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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

BAX® System PCR Assay for Genus *Listeria* 24E

(certificate number QUA 18/06 – 07/08)

for detection of *Listeria* spp in food products and environmental samples (excluding samples from primary production)

Qualitative method

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This report consists of 69 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
July 10, 2024

Quality Assurance documents related to this study can be consulted upon request from **Hygiena**.

The technical protocol and the result interpretation were realized according to the EN ISO 16140-2:2016 and the AFNOR technical rules (PR Revision 12).

Validation protocols	▪ ISO 16140-1 (2016): Microbiology of the food chain - Method validation — *Part 1: Vocabulary* ▪ ISO 16140-2 (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 12)
Reference methods♦	▪ NF EN ISO 11290-1/A1 (February 2005): Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of *Listeria monocytogenes* - Part 1: detection 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	**BAX® System PCR Assay for Genus *Listeria* 24E**
Scope	☒ **Food products** ☒ **Environmental samples** *(excluding samples from primary production)*
Certification organism	AFNOR Certification (http://nf-validation.afnor.org/)

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

1 INTRODUCTION

The **BAX® System PCR Assay for Genus *Listeria* 24E** was validated in July 2008 (certificate number QUA 18/06 – 07/08) according to the ISO 16140 (2003). Extension studies and renewal studies were performed:

July 2008	Initial validation for human food products, except smoked fishes, environmental samples (excluding samples from primary production) (IPL)
January 2009	Extension study: specific protocol for smoked fishes, as well as raw and cooked delicatessen (IPL)
May 2011	Extension to the 2.8 version of the BAX® software
July 2012	Renewal study (ADRIA)
March 2016	Renewal study (ADRIA)
September 2016	Extension study for using the BAX® System X5 instrument (Hygiena) with the BAX ® System X5 PCR Assay for genus *Listeria* (Hygiena internal data)
October 2017	Extension study for a modification of the software as well as an update to be in agreement with the ISO 16140-2:2016 and the AFNOR technical rules (Revision 6). The current version of the software is version 3.6. The data generated during this study was interpreted with both versions (2.9 versus 3.6) (ADRIA).
April 2020	Renewal study (ADRIA)
January 2024	Extension study for the use of BAX® System software version 5.0 (Hygiena internal data)
June 2024	Renewal study (ADRIA)

2 METHOD PROTOCOLS

2.1 Alternative method

2.1.1 Principle

The BAX® System PCR Assay for Genus *Listeria* 24E and the BAX® System X5 PCR Assay for Genus *Listeria* are based on the gene amplification of a *Listeria* specific nucleic sequence by PCR technology.

The reagents necessary for the PCR reaction and for the internal control are included in one PCR tube.
The BAX® System Q7 and the BAX® System X5 PCR instruments are composed by a thermocycler and an optical module detecting the fluorescence. The software program analyses the level of fluorescence and provides results, *i.e.* positive or negative.

2.1.2 Protocol

The flow diagrams are given in **Appendix 1**. The protocols are described below:

- *Enrichment*
  - General protocol for food products (except smoked fish, raw and cooked delicatessen) and environmental samples: 26h ± 2h at 37°C ± 1°C in 24 LEB complete broth (ready to use) (BO1205S) or 24 LEB base (CM1107B) + selective supplement (SR0243E)
  - Specific protocol for smoked fish, raw and cooked delicatessen: 26h ± 2h à 37°C ± 1°C in 24 LEB complete broth (ready to use) (BO1205S) + a non-selective supplement (BO1204M) or 24 LEB base (CM1107B) + selective supplement (SR0243E) + a non-selective supplement (BO1204M)

- *DNA extraction step, amplification, detection*

Step	BAX® System PCR Assay 24E	BAX® System X5 PCR Assay
Extraction	○ Addition of 50 µl lysis reagents (40 µL agent 1 and 10 µL agent 2) in a cluster tube ○ Addition of **0.5 ml** enriched sample in the cluster tube ○ Incubation for 30 min at 37°C ○ Addition of 200 µl lysis buffer + protease in a new cluster tube ○ Transfer 5 µl of the heat-treated sample to the cluster tube ○ Incubation for 30 min at 55°C and 10 min at 95°C ○ Cooling for 5 min in a cooling block	○ Addition of 150 µl protease and 200 µl lysis Agent 2 to one 12 ml bottle of lysis buffer ○ Transfer 200 µl prepared lysis reagent to each cluster tube ○ Transfer **5 µl** enriched sample to the cluster tube ○ Incubation for 30 min at 55°C and 10 min at 95°C ○ Cooling for 5 min in a cooling block
Amplification	○ Transfer **50 µl** of the lysate in a PCR tube	○ Transfer **50 µl** of the lysate in a PCR tube
Detection	○ Run the PCR in the automate BAX® System Q7 instrument	○ Run the PCR in the automate BAX® System X5 instrument

- *Confirmation of positive result by:*
  - Using the conventional tests described by CEN or ISO, including purification step
  - Streaking 10µl of 24 LEB enriched sample onto Brilliance Listeria Agar plates, incubated for 24-48 h at 37°C
  - Streaking 0.1 ml onto agar Listeria plate according to Ottaviani and Agosti (O&A), incubated for 24-48 h at 37°C.

  The presence of characteristic colonies is sufficient to confirm the presence of *Listeria* species.

2.1.3 Restrictions

Listeria grayi is excluded from the scope of the method.

2.2 Reference methods◆

The initial and extension studies were run using 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.

◆ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

The extension study (2017) was run using the ISO 11290-1 (May 2017): Microbiology of the food chain - Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp. - Part 1: detection method.
The modifications which occur in the version published in 2017 are considered as minor and have no impact on the previous data.

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

The flow diagrams are given in **Appendix 2**.

2.3 Study design

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

3 INITIAL VALIDATION AND 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 samples

427 samples were analyzed in 2008 and 2009 by IPL. During the initial validation study, raw and cooked delicatessens were analyzed using the general protocol. These samples were removed from the study as a specific protocol is now dedicated to these products.

In agreement with the AFNOR Technical Committee, 24 samples were removed from the extension study interpretation due to an inoculation level higher than 10 CFU/sample.

In 2017, 93 additional samples were tested by ADRIA as part of the extension study.

Combining the different studies (initial and extension), 248 positive samples and 248 negative samples were obtained for a total of 496 samples. The repartition of samples per category and type is summarized in Table 1.

All the data provided in the report were obtained using the **BAX® System PCR Assay for Genus *Listeria* 24E.**

Table 1 - Repartition per category and type

Category		Type		Protocol	Positive samples	Negative samples	Total
1	Composite foods	a	RTE	G	11	9	20
		b	RTRH	G	11	11	22
		c	Pastries, desserts, egg products	G	9	11	20
		Total			31	31	62
2	Meat products	a	Raw meat products (raw, frozen, seasoned)	G	14	8	22
		b	RTRH, RTC	G	10	11	21
		c	Delicatessen (raw and cooked)	S	28	28	56
		Total			52	47	99
3	Dairy products	a	Raw milk cheeses	G	10	11	21
		b	Raw milk	G	10	10	20
		c	Heat treated dairy products	G	11	21	32
		Total			31	42	73
4	Fruits and vegetables	a	Raw, non-processed (fresh or frozen)	G	7	13	20
		b	Fresh, bagged	G	18	7	25
		c	RTE, RTRH	G	16	15	31
		Total			41	35	76
5	Seafood and fishery products	a	Raw	G	16	22	38
		b	Smoked	S	20	15	35
		c	RTE, RTRH	G	17	10	27
		Total			53	47	100
6	Environmental samples	a	Process water	G	11	18	29
		b	Surfaces	G	9	11	20
		c	Dusts and residues	G	20	17	37
		Total			40	46	86
All categories					**248**	**248**	**496**
Total General protocol (G)					**200**	**205**	**405**
Total Specific protocol (S)					**48**	**43**	**91**

The distribution of positive samples per target analyte is presented in Table 2.

Table 2 - Distribution per target analyte

Category	*Listeria spp*		Mix *Listeria* spp. + *Listeria monocytogenes*		*Listeria spp* mixed or alone		*Listeria monocytogenes*		Total positive samples
	Number of samples	%	Number of samples	%	Number of samples	%	Number of samples	%	
1	12	38,7%	3	9,7%	15	48,4%	16	51,6%	31
2	16	30,8%	13	25,0%	29	55,8%	23	44,2%	52
3	5	16,1%	10	32,3%	15	48,4%	16	51,6%	31
4	12	29,3%	4	9,8%	16	39,0%	25	61,0%	41
5	7	13,2%	8	15,1%	15	28,3%	38	71,7%	53
6	18	45,0%	5	12,5%	23	57,5%	17	42,5%	40
Total	70	28,2%	43	17,3%	113	45,6%	135	54,4%	248

3.1.1.2 *Artificial contamination of samples*

The strains were stressed using various injury protocols. For the spiking protocol, the injury efficiency was evaluated by comparing enumeration onto the selective medium (Palcam plates) and on a non-selective medium (TSYE plates).

The artificial contaminations are provided in **Appendix 3.**

71 samples were artificially contaminated. 59 gave a positive result. 189 samples were naturally contaminated.

The repartition of the positive samples per contamination level is given in Table 3.

Table 3 - Repartition of the positive samples per contamination level

	Naturally contaminated	Artificially contaminated						Total
		Spiking protocol			Seeding protocol			
		≤5	5< x≤10	10< x≤30	≤3	3< x≤10	10< x≤30	
Number of samples	189	14	17	13	15	0	0	248
%	76,2%	5,6%	6,9%	5,2%	6,0%	0,0%	0,0%	100,0%

6.9% of the samples were inoculated between 3 or 5 CFU and 10 CFU, this is in agreement with the AFNOR technical rules.

Taking into account all the studies, 76.2 % of the samples were naturally contaminated.

3.1.1.3 *Protocols applied during the validation study*

> **Incubation time**

The minimum incubation time was applied:

- Enrichment step in 24 LEB: 24 h at 37°C,
- O&A plates: 24h to 48 h.

> **Confirmations**

For the initial study and extension study performed by IPL, 10 µl of the 24 LEB broth was streaked onto *Brilliance* Listeria Agar.

For the extension study performed in 2017, 0.1 ml of the 24 LEB broth was streaked onto O&A and onto Palcam and RAPID'*L. mono* plates if required.

The typical colonies were confirmed by biochemical gallery without purification step and by applying the tests described in the reference method after purification step.

3.1.1.4 Test results

Raw data per category are given in **Appendix 4**. The results are given in the Table 4.

Table 4 – Summary of results obtained with the reference and the alternative methods

Category		PA	NA*	PD	ND**	PPND	PPNA
1	Composite	18	30	5	7	1	1
2	Meat products	39	46	6	7	0	1
3	Dairy products	23	41	5	3	0	1
4	Fruits and vegetables	37	33	3	1	0	2
5	Seafood	41	44	9	3	0	3
6	Environmental samples	29	44	5	6	0	2
All categories		**187**	**238**	**33**	**27**	**1**	**10**
General protocol		**154**	**197**	**23**	**22**	**1**	**8**
Specific protocol		**33**	**41**	**10**	**5**	**0**	**2**

PA = positive agreement (R+/A+)
PD = positive deviation (R-/A+)
PP = positive presumptive non confirmed samples
*: PPNA not included

NA = negative agreement (A-/R-)
ND = negative deviation (A-/R+)

**: PPND not included

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

The calculations are presented in Table 5.

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

Category		Type		PA	NA*	PD	ND**	PPND	PPNA	SE $_{alt}$ %	SE $_{ref}$ %	RT %	FPR %
1	Composite	a	RTE	5	8	2	3	1	1	63,6	81,8	70,0	25
		b	RTRH	5	11	3	3	0	0	72,7	72,7	72,7	0,0
		c	Pastries, desserts, egg products	8	11	0	1	0	0	88,9	100,0	95,0	0,0
		Total		18	30	5	7	1	1	74,2	83,9	79,0	6,5
2	Meat products	a	Raw meat products (raw, frozen, seasoned)	11	7	1	2	0	1	85,7	92,9	86,4	14,3
		b	RTRH, RTC	10	11	0	0	0	0	100,0	100,0	100,0	0,0
		c	Delicatessen (raw and cooked)	18	28	5	5	0	0	82,1	82,1	82,1	0,0
		Total		39	46	6	7	0	1	86,5	88,5	86,9	2,1
3	Dairy products	a	Raw milk cheeses	6	11	2	2	0	0	80,0	80,0	81,0	0,0
		b	Raw milk	9	10	0	1	0	0	90,0	100,0	95,0	0,0
		c	Heat treated dairy products	8	20	3	0	0	1	100,0	72,7	90,6	5,0
		Total		23	41	5	3	0	1	90,3	83,9	89,0	2,4
4	Fruits and vegetables	a	Raw, non-processed (fresh or frozen)	7	12	0	0	0	1	100,0	100,0	100,0	8,3
		b	Fresh, bagged	17	7	1	0	0	0	100,0	94,4	96,0	0,0
		c	RTE, RTRH	13	14	2	1	0	1	93,8	87,5	90,3	7,1
		Total		37	33	3	1	0	2	97,6	92,7	94,7	5,7
5	Seafood	a	Raw	14	21	1	1	0	1	93,8	93,8	94,7	4,8
		b	Smoked	15	13	5	0	0	2	100,0	75,0	85,7	15,4
		c	RTE, RTRH	12	10	3	2	0	0	88,2	82,4	81,5	0,0
		Total		41	44	9	3	0	3	94,3	83,0	88,0	6,4
6	Environmental samples	a	Process water	8	17	2	1	0	1	90,9	81,8	89,7	5,9
		b	Surfaces	8	11	0	1	0	0	88,9	100,0	95,0	0,0
		c	Dusts and residues	13	16	3	4	0	1	80,0	85,0	81,1	6,3
		Total		29	44	5	6	0	2	85,0	87,5	87,2	4,3
All categories				**187**	**238**	**33**	**27**	**1**	**10**	**88,7**	**86,7**	**87,7**	**4,4**
General protocol (G)				**154**	**197**	**23**	**22**	**1**	**8**	**88,5**	**88,5**	**88,6**	**4,4**
Specific protocol (S)				**33**	**41**	**10**	**5**	**0**	**2**	**89,6**	**79,2**	**83,5**	**4,7**

* PPNA not included ** PPND not included

The results obtained for all the categories are the following (See **Table 6**).

Table 6 - Summary of results

		All categories	General protocol	Specific protocol
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + ND + PD)} \times 100\,\%$	88.7 %	88.5 %	89.6 %
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + ND +)}{(PA + ND + PD)} \times 100\%$	86.7 %	88.5 %	79.2 %
Relative trueness	$RT = \frac{(PA + NA)}{N} \times 100\,\%$	87.7 %	88.6 %	83.5 %
False positive ratio for the alternative method* FP = PPNA + PPND	$FPR = \frac{(FP)}{NA} \times 100\,\%$	4.4 %	4.4 %	4.7 %

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

3.1.1.6 Analysis of discordant results

28 negative deviations were observed, 23 with naturally contaminated samples and 5 with artificially contaminated samples. For 7 samples, the confirmatory tests concluded the presence of *Listeria* spp. in the enrichment broth, all were naturally contaminated.

Among the 33 samples in positive deviations, 9 were artificially contaminated and 24 naturally contaminated.

The negative deviations are given in Table 7 and the positive deviations in Table 8.

Table 7 - Negative deviations

G: general protocol

Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr) (ADRIA, Expert laboratory)

Laboratory	Sample N°	Products	Artificial contamination					Global result	Reference method ISO 11290-1/A1		Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E					Agree-ment	Protocol	Category	Type
									CONFIRMATION	RESULT *Listeria* spp	BAX® *Listeria*	CONFIRMATION 24 LEB			FINAL RESULT				
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample		*IDENTIFICATION*			*Brilliance* 24h (IPL) O&A 24h (Adria)	*Brilliance* 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*					
IPL	M6	Beef mincemeat						+	*L.ivanovii*	+	-	-ME	/	/	-	ND	G	2	a
IPL	AA5	Cocktail seafood	/	/	/	/	/	+	*L.monocytogenes*	+	-	-ME	+MD(5b)	*L.monocytogenes*	-	ND	G	5	a
IPL	D13	Fish with bordelaise sauce						+	*L.monocytogenes*	+	-	-LE	-LE	Ø	-	ND	G	5	c
IPL	D20	Raw marinated cod	/	/	/	/	/	+	*L.innocua*	+	-	-MD	/	*L.innocua*	-	ND	G	5	c
IPL	C16	Epoisses raw milk cheese						+	*L.moncytogenes* *L.innocua*	+	-	-ME	/	/	-	ND	G	3	a
IPL	E5	Comté raw milk cheese	/	/	/	/	/	+	*L.innocua*	+	-	-ME	-ME	Ø	-	ND	G	3	a
IPL	J8	Cookie dough						+	*L.monocytogenes*	+	-	-ME	/	/	-	ND	G	1	c
IPL	I12	Fried mixed vegetables	/	/	/	/	/	+	*L.monocytogenes*	+	-	-ME	-ME	/	-	ND	G	4	c
IPL	R11	Water pipe 2						+	*L.ivanovii*	+	-	Ø	Ø	/	-	ND	G	6	a
IPL	Y4	Surface pastry retail	/	/	/	/	/	+	*L.welshimeri*	+	-	-ME	-LE Fraser : -LE	/	-	ND	G	6	b
IPL	S11	Scraps from cheese dairy						+	*L.monocytogenes*	+	-	-LE	-LE Fraser : -LE	/	-	ND	G	6	c
IPL	Y5	Vegetables scraps	/	/	/	/	/	+	*L.innocua*	+	-	-ME	-LE Fraser : -LE	/	-	ND	G	6	c
IPL	Y13	Scraps from delicatessen preparation line						+	*L.monocytogenes*	+	-	-LE	-LE Fraser : -LE	/	-	ND	G	6	c
IPL	Z5	Scraps from packaging line	/	/	/	/	/	+	*L.monocytogenes*	+	-	+LD	+LD	*L.monocytogenes*	-	ND	G	6	c
IPL	C9	Merguez						+	*L.monocytogenes*	+	-	-ME	Fr: +MA	*L.monocytogenes*	-	ND	S	2	c
IPL	F2	Chipolatas	/	/	/	/	/	+	*L.monocytogenes* *L.innocua*	+	-	+MB	+MB	*L.monocytogenes* *L.innocua*	-	ND	S	2	c
IPL	G2	Sausage						+	*L.monocytogenes*	+	-	-ME	-ME	/	-	ND	S	2	c
IPL	C15	Terrine	/	/	/	/	/	+	*L.monocytogenes*	+	-	-ME	Fr: Ø	/	-	ND	S	2	c
IPL	D19	Chorizo						+	*L.welshimeri*	+	-	-ME	+LB(1)	*L.welshimeri*	-	ND	S	2	c
ADRIA	4866	RTE chicken meat	/	/	/	/	/	+	*L. welshimeri*	+	-/-/-	H+ (2)	H+ (2)	*L. monocytogenes*	-	ND	G	1	a
ADRIA	4942	Raw milk	/	/	/	/	/	+	*L. innocua*	+	-	-	-	/	-	ND	G	3	b
ADRIA	**5152**	**Deli-salad**	*L. innocua* Ad1230	Salad	Seeding 48h 2-8°C	/	1-0-1-1-0 (0,6)	+	*L. innocua*	+	-	-	-	/	-	ND	G	1	a
ADRIA	5384	RTRH food	/	/	/	/	/	+	*L. monocytogenes*	+	-	-	-	/	-	ND	G	1	b
ADRIA	**5692**	**RTRH food**	*L. welshimeri* Ad1175	RTRH food	Seeding 48h 2-8°C	/	1-0-1-1-0 (0,6)	+	*L. welshimeri*	+	-	-	-	/	-	ND	G	1	b
ADRIA	**5698**	**Pizza**	*L. welshimeri* Ad1175	RTRH food	Seeding 48h 2-8°C	/	1-0-1-1-0 (0,6)	+	*L. innocua*	+	-	-	-	/	-	ND	G	1	b
ADRIA	**5931**	**Deli salad**	*L. welshimeri* Ad1670	Pork meat	Seeding 48h 2-8°C	/	1-0-0-2-0 (0,6)	+	*L. monocytogenes*	+	+/-/+	st	- (- after sub-culture in Fraser)	/	-	PPND	G	1	a
ADRIA	**5932**	**Deli salad**	*L. ivanovii* Ad2465	Poultry meat	Seeding 48h 2-8°C	/	0-1-4-1-2 (1,6)	+	*L. ivanovii*	+	-	-	-	/	-	ND	G	1	a
ADRIA	6279	Ground beef	/	/	/	/	/	+	*L.welshimeri*	+	-	-	-	/	-	ND	G	2	a

G: general protocol

◆ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr) (ADRIA, Expert laboratory)

Table 8 - Positive deviations

Laboratory	Sample N°	Products	Cat. (Initial classification)	Artificial contamination		*Global result*	Reference method : ISO 11290-1/A1	Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E					Agreement	Protocol	Category	Type
									CONFIRMATION 24 LEB							
				Strain	Inoculation level/sample		RESULT *Listeria* spp	BAX® *Listeria*	Brilliance 24h (IPL) O&A 24h (Adria)	Brilliance 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*	FINAL RESULT				
IPL	C7	Cod fillet	SF1	/	/	+	-	+	+HD	+MB	*L.monocytogenes*	+	PD	G	5	a
IPL	J6	Salmon Carpaccio	SF3	/	/	+	-	+	-MA	-MA	*L.innocua*	+	PD	G	5	c
IPL	O7	Raw marinated cod	SF3	/	/	+	-	+	-MB	-MB	*L.innocua*	+	PD	G	5	c
IPL	AB7	Sushis	SF3	/	/	+	-	+	+MA	+MA	*L.monocytogenes*	+	PD	G	5	c
IPL	**J21**	**Camembert pasteurized milk cheese**	DP1	*L. monocytogenes* 4e	10	+	-	+	+LB	+MB	*L.monocytogenes*	+	PD	G	3	c
IPL	**J22**	**Camembert de Normandie raw milk cheese**	DP1	*L. monocytogenes* 4e	9	+	-	+	+LA	+MB	*L.monocytogenes*	+	PD	G	3	a
IPL	**N16**	**Camembert cheese**	DP1	*L. monocytogenes* 4b	6,4	+	-	+	+LB	+MB	*L.monocytogenes*	+	PD	G	3	c
IPL	Q8	Epoisses raw milk cheese	DP1	/	/	+	-	+	-MD	-MD	*L.welshimeri*	+	PD	G	3	a
IPL	**P16**	**Milk powder**	DP3	*L. monocytogenes* 1/2b	4	+	-	+	+LB	+LB	*L.monocytogenes*	+	PD	G	3	c
IPL	C15	Frozen French fries	VG1			+	-	+	+MA	+MB	*L.monocytogenes*	+	PD	G	4	b
IPL	**P22**	**Rice salad**	VG3	*L. monocytogenes* 1/2a	4,8	+	-	+	+LA	+MB	*L.monocytogenes*	+	PD	G	4	c
IPL	Q4	Fried mixed vegetables	VG3	/	/	+	-	+	-MD	-MD	*L.innocua*	+	PD	G	4	c
IPL	V3	Salted water	EN1	/	/	+	-	+	+MA	+MA	*L.ivanovii*	+	PD	G	6	a
IPL	W20	Process water pastry retail	EN1	/	/	+	-	+	-MB	-HB	*L.innocua*	+	PD	G	6	a
IPL	W17	Scraps from pastry retail outlet	EN3	/	/	+	-	+	-MA	-MA	*L.innocua*	+	PD	G	6	c
IPL	Y14	Scraps from mincer	EN3	/	/	+	-	+	+MB	+MB	*L.monocytogenes*	+	PD	G	6	c
IPL	Z2	Scraps from mincer	EN3	/	/	+	-	+	+MB	+MD	*L.monocytogenes*	+	PD	G	6	c
IPL	B12	Raw ham	MP5	/	/	+	-	+	+MB	+MB	*L.monocytogenes*	+	PD	S	2	c
IPL	C2	Pâté	MP5	/	/	+	-	+	+MB	+MB	*L.innocua*	+	PD	S	2	c
IPL	D9	Pâté with pickles	MP5	/	/	+	-	+	+MA	+MA	*L.monocytogenes*	+	PD	S	2	c
IPL	D11	Pâté	MP5	/	/	+	-	+	+MA	+MA	*L.monocytogenes*	+	PD	S	2	c
IPL	D20	Pâté with pickles	MP5	/	/	+	-	+	+MA	+MA	*L.monocytogenes*	+	PD	S	2	c
IPL	A9	Smoked salmon	SF4	/	/	+	-	+	-ME	+MA	*L.monocytogenes*	+	PD	S	5	b
IPL	B6	Salmon roulade	SF4	/	/	+	-	+	+MB	+MB	*L.monocytogenes*	+	PD	S	5	b
IPL	B7	Smoked salmon	SF4	/	/	+	-	+	+MB	+MB	*L.monocytogenes*	+	PD	S	5	b
IPL	D17	Smoked salmon	SF4	/	/	+	-	+	-LE	-LE Fr : +LB	*L.monocytogenes*	+	PD	S	5	b
IPL	E9	Smoked salmon Scotland	SF4	/	/	+	-	+	+MA	+MA	*L.monocytogenes*	+	PD	S	5	b
ADRIA	4865	RTRH food		/	/	+	-	+	-	- (H+ after subculture in Fraser 1)	*L. monocytogenes* after subculture in Fraser 1	+	PD	G	1	b
ADRIA	**5154**	**Deli-salad**		*L. innocua* Ad1230	1-0-1-1-0 (0,6)	+	-	+	H-	H-	*L. innocua*	+	PD	G	1	a
ADRIA	**5690**	**RTRH food**		*L. welshimeri* Ad1175	1-0-1-1-0 (0,6)	+	-	+	H-	H-	*L. welshimeri*	+	PD	G	1	b
ADRIA	**5694**	**RTRH food**		*L. welshimeri* Ad1175	1-0-1-1-0 (0,6)	+	-	+	H-	H-	*L. welshimeri*	+	PD	G	1	b
ADRIA	**5926**	**Sandwich with ham**		*L. welshimeri* Ad1204	1-2-3-0-0 (1,2)	+	-	+	H-	H-	*L. welshimeri*	+	PD	G	1	a
ADRIA	6280	Ground beef		/	/	+	-	+	H-	H-	*L. innocua*	+	PD	G	2	a

The analyses of discordant results according to the EN ISO 16140-2:2016 is the following (See **Table 9**).

Table 9 - Analyses of discordant results

Category		Type	PD	ND	PPND	N+	(ND+PPND)-PD	AL
1	Composite foods / Ready-to-eat and ready-to-reheat	a	2	3	1		2	
		b	3	3	0		0	
		c	0	1	0		1	
		Total	5	7	1	31	3	3
2	Meat Products	a	1	2	0		1	
		b	0	0	0		0	
		c	5	5	0		0	
		Total	6	7	0	52	1	3
3	Milks & Dairy products	a	2	2	0		0	
		b	0	1	0		1	
		c	3	0	0		-3	
		Total	5	3	0	31	-2	3
4	Vegetables	a	0	0	0		0	
		b	1	0	0		-1	
		c	2	1	0		-1	
		Total	3	1	0	41	-2	3
5	Seafood and fishery products	a	1	1	0		0	
		b	5	0	0		-5	
		c	3	2	0		-1	
		Total	9	3	0	53	-6	3
6	Environmental Samples	a	2	1	0		-1	
		b	0	1	0		1	
		c	3	4	0		1	
		Total	5	6	0	40	1	3
All categories			**33**	**27**	**1**	**248**	**-5**	**8**
General protocol			**23**	**22**	**1**	**200**	**0**	**7**
Specific protocol			**10**	**5**	**0**	**48**	**-5**	**4**

The calculated values for ((ND + PPND) - PD) meet the Acceptability Limit (AL) for each category and for all the categories.

3.1.1.7 Confirmations

Confirmations were carried out by streaking the 24 LEB broth (10 µl for the 2008 and 2009 studies, and 0.1 ml for this extension study) onto O&A plates. Characteristic colonies were observed for all samples after a 24 h incubation time of the O&A plates except for 12 samples.

For samples n° AA5, D19 and A9: characteristic colonies were observed only after 48 h incubation.

For samples n° U10, U12, C9, A11, A17, D17, E1 and 4865: characteristic colonies were observed after a subculture in Fraser 1.

For sample n° 4867: characteristic colonies were observed on the Palcam plate only.

3.1.1.8 PCR inhibition

No PCR inhibition was observed during the different studies.

3.1.2 Relative level of detection

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

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

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

3.1.2.1 Experimental design

During studies carried out in 2008 and 2009, seven (matrix/strain) pairs were analyzed by the reference and the alternative methods.

Contaminations and enumerations were done according to the AFNOR technical rules (protocol for low level inoculation). The contamination levels were:

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

For the extension study (2017), one matrix / strain pair was tested for the composite food category: a deli salad (Piémontaise) inoculated with *L. seeligeri* Ad1293 (isolated from parsley), using the protocol described in the EN ISO 16140-2:2016:

- 5 negative samples
- 20 samples inoculated at a level providing fractional positive results

- 5 samples inoculated at a higher level.

The matrix was stored for 48 h at 5°C ± 3°C after inoculation and before analysis.

The matrices tested and the strains inoculated are given in Table 10.

Table 10 - Defined (matrix/strain) pairs for the RLOD determination

Study	Category	Matrix	Inoculated strain	Origin	Protocol
Initial 2008	Dairy products	Raw milk	*L. ivanovii* L50	Dairy product	General
	Vegetables	Raw vegetable mix	*L. monocytogenes* 4b L58	Salad	General
	Environmental samples	Process water	*L. innocua* L175	Process water	General
Extension	Meat products	Rillettes	*L. monocytogenes* L49	Chipolatas	Specific
	Fishery products (smoked fish)	Smoked salmon	*L. monocytogenes* 1/2 a L5	Smoked salmon	Specific
Extension 2017	Composite foods	Deli Salad (Piemontaise)	*L. seeligeri* Ad1293	Parsley	General

3.1.2.2 Calculation and interpretation of the RLOD

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

The RLOD calculations were performed using the Excel spreadsheet available at http://standards.iso.org/iso/16140 - RLOD (clause 5-1-4-2 Calculation and interpretation of RLOD) version 15.08.2015. The RLOD are given in Table 11.

Table 11 – Presentation of RLOD before and after confirmation of the alternative method results

	Name	RLOD	RLODL	RLODU	b=ln(RLOD)	sd(b)	z-Test statistic	p-value
	Raw milk / *L.ivanovii* L150	0,888	0,392	2,015	-0,118	0,409	0,289	1,227
	Raw vegetables mix / *L.monocytogenes* L58	0,838	0,294	2,389	-0,177	0,524	0,338	1,264
	Process water / *L.innocua* L175	0,859	0,348	2,116	-0,152	0,451	0,338	1,265
Extension 2009	Rillettes / *L.monocytogenes* L49	1,000	0,406	2,462	0,000	0,450	0,000	1,000
	Raw fish fillet / *L.monocytogenes* L5	1,710	0,463	6,315	0,536	0,653	0,821	0,412
Extension 2017	Deli salad / *L. seeligeri* Ad1293	2,175	0,968	4,890	0,777	0,405	1,918	0,055
	Combined	**1,175**	**0,818**	**1,688**	**0,162**	**0,181**	**0,893**	**0,372**

The RLOD meet the Acceptability Limit fixed at 2.5 for an unpaired study design for each matrix/strain pair and for all matrices combined.

The $LOD_{50\,\%}$ calculations according to Wilrich & Wilrich POD-LOD calculation program - version 11, 2022-10-12 test are given in Table 7.

Table 12 - LOD_{50} results

	Category	(Strain / matrix) pair	Level of detection at 50% (CFU / test portion) according to Wilrich & Wilrich) [1]	
			Reference method	Alternative method
Initial 2008	3	Raw milk / *L.ivanovii* L 150	0.9 [0.5;1 .5]	0.8 [0.4; 1.3]
	4	Raw vegetables mix / *L.monocytogenes* L58	0.8 [0.4; 1.4]	0.7 [0.4; 1.3]
	6	Process water / *L.innocua* L175	0.9 [0.5; 1.6]	0.7 [0.4; 1.3]
Extension 2009	2	Rillettes / *L.monocytogenes* L49	0.6 [0.4; 1.1]	0.6 [0.3; 1.1]
	5	Raw fish fillet / *L.monocytogenes* L 5	0.5 [0.3; 0.8]	0.3 [0.2; 0.6]
Extension 2017	1	Deli salad / *L. seeligeri* Ad1293	0.4 [0.2; 0.7]	0.7 [0.4; 1.2]
Combined			**0.6 [0.5; 0.8]**	**0.6 [0.5; 0.8]**

The LOD_{50} varies from 0.4 to 0.9 CFU/sample size for the reference method and from 0.3 to 0.8 CFU/ sample size for the alternative method.

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

3.1.3 Inclusivity / exclusivity

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

3.1.3.1 Test protocols

The inclusivity and the exclusivity of the method are defined by analysis, respectively of 50 positive strains and 30 negative strains.

Inclusivity

Listeria strains were tested with the complete BAX® System PCR Assay for Genus *Listeria* 24E protocol.

Exclusivity

The different negative strains were inoculated in a nutrient broth at a level around 10^5 cells/mL. After incubation for 24 h at 37°C, the BAX® System PCR Assay for Genus *Listeria* 24E test was performed for each strain.

3.1.3.2 Results

The raw data (in French) are given in **Appendix 6**.

67 strains of *Listeria* (36 *Listeria monocytogenes* and 31 *Listeria* spp strains (species different from *monocytogenes*) were tested:

- all the *Listeria monocytogenes* strains were detected with the BAX® Genus *Listeria* 24E method,
- all the *Listeria* different from *Listeria monocytogenes* gave a positive result with the BAX® System PCR Assay for Genus *Listeria* 24E method, except *Listeria seeligeri* L148 for which an inoculation level of 10^5 CFU was required to obtain a positive PCR result. 5 other strains of *Listeria seeligeri* were tested and gave positive results with a low inoculation level.

No cross reaction was observed with the 31 non-*Listeria* strains.

3.1.4 Practicability

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

Storage, modalities of use after first use	The storage temperature is between 2 to 8°C. Expiration date is shown on the kit package on the different reagent vials. - The reconstituted agent 1 should be stored at room temperature for 3 months maximum - the mixture agent 1 + agent 2 shall be used within 4 hours - lysis reagent + protease, once reconstituted, should be stored 15 days at 2-8°C		
Time-to-result	Step	**Alternative method**	**Reference method**
	Enrichment step	Day 0	Day 0
	Transfer to selective broths (Fraser)	/	Day 1
	BAX® procedure	Day 1	/
	Test result **Negative result (if test is negative)**	**Day 1**	**/**
	Streaking of selective broths on selective media	Day 1	Day 1 and Day 3
	Reading the plates Confirmation tests	Day 2 to Day 3	Day 2 to Day 5
	Negative result (after streaking and negative confirmation if done, for example with a positive BAX® test)	**Day 2 to Day 3**	**Day 3 to Day 6**
	Positive result Confirmation by the reference method tests (GRAM, catalase test) Confirmation on *Brilliance* Listeria Agar	**Day 3** **Day 2 to Day 3**	**Day 3 to Day 6**
Common steps with the reference method	None		

3.1.5 Method comparison study conclusion

The method comparison study conclusions are:

- The **BAX® System PCR Assay for Genus *Listeria* 24E** shows satisfying sensitivity results.
- The RLOD meet the Acceptability Limit for all the tested matrix/strain pairs.
- The alternative method is specific and selective.

3.2 Inter-laboratory study: organization and results

3.2.1 Study organization

Samples were sent to 13 laboratories. A pasteurized milk was inoculated with a *Listeria monocytogenes* strain (origin « raw milk cheese »).

2 sets of 24 samples were prepared per laboratory, one for the BAX® System PCR Assay for Genus *Listeria* 24E method and the other for the reference method. Each set of samples was divided in 3 levels of contamination, with 8 samples per level.

3.2.2 Experimental parameters controls

3.2.2.1 Contamination levels

The contamination levels and the sample codification were the following (see Table 13).

Table 13 - Contamination levels

Level	Samples	Theoretical target level (b/25 g)	True level (b/25 g sample)	Low limit / 25 g sample	High limit / 25 g sample
Level 0 (L0)	3-4-9-10-11-12-19-20	0	0		
Low level (L1)	1-2-5-6-13-14-21-22	3	4.8	1.2	11.0
High level (L2)	7-8-15-16-17-18-23-24	30	48	36	63

3.2.2.2 Logistic conditions

Temperature conditions are given in Table 14.

Table 14 - Sample temperatures at receipt

Laboratory	Reception Temperatures (°C)		Comments
	Communicated by the laboratory	Recorded by the probe	
A	3.5	1.9	/
B	4.0	5.1	/
C	2.0	2.0	/
D	7.2	6.8	/
E	0.4	0.9	/
F	10.0	5.2	/
G	7.3	6.6	/
H	17.0	15.9	Delivery at D2
I	15.5	14.5	Delivery at D2
J	Not communicated	13.6	Delivery at D2
K	Not communicated	8.2	/
L	5.6	4.7	/
M	7.2	6.5	/

Among the 13 laboratories, 3 received their samples at D2 at a temperature above 8.4°C. Labs I and J didn't carry out the analyses.
Due to the delivery conditions, the results of 10 laboratories were used for interpretation.

3.2.3 Results analysis

3.2.3.1 Expert laboratory results

The results obtained by the expert laboratory are given in Table 15.

Table 15 – 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

3.2.3.2 *Results of the collaborative laboratories retained for interpretation*

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

- ***Aerobic mesophilic flora enumeration***

Depending on the Lab results, the enumeration levels varied from < 1 to 54 000 CFU/ml.

- ***Listeria spp. detection***

The results obtained are provided in Table 16 (reference method) and Table 17 (alternative method).

Table 16 - Positive results by the reference method

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
K	0	8	8
L	0	8	8
M	0	8	8
TOTAL	$P_0 = 0$	$P_1 = 80$	$P_2 = 80$

Table 17 - Positive results (before and after confirmation) by the alternative method

Collaborators	Contamination level					
	L0		*L1*		*L2*	
	Before confirmation	*After confirmation*	*Before confirmation*	*After confirmation*	*Before confirmation*	*After confirmation*
A	0	0	8	8	8	8
B	0	0	8	8	8	8
C	0	0	8	8	8	8
D	0	0	8	8	8	8
E	0	0	8	8	8	8
F	0	0	8	8	8	8
G	0	0	8	8	8	8
K	0	0	7	7	8	8
L	0	0	8	8	8	8
M	0	0	8	8	8	8
TOTAL	**$P_0 = 0$**	**$CP_0 = 0$**	**$P_1 = 79$**	**$CP_1 = 79$**	**$P_2 = 80$**	**$CP_2 = 80$**

3.2.4 Calculation and interpretation

3.2.4.1 Calculation of the specificity percentage (SP)

The percentage specificities (SP) of the reference method and of the alternative method, using the data after confirmation, based on the results of level L0 are the following (See Table 18).

Table 18 - 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	$SP_{alt} = \left(1 - \left(\frac{CP_0}{N\_}\right)\right) x\ 100\ \% =$	100.0 %

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

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

Fractional positive results were not obtained for this study. The calculations were done with the results obtained for Level 1. A summary of the results obtained by the collaborators with the reference and the alternative methods is provided in Table 19.

Table 19 - Summary of the obtained results with the reference method and the alternative method for Level 1

Response	Reference method positive (R+)	Reference method negative (R-)
Alternative method positive (A+)	Positive agreement (A+/R+) **PA = 79**	Positive deviation (R-/A+) **PD = 0**
Alternative method negative (A-)	Negative deviation (A-/R+) **ND = 1**	Negative agreement (A-/R-) **NA = 0**

Based on the data summarized in Table 19, 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 20).

Table 20 - Sensitivity, relative trueness and false positive ratio percentages

Sensitivity for the alternative method:	$SE_{alt} = \frac{(PA+PD)}{(PA+PD+ND)} \; x \; 100\% =$	98.8 %
Sensitivity for the reference method:	$SE_{ref} = \frac{(PA+ND)}{(PA+PD+ND)} \; x \; 100\% =$	100.0 %
Relative trueness	$RT = \frac{(PA+NA)}{N} \; x \; 100\% =$	98.8 %
False positive ratio for the alternative method	$FPR = \frac{FP}{NA} \; x \; 100\% =$	0

3.2.4.3 *Interpretation of data*

For an **<u>unpaired study design</u>**, 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

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

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.

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

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, fractional recovery was observed at Level 1. The calculations are the following, according to the EN ISO 16140-2:2016 (See Table 21).

Table 21 - Calculations

N_X	80
$(p+)_{ref}$	1.0
$(p+)_{alt}$	1.0
AL = (ND - PD) max	4.77
ND - PD	1
Conclusion	ND - PD < AL

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

3.2.4.4 *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 results are used only for information (see Table 22).

Table 22 - LOD 50%, LOD 95 % and RLOD

Method	LOD 50%	LOD 95%	RLOD
Reference	/	/	/
Alternative	0.76 [0.48;1.19]	3.28 [2.08;5.16]	

The calculation for $LOD_{50\%}$ (reference method), $LOD_{95\%}$ (reference method) and RLOD is not possible as all the samples gave positive results using the reference method for both inoculation levels (L1 and L2).

3.2.4.5 *Inter-laboratory study conclusion*

The data and interpretations comply with the EN ISO 16140-2:2016 requirements. The alternative method is considered equivalent to the ISO standard.

3.3 General conclusion

The **method comparison study conclusions** are:

- The **BAX® System PCR Assay for Genus *Listeria* 24E** shows satisfying sensitivity results.
- The RLOD meet the Acceptability Limit for all the tested matrix/strain pairs.
- The alternative method is specific and selective.

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

☒ The data and interpretations comply with the EN ISO 16140-2:2016 requirements. **The BAX® System PCR Assay for Genus *Listeria* 24E is considered equivalent to the ISO standard.**

Quimper, 10 July 2024

Astrid CARIOU
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 methods: BAX® System PCR Assay for Genus *Listeria* 24E and BAX® System X5 PCR Assay for Genus *Listeria*

- 25 g + 225 ml of 24 LEB compete broth (ready to use broth) (BO1205S)
  or 24 LEB base (CM1107B) + selective supplement (SR0243E)
  (General protocol)

OR

- 25 g + 225 ml of 24 LEB complete broth (ready to use) (BO1205S)
  + a non-selective supplement (BO1204M)
  or 24 LEB base (CM1107B) + selective supplement (SR0243E)
  + a non-selective supplement (BO1204M)
  (Specific protocol for smoked fish, raw and cooked delicatessen)

↓

Incubation for 26 h ± 2 h at 37°C

↓

BAX System 24E	BAX System X5
40 µl lysis Agent 1 + 10 µl lysis Agent 2 ↓ 50 µl combined agents in a Cluster tube + 0.5 ml enriched sample ↓ 30 min at 37°C ↓ 200 µl reagent (150 µl protease + 12 ml buffer lysis) in a cluster tube + 5 µl heat-treated enriched sample ↓ 55°C for 30 min 95°C for 10 min Cool at 2 - 8°C for 5 min ↓ PCR on **50 µl** lysate ↓ Automatic measurement of the fluorescence using the BAX® Q7	150 µl protease + 200 µl Agent 2 + 12 ml lysis buffer ↓ 200 µl reagent in a Cluster tube + 5 µl enriched sample ↓ 55°C for 30 min 95°C for 10 min Cool at 2 - 8°C for 5 min PCR on **50 µl** lysate ↓ Automatic measurement of the fluorescence using the BAX® X5

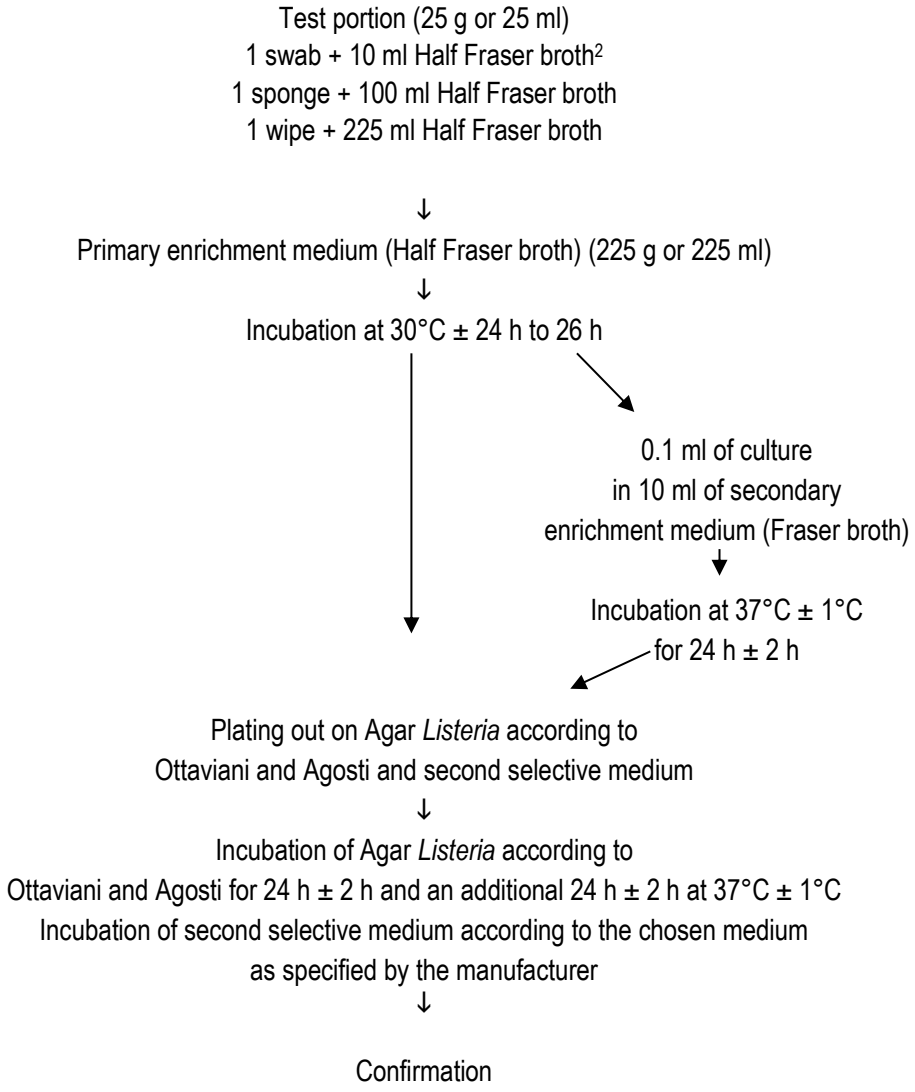
↓

Confirmation of positive result by:

- *Using the conventional tests described by CEN or ISO, including purification step*
- *Streaking 10µl of 24 enriched sample onto Brilliance Listeria Agar plates, incubated for 24-48 h at 37°C*
- *Streaking 0.1 ml onto agar Listeria plate according to Ottaviani and Agosti (O&A), incubated for 24-48 h at 37°C.*

The presence of characteristic colonies is sufficient to confirm the presence of Listeria species.

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



Target	Gram	Catalase	Beta hemolysis	CAMP test	Carbohydrates
Listeria spp	x	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 samples

Laboratory	Sample N°	Products	Cat. (Initial classification)	Artificial contamination (IPL Study)					Global result
				Strain	Origin	Injury protocol	Injury measure-ment	Inoculation level/sample	
IPL	**L8**	**Cordon bleu with vegetables**	MP3	*Listeria monocytogenes* 4b	Salad	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,2	1,2	+
IPL	**L18**	**Beef balls with tomato sauce**	MP3	*Listeria monocytogenes* 1/2c	Beef	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,6	16	+
IPL	**L19**	**Scallop cream**	MP3	*Listeria monocytogenes* 1/2c	Beef	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,6	14	+
IPL	**L12**	**Pollock fillet**	SF1	*Listeria monocytogenes* 1/2a	Smoked salmon	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,3	4,5	+
IPL	**L13**	**Fish with bordelaise sauce**	SF3	*Listeria monocytogenes* 1/2a	Smoked salmon	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,3	4	+
IPL	**L14**	**Frozen breaded fish**	SF3	*Listeria monocytogenes* 1/2a	Smoked salmon	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,3	3,5	+
IPL	**L15**	**Frozen breaded fish**	SF3	*Listeria monocytogenes* 1/2a	Fish shell	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,8	2,8	+
IPL	**L17**	**Salmon with hollandaise sauce**	SF3	*Listeria monocytogenes* 1/2a	Fish shell	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,8	5,6	+
IPL	**L20**	**Salmon dish**	SF3	*Listeria monocytogenes* 1/2a	Fish shell	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,8	8,4	+
IPL	**H5**	**Brie cheese**	DP1	*Listeria monocytogenes* 1/2b	Maroille (raw milk cheese)	45 min at 55°C, 30 minutes at -80°C	0,9	9	+
IPL	**H6**	**Raw milk cheese**	DP1	*Listeria monocytogenes* 1/2b	Maroille (raw milk cheese)	45 min at 55°C, 30 minutes at -80°C	0,9	16,2	+
IPL	**H8**	**Brie cheese**	DP1	*Listeria monocytogenes* 1/2b	Maroille (raw milk cheese)	45 min at 55°C, 30 minutes at -80°C	0,9	12,6	+
IPL	**J21**	**Camembert pasteurized milk cheese**	DP1	*Listeria monocytogenes* 4e	Reblochon	45 min at 55°C, 30 minutes at -80°C	0,6	10	+

Laboratory	Sample N°	Products	Cat. (Initial classification)	Artificial contamination (IPL Study)					Global result
				Strain	Origin	Injury protocol	Injury measure-ment	Inoculation level/sample	
IPL	**J22**	**Camembert de Normandie raw milk cheese**	DP1	*Listeria monocytogenes* 4e	Reblochon	45 min at 55°C, 30 minutes at -80°C	0,6	9	+
IPL	**J23**	**Reblochon raw milk cheese**	DP1	*Listeria monocytogenes* 4e	Reblochon	45 min at 55°C, 30 minutes at -80°C	0,6	8	+
IPL	**N15**	**Soft cheese**	DP1	*Listeria monocytogenes* 4b	Munster (rind)	40% NaCl, 48 h at +4°C	0,5	3,2	+
IPL	**N16**	**Camembert cheese**	DP1	*Listeria monocytogenes* 4b	Munster (rind)	40% NaCl, 48 h at +4°C	0,5	6,4	+
IPL	**N17**	**Light cheese**	DP1	*Listeria monocytogenes* 4b	Munster (rind)	40% NaCl, 48 h at +4°C	0,5	9,6	+
IPL	**N18**	**Gouda cheese**	DP1	*Listeria monocytogenes* 4b	Munster (rind)	40% NaCl, 48 h at +4°C	0,5	12,8	+
IPL	**N19**	**Brie de Meaux raw milk cheese**	DP1	*Listeria monocytogenes* 1/2c	Munster (rind)	40% NaCl, 48 h at +4°C	0,6	0,5	-
IPL	**J24**	**Blue cheese**	DP2	*Listeria monocytogenes* 4e	Reblochon	45 min at 55°C, 30 min at -80°C	0,6	10	+
IPL	**F10**	**Skim milk powder**	DP3	*Listeria monocytogenes* 1/2a	Munster (rind)	60 min at 55°C, 30 min at -80°C	>2,5	1,5	-
IPL	**F11**	**Skim milk powder**	DP3	*Listeria monocytogenes* 1/2a	Munster (rind)	60 min at 55°C, 30 min at -80°C	>2,5	2,5	-
IPL	**N3**	**Raw milk**	DP3	*Listeria monocytogenes*	Coulommiers (raw milk cheese)	40% NaCl, 48 h at +4°C	0,5	9	+
IPL	**N20**	**Cream**	DP3	*Listeria monocytogenes* 1/2c	Munster (rind)	40% NaCl, 48 h at +4°C	0,6	0,8	+
IPL	**P1**	**Chocolate pastry Versaillais**	DP3	*Listeria monocytogenes* 1/2a	Munster (rind)	40% NaCl, 48 h at +4°C	0,4	14	+
IPL	**P2**	**Princesse des ïles pastry**	DP3	*Listeria monocytogenes* 1/2a	Munster (rind)	40% NaCl, 48 h at +4°C	0,4	21	+
IPL	**P16**	**Milk powder**	DP3	*Listeria monocytogenes* 1/2b	Maroille (raw milk cheese)	20% NaCl, 24 h at -80°C	0,7	4	+

Laboratory	Sample N°	Products	Cat. (Initial classification)	Artificial contamination (IPL Study)					Global result
				Strain	Origin	Injury protocol	Injury measure-ment	Inoculation level/sample	
IPL	**P23**	**Whipped cream puff**	DP3	*Listeria monocytogenes* 1/2b	Maroille (raw milk cheese)	20% NaCl, 24 h at -80°C	0,7	6	+
IPL	**R12**	**Whipped cream puff**	DP3	*Listeria innocua*	Munster	45 min at 55°C, 30 min at -80°C	ND	0,7	-
IPL	**R16**	**Raw milk**	DP3	*Listeria monocytogenes*	Munster	45 min at 55°C, 30 min at -80°C	0,2	1,5	-
IPL	**U1**	**Chocolate profiteroles**	DP3	*Listeria monocytogenes*	Mozzarella	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	1,4	3	+
IPL	**U2**	**Chocolate mousse**	DP3	*Listeria monocytogenes*	Mozzarella	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	1,4	6	+
IPL	**U3**	**Saint Honoré pastry**	DP3	*Listeria monocytogenes*	Mozzarella	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	1,4	9	+
IPL	**L9**	**Broccoli**	VG2	*Listeria monocytogenes* 4b	Salad	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,2	1,2	+
IPL	**L11**	**Grated carrots**	VG2	*Listeria monocytogenes* 4b	Salad	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,2	2,4	+
IPL	**L23**	**Carrots and Celery**	VG2	*Listeria monocytogenes* 1/2a	Sauté potatoes	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,4	16,1	+
IPL	**Y3**	**Broccoli**	VG2	*Listeria monocytogenes* 1/2	Potatoes	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,7	2,8	+
IPL	**Z11**	**Mixed vegetables**	VG2	*Listeria monocytogenes*	Fried potatoes	45 min at 55°C, 30 min at -80°C	0,4	15	+
IPL	**L10**	**Rice salad**	VG3	*Listeria monocytogenes* 4b	Salad	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,2	1,8	+
IPL	**P19**	**Cucumber salad**	VG3	*Listeria monocytogenes* 1/2a	Sauté potatoes	20% NaCl, 24 h at -80°C	1,4	1,2	-
IPL	**P20**	**Grated carrots salad**	VG3	*Listeria monocytogenes* 1/2a	Sauté potatoes	20% NaCl, 24 h at -80°C	1,4	2,4	-
IPL	**P22**	**Rice salad**	VG3	*Listeria monocytogenes* 1/2a	Sauté potatoes	20% NaCl, 24 h at -80°C	1,4	4,8	+
IPL	**P25**	**Celery with mayonnaise**	VG3	*Listeria monocytogenes* 1/2a	Sauté potatoes	20% NaCl, 24 h at -80°C	1,4	3,6	-

Laboratory	Sample N°	Products	Cat. (Initial classification)	Artificial contamination (IPL Study)					Global result
				Strain	Origin	Injury protocol	Injury measure-ment	Inoculation level/sample	
IPL	**Y1**	**Zucchinis flan**	VG3	*Listeria monocytogenes* 1/2	Potatoes	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,7	2	-
IPL	**Y2**	**Spinaches with cream**	VG3	*Listeria monocytogenes* 1/2	Potatoes	48 h at 4°C, 30 min at 55°C, 30 min at -80°C	0,7	2,4	-
IPL	**Z9**	**Mashed celery**	VG3	*Listeria monocytogenes*	Fried potatoes	45 min at 55°C, 30 min at -80°C	0,4	10	+
IPL	**Z10**	**Lenses salad**	VG3	*Listeria monocytogenes*	Fried potatoes	45 min at 55°C, 30 min at -80°C	0,4	12,5	+
IPL	**K9**	**Water of wash lines pea**	EN1	*Listeria monocytogenes*	Environmental sample	45 min at 55°C, 30 min at -80°C	2,4	8,6	+
IPL	**X1**	**Process water fish retail**	EN1	*Listeria monocytogenes* 1/2a	Smoked salmon	45 min at 55°C, 30 min at -80°C	0,8	8,1	+
IPL	**X2**	**Water process**	EN1	*Listeria monocytogenes*	Perch fillet	45 min at 55°C, 30 min at -80°C	0,6	9	+
IPL	**X5**	**Water process**	EN1	*Listeria monocytogenes*	Spinach	45 min at 55°C, 30 min at -80°C	0,4	11	+
IPL	**X3**	**Sponge**	EN2	*Listeria monocytogenes* 1/2a	Smoked salmon	45 min at 55°C, 30 min at -80°C	0,8	16,2	+
IPL	**X4**	**Scraps from fish retail outlet**	EN3	*Listeria monocytogenes*	Perch fillet	45 min at 55°C, 30 min at -80°C	0,6	18	+

Laboratory	Sample N°	Products	Artificial contamination (ADRIA Study)					*Global result*
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample	
ADRIA	**5150**	**Deli-salad**	*L. innocua* Ad1230	Salad	Seeding 48h 2-8°C	/	1-0-1-1-0 (0,6)	**-**
ADRIA	**5152**	**Deli-salad**	*L. innocua* Ad1230	Salad	Seeding 48h 2-8°C	/	1-0-1-1-0 (0,6)	**+**
ADRIA	**5154**	**Deli-salad**	*L. innocua* Ad1230	Salad	Seeding 48h 2-8°C	/	1-0-1-1-0 (0,6)	**+**
ADRIA	**5690**	RTRH food	*L. welshimeri* Ad1175	RTRH food	Seeding 48h 2-8°C	/	1-0-1-1-0 (0,6)	**+**
ADRIA	**5692**	**RTRH food**	*L. welshimeri* Ad1175	RTRH food	Seeding 48h 2-8°C	/	1-0-1-1-0 (0,6)	**+**
ADRIA	**5694**	**RTRH food**	*L. welshimeri* Ad1175	RTRH food	Seeding 48h 2-8°C	/	1-0-1-1-0 (0,6)	**+**
ADRIA	**5698**	**Pizza**	*L. welshimeri* Ad1175	RTRH food	Seeding 48h 2-8°C	/	1-0-1-1-0 (0,6)	**+**
ADRIA	**5926**	**Sandwich with ham**	*L. welshimeri* Ad1204	Pork meat	Seeding 48h 2-8°C	/	1-2-3-0-0 (1,2)	**+**
ADRIA	**5927**	**Deli-salad with ham**	*L. welshimeri* Ad1204	Pork meat	Seeding 48h 2-8°C	/	1-2-3-0-0 (1,2)	**+**
ADRIA	**5928**	**Deli-salad with chicken**	*L. innocua* Ad1227	Poultry meat	Seeding 48h 2-8°C	/	2-1-1-0-1 (1,0)	**+**
ADRIA	**5929**	**Deli-salad with chicken**	*L. innocua* Ad1227	Poultry meat	Seeding 48h 2-8°C	/	2-1-1-0-1 (1,0)	**+**
ADRIA	**5930**	**Sandwich with ham**	*L. welshimeri* Ad1670	Pork meat	Seeding 48h 2-8°C	/	1-0-0-2-0 (0,6)	**+**
ADRIA	**5931**	**Deli-salad with ham**	*L. welshimeri* Ad1670	Pork meat	Seeding 48h 2-8°C	/	1-0-0-2-0 (0,6)	**+**
ADRIA	**5932**	**Deli-salad with chicken**	*L. ivanovii* Ad2465	Poultry meat	Seeding 48h 2-8°C	/	0-1-4-1-2 (1,6)	**+**
ADRIA	**5933**	**Deli-salad with chicken**	*L. ivanovii* Ad2465	Poultry meat	Seeding 48h 2-8°C	/	0-1-4-1-2 (1,6)	**-**
ADRIA	**5950**	**Surface sample**	*L. monocytogenes* Ad1271	Environmental sample	Seeding 48h 2-8°C	/	2-1-1-0-2 (1,2)	**+**
ADRIA	**6278**	**Mushrooms**	*L. innocua* Ad1176	Vegetables	Seeding 48h 2-8°C	/	4-2-3-0-1 (2,0)	**+**

Appendix 4 – Sensitivity study: raw data (IPL and ADRIA Studies)

IPL Legend

Total bacteria growth

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

Distribution of flora

A = pure culture of suspicious colonies
B = mix with a majority of suspicious colonies
C = mix with a minority of suspicious colonies
D = mix with rare suspicious colonies
E = absence of suspicious colonies
(x) : x characteristic colonies of *Listeria* if x ≤ 5

- (L)(M)(H) (A to D) : presence of blue colonies without halo

ND: negative deviation
PD: positive deviation
PPNA: positive presumptive negative agreement

ADRIA Legend

H-: characteristic *Listeria* colonies without halo
H+: characteristic *Listeria* colonies with halo
-: no typical colonies but presence of background microflora
st: plate without any colony
i: PCR inhibition
PA: positive agreement
NA: negative agreement
ND: negative deviation
PD: positive deviation
PPNA: positive presumptive negative agreement
PPND : positive presumptive negative deviation
NC: non-characteristic colony on TSYEA
d: doubtful colony
*: new extraction
NI: No identification
ni : No isolated colony

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr) (ADRIA, Expert laboratory)

COMPOSITE FOODS																			
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E								
				FRASER 1/2		FRASER		CONFIRMATION			CONFIRMATION 24 LEB							
Laboratory	Sample N°	Products (French name)	Products	O&A1	P1	O&A2	P2	*IDENTIFICATION*	RESULT *Listeria* spp	BAX® *Listeria*	*Brilliance* 24h (IPL) O&A 24h (Adria)	*Brilliance* 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*	FINAL RESULT	Agreement	Protocol	Category	Type
IPL	K4	Sandwich thon	Tuna sandwich	+LA	+LA	+MA	+MA	*L. monocytogenes*	+	+	+LB	+MB	*L. monocytogenes*	+	PA	G	1	a
ADRIA	4866	Allumette poulet fumé	RTE chicken meat	H-d	+ (4)	H-	+	*L. welshimeri*	+	-/-/-	H+ (2)	H+ (2)	*L. monocytogenes*	-	ND	G	1	a
ADRIA	**5150**	**Salade jambon emmental**	**Deli-salad**	-	-	st	st	/	-	-	-	-	/	-	NA	G	1	a
ADRIA	**5152**	**Salade jambon emmental**	**Deli-salad**	H-	+	H-	+	*L. innocua*	+	-	-	-	/	-	ND	G	1	a
ADRIA	**5154**	**Salade poulet emmental**	**Deli-salad**	-	-	st	st	/	-	+	H-	H-	*L. innocua*	+	PD	G	1	a
ADRIA	5388	Sandwich poulet crudités	Sandwich	-	st	st	st	/	-	+/-/-	-	- (- after subculture in Fraser)	/	-	PPNA	G	1	a
ADRIA	5390	Tartinable formage saumon	RTE food	-	-	-	-	/	-	-	-	-	/	-	NA	G	1	a
ADRIA	5392	Salade pomme de terre hareng	RTE food	st	st	st	st	/	-	-	-	-	/	-	NA	G	1	a
ADRIA	**5926**	**Sandwich jambon beurre**	**Sandwich with ham**	st	st	st	st	/	-	+	H-	H-	*L. welshimeri*	+	PD	G	1	a
ADRIA	**5927**	**Piémontaise au jambon**	**Deli-salad with ham**	H-	+	H-	+	*L. welshimeri*	+	+	H-	H-	*L. welshimeri*	+	PA	G	1	a
ADRIA	**5928**	**Salade césar**	**Deli-salad with chicken**	H-	+	H-	+	*L. innocua*	+	+	H-	H-	*L. innocua*	+	PA	G	1	a
ADRIA	**5929**	**Salade au poulet**	**Deli-salad with chicken**	H-	+	H-	+	*L. innocua*	+	+	H-	H-	*L. innocua*	+	PA	G	1	a
ADRIA	**5930**	**Sandwich jambon beurre**	**Sandwich with ham**	H-	+	H-	+	*L. welshimeri*	+	+	H-	H-	*L. welshimeri*	+	PA	G	1	a
ADRIA	**5931**	**Piémontaise au jambon**	**Deli-salad with ham**	H+	+	H+	+	*L. monocytogenes*	+	+/-/+	st	- (- after subculture in Fraser)	/	-	PPND	G	1	a
ADRIA	**5932**	**Salade césar**	**Deli-salad with chicken**	-	-	H+	+	*L. ivanovii*	+	-	-	-	/	-	ND	G	1	a
ADRIA	**5933**	**Salade au poulet**	**Deli-salad with chicken**	-	-	-	st	/	-	-	-	-	/	-	NA	G	1	a
ADRIA	5934	Club sandwich rosette	Sandwich with ham	-	-	-	-	/	-	-	-	-	/	-	NA	G	1	a
ADRIA	5935	Piémontaise au jambon	Deli-salad with ham	st	-	-	-	/	-	-	st	st	/	-	NA	G	1	a
ADRIA	5936	Piémontaise au jambon	Deli-salad with ham	st	st	st	st	/	-	-	st	st	/	-	NA	G	1	a
ADRIA	5937	Salade au poulet	Deli-salad with chicken	-	-	-	st	/	-	-	-	-	/	-	NA	G	1	a
IPL	P11		Pie	Ø	Ø	Ø	-LE	/	-	-	-LE	/	/	-	NA	G	1	b
ADRIA	4864	Poélée de pommes de terre	RTRH potatoes	-	-	-	-	/	-	-	-	-	/	-	NA	G	1	b
ADRIA	4865	Galette soja tomates	RTRH food	H-d	-	-	-	NC	-	+	-	- (H+ after subculture in Fraser 1)	*L. monocytogenes* after subculture in Fraser 1	+	PD	G	1	b
ADRIA	4867	Poélée de riz au poulet	RTRH chicken meat and rice	H-d	-	H+/H-	+	*L. monocytogenes* / *L. innocua*	+	+	H-d	H-d (+on Palcam)	*L. monocytogenes*	+	PA	G	1	b

COMPOSITE FOODS																			
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E								
				FRASER 1/2		FRASER		CONFIRMATION			CONFIRMATION 24 LEB							
Laboratory	Sample N°	Products (French name)	Products	O&A1	P1	O&A2	P2	*IDENTIFICATION*	RESULT *Listeria* spp	BAX® *Listeria*	*Brilliance* 24h (IPL) O&A 24h (Adria)	*Brilliance* 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*	FINAL RESULT	Agreement	Protocol	Category	Type
ADRIA	4869	Sauce colombo	RTRH dressing	-	-	-	-	/	-	-	-	-	/	-	NA	G	1	b
ADRIA	4870	Galette de blé noir épaisse	RTRH food	H+	+	H+	+	*L. monocytogenes*	+	+	H+/H-d	H+/H-d	*L. monocytogenes* / NC	+	PA	G	1	b
ADRIA	4871	Galette quinoa provençale	RTRH food	H-d	-	-	-	*NC, NI*	-	-	H-d	H-d	NI	-	NA	G	1	b
ADRIA	4875	Blanquette de poulet	RTRH food	st	-	-	-	/	-	-	-	-		-	NA	G	1	b
ADRIA	4876	Paella	Paella	H+ (2)	-	H+	+	*L. monocytogenes*	+	+	H-d	H-d	*L. innocua*	+	PA	G	1	b
ADRIA	4877	Galette boulgour lentilles	RTRH food	H-d	-	-	-	NC	-	-	-	-	/	-	NA	G	1	b
ADRIA	4878	Tajine olives	RTRH food	-	-	-	-	/	-	-	-	-	/	-	NA	G	1	b
ADRIA	4958	Brandade de morue parmentier	RTRH food	-	-	-	-	/	-	-	-	-	/	-	NA	G	1	b
ADRIA	5384	Riz au thon olives tomates	RTRH food	H+	+	H+	+	*L. monocytogenes*	+	-	-	-	/	-	ND	G	1	b
ADRIA	5385	Pommes de terre salardaise	RTRH food	-	-	-	-	/	-	-	-	-	/	-	NA	G	1	b
ADRIA	5386	Pommes de terre au beurre	RTRH food	H+	+	H+	+	*L. monocytogenes*	+	+	H+	H+	*L. monocytogenes*	+	PA	G	1	b
ADRIA	5387	Bouchée à la reine	RTRH food	st	st	st	st	/	-	-	-	-	/	-	NA	G	1	b
ADRIA	5389	Friand au fromage	RTRH food	H+	+	H+	+	*L. monocytogenes*	+	+	H+	H+	*L. monocytogenes*	+	PA	G	1	b
ADRIA	5391	Friand au fromage		st	-	-	-	/	-	-	-	-	/	-	NA	G	1	b
ADRIA	**5690**	**Croissant au jambon**	RTRH food	-	-	-	-	/	-	+	H-	H-	*L. welshimeri*	+	PD	G	1	b
ADRIA	**5692**	**Croque monsieur fromage jambon**	**RTRH food**	H-	+	H-	+	*L. welshimeri*	+	-	-	-	/	-	ND	G	1	b
ADRIA	**5694**	**Galette blé noir jambon emmental**	**RTRH food**	-	-	-	-	/	-	+	H-	H-	*L. welshimeri*	+	PD	G	1	b
ADRIA	**5698**	**Pizza jambon fromages**	**Pizza**	H-	+	H-	+	*L. innocua*	+	-	-	-	/	-	ND	G	1	b
IPL	J8		Cookie dough	-ME	-ME	+MB	+MB	*L.monocytogenes*	+	-	-ME	/	/	-	ND	G	1	c
IPL	O1		Chocolate pastry Opéra	+MB	+MD	+MB	+MB	*L.monocytogenes*	+	+	-LB	+LB	*L.monocytogenes*	+	PA	G	1	c
IPL	**P1**		**Chocolate pastry Versaillais**	+LB	+LB	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	G	1	c
IPL	**P2**		**Princesse des ïles pastry**	+LB	+LB	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	G	1	c
IPL	**P23**		**Whipped cream puff**	Ø	Ø	+MA	+MA	*L.monocytogenes*	+	+	+LB	+LB	*L.monocytogenes*	+	PA	G	1	c
IPL	P26		Chocolate cream pastry	Ø	Ø	-LE	Ø	/	-	-	-ME	/	/	-	NA	G	1	c
IPL	**R12**		**Whipped cream puff**	Ø	Ø	-LE	-LE	/	-	-	-ME	-ME	/	-	NA	G	1	c
IPL	R17		Flan	Ø	Ø	Ø	Ø	/	-	-	-LE	-LE	/	-	NA	G	1	c
IPL	**U1**		**Chocolate profiteroles**	+MB	+MB	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MA	*L.monocytogenes*	+	PA	G	1	c
IPL	**U2**		**Chocolate mousse**	+MA	+MA	+MA	+MB	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+	PA	G	1	c
IPL	**U3**		**Saint Honoré pastry**	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+LB	+MB	*L.monocytogenes*	+	PA	G	1	c
ADRIA	4863	Plaque à croissant	Pastry	-	-	-	-	/	-	-	-	-	/	-	NA	G	1	c
ADRIA	4868	Omelette orient	Omelette	st	-	-	-	/	-	-	-	-	/	-	NA	G	1	c

COMPOSITE FOODS																			
Laboratory	Sample N°	Products (French name)	Products	Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E						Agreement	Protocol	Category	Type
				FRASER 1/2		FRASER		CONFIRMATION	RESULT *Listeria* spp	BAX® ***Listeria***	CONFIRMATION 24 LEB			FINAL RESULT					
											Brilliance 24h (IPL)	*Brilliance* 48h (IPL)	*IDENTIFICATION*						
				O&A1	P1	O&A2	P2	*IDENTIFICATION*			O&A 24h (Adria)	O&A 48h (Adria)							
ADRIA	4872	Mille feuilles	Pastry	st	st	st	st	/	-	**-**	-	-	/	-	**NA**	G	1	c
ADRIA	4873	Omelette	Omelette	-	-	-	-	/	-	**-**	-	-	/	-	**NA**	G	1	c
ADRIA	4874	Eclair au chocolat	Pastry	H+	+	H+	+	*L. monocytogenes*	+	**+**	H+	H+	*L. monocytogenes*	+	**PA**	G	1	c
ADRIA	4946	Blanc d'œuf en neige	Egg white	st	st	st	-	/	-	**-**	-	-	/	-	**NA**	G	1	c
ADRIA	4947	Œuf entier liquide pasteurisé	Pasteurized liquid whole egg	st	st	st	st	/	-	**-**	st	st	/	-	**NA**	G	1	c
ADRIA	4948	Œuf entier liquide pasteurisé	Pasteurized liquid whole egg	st	st	st	st	/	-	**-**	st	-	/	-	**NA**	G	1	c
ADRIA	4949	Jaune d'œuf liquide pasteurisé	Pasteurized liquid yolk egg	st	st	st	st	/	-	**-**	st	st	/	-	**NA**	G	1	c

MEAT PRODUCTS																			
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E								
				FRASER 1/2		FRASER		CONFIRMATION			CONFIRMATION 24 LEB							
Laboratory	Sample N°	Products (French name)	Products	O&A1	P1	O&A2	P2	*IDENTIFICATION*	RESULT *Listeria* spp	BAX® ***Listeria***	Brilliance 24h (IPL) O&A 24h (Adria)	Brilliance 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*	FINAL RESULT	Agreement	Protocol	Category	Type
IPL	A2		Beef minced meat	-LA	+LA	-MA	+MB	*L.innocua*	+	+	-MB	-MA	*L.innocua*	+	**PA**	G	2	a
IPL	A3		Pork chops	-LA	+LA	-MA	+MB	*L.welshimeri*	+	+	-MA	-MA	*L.welshimeri*	+	**PA**	G	2	a
IPL	A10		Thigh of guinea fowl	+MB	+MB	+MB	+MB	*L.monocytogenes* *L.welshimeri*	+	+	+MB	+HB	*L.monocytogenes* *L.innocua*	+	**PA**	G	2	a
IPL	B8		Rumsteak	Ø	Ø	Ø	Ø	/	-	-	-LE	-LE	/	-	**NA**	G	2	a
IPL	D4		Mincemeat	-LA	+LA	+MB	+MA	*L.innocua* *(Bacillus)*	+	+	-MB	-MB	*L.innocua*	+	**PA**	G	2	a
IPL	I11		Chicken leg	+LA	+LB	+MB	+MB	*L.monocytogenes* *L.innocua*	+	+	+MB	+MB	*L.monocytogenes* *L.innocua*	+	**PA**	G	2	a
IPL	J12		Duck leg	Ø	Ø	Ø	Ø	/	-	+	Ø	Ø	/	-	**PPNA**	G	2	a
IPL	K5		Chicken leg	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	2	a
IPL	K7		Chopped steak	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	2	a
IPL	M5		Beef mincemeat	+LA	+LA	+MA	+MA	*L.ivanovii*	+	+	+MA	+MB	*L.ivanovii*	+	**PA**	G	2	a
IPL	M6		Beef mincemeat	+LA	+LA	+MA	+MA	*L.ivanovii*	+	-	-ME	/	/	-	**ND**	G	2	a
IPL	N11		Horse mincemeat	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	2	a
IPL	P12		Beef mincemeat	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+	+LA	+LB	*L.monocytogenes*	+	**PA**	G	2	a
IPL	V8		Chicken	+LB	+LB	-MB	+MB	*L.monocytogenes* *L.welshimeri*	+	+	-MB	-MB Fraser : -MA RLM : +HD	*L.monocytogenes* *L.welshimeri*	+	**PA**	G	2	a
IPL	V9		Duck	-LA(2)	+LA(1)	-LA	+LA	*L.welshimeri*	+	+	-MB	-MB	*L.welshimeri*	+	**PA**	G	2	a
IPL	AA1		Ground beef	-ME	-ME	Ø	Ø	/	-	-	-ME	/	/	-	**NA**	G	2	a
IPL	AA3		Pork chops	-LE	-LE	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	2	a
IPL	I10		Pork offals	+LA	+LB	+MA	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	2	a
ADRIA	6279	Steack haché	Ground beef	H- (3)	-	H-	+	*L. welshimeri*	+	-	-	-	/	-	**ND**	G	2	a
ADRIA	6280	Steack haché	Ground beef	-	-	-	-	/	-	+	H-	H-	*L. innocua*	+	**PD**	G	2	a
ADRIA	6456	Cote d'agneau	Lamb meat	-	-	-	-	/	-	-	-	-	/	-	**NA**	G	2	a
ADRIA	6457	Escalope de veau	Veal meat	-	-	-	-	/	-	-	-	-	/	-	**NA**	G	2	a
IPL	A4		Hamburger	+LA	+LB	+MB	+MB	*L.monocytogenes* *L.innocua*	+	+	+MB	+MB	*L.monocytogenes* *L.innocua*	+	**PA**	G	2	b
IPL	A5		Beef balls	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	2	b
IPL	B1		Mincemeat	Ø	Ø	Ø	Ø	/	-	-	Ø	Ø	/	-	**NA**	G	2	b
IPL	B5		Hamburger	Ø	Ø	-MA	+MA	*L.welshimeri*	+	+	-MA	-MA	*L.grayi*	+	**PA**	G	2	b
IPL	D1		Hamburger	-LE	-LE	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	2	b
IPL	J1		Tomato burger	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	2	b
IPL	K1		Hamburger	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	2	b
IPL	O5		Horse meat with curry	-LA(2)	+LA(2)	-MA	+HB	*L.innocua*	+	+	-MA	-MA	*L.innocua*	+	**PA**	G	2	b
IPL	AA2		Hamburger with onions	-LE	-LE	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	2	b
IPL	B9		Foie gras	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+MA	+HA	*L.monocytogenes*	+	**PA**	G	2	b

MEAT PRODUCTS																			
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E								
				FRASER 1/2		FRASER		CONFIRMATION			CONFIRMATION 24 LEB							
Laboratory	Sample N°	Products (French name)	Products	O&A1	P1	O&A2	P2	*IDENTIFICATION*	RESULT *Listeria* spp	BAX® ***Listeria***	Brilliance 24h (IPL) O&A 24h (Adria)	Brilliance 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*	FINAL RESULT	Agreement	Protocol	Category	Type
IPL	D7		Foie gras	Ø	Ø	+HA	+MA	*L.monocytogenes*	+	+	-LD	+LD	*L.monocytogenes*	+	**PA**	G	2	b
IPL	H11		Roast pork	Ø	Ø	-ME	-ME	/	-	-	Ø	/	/	-	**NA**	G	2	b
IPL	H12		Roast pork with ketchup	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	2	b
IPL	**L8**		**Cordon bleu with vegetables**	+MA	+MA	+MA	+MB	*L.monocytogenes*	+	+	+HA	+HB	*L.monocytogenes*	+	**PA**	G	2	b
IPL	**L18**		**Beef balls with tomato sauce**	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+MA	+MB	*L.monocytogenes*	+	**PA**	G	2	b
IPL	**L19**		**Scallop cream**	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+	**PA**	G	2	b
IPL	O4		Minced meat with spices	-LE	-LE	+HA	+HD	*L.monocytogenes*	+	+	-LD	+LD	*L.monocytogenes*	+	**PA**	G	2	b
ADRIA	5014	Blanquette de veau	RTRH veal meat	st	st	st	st	/	-	-	st	-	/	-	**NA**	G	2	b
ADRIA	5015	Porc au caramel	RTRH pork meat	st	st	st	st	/	-	-	st	st	/	-	**NA**	G	2	b
ADRIA	5016	Bœuf aux oignons	RTRH beef meat	-	-	-	-	/	-	-	-	-	/	-	**NA**	G	2	b
ADRIA	5017	Couscous 3 viandes	RTRH meat	st	st	-	-	/	-	-	-	-	/	-	**NA**	G	2	b
IPL	A1		Toulouse sausage	-LA	+LB	-MA	-MB	*L.welshimeri*	+	+	+MB	+MA	*L.welshimeri*	+	**PA**	S	2	c
IPL	A2		Toulouse sausage	+LB	+LA	+HB	+HA	*L.monocytogenes* *L.welshimeri*	+	+	+MB	+MA	*L.welshimeri*	+	**PA**	S	2	c
IPL	A3		Chipolatas	-1LE	-4LE	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	S	2	c
IPL	A5		Chipolatas	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	S	2	c
IPL	A7		Merguez	-MB	+MB	-MA	+MB	*L.innocua*	+	+	+MA	+MA	*L.innocua*	+	**PA**	S	2	c
IPL	B8		Chipolatas	-LA	+LB	-MB	+MA	*L.welshimeri*	+	+	+MB	+MB	*L.welshimeri*	+	**PA**	S	2	c
IPL	B10		Chipolatas	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	S	2	c
IPL	C1		Toulouse sausage	-ME	-LE	Ø	Ø	/	-	-	-ME	/	/	-	**NA**	S	2	c
IPL	C7		Sausage	-ME	-ME	Ø	Ø	/	-	-	-ME	/	/	-	**NA**	S	2	c
IPL	C8		Bacon	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	S	2	c
IPL	C9		Merguez	-LE	-LE	+MA	+MA	*L.monocytogenes*	+	-	-ME	Fr: +MA	*L.monocytogenes*	-	**ND**	S	2	c
IPL	C12		Black pudding	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MA	*L.monocytogenes*	+	**PA**	S	2	c
IPL	C13		Savoie sausage	+MB	+LB	+MB	+MB	*L.monocytogenes* *L.innocua*	+	+	+MB	+MA	*L.monocytogenes* *L.innocua*	+	**PA**	S	2	c
IPL	C14		Toulouse sausage	+LB	+LB	+MB	+MB	*L.monocytogenes* *L.welshimeri*	+	+	+MB	+MB	*L.monocytogenes* *L.welshimeri*	+	**PA**	S	2	c
IPL	D2		Sausage	-LE	-LE	-LE	-ME	/	-	-	-ME	/	/	-	**NA**	S	2	c
IPL	D3		Sausage with herbs	Ø	Ø	Ø	-ME	/	-	-	-ME	/	/	-	**NA**	S	2	c
IPL	D4		Brat's	+LA	+LA	+MA	+MB	*L.innocua*	+	+	+LB	+MB	*L.monocytogenes* *L.innocua*	+	**PA**	S	2	c
IPL	D8		Merguez	+LC	+LC	+MB	+MB	*L.monocytogenes* *L.welshimeri*	+	+	+MB	+MB	*L.monocytogenes* *L.welshimeri*	+	**PA**	S	2	c
IPL	D10		Sausage	+LB	+LB	+MB	+MB	*L.monocytogenes* *L.innocua*	+	+	+MB	+MB	*L.monocytogenes* *L.innocua*	+	**PA**	S	2	c
IPL	F1		Chipolatas	+LB	+LB	+MB	+MB	*L.monocytogenes* *L.innocua*	+	+	+MB	+MB	*L.monocytogenes* *L.innocua*	+	**PA**	S	2	c

MEAT PRODUCTS																			
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E								
				FRASER 1/2		FRASER		CONFIRMATION			CONFIRMATION 24 LEB							
Laboratory	Sample N°	Products (French name)	Products	O&A1	P1	O&A2	P2	*IDENTIFICATION*	RESULT *Listeria* spp	BAX® ***Listeria***	Brilliance 24h (IPL) O&A 24h (Adria)	Brilliance 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*	FINAL RESULT	Agreement	Protocol	Category	Type
IPL	F2		Chipolatas	+MB	+MB	+MB	+HB	*L.monocytogenes* *L.innocua*	+	-	+MB	+MB	*L.monocytogenes* *L.innocua*	-	ND	S	2	c
IPL	G1		Sausage	-LE	-LE	-ME	-ME	/	-	-	-ME	-ME	/	-	NA	S	2	c
IPL	G2		Sausage	-ME	-ME	+MB	+MB	*L.monocytogenes*	+	-	-ME	-ME	/	-	ND	S	2	c
IPL	G3		Merguez	-ME	-ME	-ME	-ME	/	-	-	-ME	-ME	/	-	NA	S	2	c
IPL	G4		Chipolatas	-LE	-LE	-ME	-ME	/	-	-	-ME	-ME	/	-	NA	S	2	c
IPL	A4		Sausage	-LE	-LE	Ø	-2LE	/	-	-	-ME		/	-	NA	S	2	c
IPL	A6		Frankfurter	+LA	+LB	+MA	+MB	*L.monocytogenes*	+	+	+MA	+LA	*L.monocytogenes*	+	PA	S	2	c
IPL	B9		Raw ham	Ø	-LE	Ø	Ø	/	-	-	-ME		/	-	NA	S	2	c
IPL	B11		Bacon	-LA	+LA	-MA	+MA	*L.innocua*	+	+	+MA	+MB	*L.innocua*	+	PA	S	2	c
IPL	B12		Raw ham	Ø	Ø	Ø	Ø	/	-	+	+MB	+MB	*L.monocytogenes*	+	PD	S	2	c
IPL	C2		Pâté	Ø	Ø	Ø	Ø	/	-	+	+MB	+MB	*L.innocua*	+	PD	S	2	c
IPL	C3		Raw ham	-LE	-LE	Ø	-ME	/	-	-	-ME	/	/	-	NA	S	2	c
IPL	C4		Pâté with olives	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	NA	S	2	c
IPL	C5		Terrine of rabbit	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	NA	S	2	c
IPL	C6		Pâté	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	NA	S	2	c
IPL	C10		Sausage	-LE	-LE	Ø	Ø	/	-	-	-ME	/	/	-	NA	S	2	c
IPL	C11		White ham	+MB	+MB	+MD	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	S	2	c
IPL	C15		Terrine	+LD	+LD	+MA	+MA	*L.monocytogenes*	+	-	-ME	Fr: Ø	/	-	ND	S	2	c
IPL	D1		Foie gras	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	NA	S	2	c
IPL	D5		Pâté	Ø	Ø	Ø	Ø	/	-	-	-ME	/	/	-	NA	S	2	c
IPL	D7		Ham	Ø	-LE	Ø	Ø	/	-	-	-ME	/	/	-	NA	S	2	c
IPL	D9		Pâté with pickles	Ø	Ø	Ø	Ø	/	-	+	+MA	+MA	*L.monocytogenes*	+	PD	S	2	c
IPL	D11		Pâté	Ø	Ø	Ø	Ø	/	-	+	+MA	+MA	*L.monocytogenes*	+	PD	S	2	c
IPL	D13		Raw ham	Ø	-LE	Ø	-ME	/	-	-	-ME	/	/	-	NA	S	2	c
IPL	D14		Pâté	-LE	-LE	-LE	-ME	/	-	-	-ME	/	/	-	NA	S	2	c
IPL	D15		Raw ham	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MA	*L.monocytogenes*	+	PA	S	2	c
IPL	D16		Smoked sausage	-LE	-LE	Ø	-LE	/	-	-	-ME	/	/	-	NA	S	2	c
IPL	D19		Chorizo	-LE	-LE	+MD	+MC	*L.welshimeri*	+	-	-ME	+LB(1)	*L.welshimeri*	-	ND	S	2	c
IPL	D20		Pâté with pickles	Ø	Ø	Ø	Ø	/	-	+	+MA	+MA	*L.monocytogenes*	+	PD	S	2	c
IPL	D21		Pâté with pickles	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	NA	S	2	c
IPL	E11		Rillettes	+LA	+LC	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	S	2	c
IPL	E12		Bacon	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	NA	S	2	c
IPL	E13		Pâté	+MB	+MB	+MB	+MB	*L.monocytogenes* *L.seeligeri*	+	+	+MA	+MB	*L.monocytogenes*	+	PA	S	2	c
IPL	E14		Terrine	-LE	-ME	-LE	-ME	/	-	-	-ME	/	/	-	NA	S	2	c
IPL	E15		Bayonne ham	Ø	Ø	Ø	-ME	/	-	-	-LE	/	/	-	NA	S	2	c
IPL	E16		Raw ham	Ø	-LE	Ø	-LE	/	-	-	-ME	/	/	-	NA	S	2	c

DAIRY PRODUCTS																			
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E									
				FRASER 1/2		FRASER		CONFIRMATION			CONFIRMATION 24 LEB								
Laboratory	Sample N°	Products (French name)	Products	O&A1	P1	O&A2	P2	*IDENTIFICATION*	RESULT *Listeria* spp	BAX® *Listeria*	Brilliance 24h (IPL) O&A 24h (Adria)	Brilliance 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*	FINAL RESULT	Agreement	Protocol	Category	Type
IPL	C11		Maroilles raw milk cheese	-LE	Ø	-LE	Ø	/	-	-	+LD	+LD	*L.innocua*	-	NA	G	3	a
IPL	C16		Epoisses raw milk cheese	+LB	+LB	+MB	+MB	*L.moncytogenes L.innocua*	+	-	-ME	/	/	-	ND	G	3	a
IPL	D3		Maroilles raw milk cheese	+LB	+LB	+MB	+MB	*L.monocytogenes L.innocua*	+	+	+MB	+MB	*L.moncytogenes L.innocua*	+	PA	G	3	a
IPL	E1		Maroilles raw milk cheese	+LA	+LA	+LB	+LB	*L.monocytogenes L.innocua*	+	+	+MB	+MB	*L.moncytogenes L.innocua*	+	PA	G	3	a
IPL	E2		Maroilles raw milk cheese	+MA	+MA	+MB	+MB	*L.moncytogenes L.innocua*	+	+	+MA	+MA	*L.monocytogenes*	+	PA	G	3	a
IPL	E5		Comté raw milk cheese	-MA	+MB	-MB	+MB	*L.innocua*	+	-	-ME	-ME	Ø	-	ND	G	3	a
IPL	**H6**		**Raw milk cheese**	+MA	+MA	+MA	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	G	3	a
IPL	**J22**		**Camembert de Normandie raw milk cheese**	Ø	-LE	Ø	Ø	/	-	+	+LA	+MB	*L.monocytogenes*	+	PD	G	3	a
IPL	**J23**		**Reblochon raw milk cheese**	-LE	-ME	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.moncytogenes L.innocua*	+	PA	G	3	a
IPL	K12		Camembert raw milk cheese	-LE	-LE	Ø	-LE	/	-	-	-LE	/	/	-	NA	G	3	a
IPL	K13		Camembert de Normandie raw milk cheese	Ø	-ME	-ME	-ME	/	-	-	-HE	/	/	-	NA	G	3	a
IPL	**N19**		**Brie de Meaux raw milk cheese**	Ø	Ø	-LE	-LE	/	-	-	-ME	/	/	-	NA	G	3	a
IPL	P8		Brie de Meaux raw milk cheese	Ø	Ø	Ø	Ø	/	-	-	-ME	/	/	-	NA	G	3	a
IPL	P13		Reblochon raw milk cheese	-MA	+MA	-MA	+MA	*L.innocua*	+	+	-MB	-MB	*L.innocua*	+	PA	G	3	a
IPL	Q7		Reblochon raw milk cheese	-ME	Ø	-LE	Ø	/	-	-	-ME	/	/	-	NA	G	3	a
IPL	Q8		Epoisses raw milk cheese	-LE	-LE	-LE	-LE	/	-	+	-MD	-MD	*L.welshimeri*	+	PD	G	3	a
IPL	T7		Munster raw milk cheese	Ø	-LE	Ø	Ø	/	-	-	-ME	/	/	-	NA	G	3	a
IPL	T12		Roquefort cheese	Ø	Ø	Ø	Ø	/	-	-	-ME	/	/	-	NA	G	3	a
ADRIA	4950	Brie de Meaux lait cru	Raw milk cheese	st	st	-	st	/	-	-	-	-	/	-	NA	G	3	a
ADRIA	4951	Morbier lait cru de vache	Raw milk cheese	-	-	-	-	/	-	-	-	-	/	-	NA	G	3	a

DAIRY PRODUCTS																			
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E									
				FRASER 1/2		FRASER		CONFIRMATION			CONFIRMATION 24 LEB								
Laboratory	Sample N°	Products (French name)	Products	O&A1	P1	O&A2	P2	*IDENTIFICATION*	RESULT *Listeria* spp	BAX® *Listeria*	Brilliance 24h (IPL) O&A 24h (Adria)	Brilliance 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*	FINAL RESULT	Agreement	Protocol	Category	Type
ADRIA	4952	Kaltbach lait cru	Raw milk cheese	-	st	-	-	/	-	-	-	-	/	-	**NA**	G	3	a
IPL	B11		Raw milk	Ø	Ø	Ø	Ø	/	-	-	-LE	Ø	/	-	**NA**	G	3	b
IPL	C17		Raw milk	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	3	b
IPL	C20		Raw milk	-LE	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	3	b
IPL	**N3**		**Raw milk**	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+	+MA	+MB	*L.monocytogenes* *L.innocua*	+	**PA**	G	3	b
IPL	N4		Raw milk	+LA	+LB	+MB	+MB	*L.monocytogenes* *L.innocua*	+	+	-LD	-LD	*L.innocua*	+	**PA**	G	3	b
IPL	R2		Raw milk	-LE	-LE	-ME	-ME	/	-	-	-ME	-ME	/	-	**NA**	G	3	b
IPL	**R16**		**Raw milk**	-LE	-LE	-LE	-LE	/	-	-	-ME	-ME	/	-	**NA**	G	3	b
ADRIA	4942	Lait cru fermier	Raw milk	H-	+	H-	+	*L. innocua*	+	-	-	-	/	-	**ND**	G	3	b
ADRIA	4943	Lait cru fermier	Raw milk	st	st	-	-	/	-	-	-	-	/	-	**NA**	G	3	b
ADRIA	4944	Lait cru fermier	Raw milk	st	st	-	-	/	-	-	-	-	/	-	**NA**	G	3	b
ADRIA	4945	Lait cu de vache jersiaise	Raw milk	-	st	-	-	/	-	-	-	-	/	-	**NA**	G	3	b
ADRIA	5395	Lait cru de brebis	Raw milk	H+	+	H+	+	*L. monocytogenes*	+	+	H+	H+	*L. monocytogenes*	+	**PA**	G	3	b
ADRIA	5396	Lait cru de brebis	Raw milk	H+	+	H+	+	*L. monocytogenes*	+	+	H+	H+	*L. monocytogenes*	+	**PA**	G	3	b
ADRIA	5397	Lait cru de brebis	Raw milk	H+	+	H+	+	*L. monocytogenes*	+	+	H+/H-	H+/H-	*L.monocytogenes* *L.innocua*	+	**PA**	G	3	b
ADRIA	5398	Lait cru de brebis	Raw milk	st	-	-	-	/	-	-	-	-	/	-	**NA**	G	3	b
ADRIA	5399	Lait cru de brebis	Raw milk	H+	+	H+	+	*L. monocytogenes*	+	+	H+	H+	*L. monocytogenes*	+	**PA**	G	3	b
ADRIA	5400	Lait cru de brebis	Raw milk	H+	+	H+	+	*L. monocytogenes*	+	+	H+	H+	*L. monocytogenes*	+	**PA**	G	3	b
ADRIA	5401	Lait cru de brebis	Raw milk	H+ (8)	+	H+	+	*L. monocytogenes*	+	+	H+	H+	*L. monocytogenes*	+	**PA**	G	3	b
ADRIA	5402	Lait cru de brebis	Raw milk	H+	+	H+	+	*L. monocytogenes*	+	+	H+/H-	H+/H-	*L.monocytogenes* *L.innocua*	+	**PA**	G	3	b
ADRIA	5959	Lait cru fermier	Raw milk	-	-	-	-	/	-	-	-	-	/	-	**NA**	G	3	b
IPL	**H5**		**Brie cheese**	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	+	+HA	+MA	*L.monocytogenes* *L.innocua*	+	**PA**	G	3	c
IPL	**H8**		**Brie cheese**	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	3	c
IPL	**J21**		**Camembert pasteurized milk cheese**	Ø	-LE	Ø	Ø	/	-	+	+LB	+MB	*L.monocytogenes*	+	**PD**	G	3	c
IPL	K14		Camembert cheese	-LE	-LE	-HE	-HE	/	-	-	-ME	/	/	-	**NA**	G	3	c

DAIRY PRODUCTS																		
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E								
				FRASER 1/2		FRASER		CONFIRMATION			CONFIRMATION 24 LEB							
Laboratory	Sample N°	Products (French name)	Products	O&A1	P1	O&A2	P2	*IDENTIFICATION*	RESULT *Listeria* spp	BAX® *Listeria*	Brilliance 24h (IPL) O&A 24h (Adria)	Brilliance 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*	FINAL RESULT	Agreement	Protocol	Category	Type
IPL	**N15**		**Soft cheese**	+MB	+MB	+LA	+LB	*L.monocytogenes*	+	+	+MD	+MB	*L.monocytogenes*	+	**PA**	G	3	c
IPL	**N16**		**Camembert cheese**	-LE	Ø	Ø	Ø	/	-	+	+LB	+MB	*L.monocytogenes*	+	**PD**	G	3	c
IPL	**N17**		**Light cheese**	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+	+MB	+HB	*L.monocytogenes*	+	**PA**	G	3	c
IPL	**N18**		**Gouda cheese**	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+LB	+MB	*L.monocytogenes*	+	**PA**	G	3	c
IPL	P9		Coulommier pasteurized milk cheese	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	3	c
IPL	P14		Soft cheese	-LE	-LE	Ø	Ø	/	-	-	-ME	/	/	-	**NA**	G	3	c
IPL	C14		Ossau Iraty cheese	+MA	+MA	+MB	+MB	*L.monocytogenes* *L.innocua*	+	+	-MB	+MB	*L.monocytogenes* *L.innocua*	+	**PA**	G	3	c
IPL	**J24**		**Blue cheese**	Ø	-LE	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	3	c
IPL	K15		Goat's cheese	Ø	-LE	-LE	-ME	/	-	-	Ø	/	/	-	**NA**	G	3	c
IPL	P5		Ewe's milk cheese	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	3	c
IPL	P7		Angeroux	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	3	c
IPL	P10		Goat's cheese	-ME	-LE	-LE	-LE	/	-	-	-LE	/	/	-	**NA**	G	3	c
IPL	Q9		Goat's cheese	-LE	-LE	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	3	c
IPL	R18		Petit Bethmale cheese	-LE	Ø	-LE	-LE	/	-	-	-ME	-ME	/	-	**NA**	G	3	c
IPL	T3		Goat's cheese	Ø	Ø	Ø	Ø	/	-	-	-ME	/	/	-	**NA**	G	3	c
IPL	T4		Goat's cheese	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	3	c
IPL	T8		Goat's cheese	-LE	Ø	Ø	Ø	/	-	-	-ME	/	/	-	**NA**	G	3	c
IPL	T14		Goat's cheese	-LE	-LE	-LE	-LE	/	-	-	-ME	/	/	-	**NA**	G	3	c
IPL	T18		Goat's cheese	-LE	-LE	-ME	-ME	/	-	-	-LE	/	/	-	**NA**	G	3	c
IPL	**F10**		**Skim milk powder**	-ME	-ME	-ME	-ME	/	-	+	-HE	-ME	/	-	**PPNA**	G	3	c
IPL	**F11**		**Skim milk powder**	-LE	-LE	Ø	-LE	/	-	-	-ME	Fraser : Ø	/	-	**NA**	G	3	c
IPL	G1		Milk powder	-LE	-LE	Ø	-ME	/	-	-	Ø	/	/	-	**NA**	G	3	c
IPL	G2		Milk powder	-LE	-LE	Ø	Ø	/	-	-	-ME	/	/	-	**NA**	G	3	c
IPL	G3		Milk powder	Ø	Ø	-LE	-LE	/	-	-	-ME	/	/	-	**NA**	G	3	c
IPL	G4		Milk powder	-ME	-LE	-LE	-ME	/	-	-	-ME	/	/	-	**NA**	G	3	c
IPL	G5		Milk powder	-ME	-LE	-LE	-ME	/	-	-	-ME	/	/	-	**NA**	G	3	c
IPL	**N20**		**Cream**	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+LA	+LA	*L.monocytogenes*	+	**PA**	G	3	c
IPL	**P16**		**Milk powder**	-LE	-LE	-LE	-LE	/	-	+	+LB	+LB	*L.monocytogenes*	+	**PD**	G	3	c

FRUITS AND VEGETABLES																			
Laboratory	Sample N°	Products (French name)	Products	Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E						Agreement	Protocol	Category	Type
				FRASER 1/2		FRASER		CONFIRMATION	RESULT *Listeria* spp	BAX® *Listeria*	CONFIRMATION 24 LEB				FINAL RESULT				
											Brilliance 24h (IPL)	Brilliance 48h (IPL)							
				O&A1	P1	O&A2	P2	*IDENTIFICATION*			O&A 24h (Adria)	O&A 48h (Adria)	*IDENTIFICATION*						
IPL	Q1		Frozen green peas	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	4	a
IPL	R1		Frozen spinach	-MA	+MA	-MA	+MA	*L.innocua*	+	+	-MB	-MB	*L.innocua*	+	**PA**	G	4	a
IPL	R14		Frozen coco beans	Ø	Ø	-ME	-ME	/	-	-	-ME	-ME	*Bacillus*	-	**NA**	G	4	a
IPL	S12		Frozen spinach	+MA	+MA	+MB*	+MB*	*L.monocytogenes* *L.innocua*	+	+	-MA	-MA	*L.innocua*	+	**PA**	G	4	a
IPL	T15		Frozen carrots	-LE	-LE	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	4	a
IPL	T17		Frozen leeks	Ø	-LE	-ME	-ME	/	-	-	Ø	/	/	-	**NA**	G	4	a
IPL	T19		Frozen onions	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	4	a
IPL	V6		Frozen spinaches	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	4	a
IPL	V10		Frozen cauliflower	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	4	a
IPL	V11		Frozen zucchini	Ø	-LE	-ME	-ME	/	-	-	-LE	/	/	-	**NA**	G	4	a
IPL	F6		Green peas	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	4	a
IPL	F7		Spinach	+MA	+LA	+MA	+MB	*L.monocytogenes*	+	+	+MA	+MB	*L.monocytogenes*	+	**PA**	G	4	a
IPL	J15		Green peas	+LB	+LB	+MB	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	4	a
IPL	**L9**		**Broccoli**	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+HA	+HA	*L.monocytogenes*	+	**PA**	G	4	a
IPL	P3		Red cabbage	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	4	a
IPL	P4		White cabbage	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	4	a
IPL	P18		Radish	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	4	a
IPL	**Y3**		**Broccoli**	Ø	-LE	+MB	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	4	a
IPL	Y10		Cauliflower	Ø	Ø	Ø	-LE	/	-	+	-LE	-LE (5b) Fraser : Ø	/	-	**PPNA**	G	4	a
ADRIA	**6278**	**Champignon blanc**	**Mushrooms**	H-	+	H-	+	*L. innocua*	+	+	H-	H-	*L. innocua*	+	**PA**	G	4	a
IPL	B10		Frozen French fries	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+	+MB	+HB	*L.monocytogenes* *L.grayi*	+	**PA**	G	4	b
IPL	C2		Frozen French fries	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+	**PA**	G	4	b
IPL	C9		Frozen French fries	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	4	b
IPL	C13		Frozen French fries	+MA	+MA	+MB	+MB	*L.monocytogenes* *L.innocua*	+	+	+MB	+MB	*L.monocytogenes* *L.innocua*	+	**PA**	G	4	b
IPL	C15		Frozen French fries	-LE	-LE	-ME	-ME	/	-	+	+MA	+MB	*L.monocytogenes*	+	**PD**	G	4	b
IPL	E11		Frozen French fries	+MA	+LA	+MB	+LB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	4	b
IPL	F4		Frozen French fries	+MB	+MB	+MB	+HB	*L.monocytogenes*	+	+	+MA	+MB	*L.monocytogenes*	+	**PA**	G	4	b
IPL	F9		Frozen French fries	+MA	+HB	+MB	+HB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	4	b
IPL	J13		Frozen French fries	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	4	b
IPL	Q6		Frozen French fries	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+	+MA	+MB	*L.monocytogenes*	+	**PA**	G	4	b
IPL	**L11**		**Grated carrots**	+LA	+LA	+MA	+HA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	4	b
IPL	**L23**		**Carrots and Celery**	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	**PA**	G	4	b
IPL	P21		Salad	Ø	Ø	Ø	-LE	/	-	-	Ø	/	/	-	**NA**	G	4	b
IPL	T5		Grated carrots	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	**NA**	G	4	b
IPL	W5		Salad	+LA	+LA	+MB	+MB	*L.ivanovii*	+	+	+LB	+LD	*L.ivanovii*	+	**PA**	G	4	b
IPL	W6		Salad	+LA	+LA	+MB	+MB	*L.ivanovii*	+	+	+MB	+HB	*L.ivanovii*	+	**PA**	G	4	b
IPL	W7		Salad	-MA	+MA	-MA	+MA	*L.innocua*	+	+	-MA	-MA	*L.innocua*	+	**PA**	G	4	b
IPL	W8		Salad	-MA	+MA	-MA	+MA	*L.innocua*	+	+	-MA	-MA	*L.innocua*	+	**PA**	G	4	b
IPL	W9		Salad	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	**NA**	G	4	b
IPL	**Z11**		**Mixed vegetables**	Ø	Ø	+MA	+MA	*L.monocytogenes*	+	+	+HB	+MB	*L.monocytogenes*	+	**PA**	G	4	b
IPL	T0-1		Mixed vegetables	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+	**PA**	G	4	b
ADRIA	6281	Duo de carottes	Carrots mix	st	st	-	-	/	-	-	-	-	/	-	**NA**	G	4	b
ADRIA	6282	Poireaux émincés	Sliced leeks	st	-	-	-	/	-	-	-	-	/	-	**NA**	G	4	b

FRUITS AND VEGETABLES																			
Laboratory	Sample N°	Products (French name)	Products	Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E						Agreement	Protocol	Category	Type
				FRASER 1/2		FRASER		CONFIRMATION	RESULT *Listeria* spp	BAX® *Listeria*	CONFIRMATION 24 LEB			FINAL RESULT					
											Brilliance 24h (IPL)	Brilliance 48h (IPL)							
				O&A1	P1	O&A2	P2	*IDENTIFICATION*			O&A 24h (Adria)	O&A 48h (Adria)	*IDENTIFICATION*						
ADRIA	6284	Trio de poivrons	Peppers mix	st	-	-	-	/	-	-	-	-	/	-		**NA**	G	4	b
ADRIA	6285	Lait cru	Raw milk	st	st	st	st	/	-	-	-	-	/	-		**NA**	G	4	b
IPL	C10		Frozen fried potatoes	+LA	+LA	+MB	+MB	*L.monocytogenes*	+	+	+MD	+MB	*L.monocytogenes*	+		**PA**	G	4	c
IPL	T16		Frozen marinated peppers	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-		**NA**	G	4	c
IPL	C3		Fried mixed vegetables	+LA	+LA	+MA	+MB	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+		**PA**	G	4	c
IPL	C4		Cakes cauliflower - broccoli	-LA	+LA	+MB	+MB	*L.innocua* *L.monocytogenes*	+	+	+MB	-MA	*L.monocytogenes* *L.innocua*	+		**PA**	G	4	c
IPL	D5		Potatoes	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+		**PA**	G	4	c
IPL	F8		Tabbouleh	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-		**NA**	G	4	c
IPL	I12		Fried mixed vegetables	+MA	+MB	+MB	+MB	*L.monocytogenes*	+	-	-ME	-ME	/	-		**ND**	G	4	c
IPL	**L10**		**Rice salad**	+MA	+MA	+MA	+HA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+		**PA**	G	4	c
IPL	P17		Mashed potatoes	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-		**NA**	G	4	c
IPL	**P19**		**Cucumber salad**	-LE	-LE	-ME	-ME	/	-	-	-LE	/	/	-		**NA**	G	4	c
IPL	**P20**		**Grated carrots salad**	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-		**NA**	G	4	c
IPL	**P22**		**Rice salad**	Ø	Ø	-LE	-ME	/	-	+	+LA	+MB	*L.monocytogenes*	+		**PD**	G	4	c
IPL	P24		Fried mixed vegetables	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-		**NA**	G	4	c
IPL	**P25**		**Celery with mayonnaise**	Ø	Ø	Ø	Ø	/	-	+	Ø	Fraser : Ø	/	-		**PPNA**	G	4	c
IPL	Q3		Fried mixed vegetables	-LE	-LE	-ME	-ME	/	-	-	-ME	/	/	-		**NA**	G	4	c
IPL	Q4		Fried mixed vegetables	-LE	-LE	Ø	Ø	/	-	+	-MD	-MD	*L.innocua*	+		**PD**	G	4	c
IPL	Q5		Fried mixed vegetables	Ø	Ø	-ME	-ME	/	-	-	-ME	/	/	-		**NA**	G	4	c
IPL	T6		Guacamole	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-		**NA**	G	4	c
IPL	T9		Beetroot salad	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-		**NA**	G	4	c
IPL	T10		Houmous	-LE	-LE	Ø	-LE	/	-	-	-LE	/	/	-		**NA**	G	4	c
IPL	U10		Salad with cabbage and carrots	-LB	+LB	-MB	+MB	*L.welshimeri*	+	+	-ME	Fraser : -MA	*L.welshimeri*	+		**PA**	G	4	c
IPL	U11		Fruit salad	-LB	+LB	-MB	+MB	*L.welshimeri*	+	+	-LB	-LB	*L.welshimeri*	+		**PA**	G	4	c
IPL	U12		Zucchini salad	-LB	+LB	-LB	+LB	*L.welshimeri*	+	+	-ME	Fraser : -MD	*L.welshimeri*	+		**PA**	G	4	c
IPL	W14		Salad with potatoes	+LB	+LB	+MB	+MB	*L.ivanovii*	+	+	+MB	+LB	*L.ivanovii*	+		**PA**	G	4	c
IPL	**Y1**		**Zucchinis flan**	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-		**NA**	G	4	c
IPL	**Y2**		**Spinaches with cream**	Ø	Ø	-LE	-LE	/	-	-	-LE	/	/	-		**NA**	G	4	c
IPL	Y6		Cauliflower flan	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-		**NA**	G	4	c
IPL	Y8		Tomatoes salad	Ø	+LD	-MA	+MB	*L.welshimeri*	+	+	-MB	-LB	*L.welshimeri*	+		**PA**	G	4	c
IPL	Z8		Mashed potatoes	+LB	+LB	+MA	+MB	*L.monocytogenes*	+	+	+MB	+HB	*L.monocytogenes*	+		**PA**	G	4	c
IPL	**Z9**		**Mashed celery**	+MA	+LD	+MB	+MB	*L.monocytogenes*	+	+	+HA	+MA	*L.monocytogenes*	+		**PA**	G	4	c
IPL	**Z10**		**Lenses salad**	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+	+HA	+MB	*L.monocytogenes*	+		**PA**	G	4	c

SEAFOOD																			
Laboratory	Sample N°	Products (French name)	Products	Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E						Agreement	Protocol	Category	Type
				FRASER 1/2		FRASER		CONFIRMATION	RESULT *Listeria* spp	BAX® *Listeria*	CONFIRMATION 24 LEB			FINAL RESULT					
											Brilliance 24h (IPL)	Brilliance 48h (IPL)	*IDENTIFICATION*						
				O&A1	P1	O&A2	P2	*IDENTIFICATION*			O&A 24h (Adria)	O&A 48h (Adria)							
IPL	B7		Whiting fillet	-MB	+MB	-MA	+MA	*L.innocua*	+	+	-MA	-MA	*L.innocua*	+		PA	G	5	a
IPL	C6		Herring fillet	-MB	+MB	-MA	+MA	*L.innocua*	+	+	-MA	-MA	*L.innocua*	+		PA	G	5	a
IPL	C7		Cod fillet	Ø	Ø	Ø	Ø	/	-	+	+HD	+MB	*L.monocytogenes*	+		PD	G	5	a
IPL	C8		Haddock fillet	Ø	-LE	Ø	-LE	/	-	-	-ME	-ME	/	-		NA	G	5	a
IPL	C18		Salmon filet	Ø	-LE	Ø	Ø	/	-	-	-HE	/	/	-		NA	G	5	a
IPL	D15		Herring fillet	Ø	Ø	Ø	Ø	/	-	-	Ø	Ø	/	-		NA	G	5	a
IPL	D17		Herring fillet	Ø	Ø	Ø	Ø	/	-	-	Ø	Ø	/	-		NA	G	5	a
IPL	E7		Herring fillet	-LA	+LA	-LD	+LA(1)	*L.innocua*	+	+	-MA	-MA	*L.innocua*	+		PA	G	5	a
IPL	E10		Cod fillet	Ø	Ø	Ø	Ø	/	-	-	-LE	-LE	/	-		NA	G	5	a
IPL	F5		Fish cubes	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-		NA	G	5	a
IPL	I8		Herring fillet	+4LA	+4LB	+MA	+MA	*L.monocytogenes*	+	+	+LB	+LD	*L.monocytogenes*	+		PA	G	5	a
IPL	J3		Herring fillet	Ø	-LE	Ø	Ø	/	-	+	-LE	-LE	/	-		PPNA	G	5	a
IPL	**L12**		**Pollock fillet**	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+LB	+MB	*L.monocytogenes*	+		PA	G	5	a
IPL	V7		Whiting fillet	Ø	Ø	Ø	Ø	/	-	-	-ME	/	/	-		NA	G	5	a
IPL	AB3		Halibut fillet	Ø	Ø	Ø	Ø	/	-	-	+LD?	-LE	*Bacillus*	-		NA	G	5	a
IPL	AB11		Tilapia fillet	-MA	+MA	-MA	+MA	*L.innocua*	+	+	-MA	-MB	*L.innocua*	+		PA	G	5	a
IPL	AC1		Cod fillet	Ø	Ø	-ME	*-ME*	/	-	-	-ME	/	/	-		NA	G	5	a
IPL	AC2		Salmon filet	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-		NA	G	5	a
IPL	AC4		Fish fillet	-LE	-LE	-LE	*-LE*	/	-	-	-ME	/	/	-		NA	G	5	a
IPL	AC5		Hake fillet	-LE	-LE	-LE	*-LE*	/	-	-	-ME	/	/	-		NA	G	5	a
IPL	AD10		Saithe fillet	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-		NA	G	5	a
IPL	AD14		Haddock fillet	Ø	Ø	Ø	Ø	/	-	-	-ME	/	/	-		NA	G	5	a
IPL	AD16		Whiting fillet	Ø	Ø	Ø	-ME	/	-	-	-ME	/	/	-		NA	G	5	a
IPL	AD17		Perch fillet	Ø	Ø	-LE	-LE	/	-	-	-ME	/	/	-		NA	G	5	a
IPL	AD18		Fish fillet	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-		NA	G	5	a
IPL	AD19		Salmon filet	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-		NA	G	5	a
IPL	E8		Shrimps	Ø	Ø	+LD	+LB	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+		PA	G	5	a
IPL	I1		Mixed shellfish	+LD	+MD	+MA	+MA	*L.monocytogenes* *L.innocua*	+	+	+LB	+MD	*L.monocytogenes* *L.innocua*	+		PA	G	5	a
IPL	I9		Shrimps	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+	+HB	+MA	*L.monocytogenes*	+		PA	G	5	a
IPL	J9		Shrimps	+LA	+LB	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+		PA	G	5	a
IPL	J16		Cocktail seafood	+LA	+LD	+LB	+LB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+		PA	G	5	a
IPL	O9		Cocktail seafood	+LB	+LD	+MB	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+		PA	G	5	a
IPL	AA5		Cocktail seafood	+LB	+LD(1)	+MA	+MA	*L.monocytogenes*	+	-	-ME	+MD(5b)	*L.monocytogenes*	-		ND	G	5	a
IPL	AB4		Shrimps	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-		NA	G	5	a
IPL	AB5		Shrimps	Ø	Ø	Ø	Ø	/	-	-	-ME	/	/	-		NA	G	5	a
IPL	AB8		Shrimps	Ø	Ø	+MD	+LD	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+		PA	G	5	a
IPL	AB9		Shrimps	Ø	Ø	Ø	Ø	/	-	-	-ME	/	/	-		NA	G	5	a
IPL	AB12		Gambas	+LA	-ME	+MB	+MB	*L.monocytogenes*	+	+	+MB	+LB	*L.monocytogenes*	+		PA	G	5	a
IPL	A8		Smoked salmon	+MA	+MA	+MA	+MA	*L.monocytogenes* *L.innocua*	+	+	+MA	+MA	*L.monocytogenes* *L.innocua*	+		PA	S	5	b
IPL	A9		Smoked salmon	Ø	Ø	Ø	Ø	/	-	+	-ME	+MA	*L.monocytogenes*	+		PD	S	5	b
IPL	A11		Smoked salmon	Ø	Ø	Ø	Ø	/	-	-	Ø	Ø Fr: +LA	*L.monocytogenes*	-		NA	S	5	b

SEAFOOD																			
Laboratory	Sample N°	Products (French name)	Products	Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E						Agreement	Protocol	Category	Type
				FRASER 1/2		FRASER		CONFIRMATION	RESULT *Listeria* spp	BAX® *Listeria*	CONFIRMATION 24 LEB			FINAL RESULT					
											Brilliance 24h (IPL)	Brilliance 48h (IPL)	*IDENTIFICATION*						
				O&A1	P1	O&A2	P2	*IDENTIFICATION*			O&A 24h (Adria)	O&A 48h (Adria)							
IPL	A12		Smoked salmon	Ø	Ø	Ø	Ø	/	-	-	-LE		/	-	NA	S	5	b
IPL	A13		Smoked salmon Scotland	Ø	Ø	Ø	Ø	/	-	-	Ø	Ø Fr: Ø	/	-	NA	S	5	b
IPL	A14		Smoked salmon Scotland	+MA	+LA	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	S	5	b
IPL	A16		Smoked herring	Ø	Ø	Ø	Ø	/	-	+	Ø	Ø Fr: Ø	/	-	PPNA	S	5	b
IPL	A17		Salmon tartar	-MA	+LA	-HA	+HA	*L.innocua*	+	+	-ME	Ø F=+MB	*L.monocytogenes* *L.innocua*	+	PA	S	5	b
IPL	A18		Smoked salmon	+MA	+LB	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MA	*L.monocytogenes*	+	PA	S	5	b
IPL	B1		Smoked salmon	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	NA	S	5	b
IPL	B2		Smoked salmon	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	NA	S	5	b
IPL	B3		Smoked salmon	Ø	Ø	Ø	Ø	/	-	-	+LD	+LD	*L.monocytogenes*	-	NA	S	5	b
IPL	B4		Smoked salmon	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	NA	S	5	b
IPL	B5		Smoked herring	Ø	-LE	Ø	-LE	/	-	-	-ME	/	/	-	NA	S	5	b
IPL	B6		Salmon roulade	Ø	Ø	Ø	-LE	/	-	+	+MB	+MB	*L.monocytogenes*	+	PD	S	5	b
IPL	B7		Smoked salmon	Ø	Ø	Ø	Ø	/	-	+	+MB	+MB	*L.monocytogenes*	+	PD	S	5	b
IPL	C16		Smoked sprats	+MD	+MD	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	S	5	b
IPL	C17		Smoked sprats	+MD	+MD	+MB	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	S	5	b
IPL	D6		Smoked haddock	+LB	+LB	°LB	+LB(2)	*L.monocytogenes* *L.innocua*	+	+	+MB	+MB	*L.monocytogenes* *L.innocua*	+	PA	S	5	b
IPL	D12		Smoked herring	Ø	-LE	Ø	-LE	/	-	-	-ME	/	/	-	NA	S	5	b
IPL	D17		Smoked salmon	Ø	Ø	Ø	-LE	/	-	+	-LE Fr : +LB		*L.monocytogenes*	+	PD	S	5	b
IPL	D18		Smoked trout	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+	PA	S	5	b
IPL	E1		Smoked salmon	Ø	+LA(2)	+MA	+MB	*L.monocytogenes*	+	+	Ø	Ø Fr : +MA	*L.monocytogenes*	+	PA	S	5	b
IPL	E2		Smoked salmon	Ø	Ø	Ø	Ø	/	-	+	Ø	Ø Fr : Ø	/	-	PPNA	S	5	b
IPL	E3		Smoked salmon	+LA	+LA	+MA	+MB	*L.monocytogenes*	+	+	+LB	+LB	*L.monocytogenes*	+	PA	S	5	b
IPL	E4		Smoked trout	+LA	+MB	+MB	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	S	5	b
IPL	E5		Smoked trout	+LA	+MA	+MB	+MB	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+	PA	S	5	b
IPL	E6		Smoked salmon Scotland	+LA(1)	+LB	+MA	+MB	*L.monocytogenes*	+	+	+MB	+MA	*L.monocytogenes*	+	PA	S	5	b
IPL	E7		Smoked trout	+LA	+LA	+MB	+MB	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+	PA	S	5	b
IPL	E8		Smoked halibut	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+	+MB	+MA	*L.monocytogenes*	+	PA	S	5	b
IPL	E9		Smoked salmon Scotland	Ø	Ø	Ø	Ø	/	-	+	+MA	+MA	*L.monocytogenes*	+	PD	S	5	b
IPL	E10		Smoked salmon Ireland	Ø	Ø	Ø	Ø	/	-	-	+LB	+LB	*L.monocytogenes*	-	NA	S	5	b
ADRIA	5940	Filets de maquereaux fumés	Smoked fish	st	-	st	st	/	-	-	st	-	/	-	NA	S	5	b
ADRIA	5941	Hareng fumés	Smoked fish	st	st	st	st	/	-	-	st	-	/	-	NA	S	5	b
ADRIA	5942	Truite fumée	Smoked salmon	st	st	st	st	/	-	-	st	-	/	-	NA	S	5	b

SEAFOOD																		
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E								
				FRASER 1/2		FRASER		CONFIRMATION			CONFIRMATION 24 LEB							
Laboratory	Sample N°	Products (French name)	Products	O&A1	P1	O&A2	P2	*IDENTIFICATION*	RESULT *Listeria* spp	BAX® *Listeria*	Brilliance 24h (IPL) O&A 24h (Adria)	Brilliance 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*	FINAL RESULT	Agreement	Protocol	Category	Type
IPL	AA4		Breaded fish fillet	+MA	+MB	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	G	5	c
IPL	AB6		Plateau of shellfish	-ME	-ME	Ø	Ø	/	-	-	-ME	/	/	-	NA	G	5	c
IPL	AB10		Plateau of shellfish	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+	PA	G	5	c
IPL	D13		Fish with bordelaise sauce	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	-	-LE	-LE	Ø	-	ND	G	5	c
IPL	D20		Raw marinated cod	Ø	-LE	-MB	+MB	*L.innocua*	+	-	-MD	/	*L.innocua*	-	ND	G	5	c
IPL	F1		Frozen calamari precooked	+MA	+MB	+MB	+HB	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+	PA	G	5	c
IPL	F3		Ready-to-eat fish	-LE	-LE	-HE	-LE	/	-	-	-LE	/	/	-	NA	G	5	c
IPL	I2		Cooked mussels	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	NA	G	5	c
IPL	J4		Marinated herring fillet	Ø	-LE	Ø	-ME	/	-	-	-ME	/	/	-	NA	G	5	c
IPL	J6		Salmon Carpaccio	Ø	-LE	Ø	-LE	/	-	+	-MA	-MA	*L.innocua*	+	PD	G	5	c
IPL	J14		Salmon paupiettes with Saint Jacques	+LA	+LB	+MA	+MA	*L.monocytogenes* *L.welshimeri*	+	+	-LD	-LD	*L.welshimeri*	+	PA	G	5	c
IPL	**L13**		**Fish with bordelaise sauce**	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+MA	+MB	*L.monocytogenes*	+	PA	G	5	c
IPL	**L14**		**Frozen breaded fish**	+MB	+MB	+MB	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	G	5	c
IPL	**L15**		**Frozen breaded fish**	+MB	+MB	+MA	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	G	5	c
IPL	**L17**		**Salmon with hollandaise sauce**	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	G	5	c
IPL	**L20**		**Salmon dish**	+LA	+LA	+MA	+MB	*L.monocytogenes* *L.innocua*	+	+	+MB	+MB	*L.monocytogenes* *L.innocua*	+	PA	G	5	c
IPL	O7		Raw marinated cod	-LE	-LE	Ø	Ø	/	-	+	-MB	-MB	*L.innocua*	+	PD	G	5	c
IPL	P6		Shrimps accras	-ME	-LE	-LE	-ME	/	-	-	-LE	/	/	-	NA	G	5	c
IPL	AB1		Ready-to-eat fish	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	NA	G	5	c
IPL	AB2		Cooked calamari	+MB	+MB	+MB	+MB	*L.monocytogenes* *L.innocua*	+	+	+MB	+MB	*L.monocytogenes* *L.innocua*	+	PA	G	5	c
IPL	AB7		Sushis	-LE	Ø	-LE	Ø	/	-	+	+MA	+MA	*L.monocytogenes*	+	PD	G	5	c
IPL	AB13		Brochette fish	+LA	+LA	+MB	+MA	*L.monocytogenes* *L.innocua*	+	+	+LA	+MA	*L.monocytogenes* *L.innocua*	+	PA	G	5	c
IPL	AC3		Salmon with vegetables	Ø	-LE	Ø	Ø	/	-	-	-ME	/	/	-	NA	G	5	c
IPL	AC6		Salmon fillet sauce Bellevue	+MB	+MA	+MA	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	G	5	c
IPL	AD11		Ready-to-eat fish	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	NA	G	5	c
IPL	AD12		Salmon fillet with sorrel sauce	Ø	-LE	-LE	-LE	/	-	-	Ø	/	/	-	NA	G	5	c
IPL	AD13		Cod fillet with florentine sauce	Ø	Ø	Ø	Ø	/	-	-	Ø	/	/	-	NA	G	5	c

ENVIRONMENTAL SAMPLES																			
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E								
Laboratory	Sample N°	Products (French name)	Products	FRASER 1/2		FRASER		CONFIRMATION	RESULT *Listeria* spp	BAX® *Listeria*	CONFIRMATION 24 LEB			FINAL RESULT	Agreement	Protocol	Category	Type
				O&A1	P1	O&A2	P2	*IDENTIFICATION*			Brilliance 24h (IPL) O&A 24h (Adria)	Brilliance 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*					
IPL	**K9**		**Water of wash lines pea**	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	**+**	+HA	+HA	*L.monocytogenes*	+	**PA**	G	6	a
IPL	R4		Arrival new water	Ø	Ø	Ø	Ø	/	-	**-**	Ø	Ø	/	-	**NA**	G	6	a
IPL	R5		Water washbasin reception	Ø	Ø	Ø	Ø	/	-	**-**	Ø	Ø	/	-	**NA**	G	6	a
IPL	R6		Washing 1	Ø	Ø	Ø	Ø	/	-	**-**	Ø	Ø	/	-	**NA**	G	6	a
IPL	R9		Washing 2	Ø	Ø	Ø	Ø	/	-	**-**	Ø	Ø	/	-	**NA**	G	6	a
IPL	R11		Water pipe 2	Ø	Ø	+MA	+MA	*L.ivanovii*	+	**-**	Ø	Ø	/	-	**ND**	G	6	a
IPL	R19		Water of wash lines spinach	Ø	Ø	Ø	Ø	/	-	**-**	Ø	Ø	/	-	**NA**	G	6	a
IPL	S10		Process water delicatessen retail	Ø	Ø	Ø	Ø	/	-	**-**	-LE	/	/	-	**NA**	G	6	a
IPL	S13		Process water	Ø	Ø	Ø	Ø	/	-	**-**	Ø	Ø	/	-	**NA**	G	6	a
IPL	S14		Process water	Ø	Ø	Ø	Ø	/	-	**+**	Ø	Ø Fraser : -LE	/	-	**PPNA**	G	6	a
IPL	U5		Process water delicatessen retail	Ø	Ø	Ø	Ø	/	-	**-**	Ø	/	/	-	**NA**	G	6	a
IPL	U6		Rinsing water	Ø	Ø	Ø	Ø	/	-	**-**	Ø	/	/	-	**NA**	G	6	a
IPL	V1		Water cheese dairy	Ø	Ø	Ø	Ø	/	-	**-**	Ø	/	/	-	**NA**	G	6	a
IPL	V2		Process water	Ø	Ø	Ø	Ø	/	-	**-**	Ø	/	/	-	**NA**	G	6	a
IPL	V3		Salted water	Ø	Ø	Ø	Ø	/	-	**+**	+MA	+MA	*L.ivanovii*	+	**PD**	G	6	a
IPL	W1		Rinsing water	-LA	+MA	-MA	+MA	*L.innocua*	+	**+**	-MA	-MA	*L.innocua*	+	**PA**	G	6	a
IPL	W2		Rinsing water	-MA	+MA	-MA	+MA	*L.innocua*	+	**+**	-MA	-MA	*L.innocua*	+	**PA**	G	6	a
IPL	W3		Rinsing water	-MA	+MA	-MA	+MA	*L.innocua*	+	**+**	-MA	-MA	*L.innocua*	+	**PA**	G	6	a
IPL	W4		Clean	-MA	+MA	-MA	+MA	*L.innocua*	+	**+**	-MA	-MA	*L.innocua*	+	**PA**	G	6	a
IPL	W19		Rinsing water	Ø	-LE	Ø	Ø	/	-	**-**	-ME	/	/	-	**NA**	G	6	a
IPL	W20		Process water pastry retail	Ø	Ø	-ME	-LE	/	-	**+**	-MB	-HB	*L.innocua*	+	**PD**	G	6	a
IPL	**X1**		**Process water fish retail**	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	**+**	+MA	+MA	*L.monocytogenes*	+	**PA**	G	6	a
IPL	**X2**		**Water process**	+MA	+MA	+MA	+MB	*L.monocytogenes*	+	**+**	+MA	+MA	*L.monocytogenes*	+	**PA**	G	6	a
IPL	**X5**		**Water process**	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	**+**	+LB	+MA	*L.monocytogenes*	+	**PA**	G	6	a
ADRIA	4879	Eau de process (Industrie de poissons)	Process water (Fish industry)	st	st	st	st	/	-	**-**	st	st	/	-	**NA**	G	6	a
ADRIA	4880	Eau de process (Industrie de poissons)	Process water (Fish industry)	st	st	st	st	/	-	**-**	st	st	/	-	**NA**	G	6	a
ADRIA	4881	Eau de process (Industrie de poissons)	Process water (Fish industry)	st	st	st	st	/	-	**-**	st	st	/	-	**NA**	G	6	a
ADRIA	4882	Eau de process (Industrie de poissons)	Process water (Fish industry)	st	st	st	st	/	-	**-**	st	st	/	-	**NA**	G	6	a
ADRIA	4883	Eau mélange poissons (Industrie de poissons)	Rinse water (Fish industry)	st	st	-	-	/	-	**-**	-	-	/	-	**NA**	G	6	a
IPL	K16		Sponge cheese dairy	-LE	-ME	-LE	-ME	/	-	**-**	-ME	/	/	-	**NA**	G	6	b
IPL	**K21**		**Surface tank**	+MB	+MB	+MB	+MB	*L.innocua* *L.monocytogenes*	+	**+**	+HB	+HB	*L.innocua* *L.monocytogenes*	+	**PA**	G	6	b
IPL	Q2		Surface	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	**+**	+MA	+MA	*L.monocytogenes*	+	**PA**	G	6	b
IPL	T20		Meat tray	Ø	Ø	-LE	-LE	/	-	**-**	-ME	/	/	-	**NA**	G	6	b
IPL	U17		Stainless steel preparation room	+LB	+LB	+MA	+MB	*L.monocytogenes*	+	**+**	+MD	+LB	*L.monocytogenes*	+	**PA**	G	6	b
IPL	U18		Cutting table for fish	-LE	-LE	-LE	-LE	/	-	**-**	-ME	/	/	-	**NA**	G	6	b
IPL	U19		Stainless steel preparation room for vegetables	Ø	Ø	-ME	-ME	/	-	**-**	-ME	/	/	-	**NA**	G	6	b
IPL	W18		Surface pastry retail	-LE	-LE	-LE	-LE	/	-	**-**	-ME	/	/	-	**NA**	G	6	b

ENVIRONMENTAL SAMPLES																			
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E								
Laboratory	Sample N°	Products (French name)	Products	FRASER 1/2		FRASER		CONFIRMATION	RESULT *Listeria* spp	BAX® *Listeria*	CONFIRMATION 24 LEB			FINAL RESULT	Agreement	Protocol	Category	Type
				O&A1	P1	O&A2	P2	*IDENTIFICATION*			Brilliance 24h (IPL) O&A 24h (Adria)	Brilliance 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*					
IPL	**X3**		**Sponge**	+LA	+MB	+MB	+MB	*L.monocytogenes*	+	**+**	+LB	+MB	*L.monocytogenes*	+	**PA**	G	6	b
IPL	Y4		Surface pastry retail	-MA	+MA	-MA	+MD	*L.welshimeri*	+	**-**	-ME	-LE Fraser : -LE	/	-	**ND**	G	6	b
IPL	Y12		Surface of delicatessen knife	-LA	-LA	-MA	+MB	*L.welshimeri*	+	**+**	-MA	-MB	*L.welshimeri*	+	**PA**	G	6	b
IPL	Z3		Cutting table for fish	-LE	-LE	-LE	-ME	/	-	**-**	-LE	/	/	-	**NA**	G	6	b
IPL	Z13		Floor in packaging room	-ME	-ME	-ME	-ME	/	-	**-**	-ME	/	/	-	**NA**	G	6	b
ADRIA	5763	Chiffonnette caniveau haut filetage (Industrie poissons)	Surface sample (fish industry)	st	st	st	st	/	-	**-**	st	st	/	-	**NA**	G	6	b
ADRIA	5764	Chiffonnette tapis parage avant nettoyage (Industrie poissons)	Surface sample (fish industry)	st	st	st	st	/	-	**-**	st	st	/	-	**NA**	G	6	b
ADRIA	5765	Chiffonnette tapis déchets peleuse (Industrie poissons)	Surface sample (fish industry)	st	st	st	-	/	-	**-**	st	st	/	-	**NA**	G	6	b
ADRIA	5766	Chiffonnette sol haut filetage (Industrie poissons)	Surface sample (fish industry)	H+/H-	+	H+/H-	+	*L. monocytogenes / L. welshimeri*	+	**+**	H+	H+ / H-	L. monocytogenes (RLM) / *L. welshimeri*	+	**PA**	G	6	b
ADRIA	5767	Chiffonnette sol couloir co-produits (Industrie poissons)	Surface sample (fish industry)	H-	+	H-	+	*L. welshimeri*	+	**+**	H-	H-	*L. innocua*	+	**PA**	G	6	b
ADRIA	5768	Chiffonnette poussoir réception matières premières (Industrie poissons)	Surface sample (fish industry)	st	st	-	-	/	-	**-**	st	-	/	-	**NA**	G	6	b
ADRIA	**5950**	**Chiffonnette table**	**Surface sample**	H+ (7)	+	H+	+	*L. monocytogenes*	+	**+**	H+	H+	*L. monocytogenes*	+	**PA**	G	6	b
IPL	N7		Scraps from filter machine	Ø	Ø	-LE	-LE	/	-	**-**	-ME	/	/	-	**NA**	G	6	c
IPL	S11		Scraps from cheese dairy	+LA(2)	+LA(8)	+MA	+MA	*L. monocytogenes*	+	**-**	-LE	-LE Fraser : -LE	/	-	**ND**	G	6	c
IPL	T1		Scraps from cheese dairy	Ø	Ø	Ø	Ø	/	-	**-**	-ME	/	/	-	**NA**	G	6	c
IPL	T2		Vegetables scraps	Ø	-LE	Ø	-LE	/	-	**-**	Ø	/	/	-	**NA**	G	6	c
IPL	T11		Scraps from fish retail outlet	Ø	-LE	Ø	Ø	/	-	**-**	Ø	/	/	-	**NA**	G	6	c
IPL	T13		Cheese scraps	Ø	Ø	Ø	Ø	/	-	**-**	Ø	/	/	-	**NA**	G	6	c
IPL	U4		Scraps from delicatessen retail outlet	Ø	Ø	Ø	Ø	/	-	**-**	-LE	/	/	-	**NA**	G	6	c
IPL	U7		Scraps from delicatessen retail outlet	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	**+**	+LA	+MA	*L.monocytogenes*	+	**PA**	G	6	c
IPL	U8		Scraps from packaging line	Ø	Ø	Ø	Ø	/	-	**-**	-ME	-ME	/	-	**NA**	G	6	c
IPL	U9		Scraps from meat cutting table	+LA(5)	+LB	+MB	+MB	*L.monocytogenes L.welshimeri*	+	**+**	+MB	+MB	*L.monocytogenes L.welshimeri*	+	**PA**	G	6	c
IPL	U14		Scraps from fish retail outlet	-LE	-LE	-LE	-LE	/	-	**-**	-ME	-ME	/	-	**NA**	G	6	c
IPL	U15		Scraps	Ø	Ø	Ø	Ø	/	-	**-**	-LE	/	/	-	**NA**	G	6	c
IPL	U16		Scraps production line	Ø	Ø	Ø	Ø	/	-	**+**	-ME	-ME / FR Ø	/	-	**PPNA**	G	6	c
IPL	U20		Scraps from butchery cutting table	-MA	+MB	-MA	+MB	*L.welshimeri*	+	**+**	-HB	-MB	*L.welshimeri*	+	**PA**	G	6	c

ENVIRONMENTAL SAMPLES																			
				Reference method: ISO 11290-1/A1						Alternative method: BAX® System PCR Assay for Genus *Listeria* 24E								
Laboratory	Sample N°	Products (French name)	Products	FRASER 1/2		FRASER		CONFIRMATION	RESULT *Listeria* spp	BAX® *Listeria*	CONFIRMATION 24 LEB			FINAL RESULT	Agreement	Protocol	Category	Type
				O&A1	P1	O&A2	P2	*IDENTIFICATION*			Brilliance 24h (IPL) O&A 24h (Adria)	Brilliance 48h (IPL) O&A 48h (Adria)	*IDENTIFICATION*					
IPL	V4		Scraps from cheese production "parmigiano"	Ø	Ø	-MA	+MB	*L.innocua*	+	+	-MA	-MA	*L.innocua*	+	PA	G	6	c
IPL	V5		Scraps from spices line	-LE	-LE	-LE	-LE	/	-	-	Ø	/	/	-	NA	G	6	c
IPL	W10		Scraps from packaging line	+LA	+LA	+MB	+MB	*L.ivanovii*	+	+	+MB	+LB	*L.ivanovii*	+	PA	G	6	c
IPL	W11		Scraps from storage tanks	-LA	+LA	-MA	+MA	*L.innocua*	+	+	-MA	-MA	*L.innocua*	+	PA	G	6	c
IPL	W12		Scraps from rinsing tanks	-LE	Ø	-LE	-LE	/	-	-	-LE	/	/	-	NA	G	6	c
IPL	W13		Scraps from delicatessen retail outlet	Ø	Ø	Ø	Ø	/	-	-	-ME	/	/	-	NA	G	6	c
IPL	W15		Scraps from pastry fabrication line	Ø	Ø	Ø	Ø	/	-	-	-LE	/	/	-	NA	G	6	c
IPL	W16		Scraps from delicatessen retail outlet	-LE	+LD	-MB	+MB	*L.welshimeri*	+	+	-MB	-LB	*L.welshimeri*	+	PA	G	6	c
IPL	W17		Scraps from pastry retail outlet	-LE	-LE	-LE	-LE	/	-	+	-MA	-MA	*L.innocua*	+	PD	G	6	c
IPL	**X4**		**Scraps from fish retail outlet**	+LA	+MA	+MA	+MB	*L.monocytogenes*	+	+	+MA	+MA	*L.monocytogenes*	+	PA	G	6	c
IPL	Y5		Vegetables scraps	-MA	+MA	-MA	+MB	*L.innocua*	+	-	-ME	-LE Fraser : -LE	/	-	ND	G	6	c
IPL	Y7		Fish scraps	-LE	-LE	Ø	Ø	/	-	-	-ME	/	/	-	NA	G	6	c
IPL	Y9		Scraps from fish retail outlet	Ø	Ø	Ø	Ø	/	-	-	-ME	/	/	-	NA	G	6	c
IPL	Y11		Scraps from butchery retail outlet	-LA	+LA	-MA	+MA	*L.welshimeri*	+	+	-MB	-MB	*L.innocua*	+	PA	G	6	c
IPL	Y13		Scraps from delicatessen preparation line	+LA	+LB	+MA	+MA	*L.monocytogenes*	+	-	-LE	-LE Fraser : -LE	/	-	ND	G	6	c
IPL	Y14		Scraps from mincer	Ø	Ø	Ø	Ø	/	-	+	+MB	+MB	*L.monocytogenes*	+	PD	G	6	c
IPL	Y15		Scraps from cream production line	+LB	+LB	+MB	+MB	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	G	6	c
IPL	Z1		Scraps from delicatessen retail outlet	-MA	+MA	-MA	+MB	*L.monocytogenes L.welshimeri*	+	+	+MB	-MA	*L.monocytogenes L.welshimeri*	+	PA	G	6	c
IPL	Z2		Scraps from mincer	Ø	-LE	-LE	-LE	/	-	+	+MB	+MD	*L.monocytogenes*	+	PD	G	6	c
IPL	Z4		Scraps production line	+MB	+MB	+MB	+MB	*L.monocytogenes L.innocua*	+	+	+MB	+MB	*L.monocytogenes L.innocua*	+	PA	G	6	c
IPL	Z5		Scraps from packaging line	+MB	+MA	+MA	+MD	*L.monocytogenes*	+	-	+LD	+LD	*L.monocytogenes*	-	ND	G	6	c
IPL	Z6		Scraps from transferring line	-LE	-LE	-ME	-ME	/	-	-	-LE	/	/	-	NA	G	6	c
IPL	Z7		Scraps from cutting line	+LA(4)	+LD(2)	+MA	+MA	*L.monocytogenes*	+	+	+MB	+MB	*L.monocytogenes*	+	PA	G	6	c

Appendix 5 - Relative level of detection: raw data

IPL Legend

Total bacteria growth

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

Distribution of flora

A = pure culture of suspicious colonies
B = mix with a majority of suspicious colonies
C = mix with a minority of suspicious colonies
D = mix with rare suspicious colonies
E = absence of suspicious colonies

ADRIA Legend

H-: characteristic *Listeria* colonies without halo
H+: characteristic *Listeria* colonies with halo
-: no typical colonies but presence of background microflora
st: plate without any colony

Study performed by IPL in 2008

Matrix : Raw milk
Strain: *Listeria ivanovii* L150
Aerobic mesophilic flora: 4 000 CFU/ml

Level	Inoculation level (b/25 g)	Reference method: ISO 11290-1/A1						Alternative method: BAX "Automate" Genus *Listeria*			
		Fraser 1/2 (10µl)		Fraser		Result	Conclusion	BAX L.spp test	Streaking BAX 24 LEB onto OCLA	Final result	Conclusion
		O&A1	P1	O&A2	P2						
1	0	Ø	Ø	Ø	Ø	-	0/6	-	/	-	0/6
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
2	0,32	Ø	Ø	Ø	Ø	-	1/6	-	/	-	1/6
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		+	Ø / +MA (RLM)	+	
		Ø	Ø	+MA	+MA	+		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
3	0,64	+LA	+LA(1)	+MA	+MA	+	3/6	+	Ø / +MA (RLM)	+	3/6
		Ø	Ø	Ø	Ø	-		-	/	-	
		+LA(2)	Ø	+MA	+MA	+		-	/	-	
		+LA(5)	+LA(3)	+MA	+MA	+		+	Ø / +MA (RLM)	+	
		Ø	Ø	Ø	Ø	-		+	Ø / +MA (RLM)	+	
		Ø	Ø	Ø	Ø	-		-	/	-	
4	1,28	+LA	+LA(1)	+MA	+MA	+	4/6	-	/	-	4/6
		Ø	Ø	Ø	Ø	-		+	Ø / +MA (RLM)	+	
		Ø	Ø	Ø	Ø	-		-	/	-	
		+LA(1)	Ø	+MA	+MA	+		+	Ø / +MA (RLM)	+	
		+LA(4)	Ø	+MA	+MA	+		+	Ø / +MA (RLM)	+	
		+LA(1)	Ø	+MA	+MA	+		+	Ø / +LA (5b) / +MA (RLM)	+	
5	2,24	Ø	Ø	+MA	+MA	+	4/6	+	Ø / +MA (RLM)	+	5/6
		Ø	Ø	+MA	+MA	+		+	Ø / +LA (5b) / +MA (RLM)	+	
		+LA(4)	Ø	+MA	+MA	+		+	Ø / +MA (RLM)	+	
		+LA	Ø	+MA	+MA	+		-	/	-	
		Ø	Ø	Ø	Ø	-		+	Ø / +LA (5b) / +MA (RLM)	+	
		Ø	Ø	Ø	Ø	-		+	Ø / +MA (RLM)	+	
6	3,68	Ø	Ø	+MA	+MA	+	6/6	+	Ø / +MA (RLM)	+	6/6
		+LA(1)	Ø	+MA	+MA	+		+	Ø / +MA (RLM)	+	
		+LA(1)	Ø	+MA	+MA	+		+	Ø / +MA (RLM)	+	
		+LA(1)	Ø	+MA	+MA	+		+	Ø / +MA (RLM)	+	
		+LA(4)	+LA(1)	+MA	+MA	+		+	Ø / +MA (RLM)	+	
		+LA(4)	+LA(4)	+MA	+MA	+		+	Ø / +MA (RLM)	+	

Matrix: Raw vegetable mix
Strain: *Listeria monocytogenes* 4b L58
Aerobic mesophilic flora: 420 000 CFU/g

Level	Inoculation level (b/25 g)	Reference method: ISO 11290-1/A1						Alternative method: BAX "Automate" Genus *Listeria*			
		Fraser 1/2 (10µl)		Fraser		Result	Conclusion	BAX L.spp test	Streaking BAX 24 LEB onto OCLA	Final result	Conclusion
		O&A1	P1	O&A2	P2						
1	0	Ø	Ø	Ø	Ø	-	0/6	-	/	-	0/6
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
2	0,38	Ø	Ø	Ø	Ø	-	0/6	-	/	-	1/6
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		+	+MA	+	
3	0,60	Ø	Ø	Ø	Ø	-	2/6	+	+MB	+	3/6
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	-LE	-LE	-LE	-		+	+MB	+	
		Ø	Ø	Ø	Ø	-		-	/	-	
		+LA	+LA	+MA	+MA	+		-	/	-	
		+LA	+LA	+MA	+MA	+		+	+MB	+	
4*	1,34	Ø	Ø	+MA	+MA	+	5/6	+	+MA	+	4/6
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		+LA	+LA	+MA	+MA	+		-	/	-	
		Ø	Ø	Ø	Ø	-		+	+MA	+	
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		+LA	+LA	+MA	+MA	+		-	/	-	
5*	2,68	+LA	+LA	+MA	+MA	+	6/6	+	+MA	+	6/6
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		+LA	+LA	+MA	+MA	+		+	+MA	+	

Matrix : Process water
Strain: *Listeria innocua* L175
Aerobic mesophilic flora: 300 000 CFU/m and * 4 500 CFU/ml

Level	Inoculation level (b/25 g)	Reference method: ISO 11290-1/A1						Alternative method: BAX "Automate" Genus *Listeria*			
		Fraser 1/2 (10µl)		Fraser		Result	Conclusion	BAX L.spp test	Streaking BAX 24 LEB onto OCLA	Final result	Conclusion
		O&A1	P1	O&A2	P2						
1	0,00	Ø	Ø	Ø	Ø	-	0/6	-	/	-	0/6
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
2	0,49	Ø	+LA	+MB	+MB	+	2/6	+	+MA	+	2/6
		Ø	Ø	Ø	Ø	-		+	+MA	+	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	+LA	+LA	+		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
3*	0,85	Ø	Ø	Ø	Ø	-	3/6	+	-MA	+	3/6
		Ø	Ø	+LA	+MA	+		-	/	-	
		Ø	Ø	Ø	Ø	-		-	/	-	
		+LA	Ø	+MA	+MA	+		-	/	-	
		Ø	Ø	Ø	Ø	-		+	-MA	+	
		+LA	+LA	+MA	+MA	+		+	-MA	+	
4*	2,56	+LA	+LA	+MA	+MA	+	5/6	+	-MA	+	6/6
		+LA	+LA	+MA	+MA	+		+	-MA	+	
		+LA	+LA	+MA	+MA	+		+	-MA	+	
		Ø	Ø	Ø	Ø	-		+	-MA	+	
		+LA	+LA	+MA	+MA	+		+	-MA	+	
		+LA	+LA	+MA	+MA	+		+	-MA	+	
5	4,86	+LB	+LB	+MA	+MA	+	6/6	+	+MA	+	6/6
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		+LA	+LB	+MA	+MA	+		+	+MA	+	
		+LB	+LA	+MA	+MA	+		+	+MB	+	
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		+LA	+MA	+MA	+MA	+		+	+MB	+	

Study performed by IPL in 2009

Matrix : Rillettes
Strain: *Listeria monocytogenes* L49
Aerobic mesophilic flora: 4 000 000 CFU/g

Sample	Inoculation level (b/25 g)	Reference method: ISO 11290-1/A1						Alternative method: BAX "Automate" Genus *Listeria*			
		Fraser 1/2 (10 µl)		Fraser		Result	Conclusion	BAX L.spp test	Streaking BAX 24 LEB onto *Brilliance Listeria*	Final result	Conclusion
		O&A 1	P1	O&A2	P2						
1	0	∅	∅	∅	∅	-	0/6	-	/	-	0/6
		∅	∅	∅	∅	-		-	/	-	
		∅	∅	-LE	-LE	-		-	/	-	
		∅	∅	∅	∅	-		-	/	-	
		∅	∅	∅	∅	-		-	/	-	
		∅	∅	∅	∅	-		-	/	-	
2	0.35	-LE	-LE	-LE	-ME	-	1/6	-	-ME	-	1/6
		+MA	+MA	+MA	+HA	+		-	-ME	-	
		-LE	-LE	-ME	-ME	-		-	-ME	-	
		-LE	-LE	-ME	-ME	-		+	+MA	+	
		-LE	-ME	-ME	-ME	-		-	-ME	-	
		-LE	-ME	-ME	-ME	-		-	-ME	-	
3	0.62	∅	∅	∅	∅	-	4/6	-	/	-	3/6
		∅	∅	∅	∅	-		+	+MA	+	
		+LA	+LA	+MA	+MA	+		-	/	-	
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+MA	+MA	+MA	+MA	+		-	/	-	
4	1.06	∅	∅	∅	∅	-	3/6	+	+MA	+	4/6
		+LA	+LA	+MA	+MA	+		-	/	-	
		∅	∅	∅	∅	-		+	+MA	+	
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		∅	∅	∅	∅	-		-	/	-	
5	1.58	+MA	+MA	+MA	+MA	+	6/6	+	+MA	+	6/6
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+MA	+MA	+MA	+MA	+		+	+MA	+	

Matrix : Smoked salmon
Strain: *Listeria monocytogenes* 1/2a L5
Aerobic mesophilic flora: 4 000 000 CFU/g

Level	Inoculation level (b/25 g)	Reference method: ISO 11290-1/A1						Alternative method: BAX "Automate" Genus *Listeria*			
		Fraser 1/2 (10 µl)		Fraser		Result	Conclusion	BAX L.spp test	Streaking BAX 24 LEB onto *Brilliance Listeria*	Final result	Conclusion
		O&A 1	P1	O&A2	P2						
1	0	∅	∅	∅	∅	-	0/6	-	-LE	-	0/6
		∅	∅	∅	∅	-		-	-LE	-	
		∅	∅	∅	∅	-		-	-ME	-	
		∅	∅	∅	∅	-		-	-LE	-	
		∅	∅	∅	∅	-		-	∅	-	
		∅	∅	∅	∅	-		-	-LE	-	
2	0.28	∅	∅	∅	∅	-	3/6	+	+MA	+	1/6
		∅	∅	∅	∅	-		-	-ME	-	
		∅	∅	∅	∅	-		-	-ME	-	
		+MA	+MA	+MA	+MA	+		-	∅	-	
		+MA	+MA	+MA	+MA	+		-	∅	-	
		+MA	+MA	+MA	+MA	+		-	-ME	-	
3	0.55	∅	∅	∅	∅	-	2/6	+	+MA	+	5/6
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		∅	∅	∅	∅	-		+	+MA	+	
		∅	∅	∅	∅	-		+	+MA	+	
		∅	∅	∅	∅	-		-	-ME	-	
4	1.11	+MA	+MA	+MA	+MA	+	5/6	+	+MA	+	6/6
		+LA	+MA	+MA	+MA	+		+	+MA	+	
		+LA	+LA	+MA	+MA	+		+	+MA	+	
		∅	∅	∅	∅	-		+	+MA	+	
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+LA	+LA	+MA	+MA	+		+	+MA	+	
5	2.21	+MA	+MA	+MA	+MA	+	6/6	+	+MA	+	6/6
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+MA	+MA	+MA	+MA	+		+	+MA	+	
		+MA	+MA	+MA	+MA	+		+	+MA	+	

Study performed by ADRIA in 2017

Matrix : Deli-salad
Strain : *Listeria seeligeri* Ad1293
Aerobic mesophilic flora: 3.10^3 CFU/g

N° sample	Level	Inoculation level (cfu/sample)	Reference method : ISO 11290-1/A1♦						BAX® System PCR Assay for Genus Listeria 24E					
			Half Fraser		Fraser		Final Result	Number positive samples/Total	24LEB for 24h at 37°C					
									PCR result	Confirmation			Final result	Number positive samples/Total
			O&A	Palcam	O&A	Palcam				O&A	Palcam	Identification		
5566	0	0	st	-	-	-	-	0/5	-	-	-	/	-	0/5
5567			st	-	-	-	-		-	-	-	/	-	
5568			st	st	st	st	-		-	-	-	/	-	
5569			st	st	-	st	-		-	-	-	/	-	
5570			st	st	st	-	-		-	-	-	/	-	
5571	Low	0.7	H-	+	H-	+	+	14/20	+	H-	+	+	+	9/20
5572			H-	+	H-	+	+		+	H-	+	+	+	
5573			st	st	st	st	-		-	-	-	/	-	
5574			H-	+	H-	+	+		+	H-	+	+	+	
5575			st	-	-	st	-		-	-	-	/	-	
5576			H-	+	H-	+	+		+	H-	+	+	+	
5577			H-	+	H-	+	+		+	H-	+	+	+	
5578			H-	+	H-	+	+		-	-	-	/	-	
5579			H-	+	H-	+	+		+	H-	+	+	+	
5580			st	-	st	-	-		-	-	-	/	-	
5581			-	st	st	st	-		-	-	-	/	-	
5582			H-	+	H-	+	+		-	-	-	/	-	
5583			H-	+	H-	+	+		+	H-	+	+	+	
5584			H-	+	H-	+	+		-	-	-	/	-	
5585			H-	+	H-	+	+		+	H-	+	+	+	
5586			-	st	-	-	-		-	-	-	/	-	
5587			-	-	st	st	-		+	H-	+	+	+	
5588			H-	+	H-	+	+		-	-	-	/	-	
5589			H-	+	H-	+	+		-	-	-	/	-	
5590			H-	+	H-	+	+		-	-	-	/	-	
5591	High	2.1	H-	+	H-	+	+	5/5	+	H-	+	+	+	4/5
5592			H-	+	H-	+	+		-	-	-	/	-	
5593			H-	+	H-	+	+		+	H-	+	+	+	
5594			H-	+	H-	+	+		+	H-	+	+	+	
5595			H-	+	H-	+	+		+	H-	+	+	+	

♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

Appendix 6 – Inclusivity and exclusivity study: raw data

INCLUSIVITY (Study realized by IPL, 2008)					
Reference	Strain	Origin	Inoculation level in 225 mL 24 LEB broth	BAX® Genus *Listeria* 24E Result	Brilliance Listeria
L5	*Listeria monocytogenes* 1/2a	Pieces of smoked salmon	8,0	+	+MA
L9	*Listeria monocytogenes* 1/2a	Munster cheese (rind)	8,0	+	+MA
L11	*Listeria monocytogenes* 1/2a	Munster cheese (rind)	7,0	+	+MA
L12	*Listeria monocytogenes* 1/2a	Smoked salmon	8,0	+	+HA
L14	*Listeria monocytogenes* 1/2b	Pork ear	8,0	+	+MA
L16	*Listeria monocytogenes* 1/2c	Ground meat	6,0	+	+MA
L17	*Listeria monocytogenes* 1/2c	Bacon	3,0	+	+MA
L18	*Listeria monocytogenes* 1/2c	Munster cheese (rind)	8,0	+	+MA
L25	*Listeria monocytogenes* 1/2	Smoked salmon	10,0	+	+MA
L28	*Listeria monocytogenes* 1/2c	Environment sample	5,0	+	+MA
L37	*Listeria monocytogenes* 1/2b	Maroille cheese	4,0	+	+HA
L39	*Listeria monocytogenes*	Saucisson	5,0	+	+MA
L43	*Listeria monocytogenes* 1/2a	Ground meat	9,0	+	+HA
L44	*Listeria monocytogenes* 1/2a	Saucisson	5,0	+	+HA
L47	*Listeria monocytogenes* 1/2a	Browed potatoes	5,0	+	+MA
L51	*Listeria monocytogenes* 1/2b	Germain cheese	10,0	+	+LA
L57	*Listeria monocytogenes* 4a	ATCC 19114	2,0	+	+MA
L58	*Listeria monocytogenes* 4b	Salad	4,0	+	+LA
L61	*Listeria monocytogenes* 4e	ATCC 19118	5,0	+	+MA
L62	*Listeria monocytogenes* 4e	Reblochon cheese	4,0	+	+HA
L 70	*Listeria monocytogenes*	Salmon from Ireland	4,0	+	+MA
L116	*Listeria monocytogenes* 1/2a	Fish meal	5,0	+	+HA
L117	*Listeria monocytogenes* 1/2c	Montbeliard sausage	8,0	+	+MA
L119	*Listeria monocytogenes*	Spinaches	7,0	+	+MA
L121	*Listeria monocytogenes*	Neufchatel cheese	5,0	+	+MA
L123	*Listeria monocytogenes*	Mozzarella cheese	5,0	+	+MA
L124	*Listeria monocytogenes*	Perch fillet	6,0	+	+MA
L125	*Listeria monocytogenes*	Vegetables pan fry	6,0	+	+MA
L128	*Listeria monocytogenes* 1/2a	Soya cattle cake	4,0	+	+MA
L129	*Listeria monocytogenes* 1/2a	Browed potatoes	2,0	+	+MA
L137	*Listeria monocytogenes*	Ground meat	2,0	+	+MA
L141	*Listeria monocytogenes*	Environmental sample	4,0	+	+MA
L149	*Listeria monocytogenes*	Environmental sample	6,0	+	+MA
L152	*Listeria monocytogenes*	Environmental sample	5,0	+	+LA
L156	*Listeria monocytogenes*	French pies	2,0	+	+MA
L176	*Listeria monocytogenes*	Beef meat	9,0	+	+MA
L 140	*Listeria seeligeri*	Frozen French pies	6,0	+	+LA
L 142	*Listeria seeligeri*	Raw milk cheese	6,0	+	+LA
L 148	*Listeria seeligeri*	Environment	8,0	-	BAX LEB 24 : Ø
			44,0	-	BN : +LA
			1,0E+05	+	+MA
L115	*Listeria seeligeri*	Waste water	12,0	+	+MA

INCLUSIVITY (Study realized by IPL, 2008)					
Reference	Strain	Origin	Inoculation level in 225 mL 24 LEB broth	BAX® Genus *Listeria* 24E Result	Brilliance Listeria
L83	*Listeria seeligeri* 1/2b	Beef tongue	9,0	+	+MA
L84	*Listeria seeligeri* 1/2b	Ground meat	8,0	+	+LA
L80	*Listeria ivanovii*	Collection	9,0	+	+LA
L 154	*Listeria ivanovii*	Sausage with herbs	9,0	+	+MA
L 157	*Listeria ivanovii spp. ivanovii*	Collection	9,0	+	+LA
L 158	*Listeria ivanovii*	NSB 79332	6,0	+	+LA
L 159	*Listeria ivanovii spp. ivanovii*	Collection	8,0	+	+MA
L 173	*Listeria ivanovii*	Collection	8,0	+	+MA
L179	*Listeria ivanovii*	Environment	3,0	+	+LA
L170	*Listeria ivanovii*	Collection	9,0	+	+MA
L185	*Listeria ivanovii*	Net	8,0	+	+MA
L153	*Listeria ivanovii*	Environmental sample	15,0	+	+MA
L133	*Listeria ivanovii*	Roquefort cheese	4,0	+	+MA
L151	*Listeria ivanovii*	Ground meat	1,0	+	+LA
L172	*Listeria ivanovii*	ATCC 19119	9,0	+	+LA
L150	*Listeria ivanovii*	Dairy product	4,0	+	+LA
L1	*Listeria innocua* 6a	Collection ATCC 33090	7,0	+	+MA
L64	*Listeria innocua*	Epoisses cheese	5,0	+	+MA
L72	*Listeria innocua*	Boulettes d'Avesnes cheese	7,0	+	+MA
L76	*Listeria innocua* 6b	Ground meat	10,0	+	+MA
L77	*Listeria innocua* 6a	Toulouse sausage	4,0	+	+MA
L108	*Listeria innocua*	Gorgonzola cheese	7,0	+	+MA
L90	*Listeria welshimeri*	Delicatessen	1,0	+	+LA
L91	*Listeria welshimeri*	Pure pork slicing sausage	5,0	+	+MA
L99	*Listeria welshimeri*	Sausages	3,0	+	+LA
L101	*Listeria welshimeri*	Ham	9,0	+	+MA
L 155	*Listeria welshimeri*	Salmon fillet	8,0	+	+MA

EXCLUSIVITY (Study realized by IPL, 2008)				
Reference	Strain	Origin	Inoculation level in 10 mL non-selective nutrient broth	BAX® Genus *Listeria* 24E Result
BA2	*Bacillus cereus*	Beet	1.0E+05	-
BA4	*Bacillus stearothermophilus*	Dairy product	1.5E+05	-
BA23	*Bacillus sphaericus*	Collection	1.0E+05	-
BA5	*Bacillus sphaericus*	Meat product	1.0E+05	-
BA5	*Bacillus sphaericus*	Meat product	2.0E+05	-
BA7	*Bacillus coagulans*	Collection	5.0E+05	-
BA19	*Bacillus cereus*	Environment	3.0E+05	-
BA9	*Bacillus cereus*	Potatoes flakes	2.0E+05	-
BA14	*Bacillus cereus*	Egg	3.0E+05	-
BA15	*Bacillus cereus*	Custard	6.0E+05	-
BA21	*Bacillus cereus*	Tabbouleh	2.0E+05	-
E1	*Enterococcus faecalis*	Egg product	4.0E+05	-
E2	*Enterococcus faecium*	Collection ATCC 3286	1.7E+05	-
E3	*Streptococcus bovis*	Collection	1.5E+05	-
E13	*Streptococcus bovis*	Collection CIP 5623	1.5E+05	-
E8	*Enterococcus durans*	Meat product	6.0E+05	-
E9	*Enterococcus faecium*	Tarama	7.0E+05	-
E17	*Streptococcus equinus*	Collection	1.0E+05	-
E6	*Enterococcus faecalis*	Collection ATCC 19433	3.0E+04	-
E7	*Enterococcus faecium*	Collection CIP 5433	3.0E+05	-
E14	*Streptococcus anginosus*	Collection	1.5E+05	-
32	*Rhodococcus equi*	Meat product	3.0E+05	-
33	*Lactobacillus casei*	Dairy product	2.0E+03	-
L139	*Jonesia denitrificans*	Collection	3.0E+05	-
Le1	*Rhodotorula rubra*	Pastry	2.0E+04	-
Le3	*Candida albicans*	Collection	1.0E+05	-
ST26	*Staphylococcus intermedius*	Collection	3.0E+05	-
ST17	*Staphylococcus aureus*	Iced yoghurt	5.0E+05	-
ST3	*Staphylococcus epidermidis*	Yoghurt	4.0E+05	-
M1	*Micrococcus*	Environment	2.0E+05	-
L 147	*Listeria grayi*	ATCC 25 401	56.0	-

Appendix 7 - Results obtained by the collaborators (study realized by IPL, 2008)

Laboratory A

Sample N°	Reference method					Comparison / expected results	Alternative method BAX® L. spp			Agree-ment
	Fraser 1/2		Fraser		Result		Test BAX® L. spp	Confirmation	Result	
	O&A	PALCAM	O&A	PALCAM						
3	-	-	-	-	-	=	-	-	-	NA
4	-	-	-	-	-	=	-	-	-	NA
9	-	-	-	-	-	=	-	-	-	NA
10	-	-	-	-	-	=	-	-	-	NA
11	-	-	-	-	-	=	-	-	-	NA
12	-	-	-	-	-	=	-	-	-	NA
19	-	-	-	-	-	=	-	-	-	NA
20	-	-	-	-	-	=	-	-	-	NA
1	+	+	+	+	+	=	+	+	+	PA
2	+	+	+	+	+	=	+	+	+	PA
5	+	+	+	+	+	=	+	+	+	PA
6	+	+	+	+	+	=	+	+	+	PA
13	+	+	+	+	+	=	+	+	+	PA
14	+	+	+	+	+	=	+	+	+	PA
21	+	+	+	+	+	=	+	+	+	PA
22	+	+	+	+	+	=	+	+	+	PA
7	+	+	+	+	+	=	+	+	+	PA
8	+	+	+	+	+	=	+	+	+	PA
15	+	+	+	+	+	=	+	+	+	PA
16	+	+	+	+	+	=	+	+	+	PA
17	+	+	+	+	+	=	+	+	+	PA
18	+	+	+	+	+	=	+	+	+	PA
23	+	+	+	+	+	=	+	+	+	PA
24	+	+	+	+	+	=	+	+	+	PA
Total flora of milk (UFC/ml):			<1							

Laboratory B

Sample N°	Reference method					Comparison / expected results	Alternative method BAX® L. spp			Agree-ment
	Fraser 1/2		Fraser		Result		Test BAX® L. spp	Confirmation	Result	
	O&A	PALCAM	O&A	PALCAM						
3	-	-	-	-	-	=	-	-	-	NA
4	-	-	-	-	-	=	-	-	-	NA
9	-	-	-	-	-	=	-	-	-	NA
10	-	-	-	-	-	=	-	-	-	NA
11	-	-	-	-	-	=	-	-	-	NA
12	-	-	-	-	-	=	-	-	-	NA
19	-	-	-	-	-	=	-	-	-	NA
20	-	-	-	-	-	=	-	-	-	NA
1	+	+	+	+	+	=	+	+	+	PA
2	+	+	+	+	+	=	+	+	+	PA
5	+	+	+	+	+	=	+	+	+	PA
6	+	+	+	+	+	=	+	+	+	PA
13	+	+	+	+	+	=	+	+	+	PA
14	+	+	+	+	+	=	+	+	+	PA
21	+	+	+	+	+	=	+	+	+	PA
22	+	+	+	+	+	=	+	+	+	PA
7	+	+	+	+	+	=	+	+	+	PA
8	+	+	+	+	+	=	+	+	+	PA
15	+	+	+	+	+	=	+	+	+	PA
16	+	+	+	+	+	=	+	+	+	PA
17	+	+	+	+	+	=	+	+	+	PA
18	+	+	+	+	+	=	+	+	+	PA
23	+	+	+	+	+	=	+	+	+	PA
24	+	+	+	+	+	=	+	+	+	PA
Total flora of milk (UFC/ml):			NC							

Laboratory C

Sample N°	Reference method					Comparison / expected results	Alternative method BAX® L. spp			Agree-ment
	Fraser 1/2		Fraser		Result		Test BAX® L. spp	Confirmation	Result	
	O&A	PALCAM	O&A	PALCAM						
3	-	-	-	-	-	=	-	-	-	NA
4	-	-	-	-	-	=	-	-	-	NA
9	-	-	-	-	-	=	-	-	-	NA
10	-	-	-	-	-	=	-	-	-	NA
11	-	-	-	-	-	=	-	-	-	NA
12	-	-	-	-	-	=	-	-	-	NA
19	-	-	-	-	-	=	-	-	-	NA
20	-	-	-	-	-	=	-	-	-	NA
1	+	+	+	+	+	=	+	+	+	PA
2	+	+	+	+	+	=	+	+	+	PA
5	+	+	+	+	+	=	+	+	+	PA
6	+	+	+	+	+	=	+	+	+	PA
13	+	+	+	+	+	=	+	+	+	PA
14	+	+	+	+	+	=	+	+	+	PA
21	+	+	+	+	+	=	+	+	+	PA
22	+	+	+	+	+	=	+	+	+	PA
7	+	+	+	+	+	=	+	+	+	PA
8	+	+	+	+	+	=	+	+	+	PA
15	+	+	+	+	+	=	+	+	+	PA
16	+	+	+	+	+	=	+	+	+	PA
17	+	+	+	+	+	=	+	+	+	PA
18	+	+	+	+	+	=	+	+	+	PA
23	+	+	+	+	+	=	+	+	+	PA
24	+	+	+	+	+	=	+	+	+	PA
Total flora of milk (UFC/ml):			1700							

Laboratory D

Sample N°	Reference method					Comparison / expected results	Alternative method BAX® L. spp			Agree-ment
	Fraser 1/2		Fraser		Result		Test BAX® L. spp	Confirmation	Result	
	O&A	PALCAM	O&A	PALCAM						
3	-	-	-	-	-	=	-	-	-	NA
4	-	-	-	-	-	=	-	-	-	NA
9	-	-	-	-	-	=	-	-	-	NA
10	-	-	-	-	-	=	-	-	-	NA
11	-	-	-	-	-	=	-	-	-	NA
12	-	-	-	-	-	=	-	-	-	NA
19	-	-	-	-	-	=	-	-	-	NA
20	-	-	-	-	-	=	-	-	-	NA
1	+	+	+	+	+	=	+	+	+	PA
2	+	+	+	+	+	=	+	+	+	PA
5	+	+	+	+	+	=	+	+	+	PA
6	+	+	+	+	+	=	+	+	+	PA
13	+	+	+	+	+	=	+	+	+	PA
14	+	+	+	+	+	=	+	+	+	PA
21	+	+	+	+	+	=	+	+	+	PA
22	+	+	+	+	+	=	+	+	+	PA
7	+	+	+	+	+	=	+	+	+	PA
8	+	+	+	+	+	=	+	+	+	PA
15	+	+	+	+	+	=	+	+	+	PA
16	+	+	+	+	+	=	+	+	+	PA
17	+	+	+	+	+	=	+	+	+	PA
18	+	+	+	+	+	=	+	+	+	PA
23	+	+	+	+	+	=	+	+	+	PA
24	+	+	+	+	+	=	+	+	+	PA
Total flora of milk (UFC/ml):			1200							

Laboratory E

Sample N°	Reference method					Comparison / expected results	Alternative method BAX® L. spp			Agree-ment
	Fraser 1/2		Fraser		Result		Test BAX® L. spp	Confirmation	Result	
	O&A	PALCAM	O&A	PALCAM						
3	-	-	-	-	-	=	-	-	-	NA
4	-	-	-	-	-	=	-	-	-	NA
9	-	-	-	-	-	=	-	-	-	NA
10	-	-	-	-	-	=	-	-	-	NA
11	-	-	-	-	-	=	-	-	-	NA
12	-	-	-	-	-	=	-	-	-	NA
19	-	-	-	-	-	=	-	-	-	NA
20	-	-	-	-	-	=	-	-	-	NA
1	+	+	+	+	+	=	+	+	+	PA
2	+	+	+	+	+	=	+	+	+	PA
5	+	+	+	+	+	=	+	+	+	PA
6	+	+	+	+	+	=	+	+	+	PA
13	+	+	+	+	+	=	+	+	+	PA
14	+	+	+	+	+	=	+	+	+	PA
21	+	+	+	+	+	=	+	+	+	PA
22	+	+	+	+	+	=	+	+	+	PA
7	+	+	+	+	+	=	+	+	+	PA
8	+	+	+	+	+	=	+	+	+	PA
15	+	+	+	+	+	=	+	+	+	PA
16	+	+	+	+	+	=	+	+	+	PA
17	+	+	+	+	+	=	+	+	+	PA
18	+	+	+	+	+	=	+	+	+	PA
23	+	+	+	+	+	=	+	+	+	PA
24	+	+	+	+	+	=	+	+	+	PA
Total flora of milk (UFC/ml):			<4							

Laboratory F

Sample N°	Reference method					Comparison / expected results	Alternative method BAX® L. spp			Agree-ment
	Fraser 1/2		Fraser		Result		Test BAX® L. spp	Confirmation	Result	
	O&A	PALCAM	O&A	PALCAM						
3	-	-	-	-	-	=	-	-	-	NA
4	-	-	-	-	-	=	-	-	-	NA
9	-	-	-	-	-	=	-	-	-	NA
10	-	-	-	-	-	=	-	-	-	NA
11	-	-	-	-	-	=	-	-	-	NA
12	-	-	-	-	-	=	-	-	-	NA
19	-	-	-	-	-	=	-	-	-	NA
20	-	-	-	-	-	=	-	-	-	NA
1	+	+	+	+	+	=	+	+	+	PA
2	+	+	+	+	+	=	+	+	+	PA
5	+	+	+	+	+	=	+	+	+	PA
6	+	+	+	+	+	=	+	+	+	PA
13	+	+	+	+	+	=	+	+	+	PA
14	+	+	+	+	+	=	+	+	+	PA
21	+	+	+	+	+	=	+	+	+	PA
22	+	+	+	+	+	=	+	+	+	PA
7	+	+	+	+	+	=	+	+	+	PA
8	+	+	+	+	+	=	+	+	+	PA
15	+	+	+	+	+	=	+	+	+	PA
16	+	+	+	+	+	=	+	+	+	PA
17	+	+	+	+	+	=	+	+	+	PA
18	+	+	+	+	+	=	+	+	+	PA
23	+	+	+	+	+	=	+	+	+	PA
24	+	+	+	+	+	=	+	+	+	PA
Total flora of milk (UFC/ml):			3600							

Laboratory G

Sample N°	Reference method					Comparison / expected results	Alternative method BAX® L. spp			Agree-ment
	Fraser 1/2		Fraser		Result		Test BAX® L. spp	Confirmation	Result	
	O&A	PALCAM	O&A	PALCAM						
3	-	-	-	-	-	=	-	-	-	NA
4	-	-	-	-	-	=	-	-	-	NA
9	-	-	-	-	-	=	-	-	-	NA
10	-	-	-	-	-	=	-	-	-	NA
11	-	-	-	-	-	=	-	-	-	NA
12	-	-	-	-	-	=	-	-	-	NA
19	-	-	-	-	-	=	-	-	-	NA
20	-	-	-	-	-	=	-	-	-	NA
5	+	+	+	+	+	=	+	+	+	PA
6	+	+	+	+	+	=	+	+	+	PA
1	+	+	+	+	+	=	+	+	+	PA
2	+	+	+	+	+	=	+	+	+	PA
13	+	+	+	+	+	=	+	+	+	PA
14	+	+	+	+	+	=	+	+	+	PA
21	+	+	+	+	+	=	+	+	+	PA
22	+	+	+	+	+	=	+	+	+	PA
7	+	+	+	+	+	=	+	+	+	PA
8	+	+	+	+	+	=	+	+	+	PA
15	+	+	+	+	+	=	+	+	+	PA
16	+	+	+	+	+	=	+	+	+	PA
17	+	+	+	+	+	=	+	+	+	PA
18	+	+	+	+	+	=	+	+	+	PA
23	+	+	+	+	+	=	+	+	+	PA
24	+	+	+	+	+	=	+	+	+	PA
Total flora of milk (UFC/ml):			1300							

Laboratory H

Sample N°	Reference method					Comparison / expected results	Alternative method BAX® L. spp			Agree-ment
	Fraser 1/2		Fraser		Result		Test BAX® L. spp	Confirmation	Result	
	O&A	PALCAM	O&A	PALCAM						
3	-	-	-	-	-	=	-	-	-	NA
4	-	-	-	-	-	=	-	-	-	NA
9	-	-	-	-	-	=	-	-	-	NA
10	-	-	-	-	-	=	-	-	-	NA
11	-	-	-	-	-	=	-	-	-	NA
12	-	-	-	-	-	=	-	-	-	NA
19	-	-	-	-	-	=	-	-	-	NA
20	-	-	-	-	-	=	-	-	-	NA
1	+	+	+	+	+	=	+	+	+	PA
2	+	+	+	+	+	=	+	+	+	PA
5	+	+	+	+	+	=	+	+	+	PA
6	+	+	+	+	+	=	+	+	+	PA
14	+	+	+	+	+	=	+	+	+	PA
21	+	+	+	+	+	=	+	+	+	PA
22	+	+	+	+	+	=	+	+	+	PA
7	+	+	+	+	+	=	+	+	+	PA
8	+	+	+	+	+	=	+	+	+	PA
15	+	+	+	+	+	=	+	+	+	PA
16	+	+	+	+	+	=	+	+	+	PA
17	+	+	+	+	+	=	+	+	+	PA
18	+	+	+	+	+	=	+	+	+	PA
23	+	+	+	+	+	=	+	+	+	PA
24	+	+	+	+	+	=	+	+	+	PA
Total flora of milk (UFC/ml):			$5{,}8.10^6$							

Laboratory K

Sample N°	Reference method					Comparison / expected results	Alternative method BAX® L. spp			Agree-ment
	Fraser 1/2		Fraser		Result		Test BAX® L. spp	Confirmation	Result	
	O&A	PALCAM	O&A	PALCAM						
3	-	-	-	-	-	=	-	-	-	NA
4	-	-	-	-	-	=	-	-	-	NA
9	-	-	-	-	-	=	-	-	-	NA
10	-	-	-	-	-	=	-	-	-	NA
11	-	-	-	-	-	=	-	-	-	NA
12	-	-	-	-	-	=	-	-	-	NA
19	-	-	-	-	-	=	-	-	-	NA
20	-	-	-	-	-	=	-	-	-	NA
1	+	+	+	+	+	=	+	+	+	PA
2	+	+	+	+	+	=	+	+	+	PA
5	+	+	+	+	+	=	+	+	+	PA
6	+	+	+	+	+	=	+	+	+	PA
13	+	+	+	+	+	=	+	+	+	PA
14	+	+	+	+	+	=	-	+	-	ND
21	+	+	+	+	+	=	+	+	+	PA
22	+	+	+	+	+	=	+	+	+	PA
7	+	+	+	+	+	=	+	+	+	PA
8	+	+	+	+	+	=	+	+	+	PA
15	+	+	+	+	+	=	+	+	+	PA
16	+	+	+	+	+	=	+	+	+	PA
17	+	+	+	+	+	=	+	+	+	PA
18	+	+	+	+	+	=	+	+	+	PA
23	+	+	+	+	+	=	+	+	+	PA
24	+	+	+	+	+	=	+	+	+	PA
Total flora of milk (UFC/ml):			54000							

Laboratory L

Sample N°	Reference method					Comparison / expected results	Alternative method BAX® L. spp			Agree-ment
	Fraser 1/2		Fraser		Result		Test BAX® L. spp	Confirmation	Result	
	O&A	PALCAM	O&A	PALCAM						
3	-	-	-	-	-	=	-	-	-	NA
4	-	-	-	-	-	=	-	-	-	NA
9	-	-	-	-	-	=	-	-	-	NA
10	-	-	-	-	-	=	-	-	-	NA
11	-	-	-	-	-	=	-	-	-	NA
12	-	-	-	-	-	=	-	-	-	NA
19	-	-	-	-	-	=	-	-	-	NA
20	-	-	-	-	-	=	-	-	-	NA
1	+	+	+	+	+	=	+	+	+	PA
2	+	+	+	+	+	=	+	+	+	PA
5	+	+	+	+	+	=	+	+	+	PA
6	+	+	+	+	+	=	+	+	+	PA
13	+	+	+	+	+	=	+	+	+	PA
14	+	+	+	+	+	=	+	+	+	PA
21	+	+	+	+	+	=	+	+	+	PA
22	+	+	+	+	+	=	+	+	+	PA
7	+	+	+	+	+	=	+	+	+	PA
8	+	+	+	+	+	=	+	+	+	PA
15	+	+	+	+	+	=	+	+	+	PA
16	+	+	+	+	+	=	+	+	+	PA
17	+	+	+	+	+	=	+	+	+	PA
18	+	+	+	+	+	=	+	+	+	PA
23	+	+	+	+	+	=	+	+	+	PA
24	+	+	+	+	+	=	+	+	+	PA
Total flora of milk (UFC/ml):			$3{,}8.10^4$							

Laboratory M

Sample N°	Reference method					Comparison / expected results	Alternative method BAX® L. spp			Agree-ment
	Fraser 1/2		Fraser		Result		Test BAX® L. spp	Confirmation	Result	
	O&A	PALCAM	O&A	PALCAM						
3	-	-	-	-	-	=	-	-	-	NA
4	-	-	-	-	-	=	-	-	-	NA
9	-	-	-	-	-	=	-	-	-	NA
10	-	-	-	-	-	=	-	-	-	NA
11	-	-	-	-	-	=	-	-	-	NA
12	-	-	-	-	-	=	-	-	-	NA
19	-	-	-	-	-	=	-	-	-	NA
20	-	-	-	-	-	=	-	-	-	NA
1	+	+	+	+	+	=	+	+	+	PA
2	+	+	+	+	+	=	+	+	+	PA
5	+	+	+	+	+	=	+	+	+	PA
6	+	+	+	+	+	=	+	+	+	PA
13	+	+	+	+	+	=	+	+	+	PA
14	+	+	+	+	+	=	+	+	+	PA
21	+	+	+	+	+	=	+	+	+	PA
22	+	+	+	+	+	=	+	+	+	PA
7	+	+	+	+	+	=	+	+	+	PA
8	+	+	+	+	+	=	+	+	+	PA
15	+	+	+	+	+	=	+	+	+	PA
16	+	+	+	+	+	=	+	+	+	PA
17	+	+	+	+	+	=	+	+	+	PA
18	+	+	+	+	+	=	+	+	+	PA
23	+	+	+	+	+	=	+	+	+	PA
24	+	+	+	+	+	=	+	+	+	PA

Total flora of milk (UFC/ml): 4400