastry environment)	42	+	H+
45	*Listeria*	*monocytogenes*	Ad618	Soft cheese (Munster)	44	+	H+
46	*Listeria*	*monocytogenes*	Ad623	Bread crumbs	45	+	H+
47	*Listeria*	*monocytogenes*	Ad625	Environment (Dairy industry)	31	+	H+
48	*Listeria*	*monocytogenes*	Ad626	Gorgonzola	32	+	H+
49	*Listeria*	*monocytogenes*	Ad630	Semi-hard cheese (Cantal)	22	+	H+
50	*Listeria*	*monocytogenes*	Ad665	Raw milk	28	+	H+

EXCLUSIVITY - *Listeria*. spp strains							
No	Strain	Species	Reference	Origin	Inoculation Level CFU/mL	PCR result	Streaking on O&A orPalcam
1	*Listeria*	*grayi*	Ad1295	Smoked salmon	172(+milk)	-	H-
2	*Listeria*	*grayi*	Ad1296	Pork meat sausages	110(+milk)	-	H-
3	*Listeria*	*innocua*	1	Smoked salmon	45	-	+
4	*Listeria*	*innocua*	Ad 658	Gorgonzola	59	-	+
5	*Listeria*	*innocua*	Ad 655	Brine	12	-	+
6	*Listeria*	*innocua*	Ad 660	Bread crumbs	30	-	+
7	*Listeria*	*innocua*	Ad 663	Environment (dairy industry)	44	-	+
8	*Listeria*	*innocua*	Ad 671	Smoked bacon	16	-	+
9	*Listeria*	*innocua*	Ad 661	Soft cheese (Pont L'Evêque)	32	-	+
10	*Listeria*	*innocua*	Ad 659	Environment (dairy industry)	60	-	+
11	*Listeria*	*ivanovii*	Ad 466	Raw veal meat	16	-	+
12	*Listeria*	*ivanovii*	Ad 662	Environment (dairy industry)	53	-	+
13	*Listeria*	*ivanovii*	BR11	Arial Narrow	42	-	+
14	*Listeria*	*ivanovii londoniensis*	CIP103466	/	30	-	+
15	*Listeria*	*ivanovii*	Ad 1289	Raw milk cheese	42	-	+
16	*Listeria*	*ivanovii*	Ad 1290	Milk powder	45	-	+
17	*Listeria*	*ivanovii*	Ad 1291	Poultry	27	-	+
18	*Listeria*	*ivanovii*	Ad 1288	Sheep milk	41	-	+
19	*Listeria*	*seeligeri*	Ad 649	Cheese	36	-	+
20	*Listeria*	*seeligeri*	Ad 651	Trout	58	-	+
21	*Listeria*	*seeligeri*	Ad 652	Environment (dairy industry)	36	-	+
22	*Listeria*	*seeligeri*	Ad 674	Soft cheese (Munster)	30	-	+
23	*Listeria*	*seeligeri*	BR1	Trout	50	-	+
24	*Listeria*	*seeligeri*	BR18	Environment (fish)	43(+milk)	-	+
25	*Listeria*	*seeligeri*	CIP100100	/	10	-	+
26	*Listeria*	*welshimeri*	Ad1276	Environment (Slaughterhouse)	41	-	+
27	*Listeria*	*welshimeri*	Ad1235	Beef meat	22	-	+
28	*Listeria*	*welshimeri*	191424	Poultry	26	-	+
29	*Listeria*	*welshimeri*	Ad 1175	Ready-to-eat-food	29	-	+
30	*Listeria*	*welshimeri*	Ad 650	Poultry	45	-	+

EXCLUSIVITY - Strains from other genus						
No	**Strain**	**Species**	**Reference**	**Origin**	**Inoculation level (CFU/mL)**	**PCR result**
1	*Bacillus*	*cereus*	Ad 465	Salmon Terrine	$2,6.10^4$	-
2	*Bacillus*	*circulans*	Ad 759	Vegetables	$1,1.10^5$	-
3	*Bacillus*	*coagulans*	Ad 731	Dairy product	1,2.105	-
4	*Bacillus*	*licheniformis*	Ad 978	Dairy product	$8,0.10^3$	-
5	*Bacillus*	*pumilus*	Ad 284	Ready-to-eat	$3,0.10^5$	-
6	*Brochrotrix*	*compessis*	CIP 1029205	Environment	$1,5.10^5$	-*
7	*Carnobacterium*	*piscicola*	Ad 369	Raw milk	$1,2.10^5$	-*
8	*Enterococcus*	*durans*	Ad 149	Ham	$3,2.10^4$	-
9	*Enterococcus*	*faecalis*	89L326	Soft cheese (Vacherin)	$1,7.10^5$	-
10	*Lactobacillus*	*brevis*	86L126	Ham	$3,4.10^4$	-
11	*Lactobacillus*	*curvatus*	Ad 380	Delicatessen	$3,8.10^5$	-
12	*Lactobacillus*	*sakei*	Ad 473	Ham	$5,5.10^5$	-
13	*Leuconostoc*	*carnosum*	Ad 411	Ham	$4,5.10^5$	-
14	*Leuconostoc*	*citreum*	Ad 396	Ham	$7,7.10^5$	-
15	*Micrococcus*	*luteus*	Ad 432	Cocktail	$2,8.10^5$	-
16	*Staphylococcus*	*aureus*	Ad 165	Smoked delicatessen	$2,2.10^5$	-
17	*Staphylococcus*	*epidermidis*	Ad 931	Fruits	$7,2.10^4$	-
18	*Staphylococcus*	*haemoliticus*	Ad 989	Dairy product	$2,9.10^5$	-
19	*Streptococcus*	*bovis*	91L518	Dairy product	$2,8.10^4$	-
20	*Streptococcus*	*salivarius sps thermophilus*	Ad 441	Dairy product	$1,8.10^4$	-

**: The extraction was realised directly on the culture broth (BHI or MRS depending of the tested strain) due to impossibility to obtain the growth of the strain in BPW*

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

Laboratory A

Aerobic mesophilic flora:1,5.10^7/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
A2	-	-	-	-	-	-	-	-	-	**NA**
A5	-	-	-	-	-	-	-	-	-	**NA**
A9	-	-	-	-	-	-	-	-	-	**NA**
A10	-	-	-	-	-	-	-	-	-	**NA**
A14	-	-	-	-	-	-	-	-	-	**NA**
A19	-	-	-	-	-	-	+d/-	-	-	**PPNA**
A21	-	-	-	-	-	-	-	-	-	**NA**
A24	-	-	-	-	-	-	-	-	-	**NA**
A3	+	+	+	+	+	+	+	+	+	**PA**
A6	+	+	+	+	+	+	+	+	+	**PA**
A7	+	+	+	+	+	+	+	+	+	**PA**
A12	+	+	+	+	+	+	+	+	+	**PA**
A13	+	+	+	+	+	+	+	+	+	**PA**
A15	+	+	+	+	+	+	+	+	+	**PA**
A17	+	+	+	+	+	+	+	+	+	**PA**
A18	+	+	+	+	+	+	+	+	+	**PA**
A1	+	+	+	+	+	+	+	+	+	**PA**
A4	+	+	+	+	+	+	+	+	+	**PA**
A8	+	+	+	+	+	+	+	+	+	**PA**
A11	+	+	+	+	+	+	+	+	+	**PA**
A16	+	+	+	+	+	+	+	+	+	**PA**
A20	+	+	+	+	+	+	+	+	+	**PA**
A22	+	+	+	+	+	+	+	+	+	**PA**
A23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory B

Aerobic mesophilic flora:4,9.10^{6}/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
B2	-	-	-	-	-	-	+/-	-	-	**PPNA**
B5	-	-	-	-	-	-	-	/	-	**NA**
B9	-	-	-	-	-	-	-	/	-	**NA**
B10	-	-	-	-	-	-	-	/	-	**NA**
B14	-	-	-	-	-	-	-	/	-	**NA**
B19	-	-	-	-	-	-	-	/	-	**NA**
B21	-	-	-	-	-	-	-	/	-	**NA**
B14	-	-	-	-	-	-	-	/	-	**NA**
B3	+	+	+	+	+	+	+	+	+	**PA**
B6	+	+	+	+	+	+	+	+	+	**PA**
B7	+	+	+	+	+	+	+	+	+	**PA**
B12	+	+	+	+	+	+	+	+	+	**PA**
B13	+	+	+	+	+	+	+	+	+	**PA**
B15	+	+	+	+	+	+	+	+	+	**PA**
B17	+	+	+	+	+	+	+	+	+	**PA**
B18	+	+	+	+	+	+	+	+	+	**PA**
B1	+	+	+	+	+	+	+	+	+	**PA**
B4	+	+	+	+	+	+	+	+	+	**PA**
B8	+	+	+	+	+	+	+	+	+	**PA**
B11	+	+	+	+	+	+	+	+	+	**PA**
B16	+	+	+	+	+	+	+	+	+	**PA**
B20	+	+	+	+	+	+	+	+	+	**PA**
B22	+	+	+	+	+	+	+	+	+	**PA**
B23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory C

Aerobic mesophilic flora:3,6.10^7/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
C2	-	-	-	-	-	-	-	/	-	**NA**
C5	-	-	-	-	-	-	-	/	-	**NA**
C9	-	-	-	-	-	-	-	-	-	**NA**
C10	-	-	-	-	-	-	-	-	-	**NA**
C14	-	-	-	-	-	-	-	-	-	**NA**
C19	-	-	-	-	-	-	-	/	-	**NA**
C21	-	-	-	-	-	-	+(37,80)	+2col	+	**PD**
C24	-	-	-	-	-	-	-	-	-	**NA**
C3	+	+	+	+	+	+	+	+	+	**PA**
C6	+	+	+	+	+	+	+	+	+	**PA**
C7	+	+	+	+	+	+	+	+	+	**PA**
C12	+	+	+	+	+	+	+	+	+	**PA**
C13	+	+	+	+	+	+	+	+	+	**PA**
C15	+	+	+	+	+	+	+	+	+	**PA**
C17	+	+	+	+	+	+	+	+	+	**PA**
C18	+	+	+	+	+	+	+	+	+	**PA**
C1	+	+	+	+	+	+	+	+	+	**PA**
C4	+	+	+	+	+	+	+	+	+	**PA**
C8	+	+	+	+	+	+	+	+	+	**PA**
C11	+	+	+	+	+	+	+	+	+	**PA**
C16	+	+	+	+	+	+	+	+	+	**PA**
C20	+	+	+	+	+	+	+	+	+	**PA**
C22	+	+	+	+	+	+	+	+	+	**PA**
C23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory D

Aerobic mesophilic flora:2,2.10^{8}/g

Results from second extraction, contaminations observed at the first extraction (results not communicated)
D14:Hole in the stomacher bag

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
D2	-	-	-	-	-	-	-	-	-	**NA**
D5	-	-	-	-	-	-	-	-	-	**NA**
D9	-	-	-	-	-	-	-	-	-	**NA**
D10	-	-	-	-	-	-	-	-	-	**NA**
D14	-	-	-	-	-	-	+(Ct38)	-	-	**PPNA**
D19	-	-	-	-	-	-	-	-	-	**NA**
D21	-	-	-	-	-	-	-	-	-	**NA**
D24	-	-	-	-	-	-	-	-	-	**NA**
D3	+	+	+	+	+	+	+	+	+	**PA**
D6	+	+	+	+	+	+	+	+	+	**PA**
D7	+	+	+	+	+	+	+	+	+	**PA**
D12	+	+	+	+	+	+	+	+	+	**PA**
D13	+	+	+	+	+	+	+	+	+	**PA**
D15	+	+	+	+	+	+	+	+	+	**PA**
D17	+	+	+	+	+	+	+	+	+	**PA**
D18	+	+	+	+	+	+	+	+	+	**PA**
D1	+	+	+	+	+	+	+	+	+	**PA**
D4	+	+	+	+	+	+	+	+	+	**PA**
D8	+	+	+	+	+	+	+	+	+	**PA**
D11	+	+	+	+	+	+	+	+	+	**PA**
D16	+	+	+	+	+	+	+	+	+	**PA**
D20	+	+	+	+	+	+	+	+	+	**PA**
D22	+	+	+	+	+	+	+	+	+	**PA**
D23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory E

Aerobic mesophilic flora:8,0.10^7/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
E2	-	-	-	-	-	-	-	-	-	**NA**
E5	-	-	-	-	-	-	-	-	-	**NA**
E9	-	-	-	-	-	-	+/-	-	-	**PPNA**
E10	-	-	-	-	-	-	+/-	-	-	**PPNA**
E14	-	-	-	-	-	-	-	-	-	**NA**
E19	-	-	-	-	-	-	-	-	-	**NA**
E21	-	-	-	-	-	-	+/-	-	-	**PPNA**
E24	-	-	-	-	-	-	-	-	-	**NA**
E3	+	+	+	+	+	+	+	+	+	**PA**
E6	+	+	+	+	+	+	+	+	+	**PA**
E7	+	+	+	+	+	+	+	+	+	**PA**
E12	+	+	+	+	+	+	+	+	+	**PA**
E13	+	+	+	+	+	+	+	+	+	**PA**
E15	+	+	+	+	+	+	+	+	+	**PA**
E17	+	+	+	+	+	+	+	+	+	**PA**
E18	+	+	+	+	+	+	+	+	+	**PA**
E1	+	+	+	+	+	+	+	+	+	**PA**
E4	+	+	+	+	+	+	+	+	+	**PA**
E8	+	+	+	+	+	+	+	+	+	**PA**
E11	+	+	+	+	+	+	+	+	+	**PA**
E16	+	+	+	+	+	+	+	+	+	**PA**
E20	+	+	+	+	+	+	+	+	+	**PA**
E22	+	+	+	+	+	+	+	+	+	**PA**
E23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory F

Aerobic mesophilic flora:2,6.10^7/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
F2	-	-	-	-	-	-	-	-	-	**NA**
F5	-	-	-	-	-	-	-	-	-	**NA**
F9	-	-	-	-	-	-	-	-	-	**NA**
F10	-	-	-	-	-	-	-	-	-	**NA**
F14	-	-	-	-	-	-	-	-	-	**NA**
F19	-	-	-	-	-	-	-	-	-	**NA**
F21	-	-	-	-	-	-	-	-	-	**NA**
F24	-	-	-	-	-	-	-	-	-	**NA**
F3	+	+	+	+	+	+	+	+	+	**PA**
F6	+	+	+	+	+	+	+	+	+	**PA**
F7	+	+	+	+	+	+	+	+	+	**PA**
F12	+	+	+	+	+	+	+	+	+	**PA**
F13	+	+	+	+	+	+	+	+	+	**PA**
F15	+	+	+	+	+	+	+	+	+	**PA**
F17	+	+	+	+	+	+	+	+	+	**PA**
F18	+	+	+	+	+	+	+	+	+	**PA**
F1	+	+	+	+	+	+	+	+	+	**PA**
F4	+	+	+	+	+	+	+	+	+	**PA**
F8	+	+	+	+	+	+	+	+	+	**PA**
F11	+	+	+	+	+	+	+	+	+	**PA**
F16	+	+	+	+	+	+	+	+	+	**PA**
F20	+	+	+	+	+	+	+	+	+	**PA**
F22	+	+	+	+	+	+	+	+	+	**PA**
F23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory G

Aerobic mesophilic flora:4,0.10^{6}/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
G2	-	-	-	-	-	-	-	/	-	**NA**
G5	-	-	-	-	-	-	-	/	-	**NA**
G9	-	-	-	-	-	-	-	/	-	**NA**
G10	-	-	-	-	-	-	-	/	-	**NA**
G14	-	-	-	-	-	-	-	/	-	**NA**
G19	-	-	-	-	-	-	-	/	-	**NA**
G21	-	-	-	-	-	-	-	/	-	**NA**
G24	-	-	-	-	-	-	-	/	-	**NA**
G3	+	+	+	+	+	+	+	+	+	**PA**
G6	+	+	+	+	+	+	+	+	+	**PA**
G7	+	+	+	+	+	+	+	+	+	**PA**
G12	+	+	+	+	+	+	+	+	+	**PA**
G13	+	+	+	+	+	+	+	+	+	**PA**
G15	+	+	+	+	+	+	+	+	+	**PA**
G17	+	+	+	+	+	+	+	+	+	**PA**
G18	+	+	+	+	+	+	+	+	+	**PA**
G1	+	+	+	+	+	+	+	+	+	**PA**
G4	+	+	+	+	+	+	+	+	+	**PA**
G8	+	+	+	+	+	+	+	+	+	**PA**
G11	+	+	+	+	+	+	+	+	+	**PA**
G16	+	+	+	+	+	+	+	+	+	**PA**
G20	+	+	+	+	+	+	+	+	+	**PA**
G22	+	+	+	+	+	+	+	+	+	**PA**
G23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory H

Aerobic mesophilic flora:2,8.10^7/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
H2	-	-	-	-	-	-	+/-	-	-	**PPNA**
H5	-	-	-	-	-	-	-	/	-	**NA**
H9	-	-	-	-	-	-	+/-	-	-	**PPNA**
H10	-	-	-	-	-	-	+/-	-	-	**PPNA**
H14	-	-	-	-	-	-	-	/	-	**NA**
H19	-	-	-	-	-	-	-	/	-	**NA**
H21	-	-	-	-	-	-	-	/	-	**NA**
H24	-	-	-	-	-	-	-	/	-	**NA**
H3	+	+	+	+	+	+	+	+	+	**PA**
H6	+	+	+	+	+	+	+	+	+	**PA**
H7	+	+	+	+	+	+	+	+	+	**PA**
H12	+	+	+	+	+	+	+	+	+	**PA**
H13	+	+	+	+	+	+	+	+	+	**PA**
H15	+	+	+	+	+	+	+	+	+	**PA**
H17	+	+	+	+	+	+	+	+	+	**PA**
H18	+	+	+	+	+	+	+	+	+	**PA**
H1	+	+	+	+	+	+	+	+	+	**PA**
H4	+	+	+	+	+	+	+	+	+	**PA**
H8	+	+	+	+	+	+	+	+	+	**PA**
H11	+	+	+	+	+	+	+	+	+	**PA**
H16	+	+	+	+	+	+	+	+	+	**PA**
H20	+	+	+	+	+	+	+	+	+	**PA**
H22	+	+	+	+	+	+	+	+	+	**PA**
H23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory I

Aerobic mesophilic flora:2,8.10^{6}/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
I2	-	-	-	-	-	-	-	/	-	**NA**
I5	-	-	-	-	-	-	-	/	-	**NA**
I9	-	-	-	-	-	-	-	/	-	**NA**
I10	-	-	-	-	-	-	-	/	-	**NA**
I14	-	-	-	-	-	-	-	/	-	**NA**
I19	-	-	-	-	-	-	-	/	-	**NA**
I21	-	-	-	-	-	-	-	/	-	**NA**
I24	-	-	-	-	-	-	-	/	-	**NA**
I3	+	+	+	+	+	+	+	+	+	**PA**
I6	+	+	+	+	+	+	+	+	+	**PA**
I7	+	+	+	+	+	+	+	+	+	**PA**
I12	+	+	+	+	+	+	+	+	+	**PA**
I13	+	+	+	+	+	+	+	+	+	**PA**
I15	+	+	+	+	+	+	+	+	+	**PA**
I17	+	+	+	+	+	+	+	+	+	**PA**
I18	+	+	+	+	+	+	+	+	+	**PA**
I1	+	+	+	+	+	+	+	+	+	**PA**
I4	+	+	+	+	+	+	+	+	+	**PA**
I8	+	+	+	+	+	+	+	+	+	**PA**
I11	+	+	+	+	+	+	+	+	+	**PA**
I16	+	+	+	+	+	+	+	+	+	**PA**
I20	+	+	+	+	+	+	+	+	+	**PA**
I22	+	+	+	+	+	+	+	+	+	**PA**
I23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory J

Aerobic mesophilic flora:>3,0.10^7/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
J2	-	-	-	-	-	-	-	/	-	**NA**
J5	-	-	-	-	-	-	-	/	-	**NA**
J9	-	-	-	-	-	-	-	/	-	**NA**
J10	-	-	-	-	-	-	-	/	-	**NA**
J14	-	-	-	-	-	-	-	/	-	**NA**
J19	-	-	-	-	-	-	+(Ct35,85)/-	-	-	**PPNA**
J21	-	-	-	-	-	-	-	/	-	**NA**
J24	-	-	-	-	-	-	-	/	-	**NA**
J3	+	+	+	+	+	+	+	+	+	**PA**
J6	+	+	+	+	+	+	+	+	+	**PA**
J7	+	+	+	+	+	+	+	+	+	**PA**
J12	+	+	+	+	+	+	+	+	+	**PA**
J13	+	+	+	+	+	+	+	+	+	**PA**
J15	+	+	+	+	+	+	+	+	+	**PA**
J17	+	+	+	+	+	+	+	+	+	**PA**
J18	+	+	+	+	+	+	+	+	+	**PA**
J1	+	+	+	+	+	+	+	+	+	**PA**
J4	+	+	+	+	+	+	+	+	+	**PA**
J8	+	+	+	+	+	+	+	+	+	**PA**
J11	+	+	+	+	+	+	+	+	+	**PA**
J16	+	+	+	+	+	+	+	+	+	**PA**
J20	+	+	+	+	+	+	+	+	+	**PA**
J22	+	+	+	+	+	+	+	+	+	**PA**
J23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory K

Aerobic mesophilic flora:5,7.10^7/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
K2	-	-	-	-	-	-	-	-	-	**NA**
K5	-	-	-	-	-	-	-	-	-	**NA**
K9	-	-	-	-	-	-	-	-	-	**NA**
K10	-	-	-	-	-	-	-	-	-	**NA**
K14	-	-	-	-	-	-	-	-	-	**NA**
K19	-	-	-	-	-	-	-	-	-	**NA**
K21	-	-	-	-	-	-	-	-	-	**NA**
K24	-	-	-	-	-	-	-	-	-	**NA**
K3	+	+	+	+	+	+	+	+	+	**PA**
K6	+	+	+	+	+	+	+	+	+	**PA**
K7	+	+	+	+	+	+	+	+	+	**PA**
K12	+	+	+	+	+	+	+	+	+	**PA**
K13	+	+	+	+	+	+	+	+	+	**PA**
K15	+	+	+	+	+	+	+	+	+	**PA**
K17	+	+	+	+	+	+	+	+	+	**PA**
K18	+	+	+	+	+	+	+	+	+	**PA**
K1	+	+	+	+	+	+	+	+	+	**PA**
K4	+	+	+	+	+	+	+	+	+	**PA**
K8	+	+	+	+	+	+	+	+	+	**PA**
K11	+	+	+	+	+	+	+	+	+	**PA**
K16	+	+	+	+	+	+	+	+	+	**PA**
K20	+	+	+	+	+	+	+	+	+	**PA**
K22	+	+	+	+	+	+	+	+	+	**PA**
K23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory L

Aerobic mesophilic flora:1,0.10^{6}/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
L2	-	-	-	-	-	-	-	-	-	**NA**
L5	-	-	-	-	-	-	-	-	-	**NA**
L9	-	-	-	-	-	-	-	-	-	**NA**
L10	-	-	-	-	-	-	-	-	-	**NA**
L14	-	-	-	-	-	-	-	-	-	**NA**
L19	-	-	-	-	-	-	+(Ct34)	-	-	**PPNA**
L21	-	-	-	-	-	-	+(Ct36,5)	-	-	**PPNA**
L24	-	-	-	-	-	-	+(Ct34)	-	-	**PPNA**
L3	+	+	+	+	+	+	+	+	+	**PA**
L6	+	+	+	+	+	+	+	+	+	**PA**
L7	+	+	+	+	+	+	+	+	+	**PA**
L12	+	+	+	+	+	+	+	+	+	**PA**
L13	+	+	+	+	+	+	+	+	+	**PA**
L15	+	+	+	+	+	+	+	+	+	**PA**
L17	+	+	+	+	+	+	+	+	+	**PA**
L18	+	+	+	+	+	+	+	+	+	**PA**
L1	+	+	+	+	+	+	+	+	+	**PA**
L4	+	+	+	+	+	+	+	+	+	**PA**
L8	+	+	+	+	+	+	+	+	+	**PA**
L11	+	+	+	+	+	+	+	+	+	**PA**
L16	+	+	+	+	+	+	+	+	+	**PA**
L20	+	+	+	+	+	+	+	+	+	**PA**
L22	+	+	+	+	+	+	+	+	+	**PA**
L23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory M

Aerobic mesophilic flora:2,9.10^7/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
M2	-	-	-	-	-	-	-	/	-	**NA**
M5	-	-	-	-	-	-	-	/	-	**NA**
M9	-	-	-	-	-	-	-	/	-	**NA**
M10	-	-	-	-	-	-	-	/	-	**NA**
M14	-	-	-	-	-	-	-	/	-	**NA**
M19	-	-	-	-	-	-	-	/	-	**NA**
M21	-	-	-	-	-	-	-	/	-	**NA**
M24	-	-	-	-	-	-	-	/	-	**NA**
M3	+	+	+	+	+	+	+	+	+	**PA**
M6	+	+	+	+	+	+	+	+	+	**PA**
M7	+	+	+	+	+	+	+	+	+	**PA**
M12	+	+	+	+	+	+	+	+	+	**PA**
M13	+	+	+	+	+	+	+	+	+	**PA**
M15	+	+	+	+	+	+	+	+	+	**PA**
M17	+	+	+	+	+	+	+	+	+	**PA**
M18	+	+	+	+	+	+	+	+	+	**PA**
M1	+	+	+	+	+	+	+	+	+	**PA**
M4	+	+	+	+	+	+	+	+	+	**PA**
M8	+	+	+	+	+	+	+	+	+	**PA**
M11	+	+	+	+	+	+	+	+	+	**PA**
M16	+	+	+	+	+	+	+	+	+	**PA**
M20	+	+	+	+	+	+	+	+	+	**PA**
M22	+	+	+	+	+	+	+	+	+	**PA**
M23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory N

Aerobic mesophilic flora:>3,0.10^7/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
N2	-	-	-	-	-	-	-	/	-	**NA**
N5	-	-	-	-	-	-	-	/	-	**NA**
N9	-	-	-	-	-	-	-	/	-	**NA**
N10	-	-	-	-	-	-	+	-	-	**PPNA**
N14	-	-	-	-	-	-	-	/	-	**NA**
N19	-	-	-	-	-	-	-	/	-	**NA**
N21	-	-	-	-	-	-	-	/	-	**NA**
N24	-	-	-	-	-	-	-	/	-	**NA**
N3	+	+	+	+	+	+	+	+	+	**PA**
N6	+	+	+	+	+	+	+	+	+	**PA**
N7	+	+	+	+	+	+	+	+	+	**PA**
N12	+	+	+	+	+	+	+	+	+	**PA**
N13	+	+	+	+	+	+	+	+	+	**PA**
N15	+	+	+	+	+	+	+	+	+	**PA**
N17	+	+	+	+	+	+	+	+	+	**PA**
N18	+	+	+	+	+	+	+	+	+	**PA**
N1	+	+	+	+	+	+	+	+	+	**PA**
N4	+	+	+	+	+	+	+	+	+	**PA**
N8	+	+	+	+	+	+	+	+	+	**PA**
N11	+	+	+	+	+	+	+	+	+	**PA**
N16	+	+	+	+	+	+	+	+	+	**PA**
N20	+	+	+	+	+	+	+	+	+	**PA**
N22	+	+	+	+	+	+	+	+	+	**PA**
N23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory O

Aerobic mesophilic flora:>3,0.10^7/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
O2	-	-	-	-	-	-	-	-	-	**NA**
O5	-	-	-	-	-	-	-	-	-	**NA**
O9	-	-	-	-	-	-	-	-	-	**NA**
O10	-	-	-	-	-	-	-	-	-	**NA**
O14	-	-	-	-	-	-	-	-	-	**NA**
O19	-	-	-	-	-	-	-	-	-	**NA**
O21	-	-	-	-	-	-	-	-	-	**NA**
O24	-	-	-	-	-	-	-	-	-	**NA**
O3	+	+	+	+	+	+	+	+	+	**PA**
O6	+	+	+	+	+	+	+	+	+	**PA**
O7	+	+	+	+	+	+	+	+	+	**PA**
O12	+	+	+	+	+	+	+	+	+	**PA**
O13	+	+	+	+	+	+	+	+	+	**PA**
O15	+	+	+	+	+	+	+	+	+	**PA**
O17	+	+	+	+	+	+	+	+	+	**PA**
O18	+	+	+	+	+	+	+	+	+	**PA**
O1	+	+	+	+	+	+	+	+	+	**PA**
O4	+	+	+	+	+	+	+	+	+	**PA**
O8	+	+	+	+	+	+	+	+	+	**PA**
O11	+	+	+	+	+	+	+	+	+	**PA**
O16	+	+	+	+	+	+	+	+	+	**PA**
O20	+	+	+	+	+	+	+	+	+	**PA**
O22	+	+	+	+	+	+	+	+	+	**PA**
O23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory P

Aerobic mesophilic flora:2,1.10^{6}/g

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
P2	-	-	-	-	-	-	-	-	-	**NA**
P5	-	-	-	-	-	-	-	-	-	**NA**
P9	-	-	-	-	-	-	-	-	-	**NA**
P10	-	-	-	-	-	-	-	-	-	**NA**
P14	-	-	-	-	-	-	-	-	-	**NA**
P19	-	-	-	-	-	-	-	-	-	**NA**
P21	-	-	-	-	-	-	-	-	-	**NA**
P24	-	-	-	-	-	-	-	-	-	**NA**
P3	+	+	+	+	+	+	+	+	+	**PA**
P6	+	+	+	+	+	+	+	+	+	**PA**
P7	+	+	+	+	+	+	+	+	+	**PA**
P12	+	+	+	+	+	+	+	+	+	**PA**
P13	+	+	+	+	+	+	+	+	+	**PA**
P15	+	+	+	+	+	+	+	+	+	**PA**
P17	+	+	+	+	+	+	+	+	+	**PA**
P18	+	+	+	+	+	+	+	+	+	**PA**
P1	+	+	+	+	+	+	+	+	+	**PA**
P4	+	+	+	+	+	+	+	+	+	**PA**
P8	+	+	+	+	+	+	+	+	+	**PA**
P11	+	+	+	+	+	+	+	+	+	**PA**
P16	+	+	+	+	+	+	+	+	+	**PA**
P20	+	+	+	+	+	+	+	+	+	**PA**
P22	+	+	+	+	+	+	+	+	+	**PA**
P23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory Q
Aerobic mesophilic flora: not performed

N°Sample	Reference method ISO 11290-1						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
Q2	-	-	-	-	-	-	-	/	-	**NA**
Q5	-	-	-	-	-	-	-	/	-	**NA**
Q9	-	-	-	-	-	-	-	/	-	**NA**
Q10	-	-	-	-	-	-	-	/	-	**NA**
Q14	-	-	-	-	-	-	-	/	-	**NA**
Q19	-	-	-	-	-	-	-	/	-	**NA**
Q21	-	-	-	-	-	-	-	/	-	**NA**
Q24	-	-	-	-	-	-	-	/	-	**NA**
Q3	+	+	+	+	+	+	+	+	+	**PA**
Q6	+	+	+	+	+	+	+	+	+	**PA**
Q7	+	+	+	+	+	+	+	+	+	**PA**
Q12	+	+	+	+	+	+	+	+	+	**PA**
Q13	+	+	+	+	+	+	+	+	+	**PA**
Q15	+	+	+	+	+	+	+	+	+	**PA**
Q17	+	+	+	+	+	+	+	+	+	**PA**
Q18	+	+	+	+	+	+	+	+	+	**PA**
Q1	+	+	+	+	+	+	+	+	+	**PA**
Q4	+	+	+	+	+	+	+	+	+	**PA**
Q8	+	+	+	+	+	+	+	+	+	**PA**
Q11	+	+	+	+	+	+	+	+	+	**PA**
Q16	+	+	+	+	+	+	+	+	+	**PA**
Q20	+	+	+	+	+	+	+	+	+	**PA**
Q22	+	+	+	+	+	+	+	+	+	**PA**
Q23	+	+	+	+	+	+	+	+	+	**PA**

Laboratory R(ADRIA)
Aerobic mesophilic flora:1,0.10^{7}/g

N°Sample	Reference method ISO 11290-1♦						Alternative method: MicroSEQ *Listeria monocytogenes*			Agreement
	Fraser 1/2		Fraser 1		Confirmation	Final result	PCR Result	Confirmation	Final result	
	O&A	Palcam	O&A	Palcam				Palcam		
R2	-	-	-	-	-	-	-	-	-	**NA**
R5	-	-	-	-	-	-	-	-	-	**NA**
R9	-	-	-	-	-	-	-	-	-	**NA**
R10	-	-	-	-	-	-	-	-	-	**NA**
R14	-	-	-	-	-	-	-	-	-	**NA**
R19	-	-	-	-	-	-	-	-	-	**NA**
R21	-	-	-	-	-	-	-	-	-	**NA**
R24	-	-	-	-	-	-	-	-	-	**NA**
R3	+	+	+	+	+	+	+	+	+	**PA**
R6	+	+	+	+	+	+	+	+	+	**PA**
R7	+	+	+	+	+	+	+	+	+	**PA**
R12	+	+	+	+	+	+	+	+	+	**PA**
R13	+	+	+	+	+	+	+	+	+	**PA**
R15	+	+	+	+	+	+	+	+	+	**PA**
R17	+	+	+	+	+	+	+	+	+	**PA**
R18	+	+	+	+	+	+	+	+	+	**PA**
R1	+	+	+	+	+	+	+	+	+	**PA**
R4	+	+	+	+	+	+	+	+	+	**PA**
R8	+	+	+	+	+	+	+	+	+	**PA**
R11	+	+	+	+	+	+	+	+	+	**PA**
R16	+	+	+	+	+	+	+	+	+	**PA**
R20	+	+	+	+	+	+	+	+	+	**PA**
R22	+	+	+	+	+	+	+	+	+	**PA**
R23	+	+	+	+	+	+	+	+	+	**PA**

♦ Analyses performed according to the COFRAC accreditation