NF VALIDATION
Validation of alternative analytical methods
Application in food microbiology

Summary report
Validation study according to EN ISO 16140-2:2016

RAPID'*L.mono* (enumeration)
(Certificate number: BRD 07/05 - 09/01)

for the enumeration of *Listeria monocytogenes* in all human food products and environmental samples

Quantitative method

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This report consists of 111 pages, including 11 appendices.
Only copies including the totality of this report are authorised.

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

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

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 7).
Reference method	ISO 11290-2 (May 2017): Microbiology of the food chain - Horizontal method for the detection and enumeration of *Listeria monocytogenes* and other *Listeria* spp. - Part 2: enumeration method
Alternative method	**RAPID'*L.mono* (enumeration)**
Scope	☒ **All human food products** ☒ **Environmental samples**
Certification organization	AFNOR Certification (http://nf-validation.afnor.org/)

1 INTRODUCTION

The **RAPID'*L.mono* for enumeration of *Listeria monocytogenes*** was initially validated in September 2001 (Certificate number: BRD 07/07 - 09/01.).

The following renewal and extension studies were performed.

Date	Study	Expert laboratory	Standards used
September 2001	Initial validation	SERMHA - IPL	/
2005	Renewal with extension of the scope to all food products and environmental samples.	SERMHA - IPL	ISO 16140 (2003)
2006	Extension for addition of a growth promoter to the media in order to have the possibility to perform the enumeration after 24h incubation time.	SERMHA - IPL	ISO 16140 (2003)
2008	Extension for the use of the Rhamnose test for confirmation step: inclusivity and exclusivity tests performed	SERMHA - IPL	ISO 16140 (2003)
2009	Renewal without modification	SERMHA - IPL	ISO 16140 (2003)
2013	Renewal without modification	ISHA	ISO 16140 (2003)
January 2018	Renewal study with interpretation of the results obtained for 48h incubation time of the RAPID'*L.mono* Petri dishes.	ISHA	ISO 16140-2 (2016)
May 2018	Renewal study to include the data obtained for the previous validation studies with 22h incubation time of the RAPID'*L.mono* Petri dishes.	ISHA	ISO 16140-2 (2016)
June 2021	Renewal study	ADRIA	ISO 16140-2 (2016)

2 METHODS DESCRIPTION

2.1 Alternative method

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

2.1.1 Principle

The principle of the RAPID'*L.mono* is based on a chromogenic medium, which relies on the specific detection of phospholipase C (PIPLC) activity of *L. monocytogenes* and on the inability of this species to metabolise xylose.
The colonies of *L. monocytogenes* appear pale blue, grey-blue to dark blue, without a yellow halo after 24 h incubation time. Colonies formed by other species of *Listeria* are white, with or without yellow halo.
The colonies of *L. ivanovii* appears blue-green, with a yellow halo after 24 - 48 h incubation time.

Confirmation of positive samples should be done from a single colony isolated on RAPID'*L.mono* by one of the following protocols:

- by the classical tests described in the methods standardised by CEN or ISO (including the purification stage);
- by use of nucleic probes as provided in standard NF EN ISO 7218 (with or without the purification stage);
- through implementation of the Rhamnose test.
- by using any other method certified AFNOR VALIDATION, with a principle different from the RAPID'*L.mono* method. The protocol validated by the second method should be respected as a whole, it means that all the steps prior to the intermediate step of which the confirmation starts must be common to both methods.

2.1.2 Protocol

The alternative method consists in:

- A 1/10 dilution in buffered peptone water
- Optional step: revivification for 1 h ± 5 min at 20°C ± 2°C
- Spread 0.1 mL of the 1:10 suspension or decimal dilutions if necessary, if on the surface of one RAPID'*L.mono* plate per dilution. For estimation of low

contaminations, it is possible to spread 1 mL of the initial suspension onto 3 plates (90 mm), or 1 plate (140 mm).

- The inoculated plates are incubated at 37°C for 24 hours (± 2 hours). The incubation up to 48 h is possible.

- Enumerate the plates with less than 150 typical colonies (pale blue, grey-blue to dark blue, without a yellow halo).

- Confirm 1 colony using one of the following protocols:
    - Using the conventional tests described in the ISO standard method (including a purification step),
    - Using nucleic probes as described in the ISO 7218 standard, for example the iQ-Check *Listeria monocytogenes* II Real-Time PCR Detection Kit on isolated colonies (with or without purification step),
    - Using the Rhamnose test,
    - Using any other NF VALIDATION certified method based on a different principle from that of RAPID'*L.mono*. The validated protocol of the second method must be respected in its entirely. All steps prior enumeration step used as a starting point for confirmation must be common to both methods.

In case of positive result by the enumeration method, the confirmation is not necessary if the presence of *Listeria monocytogenes* has been confirmed using the detection method.

2.1.3 Restrictions

There is no restriction for use.

2.2 Reference method

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

3 INITIAL VALIDATION, EXTENSION/RENEWAL 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 Relative trueness study

The relative trueness is the degree of correspondence between the response obtained by the reference method and the response obtained by the alternative method on identical samples.

3.1.1.1 Number and nature of the samples

Results used for the relative trueness study were obtained during the validation studies performed in 2005 and 2006 by SERMHA and the assays performed in 2017 and 2018 by ISHA.

The numbers of assays analyzed and kept for the statistical analysis were:

- in 2005: 87 samples analyzed and 48 kept (enumeration at 48h),
- in 2006: 45 samples analyzed and 23 kept (enumeration at 22h and 48h),
- in 2017 (renewal study): 57 samples analyzed and 57 kept (enumeration at 22h and 48h),
- in 2018 (renewal study): 32 samples analyzed and 32 kept (enumeration at 22h and 48h).

A total of 112 results (enumeration at 22h) and 160 results (enumeration at 48h) were available for statistical interpretation.

Six categories were tested. Taking into account all the studies, the repartition per tested category and type is provided in Table 1

Table 1 – Categories and types

Categories		Types		Enumeration at 22 h		Enumeration at 48 h	
				Samples analyzed	Interpretable results	Samples analyzed	Interpretable results
1	Meat products	a	Raw meat products	13	7	18	9
		b	Ready to reheat with meat product	8	7	8	7
		c	Cured and smoked products	7	6	22	12
		TOTAL		28	20	48	28
2	Dairy products	a	Raw cheese milk	6	6	7	6
		b	Raw dairy products	7	6	10	8
		c	Heat-processed milk and dairy products	9	8	19	14
		TOTAL		22	20	36	28
3	Seafood products	a	Raw products	6	6	12	9
		b	Marinated and smoked products	8	6	13	8
		c	Processed products	8	6	13	10
		TOTAL		22	18	38	27
4	Vegetable products	a	Raw vegetal products	7	5	14	10
		b	Ready-to-eat, ready to cook raw vegetable products	7	6	17	10
		c	Processed vegetables products	6	6	8	8
		TOTAL		20	17	39	28
5	Composite foods	a	Ready-to-eat	7	7	7	7
		b	Ready-to-reheat	7	6	9	7
		c	Pastries and by-products, egg products	5	5	7	6
		TOTAL		19	18	23	20
6	Environmental samples	a	Process water	11	7	16	9
		b	Dusts and residues	6	6	10	9
		c	Surface sampling[1]	6	6	11	11
		TOTAL		23	19	37	29
			ALL CATEGORIES	**134**	**112**	**221**	**160**

134 samples were analyzed, leading to 112 exploitable results for an enumeration after 22 h incubation time and 221 samples were tested leading to 160 interpretable results for an enumeration after 48 h incubation time.

[1] The surface samplings were performed without neutralizing agent for the assays done by ISHA (2017 and 2018). There is no available information about using or not of neutralizing agent for the assays realize d by SERMHA.

3.1.1.2 Artificial and natural contamination of the samples

Naturally contaminated samples were tested preferably. However, artificially contaminated samples were also applied, using seeding or spiking protocols as described in the ISO 16140-2: 2016.

Among the interpretable results, for the results with an enumeration after 22h incubation time, 14 correspond to naturally contaminated samples and 98 to artificially contaminated samples and for the results with an enumeration after 48 h incubation time, 38 correspond to naturally contaminated samples and 122 to artificially contaminated samples. The artificial contaminations are presented in the **Appendix 3**.

12.5 % of the samples giving interpretable results by both the reference and the alternative methods were naturally contaminated for the enumeration after 22 h incubation time and 23.7% for the enumeration after 48 h incubation time. gave interpretable results.

3.1.1.3 Protocols applied during the initial validation and the renewal study

❒ ***Initial suspension preparation***

For the assays performed in 2005, 2006 and 2008, the preparation of the samples for the reference method and the alternative method was realized in buffered peptone water (BPW) with a resuscitation step (1 h at room temperature).
For the assays performed in 2017 and 2018, the preparation of the initial suspension was performed in buffered peptone water without a resuscitation step for both methods.

❒ ***Incubation time***

The following incubation times were applied:

- 2005: 48 h
- 2006, 2017 and 2018: 22h and 48 h

❒ ***Confirmation protocols***

- 2005, 2006: tests described I the reference method
- 2017, 2018: Rhamnose test and tests described in the ISO method

3.1.1.4 Raw data

The raw data are provided in **Appendix 4**.

The samples were analyzed by the reference and the alternative methods in order to have 15 interpretable results per category, and 5 interpretable results per tested type.

The data are classified in three categories (See Tables 2 and 3):

- Interpretable results with the reference and the alternative methods;
- Results with less than 4 colonies per plate with the reference and/or the alternative method (indicated with "*" in the data) in order to have a more precise result. These results are not included in the calculation.
- Results below or above the quantification limit: according to the ISO 16140-2:2016, if any result (either reference or alternative method) is below the quantification limit, the data should be plotted using a substituted value of 1 $\log_{10}$ units less than the observed value in case of a lower than value. Similarly, any value greater than the upper limit should be amended by adding 1 log unit. These results are not included in the calculations but also appear on the graphs.

Table 2 - Classification of the data - Enumeration after 22 h incubation time

Category		Number of samples analysed	Number of samples with less than 4 colonies per plate	Number of samples with results below or above the quantification limit	Number of samples providing interpretable results by the reference and the alternative method
1	Meat products	28	3	5	20
2	Dairy products	22	0	2	20
3	Seafood products	22	0	4	18
4	Vegetable products	20	1	2	17
5	Composite foods	19	0	1	18
6	Environmental samples	23	2	2	19
Total		**134**	**6**	**16**	**112**

Table 3 - Classification of the data - Enumeration after 48 h incubation time

Category		Number of samples analysed	Number of samples with less than 4 colonies per plate	Number of samples with results below or above the quantification limit	Number of samples providing interpretable results by the reference and the alternative method
1	Meat products	48	3	17	28
2	Dairy products	33	2	6	28
3	Seafood products	36	0	11	27
4	Vegetable products	38	1	10	28
5	Composite foods	39	0	3	20
6	Environmental samples	23	2	6	29
Total		**221**	**8**	**53**	**160**

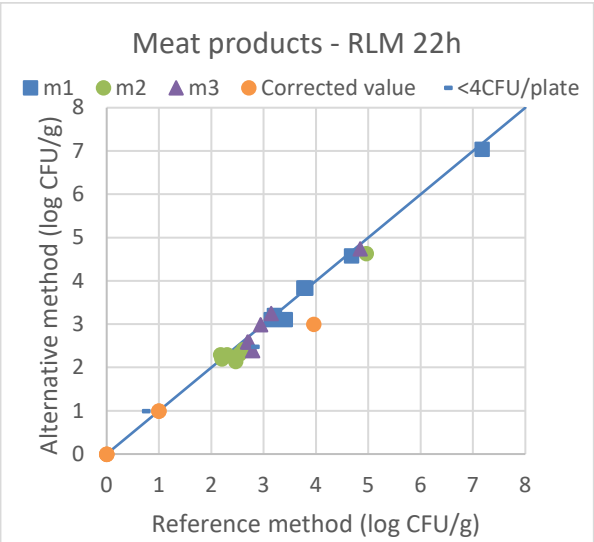
The interpretable samples are given in **Appendix 5** and the samples, which were not used in the calculations, are given in **Appendix 6**.

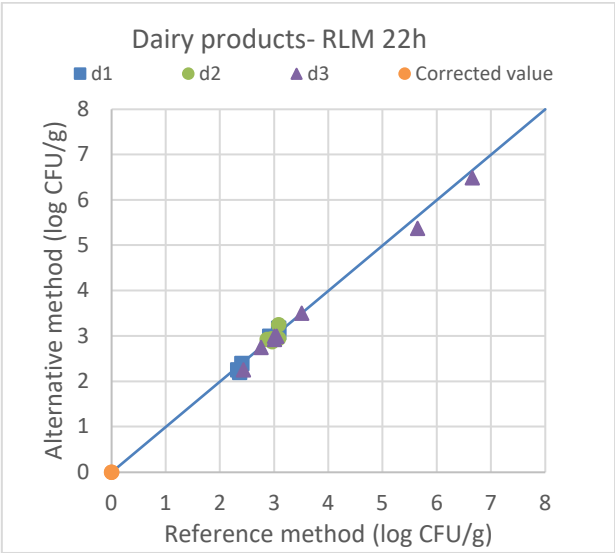
3.1.1.5 Statistical interpretation

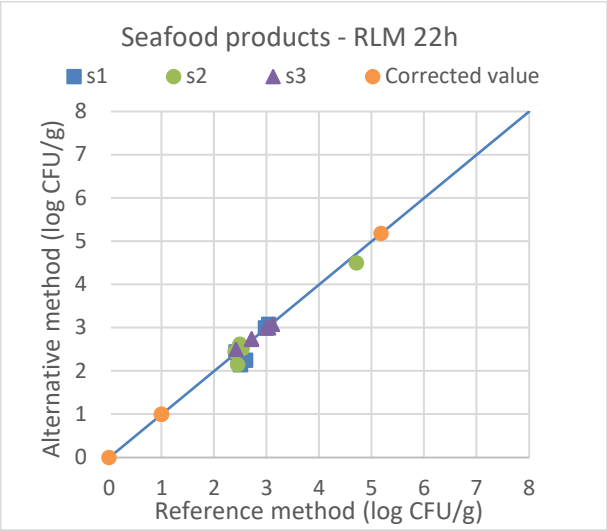
The calculations are provided in **Appendix 7**.

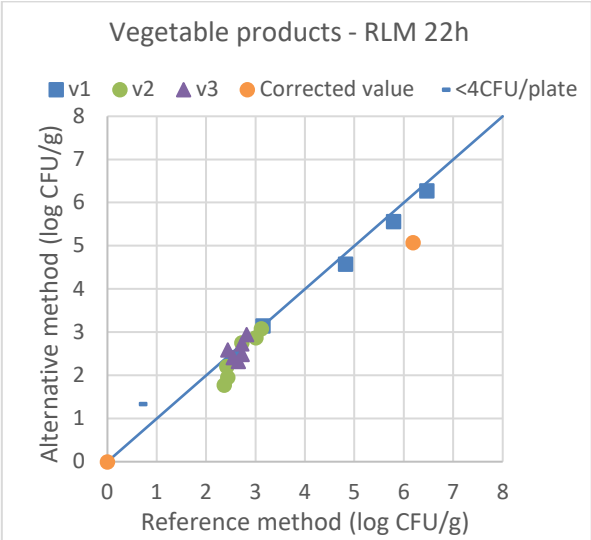
The obtained data were analyzed using the scatter plot. The graphs are provided with the line of identity (y = x).
The Figures 1 and 2 show the data plotted for each individual category (reading at 22 h and reading at 48 h, and the Figures 3 and 4 for all the products (reading at 22 h and reading at 48 h).

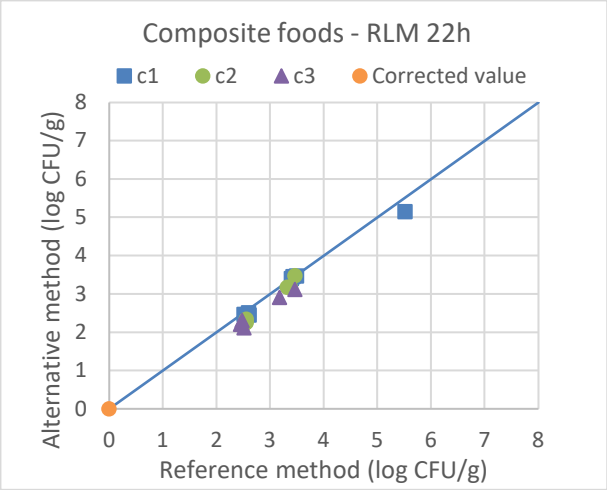
Figure 1 - Data plotted - Enumeration after 22 h incubation time

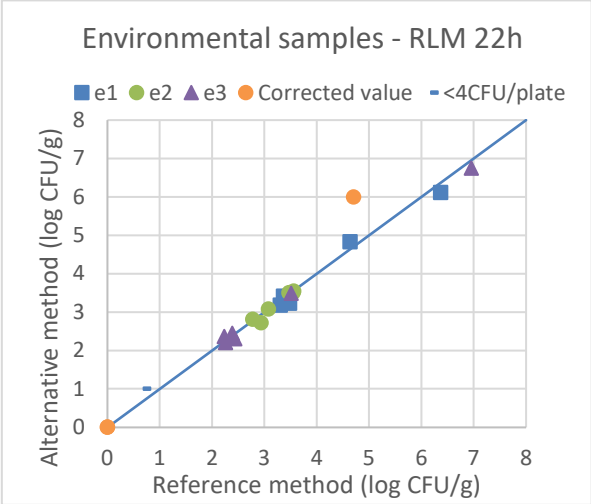





Seafood products - RLM 22h
s1
s2
s3
Corrected value
Alternative method (log CFU/g)
Reference method (log CFU/g)
0
1
2
3
4
5
6
7
8


Vegetable products - RLM 22h
v1
v2
v3
Corrected value
<4CFU/plate
Alternative method (log CFU/g)
Reference method (log CFU/g)
0
1
2
3
4
5
6
7
8


Composite foods - RLM 22h
c1
c2
c3
Corrected value
Alternative method (log CFU/g)
Reference method (log CFU/g)
0
1
2
3
4
5
6
7
8


Environmental samples - RLM 22h
e1
e2
e3
Corrected value
<4CFU/plate
Alternative method (log CFU/g)
Reference method (log CFU/g)
0
1
2
3
4
5
6
7
8

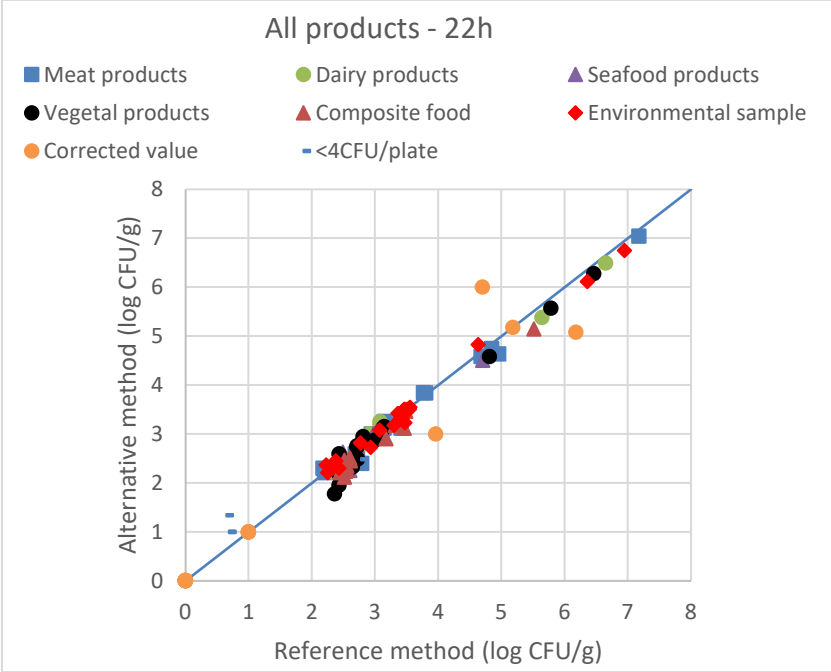
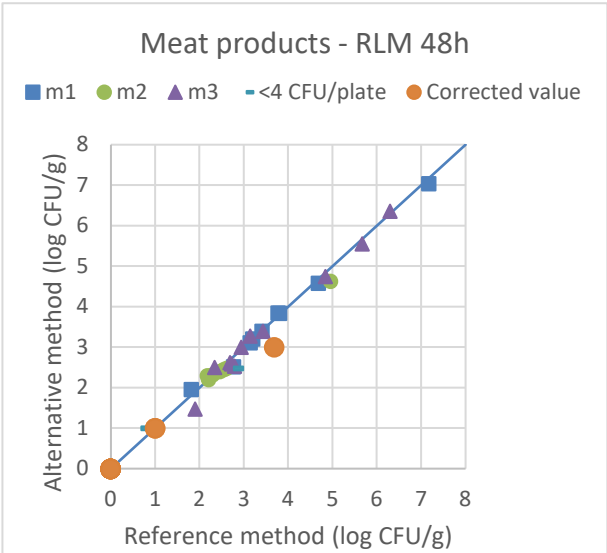
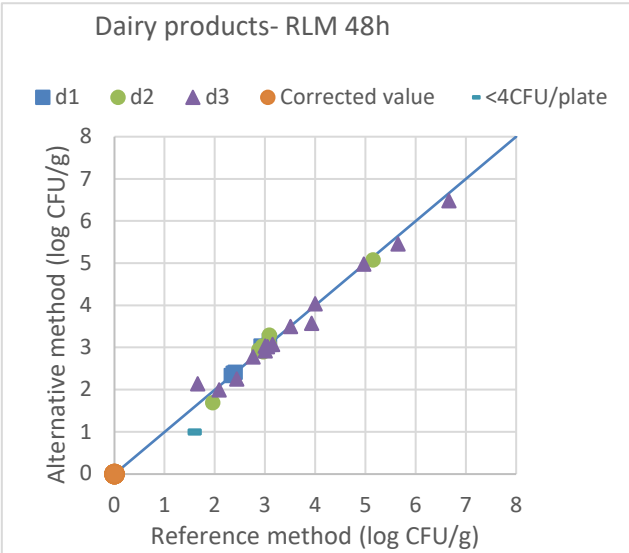
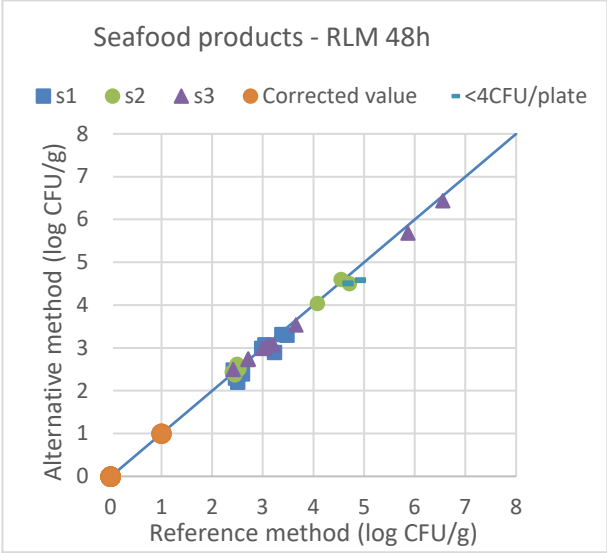
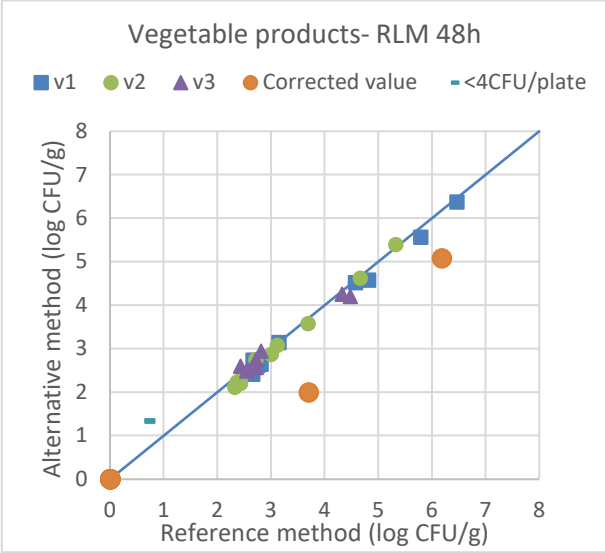

All products - 22h
Meat products
Dairy products
Seafood products
Vegetal products
Composite food
Environmental sample
Corrected value
<4CFU/plate
Alternative method (log CFU/g)
Reference method (log CFU/g)
0
1
2
3
4
5
6
7
8

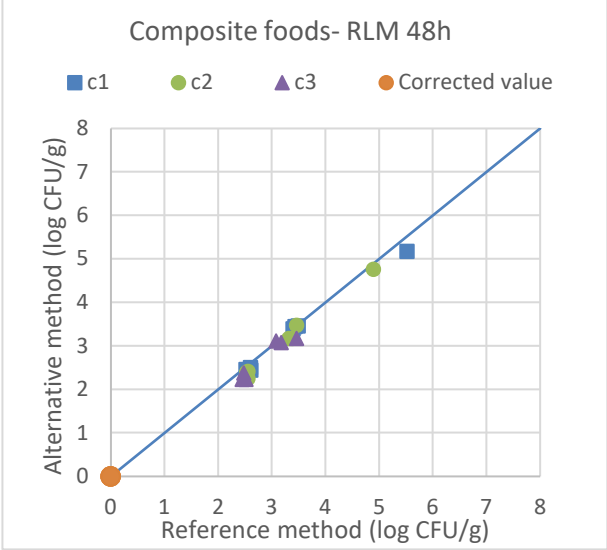
Figure 2 - Data plotted - Enumeration after 48 h incubation time

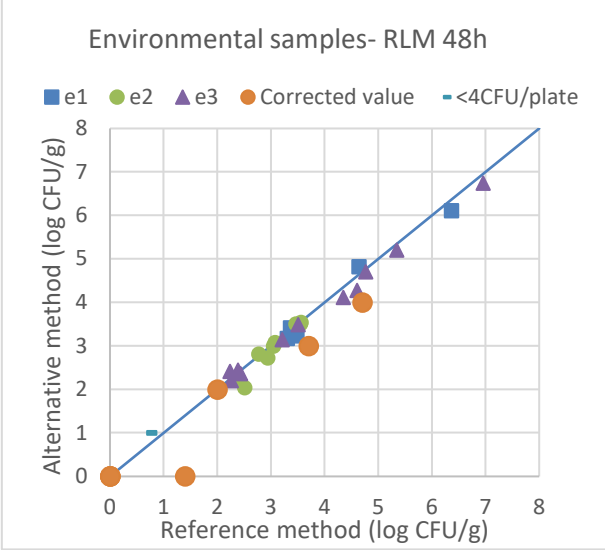


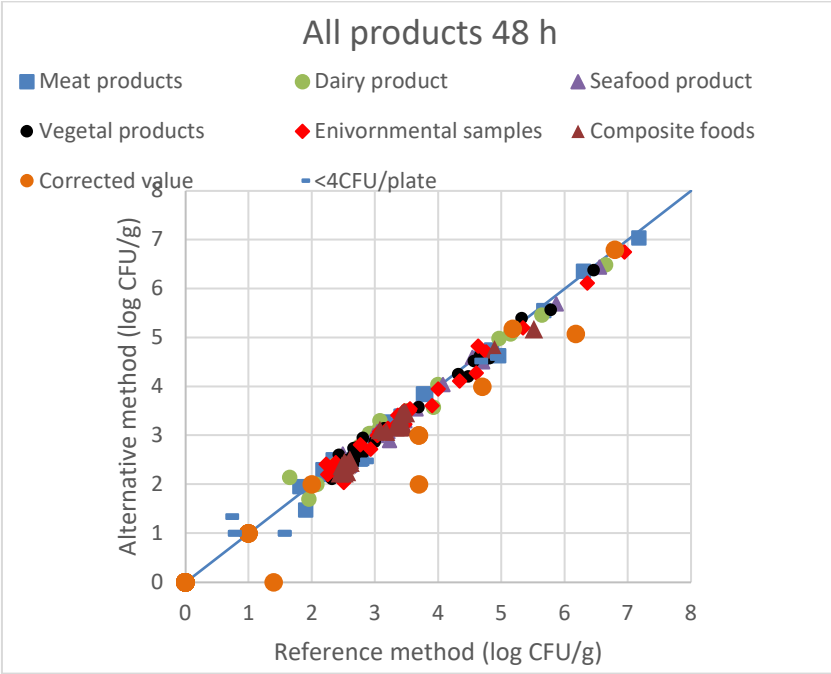












The calculated values for Average difference and Standard deviation differences per category are provided in Tables 4 and 5.

Table 4 - Calculated values - Enumeration after 22 h incubation time

Category		n	$\bar{D}$	SD	95% lower limit	95% upper limit
1	Meat products	20	-0.10	0.15	-0,42	0,57
2	Dairy products	20	-0.04	0.11	-0,28	0,39
3	Seafood products	18	-0.05	0.15	-0,38	0,53
4	Vegetable products	17	-0.15	0.20	-0,59	0,79
5	Composite foods	18	-0.18	0.14	-0,48	0,62
6	Environmental samples	19	-0.05	0.13	-0,33	0,46
All categories		**112**	**-0.10**	**0.15**	**-0.39**	**0.20**

$\bar{D}$: Average difference SD: Standard deviation of differences

The average differences vary from -0.18 log (composite foods) to -0.04. log (dairy products) for 22 h incubation time.

Table 5 - Calculated values - Enumeration after 48 h incubation time

Category		n	$\bar{D}$	SD	95% lower limit	95% upper limit
1	Meat products	28	-0.06	0.14	-0,35	0,23
2	Dairy products	28	-0.01	0.15	-0,32	0,30
3	Seafood products	27	-0.06	0.12	-0,31	0,19
4	Vegetable products	28	-0.08	0.12	-0,33	0,17
5	Composite foods	20	-0.13	0.11	-0,37	0,11
6	Environmental samples	29	-0.09	0.15	-0,40	0,22
All categories		**160**	**-0.07**	**0.13**	**-0.33**	**0.19**

$\bar{D}$: Average difference SD: Standard deviation of differences

The average differences vary from -0.13 log (composite foods) to -0.01 log (dairy products) for 48 h incubation time.

The Bland-Altman difference plot for all the samples is given Figures 3 and 4.

Figure 3 – Bland-Altman difference plot for all the samples - Enumeration after 22 h incubation time

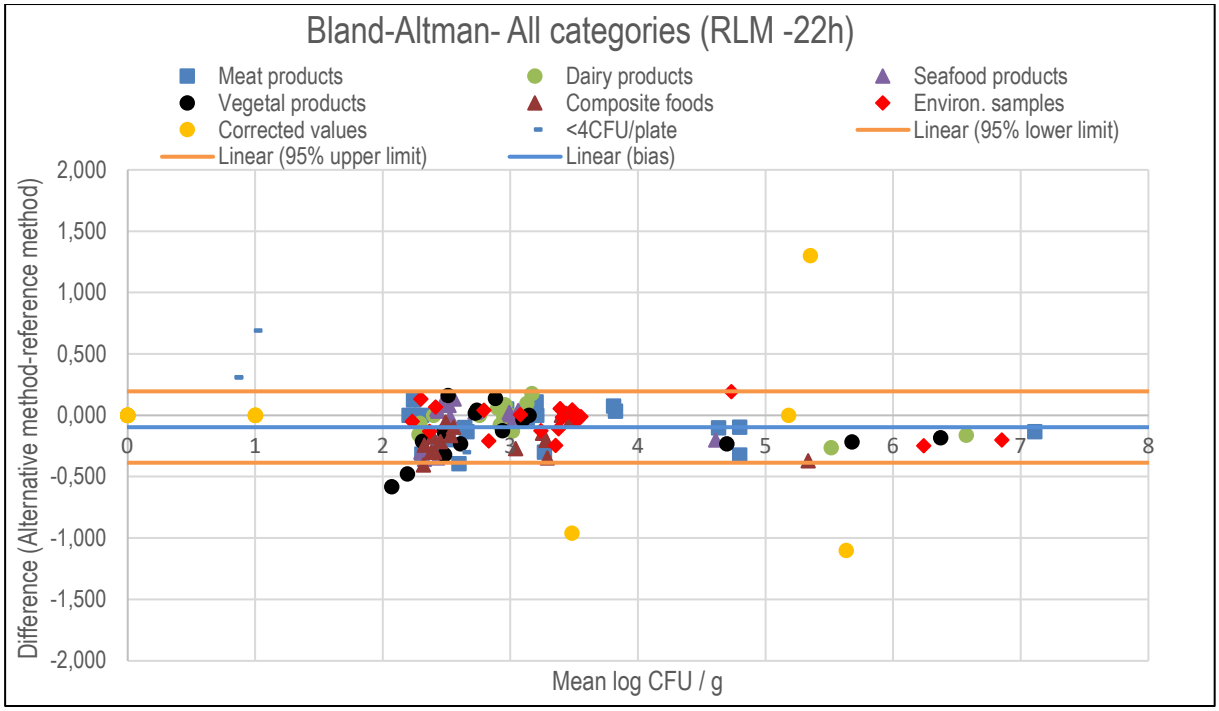
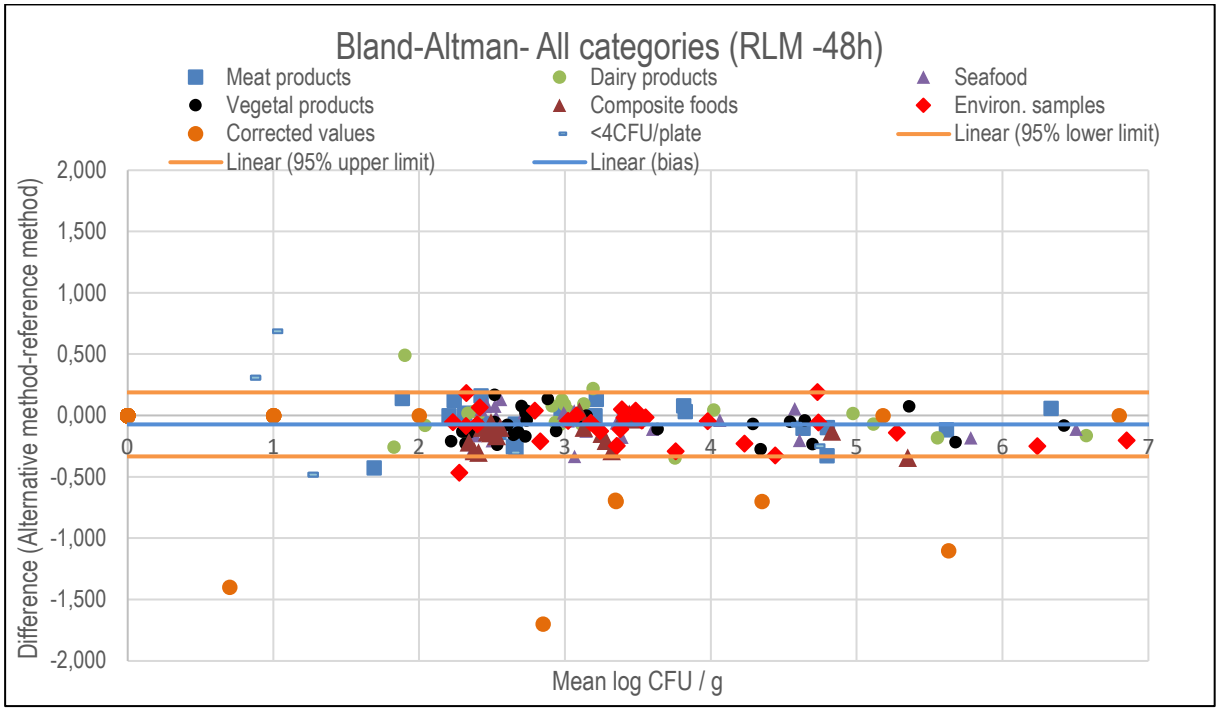


Figure 4 – Bland-Altman difference plot for all the samples -
Enumeration after 48 h incubation time



Samples for which the difference between the result observed with the reference and the alternative methods is above or lower than the limits (LCL and UCL) are listed in Tables 6 and 7.

Table 6 - Analysis of the data out of the confidence limits - Enumeration after 22 h incubation time

Values in green: differences in favour of the alternative method
Values in red: differences in favour of the reference method

Classification of data	Category	Type	N°	Analysis date	Sample	Log (CFU/g)		Corrected values		Calculations		LCL/ UCL
						log RM	Log AM 22h	Log RM	Log AM 22h	Mean	Difference	
Interpretable values	Meat products	m3	RLM 3	ISHA 2018	Smoked bacon	2,79	2,40	/	/	2,595	-0,394	-0.39 / 0.20
	Vegetal products	v2	39	ISHA 2017	Sliced pepper	2,36	1,78	/	/	2,070	-0,584	
	Vegetal products	v2	40	ISHA 2017	Sliced mushroom	2,43	1,95	/	/	2,193	-0,477	
	Composite foods	c3	16	ISHA 2017	Peach tart	2,519	2,114	/	/	2,316	-0,405	
Corrected values according to the ISO 16140-2 (2016)	Meat products	m1	1044	2006	Quail legs (NC)	3,96	<4	/	3,000	3,480	-0,960	
	Vegetal products	v1	1015	2006	Spinach (NC)	>5,18	5,08	6,180	/	5,630	-1,101	
	Environmental samples	e1	1041	2006	Processed water	4,70	<5	/	6,000	5,349	1,301	
Results obtained with <4 CFU/plate	Meat products	m1	1013	2006	Pork (NC)	0,69	1,00	/	/	0,850	0,310	
	Vegetal products	v2	1039	2006	Fruits salad	0,95	1,65	/	/	1,300	0,700	

NC: naturally contaminated

Table 7 - Analysis of the data out of the confidence limits - Enumeration after 48 h incubation time

Values in green: differences in favour of the alternative method
Values in red: differences in favour of the reference method

Classification of data	Category	Type	N°	Analysis date	Sample	Log (CFU/g)		Corrected value		Calculations		LCL/ UCL
						log RM	Log AM 48h	Log RM	Log AM 48h	Mean	Difference	
Interpretable values	Meat products	m3	B2	2005	Foie gras (NC)	1,903	1,477	/	/	1,690	-0,426	-0.33 / 0.19
	dairy products	d2	34	ISHA 2017	Raw milk butter	3,079	3,301	/	/	3,190	0,222	
		d3	E9	2005	Vanilla ice cream	3,924	3,580	/	/	3,752	-0,344	
		d3	F5	2005	Cheese: Maroilles (NC)	1,653	2,146	/	/	1,900	0,493	
	Seafood products	s1	E5	2005	Saithe fillet	3,230	2,898	/	/	3,064	-0,332	
	Composite foods	c1	1026	2006	Tagliatelle (NC)	5,519	5,176	/	/	5,347	-0,342	
	Environmental samples	e1	1048	2006	Sewer water (NC)	4,633	4,826	/	/	4,730	0,193	
		e2	O3	2005	Residue: farce on the floor	2,505	2,041	/	/	2,273	-0,464	
Corrected values according to the ISO 16140-2 (2016)	Meat products	m1	1044	2006	Quail legs (NC)	3,690	<4	/	3,000	3,345	-0,690	
	Vegetal products	v1	1015	2006	Spinach (NC)	>5,18	5,079	6,180	/	5,630	-1,101	
		v2	E1	2005	Frozen fries (NC)	3,699	<3	/	2,000	2,849	-1,699	
	Environmental samples	e1	G2	2005	Water: evacuation, room: spice	3,699	<4	/	3,000	3,349	-0,699	
		e1	G4	2005	Residual water: inner chamber Stériflow	1,398	<1	/	0,000	0,699	-1,398	
		e1	1041	2006	Processed water (NC)	4,699	<5	/	4,000	4,349	-0,699	
Results obtained with <4 CFU/plate	Meat products	m1	1013	2006	Pork (NC)	0,690	1,000	/	/	0,845	0,310	
	Dairy products	d3	K5	2005	Cheese: Maroilles	1,480	1,000	/	/	1,240	-0,480	
		d3	N4	2005	Vanilla ice cream	1,480	1,000	/	/	1,240	-0,480	
	Vegetal products	v2	1039	2006	Fruits salad (NC)	0,650	1,340	/	/	0,995	0,690	
	Environmental samples	e1	1005	2006	Upstream stone trap water (NC)	0,690	1,000	/	/	0,845	0,310	

The samples are classified in three categories (See Table 8).

Table 8 - Classification of the samples

		Number of samples	
		Enumeration at 22 h	Enumeration at 48 h
Interpretable results by both methods	< LCL	4	5
	> UCL	0	3
	Total	4	8
<4 CFU/plate	< LCL	0	2
	> UCL	2	3
	Total	2	5
< or > the quantification limit	< LCL	2	6
	> UCL	1	0
	Total	3	6
Total < LCL		6	13
Total >UCL		3	6

- ***Interpretation: Reference method versus Alternative method after 22 h incubation time***

Results show that for interpretable results with disagreements between the reference method and the alternative method after 22h incubation time, the difference is in favour of the reference method (difference between -0.584 and -0.405 log CFU/g and 4 samples concerned).

For the samples not included in the statistical interpretation:

- two samples present a difference in favour of the reference method,
- three samples present a difference in favour of the alternative method.

The differences vary from -1.101 to 1.301 log CFU/g.

- ***Interpretation: Reference method versus Alternative method after 48h incubation time***

Results show that on four interpretable results with disagreements between the reference method and the alternative method after 48 h incubation time, the number of samples with difference in favour of the reference method and the number of samples with a difference in favour of the alternative method is equivalent, respectively 5 and 3 samples.

For the samples not included in the statistical interpretation:

- eight samples present a difference in favour of the reference method,
- three samples present a difference in favour of the alternative method.

The differences vary from -1.699 to 0.690 log CFU/g.

3.1.1.6 Conclusion

The relative trueness study of the alternative method is satisfying. The alternative method is reliable when compared to the reference method.

3.1.2 Accuracy profile study

The accuracy profile is a graphical representation of the capacity of measurement of the quantitative method, obtained by combining acceptability intervals and β-expectation tolerance intervals, both reported to different levels of the reference value.

Results used for the accuracy profile were obtained with the assays performed in 2017 and 2018 by ISHA.

3.1.2.1 Matrices

Six matrices were tested. A minimum of one type per category, and therefore 2 different batches, was selected, using 6 samples per type. 2 samples are contaminated at a low level, 2 at intermediate level, 2 at a high level. For each sample, 5 replicates (5 different test portions) were tested. The tested categories, types, matrix and inoculated strains are provided in Table 9.

Table 9 - Categories, types and matrices

Category	Matrix	Strain	Origin of the strain	Contamination level (log CFU/g)
Meat products	Ground beef	*Listeria monocytogenes* 1/2a (LIS.4.26)	Ham	2.0 2.5 3.5
Dairy products	Raw milk cheese	*Listeria monocytogenes* 1/2b (LIS.4.32)	Raw milk	
Seafood products	Whiting fillet	*Listeria monocytogenes* 4b (LIS.4.47)	Offcuts salmon	
Vegetable products	Grated carrot	*Listeria monocytogenes* 1/2c (LIS.4.35)	Chef sandwich salad	
Composite foods	Piemontese salad	*Listeria monocytogenes* 3a (LIS4.46)	Sandwich	
Environmental samples	Process water	*Listeria monocytogenes* (LIS.4.2)	Environment	

3.1.2.2 Calculation and interpretation

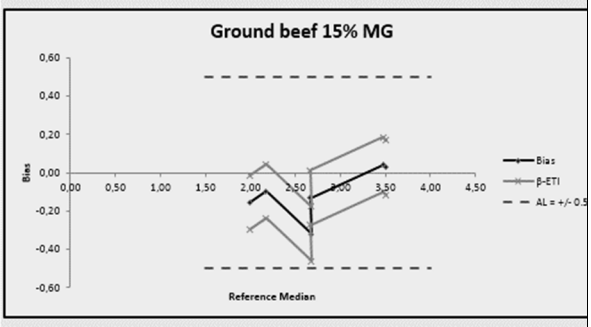
The raw data are provided in **Appendix 8**. The statistical results and the accuracy profiles are provided Figures 5 and 6.

The calculations were done using the AP Calculation Tool MCS (Clause 6-1-3-3 calculation and interpretation of accuracy profile study) ver 31-07-2018 available on http://standards.iso.org/iso/16140.

The accuracy profiles are comprised within the Acceptability Limits for all the tested matrices

Figure 5 – Accuracy profile - Enumeration after 22 h incubation time

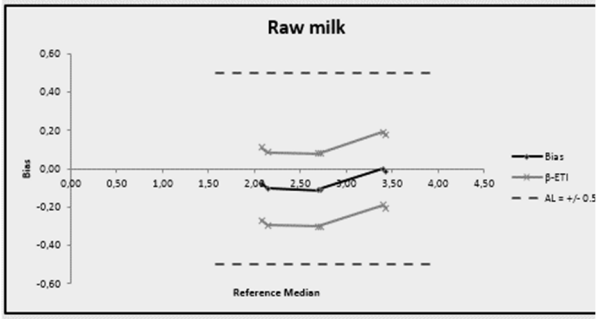
(Food) Category	Meat products
(Food) Type	Ground beef 15% MG



Sample Name	Reference central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,00	-0,155	-0,296	-0,013	YES	YES
L2T1	2,18	-0,097	-0,238	0,045	YES	YES
L1T2	2,68	-0,320	-0,461	-0,178	YES	YES
L2T2	2,66	-0,131	-0,273	0,010	YES	YES
L1T3	3,48	0,041	-0,100	0,183	YES	YES
L2T2	3,51	0,026	-0,115	0,168	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,080	0,098	YES	+/- 0,500

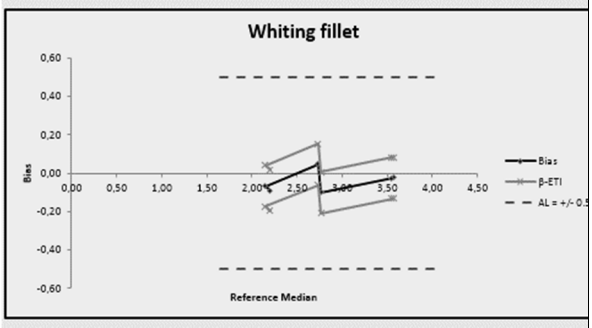
(Food) Category	Dairy products
(Food) Type	Raw milk



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,08	-0,079	-0,270	0,111	YES	YES
L2T1	2,15	-0,105	-0,295	0,086	YES	YES
L1T2	2,72	-0,111	-0,302	0,079	YES	YES
L2T2	2,69	-0,110	-0,301	0,080	YES	YES
L1T3	3,40	0,000	-0,191	0,191	YES	YES
L2T2	3,43	-0,016	-0,207	0,174	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,072	0,132	YES	+/- 0,500

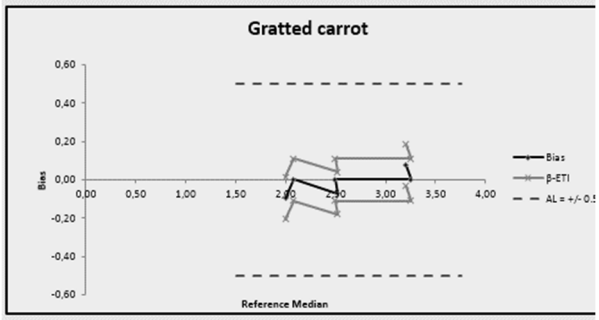
(Food) Category	Seafoods products
(Food) Type	Whiting fillet



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,20	-0,090	-0,197	0,017	YES	YES
L2T1	2,15	-0,067	-0,174	0,040	YES	YES
L1T2	2,73	0,046	-0,061	0,153	YES	YES
L2T2	2,76	-0,101	-0,207	0,006	YES	YES
L1T3	3,57	-0,024	-0,131	0,083	YES	YES
L2T2	3,54	-0,026	-0,132	0,081	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,220	0,074	NO	+/- 0,500

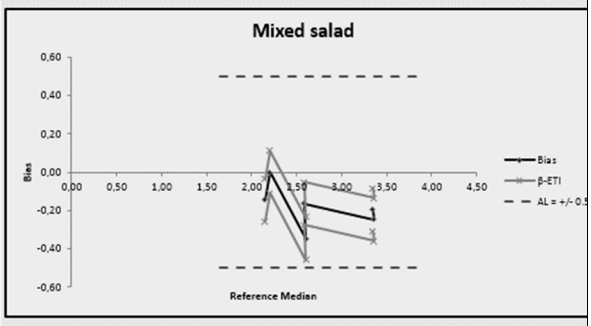
(Food) Category	Vegetal product
(Food) Type	Gratted carrot



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,00	-0,097	-0,207	0,013	YES	YES
L2T1	2,08	0,000	-0,110	0,110	YES	YES
L1T2	2,52	-0,071	-0,181	0,038	YES	YES
L2T2	2,49	0,000	-0,110	0,110	YES	YES
L1T3	3,26	0,000	-0,110	0,110	YES	YES
L2T2	3,20	0,075	-0,035	0,184	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,106	0,076	YES	+/- 0,500

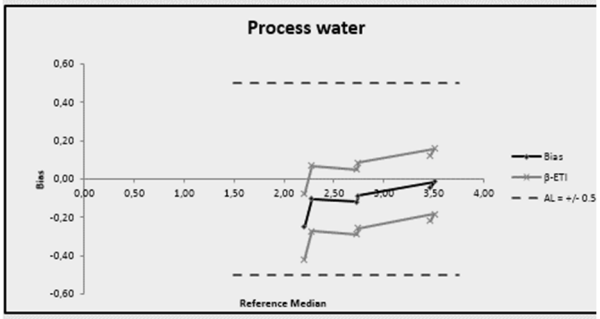
(Food) Category	Composite foods
(Food) Type	Mixed salad



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,15	-0,146	-0,257	-0,035	YES	YES
L2T1	2,20	0,000	-0,111	0,111	YES	YES
L1T2	2,60	-0,347	-0,458	-0,236	YES	YES
L2T2	2,58	-0,165	-0,276	-0,054	YES	YES
L1T3	3,36	-0,248	-0,359	-0,137	YES	YES
L2T2	3,34	-0,196	-0,307	-0,085	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,060	0,077	YES	+/- 0,500

(Food) Category	Environmental samples
(Food) Type	Process water

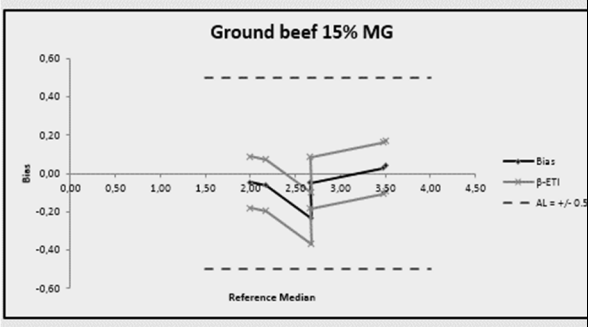


Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,20	-0,250	-0,420	-0,080	YES	YES
L2T1	2,28	-0,103	-0,273	0,068	YES	YES
L1T2	2,73	-0,120	-0,290	0,051	YES	YES
L2T2	2,74	-0,087	-0,257	0,083	YES	YES
L1T3	3,51	-0,014	-0,184	0,157	YES	YES
L2T2	3,46	-0,047	-0,218	0,123	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,064	0,118	YES	+/- 0,500

Figure 6 – Accuracy profile - Enumeration after 48 h incubation time

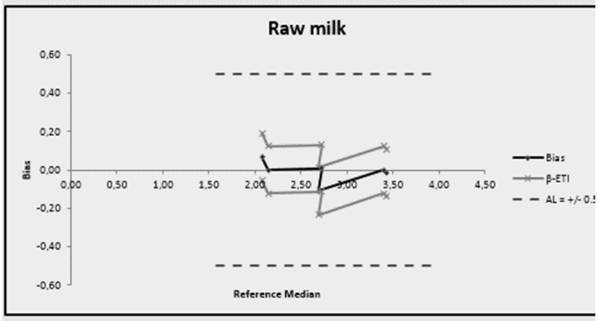
(Food) Category	Meat products
(Food) Type	Ground beef 15% MG



Sample Name	Reference central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,00	-0,046	-0,180	0,088	YES	YES
L2T1	2,18	-0,062	-0,196	0,072	YES	YES
L1T2	2,68	-0,234	-0,368	-0,100	YES	YES
L2T2	2,66	-0,050	-0,184	0,084	YES	YES
L1T3	3,48	0,028	-0,106	0,162	YES	YES
L2T2	3,51	0,039	-0,095	0,173	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,080	0,093	YES	+/- 0,500

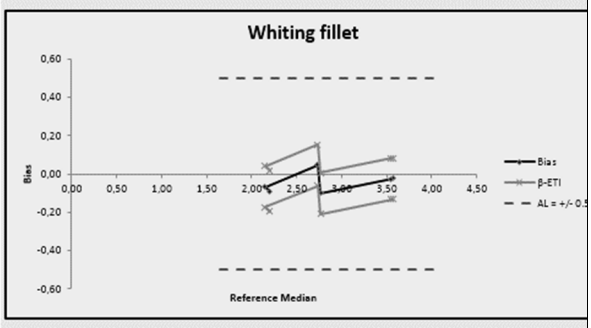
(Food) Category	Dairy products
(Food) Type	Raw milk



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,08	0,067	-0,056	0,190	YES	YES
L2T1	2,15	0,000	-0,123	0,123	YES	YES
L1T2	2,72	0,008	-0,115	0,131	YES	YES
L2T2	2,69	-0,110	-0,233	0,012	YES	YES
L1T3	3,40	0,000	-0,123	0,123	YES	YES
L2T2	3,43	-0,016	-0,139	0,106	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,072	0,085	YES	+/- 0,500

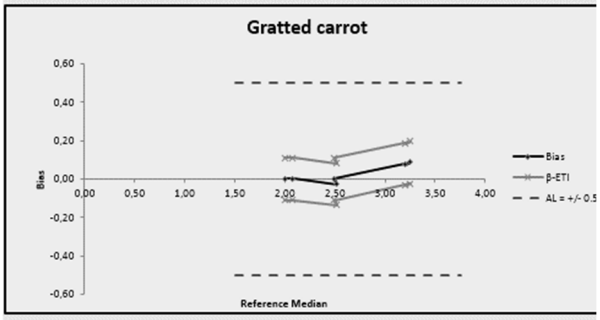
(Food) Category	Seafoods products
(Food) Type	Whiting fillet



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,20	-0,090	-0,197	0,017	YES	YES
L2T1	2,15	-0,067	-0,174	0,040	YES	YES
L1T2	2,73	0,046	-0,061	0,153	YES	YES
L2T2	2,76	-0,101	-0,207	0,006	YES	YES
L1T3	3,57	-0,024	-0,131	0,083	YES	YES
L2T2	3,54	-0,026	-0,132	0,081	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,220	0,074	NO	+/- 0,500

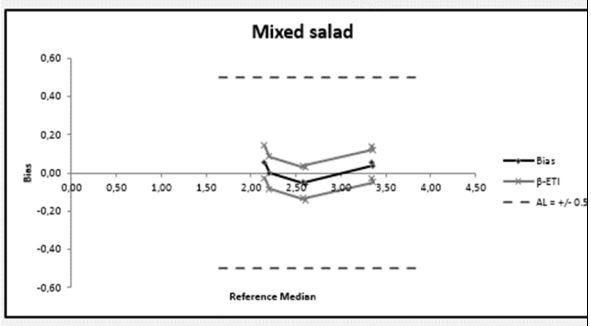
(Food) Category	Vegetal product
(Food) Type	Gratted carrot



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,00	0,000	-0,110	0,110	YES	YES
L2T1	2,08	0,000	-0,110	0,110	YES	YES
L1T2	2,52	-0,027	-0,137	0,083	YES	YES
L2T2	2,49	0,000	-0,110	0,110	YES	YES
L1T3	3,26	0,087	-0,023	0,197	YES	YES
L2T2	3,20	0,075	-0,035	0,184	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,106	0,076	YES	+/- 0,500

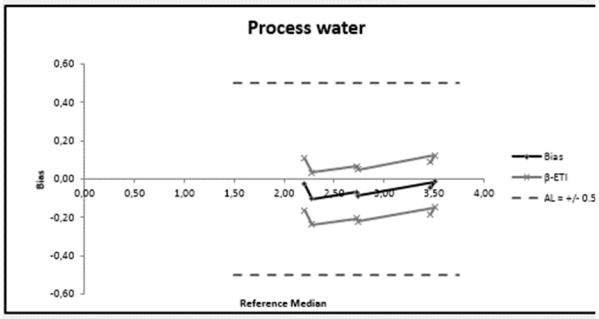
(Food) Category	Composite foods
(Food) Type	Mixed salad



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,15	0,058	-0,027	0,143	YES	YES
L2T1	2,20	0,000	-0,085	0,085	YES	YES
L1T2	2,60	-0,058	-0,143	0,027	YES	YES
L2T2	2,58	-0,048	-0,133	0,037	YES	YES
L1T3	3,36	0,036	-0,049	0,121	YES	YES
L2T2	3,34	0,056	-0,030	0,141	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,060	0,059	YES	+/- 0,500

(Food) Category	Environmental samples
(Food) Type	Process water



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
L1T1	2,20	-0,028	-0,164	0,108	YES	YES
L2T1	2,28	-0,103	-0,238	0,033	YES	YES
L1T2	2,73	-0,070	-0,205	0,066	YES	YES
L2T2	2,74	-0,087	-0,223	0,049	YES	YES
L1T3	3,51	-0,014	-0,149	0,122	YES	YES
L2T2	3,46	-0,047	-0,183	0,088	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0,064	0,094	YES	+/- 0,500

The lower and upper β.ETI are within the acceptability limits for all the matrix/strain pairs tested. The acceptability limits are fixed at + 0.5 log and - 0.5 log for all the matrices tested.

3.1.2.3 Conclusion

The observed profiles are comprised within the AL. All the accuracy profiles fulfil the performance criteria.

3.1.3 Inclusivity and exclusivity

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

3.1.3.1 Protocol

The specificity was verified during previous validation and extension studies. The following strains were tested in 2001 by IPL (initial validation study) with an incubation time of RAPID'*L.mono* for 48 h at 37°C.

- 184 strains of *Listeria monocytogenes*,
- 51 strains of *Listeria* spp. not belonging to *L. monocytogenes* species,
- 43 strains not belonging to *Listeria* genus.

3.1.3.2 Results

The raw data are provided in **Appendix 9.**

All *Listeria* spp. strains were able to grow and give the expected characteristics colonies (blue without halo for *Listeria monocytogenes*, blue with yellow halo for *Listeria ivanovii*, white for the other *Listeria*) on RAPID'*L.mono* plates after 48 h incubation time, except for one *Listeria monocytogenes* 3a strain which shown white atypical colonies.

All the strains not belonging to *Listeria* genus gave atypical white colonies even those which have been listed in the bibliography as having PIPLC activity: *Bacillus cereus*, *Clostridium perfringens* and *Staphylococcus aureus*.

3.1.3.3 Conclusion

The RAPID'*L.mono* method is specific and selective.

3.1.4 Extension for confirmation protocols

3.1.4.1 Extension for Rhamnose test for Listeria monocytogenes confirmation

An extension study was performed in 2008 by SERMHA for the use of the Rhamnose test to confirm the *Listeria monocytogenes* typical colonies isolated on the RAPID'*L.mono* plates.

150 strains of *Listeria monocytogenes* were isolated onto RAPID'*L.mono,* TSA or blood agar and 105 strains not belonging to *Listeria monocytogenes* species (52 *Listeria* spp. and 53 non-*Listeria* strains). The Rhamnose test was then applied on each colony and different incubation times were tested (4, 6, 16, 24, 48, 72 h) at 37°C.

The raw data are provided in **Appendix 10**.

The 150 *Listeria monocytogenes* strains gave positive results after 16 h incubation time of the Rhamnose test for:

- 64 % of the strains isolated from RAPID'*L.mono.*
- 95 % of the strains isolated from TSA.
- 91 % of the strains isolated from blood agar.

None of the 105 non-target strains tested gave typical colonies on RAPID'*L.mono* and a positive Rhamnose test.

3.1.4.2 Complementary tests for confirmation of typical colonies using PCR tests

In order to document the possibility to apply an iQ-Check PCR test directly from a typical colony of *L. monocytogenes* from RAPID'*L.mono* agar media in the technical specifications for this method, additional tests were made during the extension study performed in 2008.

All PCR tests were consistent with the expected results:

- positive for 150 strains of *L. monocytogenes* tested,
- negative for all 105 other strains, including strains of *L. ivanovii.*

3.1.5 Practicability

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

Storage conditions, shelf-life and modalities of utilisation after first use	Storage temperature, as indicated on the box, is + 2-8°C. Expiration: Details on boxes and on each petri dish and vial. -pre-poured Petri dishes: 4 months - vials: 1 year Supplements are to be used extemporaneously. Petri dishes poured in the laboratory are to use maximum one week after distribution of the complete medium. Between distribution and use, these Petri dishes are stored at + 2-8°C.		
Time to result	Steps	**Reference method**	**Alternative method**
	Negative samples		
	Initial suspension preparation	Day 0	Day 0
	Plating on selective agar media	Day 0	Day 0
	Negative result: - Without confirmation - With confirmation	Day 2 Day 4 to Day 7	Day 2
	Presumptive positive or positive results		
	Initial suspension preparation	Day 0	Day 0
	Plating on selective agar media	Day 0	Day 0
	Reading of the Petri dishes	Day 1 to Day 2	Day 1 to Day 2
	Isolation on TSAYE agar media	Day 1 to Day 2	Day 1 to Day 2
	Confirmations	Day 3 to Day 6	Day 1 to Day 2
	Positive result	Day 4 to Day 7	Day 1 (rhamnose test) to Day 7 (ISO tests)
Common step with the reference method	Realisation of the initial suspension and dilutions		

The negative results are available in 2 days and the positive results in 1 to 7 days depending on the confirmatory tests applied.

3.2 Inter-laboratory study organisation and results

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

The inter-laboratory study was carried out by SERMHA in 2005.

3.2.1 Study organisation

Two inter-laboratories studies were performed with the RAPID'*L.mono* method:

- During the initial validation study in 2001, where only the alternative method has been implemented. The results of this study have been interpreted according to ISO 5725 (1994),
- For the renewal study in 2005, performed according to the ISO 16040 (2003).

Only the study performed in 2005 is detailed in this report.

Pasteurized milk samples were inoculated with a strain of *Listeria monocytogenes* 1/2 b (L37).
15 collaborators were involved in the study.

Samples were inoculated individually. Each collaborator received 8 samples dispatched in 4 levels, with 2 samples per level.

3.2.2 *Experimental parameters controls*

3.2.2.1 *Contamination levels*

The contamination levels in the matrix, before shipping, are presented in the table below.

Table 10 - Contamination levels

Level	Samples	Target level (bacteria/mL)	True level (bacteria/mL)
Level 0	2 and 6	0	0
Level 1	4 and 8	100	86
Level 2	1 and 5	1 000	780
Level 3	3 and 7	10 000	7900

3.2.2.2 *Sample stability*

In order to evaluate the *Listeria monocytogenes* strain behaviour during transport, bacterial counts were done at different times, i.e. inoculation time, after 24 h and 48 h of storage at 2°C. Results are reported in Table 11.

Table 11 – *Listeria monocytogenes* enumeration count
(in CFU/ml)

	Level 1	Level 2	Level 3
Day0	86	780	7900
Day 1	105 55 150 60	730 730	8900
Day 2	50 100 120 110	1100 940	9900

No evolution was observed during storage for 48 h at 3°C ± 2°C.

3.2.3 *Logistic conditions*

The temperatures measured at reception by the Labs, the temperatures registered by the thermo-probe, and the receipt dates are given in Table 12.

Table 12 - Sample temperatures at receipt

Laboratories	Temperature measured by the probe (°C)	Temperature measured at receipt (°C)	Comments
A	7,2	6,4	/
B	6,7	5,5	/
C	4,3	4,7	/
D	2,2	0,2	/
E	7,7	12,0	/
F	3,7	6,0	/
G	6,2	7,0	/
H	14,6	9,2	Over 8°C for 5 hours
I	5,2	7,5	/
J	5,3	11,6	/
K	5,8	/	Samples received at D+2
L	12,8	*Not communicated*	Over 8°C for 4 hours
M	5,0	8,3	/
N	9,3	9,0	Over 8°C for less than 30 minutes
O	3,7	2,0	/

All laboratories performed the analyses, except laboratory K (reception after the deadline).
Laboratories H, L and N have received samples at temperatures above 8°C. Results from these laboratories, although presented in the appendix, have not been exploited statistically.

Finally, the results from 11 laboratory results were kept for statistical interpretation.

3.2.4 Result analysis

The raw data are given in **Appendix 11**.

3.2.4.1 *Results obtained by the expert Lab.*

The results obtained by the expert Lab. are the following (See Table 13).

Table 13 – Results obtained by the expert Lab.

Level	Reference method NF EN ISO 11290-2		Alternative method: RAPID'*L.mono*	
	R1	R2	R1	R2
L0	<10	<10	<10	<10
L1	110	60	60	150
L2	730	690	730	920
L3	9800	9900	11000	8900

3.2.4.2 *Results obtained by the collaborators*

The results of the 11 collaborators have been kept for interpretation, the results obtained for collaborators H, L and N are given only for information.

- ***Mesophilic aerobic microflora***

The mesophilic aerobic microflora was done on the matrix with ISO 4833 method. The results varied from >3,0.10^4 CFU/ml to 5,0.10^7 CFU/ml.

- ***Listeria monocytogenes enumeration***

A summary of the test results is given in Table 14 (CFU/ml).

Table 14 - Summary of data (CFU/ml)

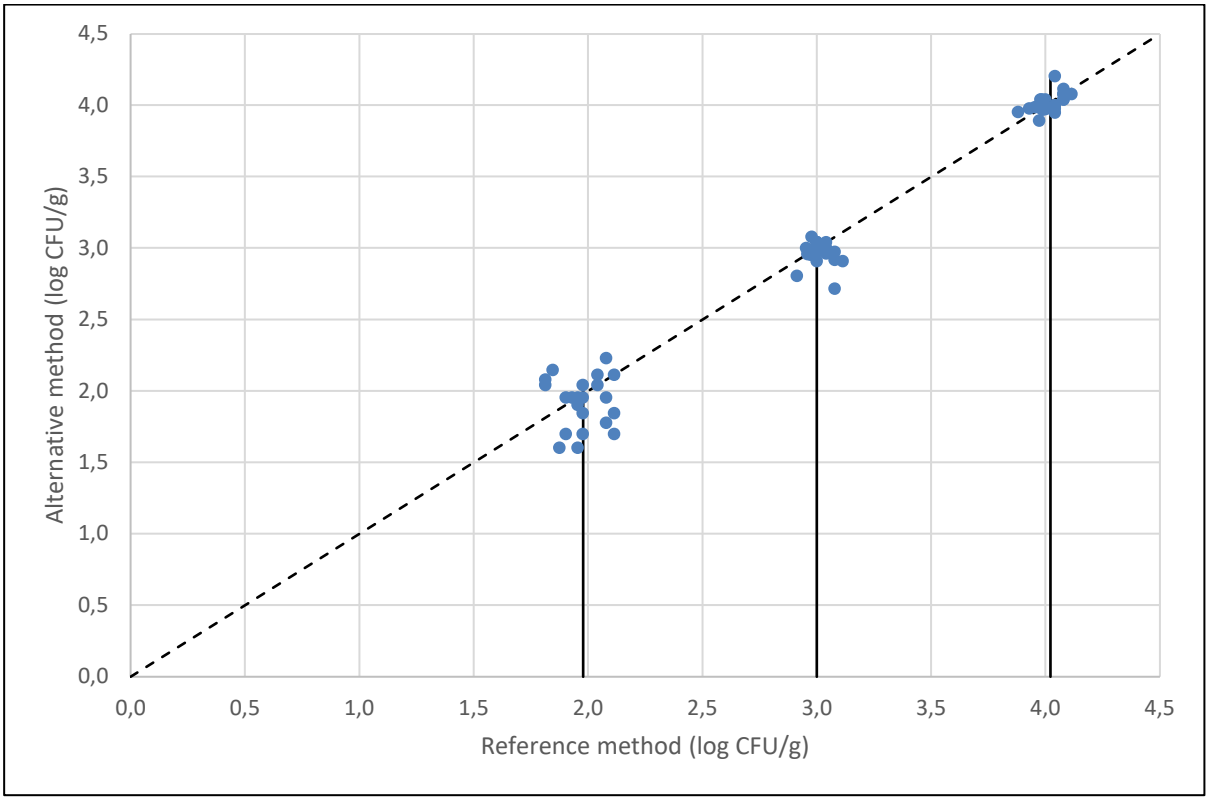
Labo-ratory	Level 1				Level 2				Level 3			
	Reference method		Alternative method		Reference method		Alternative method		Reference method		Alternative method	
	Duplicate1	*Duplicate 2*	*Duplicate 1*	*Duplicate 2*	*Duplicate 1*	*Duplicate 2*	*Duplicate 1*	*Duplicate 2*	*Duplicate 1*	*Duplicate 2*	*Duplicate 1*	*Duplicate 2*
A	120	75	60	40	1300	1200	810	520	9700	9700	9300	9900
B	95	85	70	90	1000	1100	940	950	9400	9000	7800	9700
C	90	80	80	50	1000	1000	1000	1100	10000	12000	11000	11000
D	90	120	90	170	1000	940	1000	900	11000	11000	9500	10000
E	90	130	40	70	930	1100	940	920	9600	10000	11000	9400
F	130	65	50	120	1000	1100	810	1000	11000	10000	8900	9500
G	95	110	90	130	910	900	910	1000	13000	12000	12000	13000
H	100	110	90	110	1100	1000	1200	1100	12000	9400	9400	9500
I	70	80	140	90	1000	1100	1100	980	12000	12000	11000	12000
J	120	110	90	110	950	1100	1200	1100	12000	9500	12000	11000
L	140	110	90	120	1000	1000	830	1300	15000	35000	26000	40000
M	95	130	110	130	1000	1200	1100	830	11000	11000	16000	10000
N	95	80	90	150	940	980	660	810	12000	13000	9500	10000
O	65	95	110	50	820	1200	640	940	7600	8500	9000	9500

3.2.5 Calculation and interpretation

3.2.5.1 Visual linearity checking

The Figure 7 shows the data points after $\log_{10}$ transformation. The visual inspection shows that the alternative method gives results, which are proportional to those of the reference method. The data are distributed closely to the first bisecting lines with a slope equal to 1.

Figure 7 - Visual linearity checking



3.2.5.2 Accuracy profile calculation

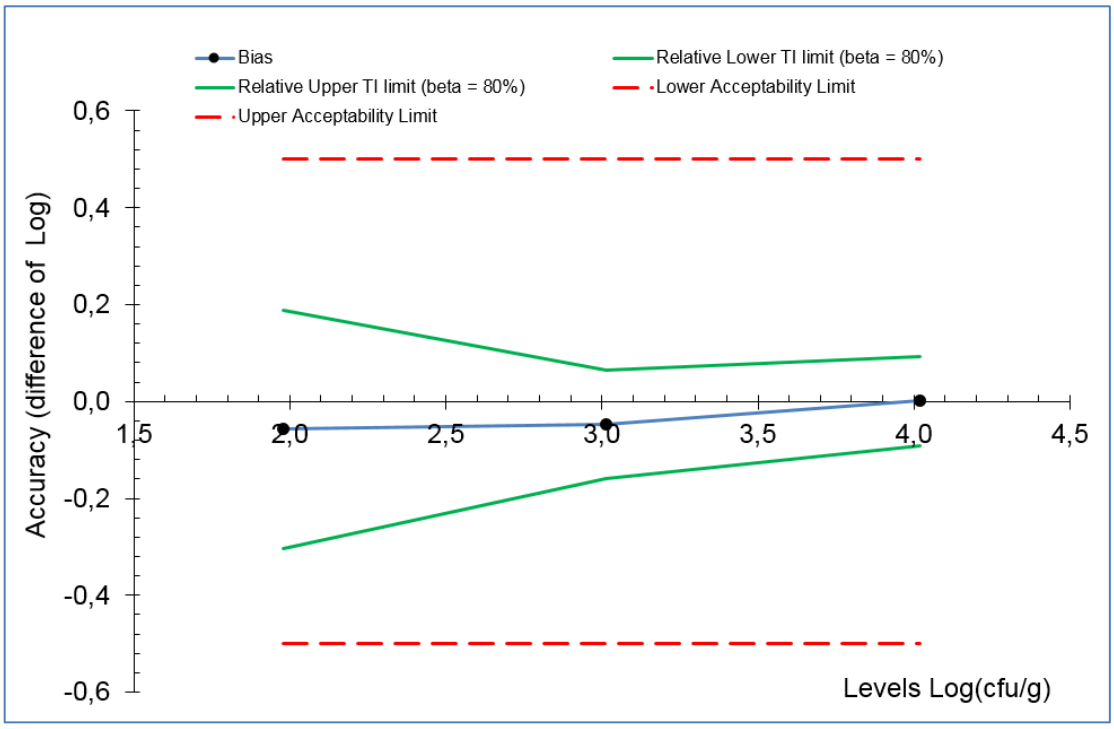
Statistical calculations were done according to the Excel spreadsheet available on http://standards.iso.org/ISO/16140. A summary of the statistical test is provided in Table 15.

Table 15 - Summary of statistical tests

Accuracy profile	0,5		
Study Name	Rapid'L.mono		
Date	2017		
Coordinator	ISHA		
Tolerance probability (beta)	80%	80%	80%
Acceptability limit in log (lambda)	0,50	0,50	0,50
	Alternative method		
Levels	**Low**	**Medium**	**High**
Target value	1,978	3,014	4,018
Number of participants (K)	11	11	11
Average for alternative method	1,921	2,967	4,019
Repeatability standard deviation (sr)	0,159	0,067	0,053
Between-labs standard deviation (sL)	0,086	0,047	0,042
Reproducibility standard deviation (sR)	0,181	0,082	0,067
Corrected number of dof	19,545	18,313	17,727
Coverage factor	1,363	1,369	1,372
Interpolated Student t	1,326	1,330	1,331
Tolerance interval standard deviation	0,1857	0,0842	0,0696
Lower TI limit	1,674	2,855	3,926
Upper TI limit	2,167	3,079	4,111
Bias	**-0,058**	**-0,047**	**0,001**
Relative Lower TI limit (beta = 80%)	**-0,304**	**-0,159**	**-0,091**
Relative Upper TI limit (beta = 80%)	**0,189**	**0,065**	**0,094**
Lower Acceptability Limit	**-0,50**	**-0,50**	**-0,50**
Upper Acceptability Limit	**0,50**	**0,50**	**0,50**

These values are collected in a graphical representation together with the acceptability limits (AL). This representation is given Figure 8.

Figure 8 - Accuracy profile



It is observed that for all the levels, the tolerance interval limits of the alternative method are within the acceptable limits of 0.5 log.

The results obtained with the alternative method are not statically different than those obtained with the reference method.

3.2.5.3 Conclusion

The alternative method is equivalent to the reference method.

3.3 General Conclusion

The observed data and interpretation confirm the performances of the alternative method:

- **134 samples were tested in the relative trueness study with an incubation time of 22 h at 37°C and 221 samples with an incubation time of 48 h which respectively gave 112 and 160 interpretable results by both reference and alternative methods,** which clearly satisfied the required criteria for quantitative method comparison per ISO 16140-2**;**
- **The observed profiles are comprised within the AL actually set at 0.5 Log CFU/g in the EN ISO 16140-2:2016.**

- **The inclusivity and exclusivity testing shows satisfying results.**

- **The quality assurance parameters were verified (i.e. inoculation homogeneity, targeted levels, strain stability, logistic conditions, analyses), confirming that the inter-laboratory study was conducted in appropriate conditions.**

- **The data interpretations were done according to the EN ISO 16140-2:2016. For the three contamination levels, the alternative method is accepted as equivalent to the reference method.**

Based on the results obtained for the method comparison study and the inter-laboratory study, the alternative method is considered equivalent to the reference method.

Quimper, 07 July 2021

Maryse RANNOU
Project Manager
Validation of Alternative methods
Food Safety & Quality

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

Appendix 1 – Flow diagram of the alternative method: RAPID'*L. mono* (Enumeration)

xg sample + 9 xg BPW

Optional: revivification step for 1 h ± 5 min at 20°C ± 2°C

↓

Stomach

↓

Spread 0.1 ml onto 1 plate of RAPID'*L.mono* Agar

(initial suspension and decimal dilutions)

For estimation of low contaminations, spread 1 ml of the initial suspension onto 2 or 3 plates (90 mm) or 1 plate (140 mm)

↓

Incubation for 24 h ± 2 h,

possibility to incubate until 48 h at 37°C ± 1°C

↓

Confirmation by:

- by the classical tests described in the methods standardised by CEN or ISO (including the purification stage);
- by use of nucleic probes as provided in standard NF EN ISO 7218 (with or without the purification stage);
- through implementation of the Rhamnose test;
- by using any other method certified AFNOR VALIDATION, with a principle different from the RAPID'*L.mono* method. The protocol validated by the second method should be respected as a whole, it means that all the steps prior to the intermediate step of which the confirmation starts must be common to both methods.

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

Test portion (x g or x ml)

↓

Diluent for the preparation of the initial suspension (9 x g or 9 x ml)

↓

Spread 0.1 ml onto 1 plate of Ottaviani and Agosti agar (initial suspension and decimal dilutions)

For estimation of low contaminations, spread 1 ml of the initial suspension onto 3 plates (90 mm) or 1 plate (140 mm)

↓

Incubation for 24 h ± 2 h and an additional 24 h ± 2 h at 37°C ± 1°C

↓

Enumeration of presumptive *Listeria monocytogenes*

↓

Confirmation

Target	Gram	Catalase	Beta haemolysis	CAMP test	Carbohydrates
Listeria monocytogenes	x	Optional	x	Optional	x

Appendix 3 – Artificial contaminations of samples

Category	Type	N° sample	Analysis date	Sample	Artificial contamination				
					Code	Strain	Origin	Injury protocol	Injury measurement (log UFC)
Meat products	m1	1029	2006	Flank beef steak	L10	*Listeria monocytogenes*	Rillettes	Spiking 45 min 55°C, 30 min -80°C	**ND**
	m1	18	ISHA 2017	Turkey filet in tournedos	LIS.4.27	*Listeria monocytogenes 1/2a*	Ground beef	Seeding 48h at 5°C	/
	m1	19	ISHA 2017	Pork chop	LIS.4.27	*Listeria monocytogenes 1/2a*	Ground beef	Seeding 48h at 5°C	/
	m1	20	ISHA 2017	Chicken cutlet	LIS.4.26	*Listeria monocytogenes 1/2a*	Ham	Seeding 48h at 5°C	/
	m1	21	ISHA 2017	Chicken	LIS.4.26	*Listeria monocytogenes 1/2a*	Ham	Seeding 48h at 5°C	/
	m2	22	ISHA 2017	Bœuf bourguignon	LIS.4.30	*Listeria monocytogenes 1/2b*	Rolled turkey raw	Seeding 48h at 5°C	/
	m2	23	ISHA 2017	Blanquette de veau	LIS.4.30	*Listeria monocytogenes 1/2b*	Rolled turkey raw	Seeding 48h at 5°C	/
	m2	24	ISHA 2017	Sauté de veau	LIS.4.30	*Listeria monocytogenes 1/2b*	Rolled turkey raw	Seeding 48h at 5°C	/
	m2	25	ISHA 2017	Blanquette de poulet	LIS.4.11	*Listeria monocytogenes 1/2a*	Chicken with curry	Seeding 48h at 5°C	/
	m2	26	ISHA 2017	Coq au vin	LIS.4.11	*Listeria monocytogenes 1/2a*	Chicken with curry	Seeding 48h at 5°C	/
	m2	27	ISHA 2017	Civet de lapin	LIS.4.11	*Listeria monocytogenes 1/2a*	Chicken with curry	Seeding 48h at 5°C	/
Dairy products	d1	28	ISHA 2017	Raw milk cheese: Gruyere	LIS.4.60	*Listeria monocytogenes*	Raw milk cheese	Seeding 48h at 5°C	/
	d1	29	ISHA 2017	Raw goat's milk cheese: Le villageois	LIS.4.60	*Listeria monocytogenes*	Raw milk cheese	Seeding 48h at 5°C	/
	d1	30	ISHA 2017	Raw goat's milk cheese: le chevrot	LIS.4.60	*Listeria monocytogenes*	Raw milk cheese	Seeding 48h at 5°C	/
	d1	31	ISHA 2017	Raw goat's milk cheese	LIS.4.32	*Listeria monocytogenes 1/2b*	Raw milk	Seeding 48h at 5°C	/
	d1	32	ISHA 2017	Raw milk sheep cheese	LIS.4.32	*Listeria monocytogenes 1/2b*	Raw milk	Seeding 48h at 5°C	/
	d1	33	ISHA 2017	Raw sheep milk cheese: Cœur cendré	LIS.4.32	*Listeria monocytogenes 1/2b*	Raw milk	Seeding 48h at 5°C	/
	d2	M1	2005	Raw milk	L37	Spiking 45 min 55°C, 45 min -18°C	Raw milk cheese	Spiking 45 min 55°C, 45 min -18°C	0,55
	d2	P4	2005	Raw milk	L37	Spiking 45 min 55°C, 45 min -18°C	Raw milk cheese	Spiking 45 min 55°C, 45 min -80°C	0,91
	d2	34	ISHA 2017	Raw milk butter	LIS.4.56	*Listeria monocytogenes*	Raw milk cheese	Seeding 48h at 5°C	/
	d2	35	ISHA 2017	Raw milk LC1 30/06	LIS.4.56	*Listeria monocytogenes*	Raw milk cheese	Seeding 48h at 5°C	/
	d2	36	ISHA 2017	Raw milk LC1 01/07	LIS.4.56	*Listeria monocytogenes*	Raw milk cheese	Seeding 48h at 5°C	/
	d2	37	ISHA 2017	Raw milk LC2 01/07	LIS.4.56	*Listeria monocytogenes*	Raw milk cheese	Seeding 48h at 5°C	/
	d3	E9	2005	Vanilla ice cream	L7	*Listeria monocytogenes*	Raw milk cheese	Spiking 45 min 55°C, 45 min -80°C	1,51
	d3	M2	2005	Cheese: Pont l'Evêques	L37	*Listeria monocytogenes*	Raw milk cheese	Spiking 45 min 55°C, 45 min -18°C	0,55
	d3	N4	2005	Vanilla ice cream	L18	*Listeria monocytogenes*	Raw milk cheese	Spiking 48 h -80°C, 45 min 55°C, 30 min -18 °C	0,42
	d3	O1	2005	Liege chocolate	L62	*Listeria monocytogenes*	Raw milk cheese	Spiking 48 h -80°C, 45 min 55°C, 30 min -18 °C	2,3
	d3	1030	2006	Cheese: Pont l'Evêques	L37	*Listeria monocytogenes*	Raw milk cheese	Spiking 45 min 55°C, 30 min -80°C	0,4
	d3	1033	2006	Goat cheese and spinach pie	L37	*Listeria monocytogenes*	Raw milk cheese	Spiking 45 min 55°C, 30 min -80°C	0,4
Seafood products	s1	E5	2005	Saithe fillet	L5	*Listeria monocytogenes*	Smoked salmon	Spiking 45 min 55°C, 45 min -18°C	0,35
	s1	N2	2005	Haddock fillet	L5	*Listeria monocytogenes*	Smoked salmon	Spiking 48 h -80°C, 45 min 55°C, 30 min -18 °C	0,42
	s1	44	ISHA 2017	Whiting fillet	LIS.4.15	*Listeria monocytogenes 1/2a*	Salmon tartare	Seeding 48h at 5°C	/
	s1	45	ISHA 2017	Cod	LIS.4.15	*Listeria monocytogenes 1/2a*	Salmon tartare	Seeding 48h at 5°C	/
	s1	46	ISHA 2017	Salmon	LIS.4.15	*Listeria monocytogenes 1/2a*	Salmon tartare	Seeding 48h at 5°C	/
	s2	E7	2005	Smoked salmon	L5	*Listeria monocytogenes*	Smoked salmon	Spiking 45 min 55°C, 45 min -18°C	0,35
	s2	47	ISHA 2017	Smoked salmon	LIS.4.12	*Listeria monocytogenes 1/2a*	Smoked salmon	Seeding 48h at 5°C	/
	s2	48	ISHA 2017	Smoked trout	LIS.4.12	*Listeria monocytogenes 1/2a*	Smoked salmon	Seeding 48h at 5°C	/
	s2	49	ISHA 2017	Smoked haddock	LIS.4.83	*Listeria monocytogenes*	Fish with lemon sauce and rice	Seeding 48h at 5°C	/
	s3	I1	2005	Salmon rillettes	L12	*Listeria monocytogenes*	Smoked salmon	Spiking 45 min 55°C, 80 min -80°C	1,56
	s3	I2	2005	Surimi	L12	*Listeria monocytogenes*	Smoked salmon	Spiking 45 min 55°C, 80 min -80°C	1,56
	s3	50	ISHA 2017	Salmon preparation for spreading	LIS.4.83	*Listeria monocytogenes*	Fish with lemon sauce and rice	Seeding 48h at 5°C	/

Category	Type	N° sample	Analysis date	Sample	Artificial contamination				
					Code	Strain	Origin	Injury protocol	Injury measurement (log UFC)
Vegetables	v1	Q2	2005	Salad	L47	*Listeria monocytogenes*	Roasted potatoes	Spiking 45 min 55°C, 30 min -80°C	0,61
	v1	Q4	2005	Frozen peas	L47	*Listeria monocytogenes*	Roasted potatoes	Spiking 45 min 55°C, 30 min -80°C	0,61
	v1	R2	2005	Frozen peas	L29	*Listeria monocytogenes*	Roasted potatoes	Spiking 45 min 55°C, 45 min -18°C	0,56
	v1	R4	2005	Salad	L29	*Listeria monocytogenes*	Roasted potatoes	Spiking 45 min 55°C, 45 min -18°C	0,56
	v1	1016	2006	Carrots	L58	*Listeria monocytogenes*	Salad	72 h 4°C, 45 min 55°C, 30 min -80 °C	0,6
	v1	1040	2006	Broccolis	L58	*Listeria monocytogenes*	Salad	Spiking 45 min 55°C, 30 min -80°C	0,9
	v1	1049	2006	Carrots	L47	*Listeria monocytogenes*	Salad	Spiking 45 min 55°C, 30 min -80°C	0,3
	v2	J3	2005	Sliced red cabbage	L58	*Listeria monocytogenes*	Salad	Spiking 45 min 55°C, 80 min -80°C	0,66
	v2	J4	2005	Mix vegetable	L58	*Listeria monocytogenes*	Salad	Spiking 45 min 55°C, 80 min -80°C	0,66
	v2	R1	2005	Frozen fries	L29	*Listeria monocytogenes*	Roasted potatoes	Spiking 45 min 55°C, 45 min -18°C	0,56
	v2	R3	2005	Frozen potatoes	L29	*Listeria monocytogenes*	Roasted potatoes	Spiking 45 min 55°C, 45 min -18°C	0,56
	v2	38	ISHA 2017	Sachet salads	LIS.4.17	*Listeria monocytogenes 1/2a*	Crudeness	Seeding 48h at 5°C	/
	v2	39	ISHA 2017	Sliced pepper	LIS.4.17	*Listeria monocytogenes 1/2a*	Crudeness	Seeding 48h at 5°C	/
	v2	40	ISHA 2017	Sliced mushroom	LIS.4.17	*Listeria monocytogenes 1/2a*	Crudeness	Seeding 48h at 5°C	/
	v3	E3	2005	Orange jus	L47	*Listeria monocytogenes*	Roasted potatoes	Spiking 45 min 55°C, 45 min -18°C	1,75
	v3	E4	2005	Grapefruit jus	L47	*Listeria monocytogenes*	Roasted potatoes	Spiking 45 min 55°C, 45 min -18°C	1,75
	v3	41	ISHA 2017	Peas recipe: "étuvé"	LIS.4.81	*Listeria monocytogenes*	Potatoes and grated carrot salad	Seeding 48h at 5°C	/
	V3	42	ISHA 2017	Apple compote	LIS.4.81	*Listeria monocytogenes*	Potatoes and grated carrot salad	Seeding 48h at 5°C	/
	V3	43	ISHA 2017	Celery in the grain mustard	LIS.4.81	*Listeria monocytogenes*	Potatoes and grated carrot salad	Seeding 48h at 5°C	/
RTE-RTRH	c1	1	ISHA 2017	Mix salad: "Piemontaise"	LIS.4.6	*Listeria monocytogenes 1/2a*	Sandwich with ham and Emmental	Seeding 48h at 5°C	/
	c1	2	ISHA 2017	Salad with surimi, pineapple, carrot	LIS.4.6	*Listeria monocytogenes 1/2a*	Sandwich with ham and Emmental	Seeding 48h at 5°C	/
	c1	3	ISHA 2017	Oriental tabbouleh	LIS.4.6	*Listeria monocytogenes 1/2a*	Sandwich with ham and Emmental	Seeding 48h at 5°C	/
	c1	4	ISHA 2017	Sandwich: tuna, vegetable	LIS.4.46	*Listeria monocytogenes 3a*	Goat cheese sandwich	Seeding 48h at 5°C	/
	c1	5	ISHA 2017	Sandwich: ham and butter	LIS.4.46	*Listeria monocytogenes 3a*	Goat cheese sandwich	Seeding 48h at 5°C	/
	c1	6	ISHA 2017	Sandwich with delicatessen	LIS.4.46	*Listeria monocytogenes 3a*	Goat cheese sandwich	Seeding 48h at 5°C	/
	c2	7	ISHA 2017	Puff pastry with cheese	LIS.4.86	*Listeria monocytogenes*	Lorraine quiche	Seeding 48h at 5°C	/
	c2	8	ISHA 2017	Fondant goat cheese and Emmenthal	LIS.4.86	*Listeria monocytogenes*	Lorraine quiche	Seeding 48h at 5°C	/
	c2	9	ISHA 2017	Fondant Roquefort, walnuts	LIS.4.86	*Listeria monocytogenes*	Lorraine quiche	Seeding 48h at 5°C	/
	c2	10	ISHA 2017	Tomato and mozzarella pie	LIS.4.91	*Listeria monocytogenes*	Ground beef sandwich	Seeding 48h at 5°C	/
	c2	11	ISHA 2017	Salmon and broccoli pie	LIS.4.91	*Listeria monocytogenes*	Ground beef sandwich	Seeding 48h at 5°C	/
	c2	12	ISHA 2017	Goat cheese and spinach pie	LIS.4.91	*Listeria monocytogenes*	Ground beef sandwich	Seeding 48h at 5°C	/
	c3	13	ISHA 2017	Strawberry tart	LIS.4.24	*Listeria monocytogenes 1/2a*	Dairy meal	Seeding 48h at 5°C	/
	c3	14	ISHA 2017	Apple tart	LIS.4.24	*Listeria monocytogenes 1/2a*	Dairy meal	Seeding 48h at 5°C	/
	c3	15	ISHA 2017	Apricot tart	LIS.4.88	*Listeria monocytogenes*	Chocolate cake	Seeding 48h at 5°C	/
	c3	16	ISHA 2017	Peach tart	LIS.4.88	*Listeria monocytogenes*	Chocolate cake	Seeding 48h at 5°C	/
	c3	17	ISHA 2017	Raspberry tart	LIS.4.88	*Listeria monocytogenes*	Chocolate cake	Seeding 48h at 5°C	/

Category	Type	N° sample	Analysis date	Sample	Artificial contamination				
					Code	Strain	Origin	Injury protocol	Injury measurement (log UFC)
Environmental samples	e1	1028	2006	Processed water cheese making	L152	*Listeria monocytogenes*	Environment	Spiking 45 min 55°C, 30 min -80°C	0,3
	e1	1045	2006	Processed water cheese making	L141	*Listeria monocytogenes*	Environment	Spiking 45 min 55°C, 30 min -80°C	1,0
	e1	1048	2006	Sewer water	L141	*Listeria monocytogenes*	Environment	Spiking 45 min 55°C, 30 min -80°C	1,0
	e1	K1	2005	Stagnant water: dirty containers	L28	*Listeria monocytogenes*	Environment	Spiking 45 min 55°C, 45 min -80°C	0,84
	e1	K2	2005	Stagnant water: fish container	L28	*Listeria monocytogenes*	Environment	Spiking 45 min 55°C, 45 min -80°C	0,84
	e1	51	ISHA 2017	Rinse water	LIS.4.2	*Listeria monocytogenes*	Environment	Seeding 48h at 5°C	/
	e1	52	ISHA 2017	Rinse water: potatoes	LIS.4.2	*Listeria monocytogenes*	Environment	Seeding 48h at 5°C	/
	e1	53	ISHA 2017	Rinse water: vegetables	LIS.4.2	*Listeria monocytogenes*	Environment	Seeding 48h at 5°C	/
	e1	54	ISHA 2017	Water cleaning station	LIS.4.2	*Listeria monocytogenes*	Environment	Seeding 48h at 5°C	/
	e2	O3	2005	Residue: farce on the floor	L13	*Listeria monocytogenes*	Pork ears	Spiking 48 h -80°C, 45 min 55°C, 30 min -18 °C	0,48
	e2	55	ISHA 2017	Dust: tower	LIS.4.57	*Listeria monocytogenes*	Filter of goat milk	Seeding 48h at 5°C	/
	e2	56	ISHA 2017	Dust: trap	LIS.4.57	*Listeria monocytogenes*	Filter of goat milk	Seeding 48h at 5°C	/
	e2	57	ISHA 2017	Dust: caisson	LIS.4.57	*Listeria monocytogenes*	Filter of goat milk	Seeding 48h at 5°C	/

Appendix 4 - Relative trueness study: raw data

ISHA's legend

PU:	Presence unquantifiable
EN:	Estimated number
NC:	naturally contaminated
CNC:	colony not characteristic
ND:	not determined
CC:	characteristic colony
	Results not kept for interpretation

MEAT PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2006	1004	Ground beef (NC)				2600	3,41					1300	3,11	1	m1
2006	1025	Breast of duck (NC)				600 EN	2,78					300 PU	2,48	1	m1
2006	1029	Flank beef steak				15000000	7,18					11000000	7,04	1	m1
2006	1036	Horse (NC)				48000	4,68					38000	4,58	1	m1
2006	1011	Pork (NC)				<10	<1					<10	<1	1	m1
2006	1013	Pork (NC)				5 PU	0,69					10 PU	1,00	1	m1
2006	1018	Horse flank steak (NC)				<10	<1					<10	<1	1	m1
2006	1024	Ground beef (NC)				<100	<2					<100	<2	1	m1
2006	1044	Quail legs (NC)				5000 PU	3,69					<10000	<4	1	m1
ISHA 2017	18	Turkey filet in tournedos	100 1000	58 7	+	5900	3,77	100 1000	69 8	+	+	7000	3,85	1	m1
ISHA 2017	19	Pork chop	100 1000	60 10	+	6400	3,81	100 1000	71 5	+	+	6900	3,84	1	m1
ISHA 2017	20	Chicken cutlet	10 100	141 17	+	1400	3,15	10 100	136 11	+	+	1300	3,11	1	m1
ISHA 2017	21	Chicken	10 100	150 23	+	1600	3,20	100 1000	15 2	+	+	1600	3,20	1	m1
2006	1012	Thinly sliced duck (NC)				91000	4,96					43000	4,63	1	m2
2006	1014	Poult (NC)				<10	<1					<10	<1	1	m2
ISHA 2017	22	Bœuf bourguignon	10 100	15 1	+	150	2,18	10 100	22 0	+	+	200	2,30	1	m2

MEAT PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
ISHA 2017	23	Blanquette de veau	10	16	+	160	2,20	10	16	+	+	160	2,20	1	m2
			100	1				100	2						
ISHA 2017	24	Sauté de veau	10	21	+	200	2,30	10	20	+	+	200	2,30	1	m2
			100	1				100	2						
ISHA 2017	25	Blanquette de poulet	10	35	+	350	2,54	10	22	+	+	210	2,32	1	m2
			100	3				100	2						
ISHA 2017	26	Coq au vin	10	28	+	290	2,46	10	15	+	+	140	2,15	1	m2
			100	4				100	0						
ISHA 2017	27	Civet de lapin	10	40	+	410	2,61	10	20	+	+	260	2,41	1	m2
			100	5				100	9						
2006	1035	Merguez (NC)				70000	4,85					56000	4,75	1	m3
2006	1023	Terrine (NC)				<100	<2					<100	<2	1	m3
ISHA 2018	RLM 1	Smoked bacon	10	51	+	490	2,69	10	39	+	+	390	2,59	1	m3
			100	3				100	4						
ISHA 2018	RLM 2	Smoked ham	10	142	+	1400	3,15	10	>150	+	+	1800	3,26	1	m3
			100	10				100	18						
ISHA 2018	RLM 3	Smoked bacon	10	61	+	620	2,79	10	23	+	+	250	2,40	1	m3
			100	8				100	5						
ISHA 2018	RLM 4	Smoked pork roti	10	91	+	880	2,94	10	102	+	+	990	3,00	1	m3
			100	6				100	7						
ISHA 2018	RLM 5	Thin slice of smoked bacon	10	54	+	530	2,72	10	38	+	+	390	2,59	1	m3
			100	4				100	5						

DAIRY PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
ISHA 2017	28	Raw milk cheese: Gruyere	10	113	+	1200	3,08	10	143	+	+	1500	3,18	2	d1
			100	14				100	18						
ISHA 2017	29	Raw goat's milk cheese: Le villageois	10	125	+	1200	3,08	10	115	+	+	1200	3,08	2	d1
			100	7				100	13						
ISHA 2017	30	Raw goat's milk cheese: le chevrot	10	77	+	820	2,91	10	107	+	+	1000	3,00	2	d1
			100	13				100	4						
ISHA 2017	31	Raw goat's milk cheese	10	23	+	230	2,36	10	16	+	+	160	2,20	2	d1
			100	2				100	1						
ISHA 2017	32	Raw milk sheep cheese	10	24	+	250	2,40	10	25	+	+	250	2,40	2	d1
			100	3				100	2						
ISHA 2017	33	Raw sheep milk cheese: Cœur cendré	10	20	+	210	2,32	10	19	+	+	180	2,26	2	d1
			100	3				100	1						
2006	1003	Raw milk (NC)				<10	<1					<10	<1	2	d2
ISHA 2017	34	Raw milk butter	10	110	+	1200	3,08	10	>150	+	+	1800	3,26	2	d2
			100	18				100	18						
ISHA 2017	35	Raw milk LC1 30/06	10	116	+	1200	3,08	10	84	+	+	890	2,95	2	d2
			100	15				100	14						
ISHA 2017	36	Raw milk LC1 01/07	10	86	+	890	2,95	10	89	+	+	880	2,94	2	d2
			100	12				100	7						
ISHA 2017	37	Raw milk LC2 01/07	10	109	+	1100	3,04	10	88	+	+	930	2,97	2	d2
			100	11				100	14						
ISHA 2018	RLM 6	Raw milk	10	74	+	740	2,87	10	84	+	+	850	2,93	2	d2
			100	7				100	9						
ISHA 2018	RLM 7	Raw milk butter	10	89	+	910	2,96	10	72	+	+	760	2,88	2	d2
			100	11				100	12						
2006	1010	Maroilles (NC)				<10	<1					<10	<1	2	d3

DAIRY PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2006	1020	Cheese paste (NC)				270	2,43					180	2,26	2	d3
2006	1021	Cheese paste (NC)				3200	3,51					3200	3,51	2	d3
2006	1022	Cheese paste (NC)				1000	3,00					850	2,93	2	d3
2006	1030	Cheese: Vieux Lille				4500000	6,65					3100000	6,49	2	d3
2006	1033	Goat cheese				440000	5,64					240000	5,38	2	d3
ISHA 2018	RLM 8	Milk UHT	10	101	+	1000	3,00	10	106	+	+	1000	3,00	2	d3
			100	9				100	8						
ISHA 2018	RLM 9	Cheese: Emmental	10	111	+	1100	3,04	10	104	+	+	1000	3,00	2	d3
			100	10				100	11						
ISHA 2018	RLM 10	Yogurt	10	56	+	570	2,76	10	57	+	+	570	2,76	2	d3
			100	7				100	6						

SEAFOOD PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
ISHA 2017	44	Whiting fillet	10	23	+	260	2,41	10	28	+	+	280	2,45	3	s1
			100	5				100	3						
ISHA 2017	45	Cod	10	40	+	400	2,60	10	15	+	+	180	2,26	3	s1
			100	4				100	5						
ISHA 2017	46	Salmon	10	30	+	320	2,51	10	13	+	+	140	2,15	3	s1
			100	5				100	2						
ISHA 2018	RLM 11	Salmon filet	10	28	+	290	2,46	10	19	+	+	200	2,30	3	s1
			100	4				100	3						
ISHA 2018	RLM 12	Hake filet	10	112	+	1100	3,04	10	>150	+	+	1200	3,08	3	s1
			100	9				100	12						
ISHA 2018	RLM 13	Cod filet	10	89	+	950	2,98	10	102	+	+	1000	3,00	3	s1
			1000	15				100	9						
2006	1019	Smoked salmon (NC)				51000	4,71					32000	4,51	3	s2
ISHA 2017	47	Smoked salmon	10	26	+	250	2,40	10	27	+	+	280	2,45	3	s2
			100	1				100	4						
ISHA 2017	48	Smoked trout	10	30	+	300	2,48	10	37	+	+	360	2,56	3	s2
			100	3				100	2						
ISHA 2017	49	Smoked haddock	10	30	+	280	2,45	10	23	+	+	140	2,15	3	s2
			100	1				100	3						
ISHA 2018	RLM 14	Smoked salmon	10	35	+	310	2,49	10	42	+	+	420	2,62	3	s2
			100	6				100	4						
ISHA 2018	RLM 15	Smoked trout	10	35	+	340	2,53	10	35	+	+	330	2,52	3	s2
			100	2				100	1						
2006	1037	Smoked salmon (NC)				<100	<2					<100	<2	3	s2
2006	1043	Smoked salmon (NC)				<10	<1					<10	<1	3	s2
2006	1031	Cod acras (NC)				>15000	>4,18					>15000	>4,18	3	s3
2006	1038	Cod acras (NC)				<100	<2					<100	<2	3	s3

SEAFOOD PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2006	1047	Cod acras (NC)				1300	3,11					1200	3,08	3	s3
ISHA 2017	50	Salmon preparation for spreading	10	25	+	260	2,41	10	31	+	+	320	2,51	3	s3
			100	3				100	4						
ISHA 2018	RLM 16	salmon rillettes	10	110	+	1100	3,04	10	97	+	+	1000	3,00	3	s3
			100	8				100	12						
ISHA 2018	RLM 17	Tarama	10	49	+	510	2,71	10	54	+	+	540	2,73	3	s3
			100	7				100	5						
ISHA 2018	RLM 18	Tuna rillettes	10	97	+	990	3,00	10	103	+	+	1000	3,00	3	s3
			100	12				100	8						
ISHA 2018	RLM 19	Surimi	10	50	+	520	2,72	10	58	+	+	560	2,75	3	s3
			100	7				100	3						

VEGETABLE PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2006	1007	Spinach (NC)				<10	<1					<10	<1	4	v1
2006	1009	Peas (NC)				65000	4,81					38000	4,58	4	v1
2006	1015	Spinach				>150000	>5,18					120000	5,08	4	v1
2006	1016	Carrot				2900000	6,46					1900000	6,28	4	v1
2006	1027	Cauliflower (NC)				610000	5,79					370000	5,57	4	v1
2006	1040	Broccoli				350	2,54					260	2,41	4	v1
2006	1049	Carrot				1400	3,15					1400	3,15	4	v1
2006	1039	Fruits salad				5 PU	0,65					22 EN	1,34	4	v2
ISHA 2017	38	Sachet salads	10	26	+	260	2,41	10	14	+	+	160	2,20	4	v2
			100	2				100	3						
ISHA 2017	39	Sliced pepper	10	22	+	230	2,36	10	4	+	+	60 EN	1,78	4	v2
			100	3				100	3						
ISHA 2017	40	Sliced mushroom	10	27	+	270	2,43	10	9	+	+	90 EN	1,95	4	v2
			100	3				100	1						
ISHA 2018	RLM 20	Seasoned cut cucumber	10	102	+	1000	3,00	10	78	+	+	750	2,88	4	v2
			100	8				100	5						
ISHA 2018	RLM 21	Seasoned grated carrot	10	136	+	1300	3,11	10	122	+	+	1200	3,08	4	v2
			100	9				100	11						
ISHA 2018	RLM 22	Seasoned grated red cabbage	10	50	+	520	2,72	10	57	+	+	570	2,76	4	v2
			100	7				100	6						
ISHA 2017	41	Peas recipe: "étuvé"	10	51	+	530	2,72	10	31	+	+	310	2,49	4	v3
			100	7				100	3						
ISHA 2017	42	Apple compote	10	45	+	440	2,64	10	18	+	+	210	2,32	4	v3
			100	3				100	5						

VEGETABLE PRODUCTS																
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
ISHA 2017	43	Celery in the grain mustard	10	32	+	350	2,54	10	24	+	+	260	2,41	4	v3
			100	6				100	4						
ISHA 2018	RLM 22	Corn	10	51	+	520	2,72	10	52	+	+	540	2,73	4	v3
			100	6				100	7						
ISHA 2018	RLM 23	Cooked flageolet	10	26	+	270	2,43	10	37	+	+	390	2,59	4	v3
			100	4				100	6						
ISHA 2018	RLM 24	Cooked kidney bean	10	63	+	650	2,81	10	87	+	+	890	2,95	4	v3
			100	9				100	11						

COMPOSITE FOODS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2006	1026	Tagliatelle (NC)				330000	5,52					140000	5,15	5	c1
ISHA 2017	1	Mix salad: "Piemontaise"	100 1000	29 1	+	2700	3,43	100 1000	28 3	+	+	2800	3,45	5	c1
ISHA 2017	2	Salad with: surimi, pineapple, carrot	100 1000	33 1	+	3100	3,49	100 1000	31 1	+	+	2900	3,46	5	c1
ISHA 2017	3	Oriental tabbouleh	100 1000	23 4	+	2500	3,40	100 1000	23 4	+	+	2500	3,40	5	c1
ISHA 2017	4	Sandwich: tuna, vegetable	10 100	41 3	+	400	2,60	10 100	31 4	+	+	320	2,51	5	c1
ISHA 2017	5	Sandwich: ham and butter	10 100	34 2	+	330	2,52	10 100	29 3	+	+	290	2,46	5	c1
ISHA 2017	6	Sandwich with delicatessen	10 100	41 4	+	410	2,61	10 100	28 3	+	+	280	2,45	5	c1
2006	1017	Country-style "Poelée" (NC)				<10	<1					<10	<1	5	c2
ISHA 2017	7	Puff pastry with cheese	100 1000	30 2	+	2900	3,46	10 100	>150 30	+	+	3000	3,48	5	c2
ISHA 2017	8	Fondant goat cheese and Emmental	100 1000	21 2	+	2100	3,32	10 100	140 20	+	+	1500	3,18	5	c2
ISHA 2017	9	Fondant Roquefort, walnuts	100 1000	24 2	+	2400	3,38	10 100	135 29	+	+	1500	3,18	5	c2
ISHA 2017	10	Tomato and mozzarella pie	10 100	35 4	+	360	2,56	10 100	15 5	+	+	180	2,26	5	c2
ISHA 2017	11	Salmon and broccoli pie	10 100	34 3	+	340	2,53	10 100	16 3	+	+	170	2,23	5	c2
ISHA 2017	12	Goat cheese and spinach pie	10 100	35 5	+	360	2,56	10 100	22 2	+	+	220	2,34	5	c2

COMPOSITE FOODS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
ISHA 2017	13	Strawberry tart	100	16	+	1500	3,18	10	62	+	+	800	2,90	5	c3
			1000	1				100	26						
ISHA 2017	14	Apple tart	10	>150	+	2900	3,46	10	123	+	+	1300	3,11	5	c3
			100	29				100	23						
ISHA 2017	15	Apricot tart	10	29	+	300	2,48	10	19	+	+	200	2,30	5	c3
			100	4				100	3						
ISHA 2017	16	Peach tart	10	33	+	330	2,52	10	13	+	+	130	2,11	5	c3
			100	3				100	1						
ISHA 2017	17	Raspberry tart	10	27	+	280	2,45	10	13	+	+	160	2,20	5	c3
			100	4				100	4						

ENVIRONMENTAL SAMPLES															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2006	1005	Upstream stone trap water (NC)				5 PU	0,69					10 PU	1,00	6	e1
2006	1006	Overflow water of vegetables rinse (NC)				<10	<1					<10	<1	6	e1
2006	1028	Processed water cheese making				2000	3,30					1500	3,18	6	e1
2006	1041	Processed water				50000 PU	4,70					<100000	<5	6	e1
2006	1042	Processed water				<10	<1					<10	<1	6	e1
2006	1045	Processed water cheese making				2300000	6,36					1300000	6,11	6	e1
2006	1048	Sewer water				43000	4,63					67000	4,83	6	e1
ISHA 2017	51	Rinse water	100	26	+	2600	3,41	100	25	+	+	2500	3,40	6	e1
			1000	3				1000	2						
ISHA 2017	52	Rinse water: potatoes	100	23	+	2300	3,36	100	28	+	+	2600	3,41	6	e1
			1000	2				1000	1						
ISHA 2017	53	Rinse water: vegetables	100	32	+	3000	3,48	100	19	+	+	1700	3,23	6	e1
			1000	1				1000	0						
ISHA 2017	54	Water cleaning station	100	29	+	2700	3,43	100	22	+	+	2100	3,32	6	e1
			1000	1				1000	1						
ISHA 2017	55	Dust: tower	100	28	+	2900	3,46	100	33	+	+	3200	3,51	6	e2
			1000	4				1000	2						

ENVIRONMENTAL SAMPLES															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	22 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
ISHA 2017	56	Dust: trap	100	37	+	3600	3,56	100	36	+	+	3500	3,54	6	e2
			1000	3				1000	2						
ISHA 2017	57	Dust: caisson	100	33	+	3500	3,54	100	32	+	+	3200	3,51	6	e2
			1000	5				1000	3						
ISHA 2018	RLM 25	Dust 1	10	87	+	860	2,93	10	49	+	+	530	2,72	6	e2
			100	8				100	9						
ISHA 2018	RLM 26	Dust 2	10	59	+	590	2,77	10	64	+	+	650	2,81	6	e2
			100	6				100	7						
ISHA 2018	RLM 27	Dust 3	10	120	+	1190	3,08	10	124	+	+	1200	3,08	6	e2
			100	11				100	9						
2006	1001	Sponge before cleaning and disinfection thread line (NC)				3200	3,51					3100	3,49	6	e3
2006	1002	Sponge Salmon (NC)				8900000	6,95					5600000	6,75	6	e3
ISHA 2018	RLM 28	Swab: cutting surface	10	18	+	170	2,23	10	23	+	+	230	2,36	6	e3
			100	1				100	2						
ISHA 2018	RLM 29	Swab: fridge	10	27	+	270	2,43	10	19	+	+	200	2,30	6	e3
			100	3				100	3						
ISHA 2018	RLM 30	Swab: cutting knife	10	22	+	240	2,38	10	28	+	+	280	2,45	6	e3
			100	4				100	3						
ISHA 2018	RLM 31	Swab: wall cutting room	10	17	+	180	2,26	10	15	+	+	160	2,20	6	e3
			100	3				100	2						

MEAT PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2005	H6	Beef (NC)				65	1,81					90	1,95	1	m1
2005	K3	Ground beef (NC)				590	2,77					330	2,52	1	m1
2005	H2	Beef				<10	<1					<10	<1	1	m1
2005	H5	Pork				<10	<1					<10	<1	1	m1
2005	G5	Ground beef				<10	<1					<10	<1	1	m1
2006	1004	Ground beef (NC)				2600	3,41					2500	3,40	1	m1
2006	1025	Breast of duck (NC)				600 EN	2,78					300 PU	2,48	1	m1
2006	1029	Flank beef steak (NC)				15000000	7,18					11000000	7,04	1	m1
2006	1036	Horse (NC)				48000	4,68					38000	4,58	1	m1
2006	1011	Pork (NC)				<10	<1					<10	<1	1	m1
2006	1013	Pork (NC)				5 PU	0,69					10 PU	1,00	1	m1
2006	1018	Horse flank steak (NC)				<10	<1					<10	<1	1	m1
2006	1024	Ground beef (NC)				<100	<2					<100	<2	1	m1
2006	1044	Quail legs (NC)				5000 PU	3,69					<10000	<4	1	m1
ISHA 2017	18	Turkey filet in tournedos	100 1000	58 7	+	5900	3,77	100 1000	70 8	+	+	7100	3,85	1	m1
ISHA 2017	19	Pork chop	100 1000	60 10	+	6400	3,81	100 1000	71 5	+	+	6900	3,84	1	m1

MEAT PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
ISHA 2017	20	Chicken cutlet	10	141	+	1400	3,15	10	136	+	+	1300	3,11	1	m1
			100	17				100	12						
ISHA 2017	21	Chicken	10	150	+	1600	3,20	100	15	+	+	1600	3,20	1	m1
			100	23				1000	2						
2006	1012	Thinly sliced duck (NC)				91000	4,96					43000	4,63	1	m2
2006	1014	Poult (NC)				<10	<1					<10	<1	1	m2
ISHA 2017	22	Bœuf bourguignon	10	15	+	150	2,18	10	22	+	+	200	2,30	1	m2
			100	1				100	0						
ISHA 2017	23	Blanquette de veau	10	16	+	160	2,20	10	16	+	+	160	2,20	1	m2
			100	1				100	2						
ISHA 2017	24	Sauté de veau	10	21	+	200	2,30	10	21	+	+	210	2,32	1	m2
			100	1				100	2						
ISHA 2017	25	Blanquette de poulet	10	35	+	350	2,54	10	28	+	+	280	2,45	1	m2
			100	3				100	3						
ISHA 2017	26	Coq au vin	10	28	+	290	2,46	10	27	+	+	250	2,40	1	m2
			100	4				100	0						
ISHA 2017	27	Civet de lapin	10	40	+	410	2,61	10	24	+	+	300	2,48	1	m2
			100	5				100	9						
2005	A1	Foie gras (NC)				2000000	6,30					2300000	6,36	1	m3
2005	A2	Strasbourg sausage (NC)				>15000000	>7,18					>15000000	>7,18	1	m3
2005	B1	Strasbourg sausage (NC)				470000	5,67					360000	5,56	1	m3
2005	B2	Foie gras (NC)				80	1,90					30	1,48	1	m3
2005	B3	Sausage: knacki (NC)				>15000000	>7,18					>15000000	>7,18	1	m3
2005	C1	Strasbourg sausage				<10	<1					<10	<1	1	m3

MEAT PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2005	C2	Strasbourg sausage				<10	<1					<10	<1	1	m3
2005	C3	Sausage: knacki (NC)				500000000	8,70					350000000	8,54	1	m3
2005	C4	Foie gras (NC)				2700	3,43					2500	3,40	1	m3
2005	D3	Sausage				<10	<1					<10	<1	1	m3
2005	F1	Merguez				<10	<1					<10	<1	1	m3
2005	F2	Sausage (NC)				220	2,34					320	2,51	1	m3
2005	F3	Chipolatas				<10	<1					<10	<1	1	m3
2005	H4	Pork belly				<10	<1					<10	<1	1	m3
2005	G8	Sausage				<10	<1					<10	<1	1	m3
2006	1035	Merguez (NC)				70000	4,85					56000	4,75	1	m3
2006	1023	Terrine (NC)				<100	<2					<100	<2	1	m3
ISHA 2018	RLM 1	Smoked bacon	10	51	+	490	2,69	10	41	+	+	420	2,62	1	m3
			100	3				100	5						
ISHA 2018	RLM 2	Smoked ham	10	142	+	1400	3,15	10	>150	+	+	1900	3,28	1	m3
			100	10				100	19						
ISHA 2018	RLM 3	Smoked bacon	10	61	+	620	2,79	10	31	+	+	340	2,53	1	m3
			100	8				100	6						
ISHA 2018	RLM 4	Smoked pork roti	10	91	+	880	2,94	10	104	+	+	1000	3,00	1	m3
			100	6				100	7						
ISHA 2018	RLM 5	Thin slice of smoked bacon	10	54	+	530	2,72	10	38	+	+	390	2,59	1	m3
			100	4				100	5						

DAIRY PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2005	L4	Raw milk cheese				<10	<1					<10	<1	2	d1
ISHA 2017	28	Raw milk cheese: Gruyere	10	113	+	1200	3,08	10	145	+	+	1500	3,18	2	d1
			100	14				100	18						
ISHA 2017	29	Raw goat's milk cheese: Le Villageois	10	125	+	1200	3,08	10	119	+	+	1200	3,08	2	d1
			100	7				100	13						
ISHA 2017	30	Raw goat's milk cheese: le chevrot	10	77	+	820	2,91	10	112	+	+	1100	3,04	2	d1
			100	13				100	8						
ISHA 2017	31	Raw goat's milk cheese	10	23	+	230	2,36	10	25	+	+	250	2,40	2	d1
			100	2				100	2						
ISHA 2017	32	Raw milk sheep cheese	10	24	+	250	2,40	10	27	+	+	260	2,41	2	d1
			100	3				100	2						
ISHA 2017	33	Raw sheep milk cheese: Cœur cendré	10	20	+	210	2,32	10	23	+	+	220	2,34	2	d1
			100	3				100	1						
2005	M1	Raw milk				140000	5,15					120000	5,08	2	d2
2005	O4	Raw milk				<10	<1					<10	<1	2	d2
2005	P4	Raw milk				90	1,95					50	1,70	2	d2
2006	1003	Raw milk (NC)				<10	<1					<10	<1	2	d2
ISHA 2017	34	Raw milk butter	10	110	+	1200	3,08	10	>150	+	+	2000	3,30	2	d2
			100	18				100	20						
ISHA 2017	35	Raw milk LC1 30/06	10	116	+	1200	3,08	10	112	+	+	1200	3,08	2	d2
			100	15				100	16						
ISHA 2017	36	Raw milk LC1 01/07	10	86	+	890	2,95	10	107	+	+	1100	3,04	2	d2
			100	12				100	10						
ISHA 2017	37	Raw milk LC2 01/07	10	109	+	1100	3,04	10	106	+	+	1100	3,04	2	d2
			100	11				100	15						
ISHA 2018	RLM 6	Raw milk	10	74	+	740	2,87	10	89	+	+	890	2,95	2	d2
			100	7				100	9						

DAIRY PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
ISHA 2018	RLM 7	Raw milk butter	10 100	89 11	+	910	2,96	10 100	75 13	+	+	800	2,90	2	d2
2005	E9	Vanilla ice cream				8400	3,92					3800	3,58	2	d3
2005	F5	Cheese: Maroilles (NC)				45	1,65					140	2,15	2	d3
2005	K5	Cheese: Maroilles				30 PU	1,48 PU					10 PU	1,00 PU	2	d3
2005	M2	Cheese: Pont l'Evêques				92000	4,96					96000	4,98	2	d3
2005	N4	Vanilla ice cream				30 PU	1,48 PU					10 PU	1,00 PU	2	d3
2005	O1	Liege chocolate				1400	3,15					1200	3,08	2	d3
2005	S2	Cheese: Maroilles				<10	<1					<10	<1	2	d3
2005	S3	Cheese: tomme				<10	<1					<10	<1	2	d3
2005	T1	Cheese: camembert (NC)				9900	4,00					11000	4,04	2	d3
2005	T2	Cheese: epoisses (NC)				120	2,08					100	2,00	2	d3
2006	1010	Maroilles				<10	<1					<10	<1	2	d3
2006	1020	Cheese paste (NC)				270	2,43					180	2,26	2	d3
2006	1021	Cheese paste (NC)				3200	3,51					3200	3,51	2	d3
2006	1022	Cheese paste (NC)				1000	3,00					850	2,93	2	d3

DAIRY PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2006	1030	Cheese: Vieux Lille				4500000	6,65					3100000	6,49	2	d3
2006	1033	Goat cheese				440000	5,64					290000	5,46	2	d3
ISHA 2018	RLM 8	Milk UHT	10	101	+	1000	3,00	10	111	+	+	1100	3,04	2	d3
			100	9				100	9						
ISHA 2018	RLM 9	Cheese: Emmental	10	111	+	1100	3,04	10	105	+	+	1050	3,02	2	d3
			100	10				100	11						
ISHA 2018	RLM 10	Yogurt	10	56	+	570	2,76	10	59	+	+	600	2,78	2	d3
			100	7				100	7						

SEAFOOD PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono* 48h						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution							
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2005	E5	Saithe fillet				1700	3,23					791	2,90	3	s1
2005	E6	Scabbardfish fillet				3000	3,48					2000	3,30	3	s1
2005	J1	Herring fillet				<10	<1					<10	<1	3	s1
2005	J2	Herring fillet				<10	<1					<10	<1	3	s1
2005	N2	Haddock fillet				2400	3,38					2100	3,32	3	s1
2005	O2	Salmon				<10	<1					<10	<1	3	s1
ISHA 2017	44	Whiting fillet	10	23	+	260	2,41	10	30	+	+	310	2,49	3	s1
			100	5				100	4						
ISHA 2017	45	Cod	10	40	+	400	2,60	10	22	+	+	250	2,40	3	s1
			100	4				100	5						
ISHA 2017	46	Salmon	10	30	+	320	2,51	10	15	+	+	160	2,20	3	s1
			100	5				100	2						
ISHA 2018	RLM 11	Salmon filet	10	28	+	290	2,46	10	19	+	+	200	2,30	3	s1
			100	4				100	3						
ISHA 2018	RLM 12	Hake filet	10	112	+	1100	3,04	10	>150	+	+	1200	3,08	3	s1
			100	9				100	12						
ISHA 2018	RLM 13	Cod filet	10	89	+	950	2,98	10	102	+	+	1000	3,00	3	s1
			1000	15				1000	9						
2005	E7	Smoked salmon				35000	4,54					40000	4,60	3	s2
2005	E8	Smoked trout (NC)				12000	4,08					11000	4,04	3	s2
2005	F4	Smoked trout				<10	<1					<10	<1	3	s2
2005	H1	Smoked salmon				<10	<1					<10	<1	3	s2

SEAFOOD PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono* 48h						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution							
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2005	G1	Salmon tartare				<10	<1					<10	<1	3	s2
2006	1019	Smoked salmon (NC)				51000	4,71					32000	4,51	3	s2
2006	1037	Smoked salmon (NC)				<100	<2					<100	<2	3	s2
2006	1043	Smoked salmon (NC)				<10	<1					<10	<1	3	s2
ISHA 2017	47	Smoked salmon	10 100	26 1	+	250	2,40	10 100	27 4	+	+	280	2,45	3	s2
ISHA 2017	48	Smoked trout	10 100	30 3	+	300	2,48	10 100	37 2	+	+	360	2,56	3	s2
ISHA 2017	49	Smoked haddock	10 100	30 1	+	280	2,45	10 100	23 3	+	+	240	2,38	3	s2
ISHA 2018	RLM 14	Smoked salmon	10 100	35 6	+	310	2,49	10 100	42 4	+	+	420	2,62	3	s2
ISHA 2018	RLM 15	Smoked trout	10 100	35 2	+	340	2,53	10 100	35 1	+	+	330	2,52	3	s2
2005	G6	Roast salmon , Walnuts St Jacques (NC)				4500	3,65					3500	3,54	3	s3
2005	G7	Fish recipe basquaise				>150000	>5,8					>150000	>5,8	3	s3
2005	G9	Fish recipe basquaise (NC)				3600000	6,56					2800000	6,45	3	s3
2005	I1	Salmon rillettes				740000	5,87					490000	5,69	3	s3
2005	I2	Surimi				1600	3,20					1200	3,08	3	s3
2006	1031	Cod acras (NC)				>15000	>4,18					>15000	>4,18	3	s3
2006	1038	Cod acras (NC)				<100	<2					<100	<2	3	s3

SEAFOOD PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2006	1047	Cod acras (NC)				1300	3,11					1200	3,08	3	s3
ISHA 2017	50	Salmon preparation for spreading	25		+	260	2,41	10	31	+	+	320	2,51	3	s3
			100	3				100	4						
ISHA 2018	RLM 16	salmon rillettes	10	110	+	1100	3,04	10	97	+	+	1000	3,00	3	s3
			100	8				100	12						
ISHA 2018	RLM 17	Tarama	10	49	+	510	2,71	10	54	+	+	540	2,73	3	s3
			100	7				100	5						
ISHA 2018	RLM 18	Tuna rillettes	10	97	+	990	3,00	10	103	+	+	1000	3,00	3	s3
			100	12				100	8						
ISHA 2018	RLM 19	Surimi	10	50	+	520	2,72	10	58	+	+	560	2,75	3	s3
			100	7				100	3						

VEGETABLE PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2005	N5	Frozen broccolis (NC)				560	2,75					410	2,61	4	v1
2005	P2	Salad				<10	<1					<10	<1	4	v1
2005	P3	Frozen peas				<10	<1					<10	<1	4	v1
2005	Q2	Salad				570	2,76					520	2,72	4	v1
2005	Q4	Frozen peas				650	2,81					440	2,64	4	v1
2005	R2	Frozen peas				460	2,66					550	2,74	4	v1
2005	R4	Salad				37000	4,57					33000	4,52	4	v1
2006	1007	Spinach (NC)				<10	<1					<10	<1	4	v1
2006	1009	Peas (NC)				65000	4,81					38000	4,58	4	v1
2006	1015	Spinach (NC)				>150000	>5,18					120000	5,08	4	v1
2006	1016	Carrot (NC)				2900000	6,46					2400000	6,38	4	v1
2006	1027	Cauliflower (NC)				610000	5,79					370000	5,57	4	v1
2006	1040	Broccolis (NC)				450	2,65					260	2,41	4	v1
2006	1049	Carrot (NC)				1400	3,15					1400	3,15	4	v1
2005	E1	Frozen fries (NC)				5000	3,70					<1000	<3	4	v2

VEGETABLE PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono* 48h						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution							
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2005	I4	Rustic poelée				<10	<1					<10	<1	4	v2
2005	J3	Sliced red cabbage				210000	5,32					250000	5,40	4	v2
2005	J4	Mix vegetable				46000	4,66					42000	4,62	4	v2
2005	N3	Frozen fries				<10	<1					<10	<1	4	v2
2005	P1	Frozen fries				<10	<1					<10	<1	4	v2
2005	Q3	Frozen fries				<10	<1					<10	<1	4	v2
2005	R1	Frozen fries				210	2,32					130	2,11	4	v2
2005	R3	Frozen potatoes				4900	3,69					3800	3,58	4	v2
2005	Q1	Frozen potatoes				<10	<1					<10	<1	4	v2
ISHA 2017	38	Sachet salads	10	26	+	260	2,41	10	18	+	+	190	2,28	4	v2
			100	2				100	3						
ISHA 2017	39	Sliced pepper	10	22	+	230	2,36	10	16	+	+	170	2,23	4	v2
			100	3				100	3						
ISHA 2017	40	Sliced mushroom	10	27	+	270	2,43	10	16	+	+	160	2,20	4	v2
			100	3				100	1						
2006	1039	Fruits salad (NC)				5 PU	0,65					22 EN	1,34	4	v2
ISHA 2018	RLM 20	Seasoned cut cucumber	10	102	+	1000	3,00	10	78	+	+	750	2,88	4	v2
			100	8				100	5						
ISHA 2018	RLM 21	Seasoned grated carrot	10	136	+	1300	3,11	10	122	+	+	1200	3,08	4	v2
			100	9				100	11						

VEGETABLE PRODUCTS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
ISHA 2018	RLM 22	Seasoned grated red cabbage	10	50	+	520	2,72	10	57	+	+	570	2,76	4	v2
			100	7				100	6						
2005	E3	Orange jus				21000	4,32					18000	4,26	4	v3
2005	E4	Grapefruit jus				30000	4,48					16000	4,20	4	v3
ISHA 2017	41	Peas recipe: "étuvé"	10	51	+	530	2,72	10	38	+	+	370	2,57	4	v3
			100	7				100	3						
ISHA 2017	42	Apple compote	10	45	+	440	2,64	10	35	+	+	370	2,57	4	V3
			100	3				100	6						
ISHA 2017	43	Celery in the grain mustard	10	32	+	350	2,54	10	30	+	+	310	2,49	4	V3
			100	6				100	4						
ISHA 2018	RLM 22	Corn	10	51	+	520	2,72	100	54	+	+	550	2,74	4	v3
			100	6				1000	7						
ISHA 2018	RLM 23	Cooked flageolet	10	26	+	270	2,43	100	38	+	+	400	2,60	4	v3
			100	4				1000	6						
ISHA 2018	RLM 24	Cooked kidney bean	10	63	+	650	2,81	100	87	+	+	890	2,95	4	v3
			100	9				1000	11						

COMPOSITE FOODS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2006	1026	Tagliatelle (NC)				330000	5,52					150000	5,18	5	c1
ISHA 2017	1	Mix salad: "Piemontaise"	100	29	+	2700	3,43	100	28	+	+	2800	3,45	5	c1
			1000	1				1000	3						
ISHA 2017	2	Salad with surimi, pineapple, carrot	100	33	+	3100	3,49	100	31	+	+	2900	3,46	5	c1
			1000	1				1000	1						
ISHA 2017	3	Oriental tabbouleh	100	23	+	2500	3,40	100	23	+	+	2500	3,40	5	c1
			1000	4				1000	4						
ISHA 2017	4	Sandwich: tuna, vegetable	10	41	+	400	2,60	10	31	+	+	320	2,51	5	c1
			100	3				100	4						
ISHA 2017	5	Sandwich: ham and butter	10	34	+	330	2,52	10	29	+	+	290	2,46	5	c1
			100	2				100	3						
ISHA 2017	6	Sandwich with delicatessen	10	41	+	410	2,61	10	28	+	+	280	2,45	5	c1
			100	4				100	3						
2005	I5	Beef and potatoes				<10	<1					<10	<1	5	c2
2005	L1	Rice and vegetable (NC)				78000	4,89					58000	4,76	5	c2
2006	1017	Country-style "Poelée"				<10	<1					<10	<1	5	c2
ISHA 2017	7	Puff pastry with cheese	100	30	+	2900	3,46	10	>150	+	+	3000	3,48	5	c2
			1000	2				100	30						
ISHA 2017	8	Fondant goat cheese and Emmenthal	100	21	+	2100	3,32	10	140	+	+	1500	3,18	5	c2
			1000	2				100	20						
ISHA 2017	9	Fondant Roquefort, walnuts	100	24	+	2400	3,38	10	135	+	+	1500	3,18	5	c2
			1000	2				100	29						
ISHA 2017	10	Tomato and mozzarella pie	10	35	+	360	2,56	10	15	+	+	180	2,26	5	c2
			100	4				100	5						
ISHA 2017	11	Salmon and broccoli pie	10	34	+	340	2,53	10	24	+	+	250	2,40	5	c2
			100	3				100	3						
ISHA 2017	12	Goat cheese and spinach pie	10	35	+	360	2,56	10	26	+	+	260	2,41	5	c2
			100	5				100	2						

COMPOSITE FOODS															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2005	L2	Choux whipped cream (NC)				1200	3,08					1300	3,11	5	c3
2005	F7	Short pastry				<10	<1					<10	<1	5	c3
ISHA 2017	13	Strawberry tart	100	16	+	1500	3,18	10	106	+	+	1200	3,08	5	c3
			1000	1				100	26						
ISHA 2017	14	Apple tart	10	>150	+	2900	3,46	10	139	+	+	1500	3,18	5	c3
			100	29				100	26						
ISHA 2017	15	Apricot tart	10	29	+	300	2,48	10	22	+	+	240	2,38	5	c3
			100	4				100	4						
ISHA 2017	16	Peach tart	10	33	+	330	2,52	10	18	+	+	170	2,23	5	c3
			100	3				100	1						
ISHA 2017	17	Raspberry tart	10	27	+	280	2,45	10	15	+	+	170	2,23	5	c3
			100	4				100	4						

ENVIRONMNENTAL SAMPLES															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2005	G2	Water: evacuation, room: spice				5000	3,70					<10000	<4	6	e1
2005	G3	Residual water Steriflow				<1000	<3					<1000	<3	6	e1
2005	G4	Residual water: inner chamber Stériflow				25	1,40					<10	<1	6	e1
2005	K1	Stagnant water: dirty containers				8000	3,90					4100	3,61	6	e1
2005	K2	Stagnant water: fish container				10000	4,00					9000	3,95	6	e1
2006	1005	Upstream stone trap water (NC)				5 PU	0,69					10 PU	1,00	6	e1
2006	1006	Overflow water of vegetables rinse (NC)				<10	<1					<10	<1	6	e1
2006	1028	Processed water cheese making (NC)				2000	3,30					1500	3,18	6	e1
2006	1041	Processed water (NC)				50000 PU	4,70					<100000	<5	6	e1
2006	1042	Processed water (NC)				<10	<1					<10	<1	6	e1
2006	1045	Processed water cheese making (NC)				2300000	6,36					1300000	6,11	6	e1
2006	1048	Sewer water (NC)				43000	4,63					67000	4,83	6	e1
ISHA 2017	51	Rinse water	100 1000	26 3	+	2600	3,41	100 1000	25 2	+	+	2500	3,40	6	e1
ISHA 2017	52	Rinse water: potatoes	100 1000	23 2	+	2300	3,36	100 1000	28 1	+	+	2600	3,41	6	e1

ENVIRONMNENTAL SAMPLES															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
ISHA 2017	53	Rinse water: vegetables	100	32	+	3000	3,48	100	19	+	+	1700	3,23	6	e1
			1000	1				1000	0						
ISHA 2017	54	Water cleaning station	100	29	+	2700	3,43	100	22	+	+	2100	3,32	6	e1
			1000	1				1000	1						
2005	O3	Residue: farce on the floor				320	2,51					110	2,04	6	e2
2005	R5	Pig bone sawdust				1100	3,04					1000	3,00	6	e2
2005	S4	Residues of cheese				<10	<1					<10	<1	6	e2
2005	T3	Residues of cheese				230	2,36					190	2,28	6	e2
ISHA 2017	55	Dust: tower	100	28	+	2900	3,46	100	33	+	+	3200	3,51	6	e2
			1000	4				1000	2						
ISHA 2017	56	Dust: trap	100	37	+	3600	3,56	100	36	+	+	3500	3,54	6	e2
			1000	3				1000	2						
ISHA 2017	57	Dust: caisson	100	33	+	3500	3,54	100	32	+	+	3200	3,51	6	e2
			1000	5				1000	3						
ISHA 2018	RLM 25	Dust 1	10	87	+	860	2,93	10	49	+	+	530	2,72	6	e2
			100	8				100	9						
ISHA 2018	RLM 26	Dust 2	10	59	+	590	2,77	10	64	+	+	650	2,81	6	e2
			100	6				100	7						
ISHA 2018	RLM 27	Dust 3	10	120	+	1190	3,08	10	124	+	+	1200	3,08	6	e2
			100	11				100	9						
2005	M3	Sponge: surface of cutting plant				58000	4,76					51000	4,71	6	e3
2005	M4	Sponge: surface of cheese kiosk				22000	4,34					13000	4,11	6	e3
2005	M5	Sponge: surface cheese fabrication				40000	4,60					19000	4,28	6	e3
2005	N1	Sponge: surface cheese dairy				1600	3,20					1400	3,15	6	e3

ENVIRONMNENTAL SAMPLES															
Analysis date	N° sample	Sample	Reference method: NF ISO 11290-2					Alternative method : RAPID'*L.mono*						Category	Type
			Dilution	CFU/ plate			Log (CFU/g or mL)	Dilution	48 h						
				CFU/plate	Conf.	CFU/g			CFU/plate	Conf. 1	Conf. 2	CFU/g	log (CFU/g)		
2005	S1	Swab				220000	5,34					160000	5,20	6	e3
2006	1001	Sponge before cleaning and disinfection thread line (NC)				3200	3,51					3100	3,49	6	e3
2006	1002	Sponge Salmon (NC)				8900000	6,95					5600000	6,75	6	e3
ISHA 2018	RLM 28	Swab: cutting surface	10	18	+	170	2,23	10	25	+	+	260	2,41	6	e3
			100	1				100	3						
ISHA 2018	RLM 29	Swab: fridge	10	27	+	270	2,43	10	21	+	+	230	2,36	6	e3
			100	3				100	4						
ISHA 2018	RLM 30	Swab: cutting knife	10	22	+	240	2,38	10	28	+	+	280	2,45	6	e3
			100	4				100	3						
ISHA 2018	RLM 31	Swab: wall cutting room	10	17	+	180	2,26	10	16	+	+	160	2,20	6	e3
			100	3				100	2						

Appendix 5 - Relative trueness study: interpretable samples

RAPID'L.mono - Enumeration after 22 h incubation time

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		22h	
					log RM	log AM 22h	Mean	Difference
Meat products	m1	1004	2006	Ground beef (NC)	3,41	3,11	3,264	-0,301
	m1	1029	2006	Flank beef steak	7,18	7,04	7,109	-0,135
	m1	1036	2006	Horse (NC)	4,68	4,58	4,631	-0,101
	m1	18	ISHA 2017	Turkey filet in tournedos	3,77	3,85	3,808	0,074
	m1	19	ISHA 2017	Pork chop	3,81	3,84	3,823	0,033
	m1	20	ISHA 2017	Chicken cutlet	3,15	3,11	3,130	-0,032
	m1	21	ISHA 2017	Chicken	3,20	3,20	3,204	0,000
	m2	1012	2006	Thinly sliced duck (NC)	4,96	4,63	4,796	-0,326
	m2	22	ISHA 2017	Bœuf bourguignon	2,18	2,30	2,239	0,125
	m2	23	ISHA 2017	Blanquette de veau	2,20	2,20	2,204	0,000
	m2	24	ISHA 2017	Sauté de veau	2,30	2,30	2,301	0,000
	m2	25	ISHA 2017	Blanquette de poulet	2,54	2,32	2,433	-0,222
	m2	26	ISHA 2017	Coq au vin	2,46	2,15	2,304	-0,316
	m2	27	ISHA 2017	Civet de lapin	2,61	2,41	2,514	-0,198
	m3	1035	2006	Merguez (NC)	4,85	4,75	4,797	-0,097
	m3	RLM 1	ISHA 2018	Smoked bacon	2,69	2,59	2,641	-0,099
	m3	RLM 2	ISHA 2018	Smoked ham	3,15	3,26	3,201	0,109
	m3	RLM 3	ISHA 2018	Smoked bacon	2,79	2,40	2,595	-0,394
	m3	RLM 4	ISHA 2018	Smoked pork roti	2,94	3,00	2,970	0,051
	m3	RLM 5	ISHA 2018	Thin slice of smoked bacon	2,72	2,59	2,658	-0,133
Average category:							**22h**	-0,10
Standard deviation of the category:							**22h**	0,15

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		22h	
					log RM	log AM 22h	Mean	Difference
Dairy products	d1	28	ISHA 2017	Raw milk cheese: Gruyere	3,08	3,18	3,128	0,097
	d1	29	ISHA 2017	Raw goat's milk cheese: Le Villageois	3,08	3,08	3,079	0,000
	d1	30	ISHA 2017	Raw goat's milk cheese: le Chevrot	2,91	3,00	2,957	0,086
	d1	31	ISHA 2017	Raw goat's milk cheese	2,36	2,20	2,283	-0,158
	d1	32	ISHA 2017	Raw milk sheep cheese	2,40	2,40	2,398	0,000
	d1	33	ISHA 2017	Raw sheep milk cheese: Cœur cendré	2,32	2,26	2,289	-0,067
	d2	34	ISHA 2017	Raw milk butter	3,08	3,26	3,167	0,176
	d2	35	ISHA 2017	Raw milk LC1 30/06	3,08	2,95	3,014	-0,130
	d2	36	ISHA 2017	Raw milk LC1 01/07	2,95	2,94	2,947	-0,005
	d2	37	ISHA 2017	Raw milk LC2 01/07	3,04	2,97	3,005	-0,073
	d2	RLM 6	ISHA 2018	Raw milk	2,87	2,93	2,899	0,060
	d2	RLM 7	ISHA 2018	Raw milk butter	2,96	2,88	2,920	-0,078
	d3	1020	2006	Cheese paste (NC)	2,43	2,26	2,343	-0,176
	d3	1021	2006	Cheese paste (NC)	3,51	3,51	3,505	0,000
	d3	1022	2006	Cheese paste (NC)	3,00	2,93	2,965	-0,071
	d3	1030	2006	Cheese: Vieux Lille	6,65	6,49	6,572	-0,162
	d3	1033	2006	Goat cheese	5,64	5,38	5,512	-0,263
	d3	RLM 8	ISHA 2018	Milk UHT	3,00	3,00	3,000	0,000
	d3	RLM 9	ISHA 2018	Cheese: Emmental	3,04	3,00	3,021	-0,041
	d3	RLM 10	ISHA 2018	Yogurt	2,76	2,76	2,756	0,000
Average category:							**22h**	-0,04
Standard deviation of the category:							**22h**	0,11

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		22h	
					log RM	log AM 22h	Mean	Difference
Seafood products	s1	44	ISHA 2017	Whiting fillet	2,41	2,45	2,431	0,032
	s1	45	ISHA 2017	Cod	2,60	2,26	2,429	-0,347
	s1	46	ISHA 2017	Salmon	2,51	2,15	2,326	-0,359
	s1	RLM 11	ISHA 2018	Salmon filet	2,46	2,30	2,382	-0,161
	s1	RLM 12	ISHA 2018	Hake filet	3,04	3,08	3,060	0,038
	s1	RLM 13	ISHA 2018	Cod filet	2,98	3,00	2,989	0,022
	s2	1019	2006	Smoked salmon (NC)	4,71	4,51	4,606	-0,202
	s2	47	ISHA 2017	Smoked salmon	2,40	2,45	2,423	0,049
	s2	48	ISHA 2017	Smoked trout	2,48	2,56	2,517	0,079
	s2	49	ISHA 2017	Smoked haddock	2,45	2,15	2,297	-0,301
	s2	RLM 14	ISHA 2018	Smoked salmon	2,49	2,62	2,557	0,132
	s2	RLM 15	ISHA 2018	Smoked trout	2,53	2,52	2,525	-0,013
	s3	1047	2006	Cod acras (NC)	3,11	3,08	3,097	-0,035
	s3	50	ISHA 2017	Salmon preparation for spreading	2,41	2,51	2,460	0,090
	s3	RLM 16	ISHA 2018	salmon rillettes	3,04	3,00	3,021	-0,041
	s3	RLM 17	ISHA 2018	Tarama	2,71	2,73	2,720	0,025
	s3	RLM 18	ISHA 2018	Tuna rilletes	3,00	3,00	2,998	0,004
	s3	RLM 19	ISHA 2018	Surimi	2,72	2,75	2,732	0,032
Average category:							**22h**	-0,05
Standard deviation of the category:							**22h**	0,15

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		22h	
					log RM	log AM 22h	Mean	Difference
Vegetal products	v1	1009	2006	Peas (NC)	4,81	4,58	4,696	-0,233
	v1	1016	2006	Carrot	6,46	6,28	6,371	-0,184
	v1	1027	2006	Cauliflower (NC)	5,79	5,57	5,677	-0,217
	v1	1040	2006	Broccoli	2,54	2,41	2,480	-0,129
	v1	1049	2006	Carrot	3,15	3,15	3,146	0,000
	v2	38	ISHA 2017	Sachet salads	2,41	2,20	2,310	-0,211
	v2	39	ISHA 2017	Sliced pepper	2,36	1,78	2,070	-0,584
	v2	40	ISHA 2017	Sliced mushroom	2,43	1,95	2,193	-0,477
	v2	RLM 20	ISHA 2018	Seasoned cut cucumber	3,00	2,88	2,938	-0,125
	v2	RLM 21	ISHA 2018	Seasoned grated carrot	3,11	3,08	3,097	-0,035
	v2	RLM 22	ISHA 2018	Seasoned grated red cabbage	2,72	2,76	2,736	0,040
	v3	41	ISHA 2017	Peas recipe: "étuvé"	2,72	2,49	2,608	-0,233
	v3	42	ISHA 2017	Apple compote	2,64	2,32	2,483	-0,321
	v3	43	ISHA 2017	Celery in the grain mustard	2,54	2,41	2,480	-0,129
	v3	RLM 22	ISHA 2018	Corn	2,72	2,73	2,724	0,016
	v3	RLM 23	ISHA 2018	Cooked flageolet	2,43	2,59	2,511	0,160
	v3	RLM 24	ISHA 2018	Cooked kidney bean	2,81	2,95	2,881	0,136
						Average category:	**22h**	-0,15
						Standard deviation of the category:	**22h**	0,20

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		22h	
					log RM	log AM 22h	Mean	Difference
Composite food	c1	1026	2006	Tagliatelle (NC)	5,52	5,15	5,332	-0,372
	c1	1	ISHA 2017	Mix salad: "Piemontaise"	3,43	3,45	3,439	0,016
	c1	2	ISHA 2017	Salad with surimi, pineapple, carrot	3,49	3,46	3,477	-0,029
	c1	3	ISHA 2017	Oriental tabbouleh	3,40	3,40	3,398	0,000
	c1	4	ISHA 2017	Sandwich: tuna, vegetable	2,60	2,51	2,554	-0,097
	c1	5	ISHA 2017	Sandwich: ham and butter	2,52	2,46	2,490	-0,056
	c1	6	ISHA 2017	Sandwich with delicatessen	2,61	2,45	2,530	-0,166
	c2	7	ISHA 2017	Puff pastry with cheese	3,46	3,48	3,470	0,015
	c2	8	ISHA 2017	Fondant goat cheese and Emmenthal	3,32	3,18	3,249	-0,146
	c2	9	ISHA 2017	Fondant Roquefort, walnuts	3,38	3,18	3,278	-0,204
	c2	10	ISHA 2017	Tomato and mozzarella pie	2,56	2,26	2,406	-0,301
	c2	11	ISHA 2017	Salmon and broccoli pie	2,53	2,23	2,381	-0,301
	c2	12	ISHA 2017	Goat cheese and spinach pie	2,56	2,34	2,449	-0,214
	c3	13	ISHA 2017	Strawberry tart	3,18	2,90	3,040	-0,273
	c3	14	ISHA 2017	Apple tart	3,46	3,11	3,288	-0,348
	c3	15	ISHA 2017	Apricot tart	2,48	2,30	2,389	-0,176
	c3	16	ISHA 2017	Peach tart	2,52	2,11	2,316	-0,405
	c3	17	ISHA 2017	Raspberry tart	2,45	2,20	2,326	-0,243
Average category:							**22h**	-0,18
Standard deviation of the category:							**22h**	0,14

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		22h	
					log RM	log AM 22h	Mean	Difference
Environmental samples	e1	1028	2006	Processed water cheese making	3,30	3,18	3,239	-0,125
	e1	1045	2006	Processed water cheese making	6,36	6,11	6,238	-0,248
	e1	1048	2006	Sewer water	4,63	4,83	4,730	0,193
	e1	51	ISHA 2017	Rinse water	3,41	3,40	3,406	-0,017
	e1	52	ISHA 2017	Rinse water: potatoes	3,36	3,41	3,388	0,053
	e1	53	ISHA 2017	Rinse water: vegetables	3,48	3,23	3,354	-0,247
	e1	54	ISHA 2017	Water cleaning station	3,43	3,32	3,377	-0,109
	e2	55	ISHA 2017	Dust: tower	3,46	3,51	3,484	0,043
	e2	56	ISHA 2017	Dust: trap	3,56	3,54	3,550	-0,012
	e2	57	ISHA 2017	Dust: caisson	3,54	3,51	3,525	-0,039
	e2	RLM 25	ISHA 2018	Dust 1	2,93	2,72	2,829	-0,210
	e2	RLM 26	ISHA 2018	Dust 2	2,77	2,81	2,792	0,042
	e2	RLM 27	ISHA 2018	Dust 3	3,08	3,08	3,077	0,004
	e3	1001	2006	Sponge before cleaning and disinfection thread line (NC)	3,51	3,49	3,498	-0,014
	e3	1002	2006	Sponge Salmon (NC)	6,95	6,75	6,849	-0,201
	e3	RLM 28	ISHA 2018	Swab: cutting surface	2,23	2,36	2,296	0,131
	e3	RLM 29	ISHA 2018	Swab: fridge	2,43	2,30	2,366	-0,130
	e3	RLM 30	ISHA 2018	Swab: cutting knife	2,38	2,45	2,414	0,067
	e3	RLM 31	ISHA 2018	Swab: wall cutting room	2,26	2,20	2,230	-0,051
Average category:							**22h**	-0,05
Standard deviation of the category:							**22h**	0,13

RAPID'L.mono - Enumeration after 48 h incubation time

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		48h	
					log RM	Log AM 48h	Mean	Difference
Meat products	m1	K3	2005	Ground beef (NC)	2,771	2,519	2,645	-0,252
	m1	1004	2006	Ground beef (NC)	3,415	3,398	3,406	-0,017
	m1	1029	2006	Flank beef steak (NC)	7,176	7,041	7,109	-0,135
	m1	1036	2006	Horse (NC)	4,681	4,580	4,631	-0,101
	m1	18	ISHA 2017	Turkey filet in tournedos	3,771	3,851	3,811	0,080
	m1	19	ISHA 2017	Pork chop	3,806	3,839	3,823	0,033
	m1	20	ISHA 2017	Chicken cutlet	3,146	3,114	3,130	-0,032
	m1	21	ISHA 2017	Chicken	3,204	3,204	3,204	0,000
	m2	1012	2006	Thinly sliced duck (NC)	4,959	4,633	4,796	-0,326
	m2	22	ISHA 2017	Bœuf bourguignon	2,176	2,301	2,239	0,125
	m2	23	ISHA 2017	Blanquette de veau	2,204	2,204	2,204	0,000
	m2	24	ISHA 2017	Sauté de veau	2,301	2,322	2,312	0,021
	m2	25	ISHA 2017	Blanquette de poulet	2,544	2,447	2,496	-0,097
	m2	26	ISHA 2017	Coq au vin	2,462	2,398	2,430	-0,064
	m2	27	ISHA 2017	Civet de lapin	2,613	2,477	2,545	-0,136
	m3	A1	2005	Foie gras (NC)	6,301	6,362	6,331	0,061
	m3	B1	2005	Strasbourg sausage (NC)	5,672	5,556	5,614	-0,116
	m3	B2	2005	Foie gras (NC)	1,903	1,477	1,690	-0,426
	m3	C3	2005	Sausage: knacki (NC)	8,699	8,544	8,622	-0,155
	m3	C4	2005	Foie gras (NC)	3,431	3,398	3,415	-0,033
	m3	F2	2005	Sausage (NC)	2,342	2,505	2,424	0,163
	m3	1035	2006	Merguez (NC)	4,845	4,748	4,797	-0,097
	m3	RLM 1	ISHA 2018	Smoked bacon	2,690	2,623	2,657	-0,067
	m3	RLM 2	ISHA 2018	Smoked ham	3,146	3,279	3,212	0,133
	m3	RLM 3	ISHA 2018	Smoked bacon	2,792	2,531	2,662	-0,261
	m3	RLM 4	ISHA 2018	Smoked pork roti	2,944	3,000	2,972	0,056
	m3	RLM 5	ISHA 2018	Thin slice of smoked bacon	2,724	2,591	2,658	-0,133
						Average category:	**48h**	-0,06
						Standard deviation of the category:	**48h**	0,14

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		48h	
					log RM	Log AM 48h	Mean	Difference
Dairy products	d1	28	ISHA 2017	Raw milk cheese: Gruyere	3,079	3,176	3,128	0,097
	d1	29	ISHA 2017	Raw goat's milk cheese: Le Villageois	3,079	3,079	3,079	0,000
	d1	30	ISHA 2017	Raw goat's milk cheese: le Chevrot	2,914	3,041	2,978	0,128
	d1	31	ISHA 2017	Raw goat's milk cheese	2,362	2,398	2,380	0,036
	d1	32	ISHA 2017	Raw milk sheep cheese	2,398	2,415	2,406	0,017
	d1	33	ISHA 2017	Raw sheep milk cheese: Cœur cendré	2,322	2,342	2,332	0,020
	d2	M1	2005	Raw milk	5,146	5,079	5,113	-0,067
	d2	P4	2005	Raw milk	1,954	1,699	1,827	-0,255
	d2	34	ISHA 2017	Raw milk butter	3,079	3,301	3,190	0,222
	d2	35	ISHA 2017	Raw milk LC1 30/06	3,079	3,079	3,079	0,000
	d2	36	ISHA 2017	Raw milk LC1 01/07	2,949	3,041	2,995	0,092
	d2	37	ISHA 2017	Raw milk LC2 01/07	3,041	3,041	3,041	0,000
	d2	RLM 6	ISHA 2018	Raw milk	2,869	2,949	2,909	0,080
	d2	RLM 7	ISHA 2018	Raw milk butter	2,959	2,903	2,931	-0,056
	d3	E9	2005	Vanilla ice cream	3,924	3,580	3,752	-0,344
	d3	F5	2005	Cheese: Maroilles (NC)	1,653	2,146	1,900	0,493
	d3	M2	2005	Cheese: Pont l'Evêques	4,964	4,982	4,973	0,018
	d3	O1	2005	Liege chocolate	3,146	3,079	3,113	-0,067
	d3	T1	2005	Cheese: camembert (NC)	3,996	4,041	4,019	0,046
	d3	T2	2005	Cheese: epoisses (NC)	2,079	2,000	2,040	-0,079
	d3	1020	2006	Cheese paste (NC)	2,431	2,255	2,343	-0,176
	d3	1021	2006	Cheese paste (NC)	3,505	3,505	3,505	0,000
	d3	1022	2006	Cheese paste (NC)	3,000	2,929	2,965	-0,071
	d3	1030	2006	Cheese: Vieux Lille	6,653	6,491	6,572	-0,162
	d3	1033	2006	Goat cheese	5,643	5,462	5,553	-0,181
	d3	RLM 8	ISHA 2018	Milk UHT	3,000	3,041	3,021	0,041
	d3	RLM 9	ISHA 2018	Cheese: Emmental	3,041	3,021	3,031	-0,020
	d3	RLM 10	ISHA 2018	Yogurt	2,756	2,778	2,767	0,022
						Average category:	**48h**	-0,01
						Standard deviation of the category:	**48h**	0,15

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		48h	
					log RM	Log AM 48h	Mean	Difference
Seafood products	s1	E5	2005	Saithe fillet	3,230	2,898	3,064	-0,332
	s1	E6	2005	Scabbardfish fillet	3,477	3,301	3,389	-0,176
	s1	N2	2005	Haddock fillet	3,380	3,322	3,351	-0,058
	s1	44	ISHA 2017	Whiting fillet	2,415	2,491	2,453	0,076
	s1	45	ISHA 2017	Cod	2,602	2,398	2,500	-0,204
	s1	46	ISHA 2017	Salmon	2,505	2,204	2,355	-0,301
	s1	RLM 11	ISHA 2018	Salmon filet	2,462	2,301	2,382	-0,161
	s1	RLM 12	ISHA 2018	Hake filet	3,041	3,079	3,060	0,038
	s1	RLM 13	ISHA 2018	Cod filet	2,978	3,000	2,989	0,022
	s2	E7	2005	Smoked salmon	4,544	4,602	4,573	0,058
	s2	E8	2005	Smoked trout (NC)	4,079	4,041	4,060	-0,038
	s2	1019	2006	Smoked salmon (NC)	4,708	4,505	4,606	-0,202
	s2	47	ISHA 2017	Smoked salmon	2,398	2,447	2,423	0,049
	s2	48	ISHA 2017	Smoked trout	2,477	2,556	2,517	0,079
	s2	49	ISHA 2017	Smoked haddock	2,447	2,380	2,414	-0,067
	s2	RLM 14	ISHA 2018	Smoked salmon	2,491	2,623	2,557	0,132
	s2	RLM 15	ISHA 2018	Smoked trout	2,531	2,519	2,525	-0,013
	s3	G6	2005	Roast salmon, Walnuts St Jacques (NC)	3,653	3,544	3,599	-0,109
	s3	G9	2005	Fish recipe basquaise (NC)	6,556	6,447	6,502	-0,109
	s3	I1	2005	Salmon rillettes	5,869	5,690	5,780	-0,179
	s3	I2	2005	Surimi	3,204	3,079	3,142	-0,125
	s3	1047	2006	Cod acras (NC)	3,114	3,079	3,097	-0,035
	s3	50	ISHA 2017	Salmon preparation for spreading	2,415	2,505	2,460	0,090
	s3	RLM 16	ISHA 2018	salmon rillettes	3,041	3,000	3,021	-0,041
	s3	RLM 17	ISHA 2018	Tarama	2,708	2,732	2,720	0,025
	s3	RLM 18	ISHA 2018	Tuna rillettes	2,996	3,000	2,998	0,004
	s3	RLM 19	ISHA 2018	Surimi	2,716	2,748	2,732	0,032
Average category:							**48h**	-0,06
Standard deviation of the category:							**48h**	0,12

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		48h	
					log RM	Log AM 48h	Mean	Difference
Vegetal products	v1	N5	2005	Frozen broccolis (NC)	2,748	2,613	2,680	-0,135
	v1	Q2	2005	Salad	2,756	2,716	2,736	-0,040
	v1	Q4	2005	Frozen peas	2,813	2,643	2,728	-0,169
	v1	R2	2005	Frozen peas	2,663	2,740	2,702	0,078
	v1	R4	2005	Salad	4,568	4,519	4,543	-0,050
	v1	1009	2006	Peas (NC)	4,813	4,580	4,696	-0,233
	v1	1016	2006	Carrot (NC)	6,462	6,380	6,421	-0,082
	v1	1027	2006	Cauliflower (NC)	5,785	5,568	5,677	-0,217
	v1	1040	2006	Broccoli (NC)	2,653	2,415	2,534	-0,238
	v1	1049	2006	Carrot (NC)	3,146	3,146	3,146	0,000
	v2	J3	2005	Sliced red cabbage	5,322	5,398	5,360	0,076
	v2	J4	2005	Mix vegetable	4,663	4,623	4,643	-0,040
	v2	R1	2005	Frozen fries	2,322	2,114	2,218	-0,208
	v2	R3	2005	Frozen potatoes	3,690	3,580	3,635	-0,110
	v2	38	ISHA 2017	Sachet salads	2,415	2,279	2,347	-0,136
	v2	39	ISHA 2017	Sliced pepper	2,362	2,230	2,296	-0,131
	v2	40	ISHA 2017	Sliced mushroom	2,431	2,204	2,318	-0,227
	v2	RLM 20	ISHA 2018	Seasoned cut cucumber	3,000	2,875	2,938	-0,125
	v2	RLM 21	ISHA 2018	Seasoned grated carrot	3,114	3,079	3,097	-0,035
	v2	RLM 22	ISHA 2018	Seasoned grated red cabbage	2,716	2,756	2,736	0,040
	v3	E3	2005	Orange jus	4,322	4,255	4,289	-0,067
	v3	E4	2005	Grapefruit jus	4,477	4,204	4,341	-0,273
	v3	41	ISHA 2017	Peas recipe: "étuvé"	2,724	2,568	2,646	-0,156
	V3	42	ISHA 2017	Apple compote	2,643	2,568	2,606	-0,075
	V3	43	ISHA 2017	Celery in the grain mustard	2,544	2,491	2,518	-0,053
	v3	RLM 22	ISHA 2018	Corn	2,716	2,740	2,728	0,024
	v3	RLM 23	ISHA 2018	Cooked flageolet	2,431	2,602	2,517	0,171
	v3	RLM 24	ISHA 2018	Cooked kidney bean	2,813	2,949	2,881	0,136
						Average category:	**48h**	-0,08
						Standard deviation of the category:	**48h**	0,12

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		48h	
					log RM	Log AM 48h	Mean	Difference
Composite foods	c1	1026	2006	Tagliatelle (NC)	5,519	5,176	5,347	-0,342
	c1	1	ISHA 2017	Mix salad: "Piemontaise"	3,431	3,447	3,439	0,016
	c1	2	ISHA 2017	Salad with surimi, pineapple, carrot	3,491	3,462	3,477	-0,029
	c1	3	ISHA 2017	Oriental tabbouleh	3,398	3,398	3,398	0,000
	c1	4	ISHA 2017	Sandwich: tuna, vegetable	2,602	2,505	2,554	-0,097
	c1	5	ISHA 2017	Sandwich: ham and butter	2,519	2,462	2,490	-0,056
	c1	6	ISHA 2017	Sandwich with delicatessen	2,613	2,447	2,530	-0,166
	c2	L1	2005	Rice and vegetable (NC)	4,892	4,763	4,828	-0,129
	c2	7	ISHA 2017	Puff pastry with cheese	3,462	3,477	3,470	0,015
	c2	8	ISHA 2017	Fondant goat cheese and Emmenthal	3,322	3,176	3,249	-0,146
	c2	9	ISHA 2017	Fondant Roquefort, walnuts	3,380	3,176	3,278	-0,204
	c2	10	ISHA 2017	Tomato and mozzarella pie	2,556	2,255	2,406	-0,301
	c2	11	ISHA 2017	Salmon and broccoli pie	2,531	2,398	2,465	-0,134
	c2	12	ISHA 2017	Goat cheese and spinach pie	2,556	2,415	2,486	-0,141
	c3	L2	2005	Choux whipped cream (NC)	3,079	3,114	3,097	0,035
	c3	13	ISHA 2017	Strawberry tart	3,176	3,079	3,128	-0,097
	c3	14	ISHA 2017	Apple tart	3,462	3,176	3,319	-0,286
	c3	15	ISHA 2017	Apricot tart	2,477	2,380	2,429	-0,097
	c3	16	ISHA 2017	Peach tart	2,519	2,230	2,374	-0,288
	c3	17	ISHA 2017	Raspberry tart	2,447	2,230	2,339	-0,217
Average category:							**48h**	-0,13
Standard deviation of the category:							**48h**	0,11

Category	Type	N° sample	Analysis date	Sample	Log (CFU/g)		48h	
					log RM	Log AM 48h	Mean	Difference
Environmental samples	e1	K1	2005	Stagnant water: dirty containers	3,903	3,613	3,758	-0,290
	e1	K2	2005	Stagnant water: fish container	4,000	3,954	3,977	-0,046
	e1	1028	2006	Processed water cheese making (NC)	3,301	3,176	3,239	-0,125
	e1	1045	2006	Processed water cheese making (NC)	6,362	6,114	6,238	-0,248
	e1	1048	2006	Sewer water (NC)	4,633	4,826	4,730	0,193
	e1	51	ISHA 2017	Rinse water	3,415	3,398	3,406	-0,017
	e1	52	ISHA 2017	Rinse water: potatoes	3,362	3,415	3,388	0,053
	e1	53	ISHA 2017	Rinse water: vegetables	3,477	3,230	3,354	-0,247
	e1	54	ISHA 2017	Water cleaning station	3,431	3,322	3,377	-0,109
	e2	O3	2005	Residue: farce on the floor	2,505	2,041	2,273	-0,464
	e2	R5	2005	Pig bone sawdust	3,041	3,000	3,021	-0,041
	e2	T3	2005	Residues of cheese	2,362	2,279	2,320	-0,083
	e2	55	ISHA 2017	Dust: tower	3,462	3,505	3,484	0,043
	e2	56	ISHA 2017	Dust: trap	3,556	3,544	3,550	-0,012
	e2	57	ISHA 2017	Dust: caisson	3,544	3,505	3,525	-0,039
	e2	RLM 25	ISHA 2018	Dust 1	2,934	2,724	2,829	-0,210
	e2	RLM 26	ISHA 2018	Dust 2	2,771	2,813	2,792	0,042
	e2	RLM 27	ISHA 2018	Dust 3	3,076	3,079	3,077	0,004
	e3	M3	2005	Sponge: surface of cutting plant	4,763	4,708	4,735	-0,056
	e3	M4	2005	Sponge: surface of cheese kiosk	4,342	4,114	4,228	-0,228
	e3	M5	2005	Sponge: surface cheese fabrication	4,602	4,279	4,440	-0,323
	e3	N1	2005	Sponge: surface cheese dairy	3,204	3,146	3,175	-0,058
	e3	S1	2005	Swab	5,342	5,204	5,273	-0,138
	e3	1001	2006	Sponge before cleaning and disinfection thread line (NC)	3,505	3,491	3,498	-0,014
	e3	1002	2006	Sponge Salmon (NC)	6,949	6,748	6,849	-0,201
	e3	RLM 28	ISHA 2018	Swab: cutting surface	2,230	2,415	2,323	0,185
	e3	RLM 29	ISHA 2018	Swab: fridge	2,431	2,362	2,397	-0,070
	e3	RLM 30	ISHA 2018	Swab: cutting knife	2,380	2,447	2,414	0,067
	e3	RLM 31	ISHA 2018	Swab: wall cutting room	2,255	2,204	2,230	-0,051
						Average category:	**48h**	-0,09
						Standard deviation of the category:	**48h**	0,15

Appendix 6 - Relative trueness study: non interpretable samples

RAPID'L.mono - Enumeration after 22 h incubation time

Meat products										
	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		22h	
					log RM	log AM 22h	Log RM	Log AM 22h	Mean	Difference
Above or below the quantification range	m1	1025	2006	Breast of duck (NC)	2,78	2,48	/	/	2,630	-0,300
	m1	1011	2006	Pork (NC)	<1	<1	0,00	0,00	0,000	0,000
	m1	1013	2006	Pork (NC)	0,69	1,00	/	/	0,845	0,310
	m1	1018	2006	Horse flank steak (NC)	<1	<1	0,00	0,00	0,000	0,000
	m1	1024	2006	Ground beef (NC)	<2	<2	1,00	1,00	1,000	0,000
	m1	1044	2006	Quail legs (NC)	3,96	<4	/	3,00	3,480	-0,960
	m2	1014	2006	Poult (NC)	<1	<1	0,00	0,00	0,000	0,000
	m3	1023	2006	Terrine (NC)	<2	<2	1,00	1,00	1,000	0,000

Dairy products										
	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		22h	
					log RM	log AM 22h	Log RM	Log AM 22h	Mean	Difference
Above or below the quantification range	d2	1003	2006	Raw milk (NC)	<1	<1	0,00	0,00	0,000	0,000
	d3	1010	2006	Maroilles (NC)	<1	<1	0,00	0,00	0,000	0,000

Seafood products										
Above or below the quantification range	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		22h	
					log RM	log AM 22h	Log RM	Log AM 22h	Mean	Difference
	s2	1037	2006	Smoked salmon (NC)	<2	<2	1,00	1,00	1,000	0,000
	s2	1043	2006	Smoked salmon (NC)	<1	<1	0,00	0,00	0,000	0,000
	s3	1031	2006	Cod acras (NC)	>4,18	>4,18	5,18	5,18	5,180	0,000
	s3	1038	2006	Cod acras (NC)	<2	<2	1,00	1,00	1,000	0,000

Vegetal products										
Above or below the quantification range	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		22h	
					log RM	log AM 22h	Log RM	Log AM 22h	Mean	Difference
	v1	1007	2006	Spinach (NC)	<1	<1	0,00	0,00	0,000	0,000
	v1	1015	2006	Spinach	>5,18	5,08	6,18	/	5,630	-1,101
	v2	1039	2006	Fruits salad	0,65	1,34	/	/	0,995	0,690

Composite food										
Above or below the quantification range	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		22h	
					log RM	log AM 22h	Log RM	Log AM 22h	Mean	Difference
	c2	1017	2006	Country-style "Poelée" (NC)	<1	<1	0,00	0,00	0,000	0,000

Environmental samples										
Above or below the quantification range	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		22h	
					log RM	log AM 22h	Log RM	Log AM 22h	Mean	Difference
	e1	1005	2006	Upstream stone trap water (NC)	0,69	1,00	/	/	0,845	0,310
	e1	1006	2006	Overflow water of vegetables rinse (NC)	<1	<1	0,00	0,00	0,000	0,000
	e1	1041	2006	Processed water	4,70	<5	/	6,00	5,349	1,301
	e1	1042	2006	Processed water	<1	<1	0,00	0,00	0,000	0,000

RAPID'L.mono - Enumeration after 48 h incubation time

Meat products										
	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		48h	
					log RM	Log AM 48h	Log RM	Log AM 48h	Mean	Difference
Above or below the quantification range	m1	H2	2005	Beef	<1	<1	0,00	0,00	0,000	0,000
	m1	H5	2005	Pork	<1	<1	0,00	0,00	0,000	0,000
	m1	G5	2005	Ground beef	<1	<1	0,00	0,00	0,000	0,000
	m1	1025	2006	Breast of duck (NC)	2,78	2,48	/	/	2,630	-0,300
	m1	1011	2006	Pork (NC)	<1	<1	0,00	0,00	0,000	0,000
	m1	1013	2006	Pork (NC)	0,69	1,00	/	/	0,845	0,310
	m1	1018	2006	Horse flank steak (NC)	<1	<1	0,00	0,00	0,000	0,000
	m1	1024	2006	Ground beef (NC)	<2	<2	1,00	1,00	1,000	0,000
	m1	1044	2006	Quail legs (NC)	3,69	<4	/	3,00	3,345	-0,690
	m2	1014	2006	Poult (NC)	<1	<1	0,00	0,00	0,000	0,000
	m3	A2	2005	Strasbourg sausage (NC)	>7,18	>7,18	8,18	8,18	8,180	0,000
	m3	B3	2005	Sausage: knacki (NC)	>7,18	>7,18	8,18	8,18	8,180	0,000
	m3	C1	2005	Strasbourg sausage	<1	<1	0,00	0,00	0,000	0,000
	m3	C2	2005	Strasbourg sausage	<1	<1	0,00	0,00	0,000	0,000
	m3	D3	2005	Sausage	<1	<1	0,00	0,00	0,000	0,000
	m3	F1	2005	Merguez	<1	<1	0,00	0,00	0,000	0,000
	m3	F3	2005	Chipolatas	<1	<1	0,00	0,00	0,000	0,000
	m3	H4	2005	Pork belly	<1	<1	0,00	0,00	0,000	0,000
	m3	G8	2005	Sausage	<1	<1	0,00	0,00	0,000	0,000
	m3	1023	2006	Terrine (NC)	<2	<2	1,00	1,00	1,000	0,000

Dairy products										
	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		48h	
					log RM	Log AM 48h	Log RM	Log AM 48h	Mean	Difference
Above or below the quantification range	d1	L4	2005	Raw milk cheese	<1	<1	0,00	0,00	0,000	0,000
	d2	O4	2005	Raw milk	<1	<1	0,00	0,00	0,000	0,000
	d2	1003	2006	Raw milk	<1	<1	0,00	0,00	0,000	0,000
	d3	K5	2005	Cheese: Maroilles	1,48	1,00	/	/	1,240	-0,480
	d3	N4	2005	Vanilla ice cream	1,48	1,00	/	/	1,240	-0,480
	d3	S2	2005	Cheese: Maroilles	<1	<1	0,00	0,00	0,000	0,000
	d3	S3	2005	Cheese: tomme	<1	<1	0,00	0,00	0,000	0,000
	d3	1010	2006	Maroilles (NC)	<1	<1	0,00	0,00	0,000	0,000

Seafood products										
	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		48h	
					log RM	Log AM 48h	Log RM	Log AM 48h	Mean	Difference
Above or below the quantification range	s1	I7	2005	Shellfish	4,59	4,52	/	/	4,555	-0,073
	s1	J1	2005	Herring fillet	<1	<1	0,00	0,00	0,000	0,000
	s1	J2	2005	Herring fillet	<1	<1	0,00	0,00	0,000	0,000
	s1	O2	2005	Salmon	<2	<2	1,00	1,00	1,000	0,000
	s1	F6	2005	Tartare salmon (NC)	<1	<1	0,00	0,00	0,000	0,000
	s2	F4	2005	Smoked trout	<1	<1	0,00	0,00	0,000	0,000
	s2	H1	2005	Smoked salmon	<1	<1	0,00	0,00	0,000	0,000
	s2	G1	2005	Salmon tartare	<1	<1	0,00	0,00	0,000	0,000
	s2	I6	2005	Mussel	4,84	4,59	/	/	4,715	-0,248
	s2	1037	2006	Smoked salmon (NC)	<2	<2	1,00	1,00	1,000	0,000
	s2	1043	2006	Smoked salmon (NC)	<1	<1	0,00	0,00	0,000	0,000
	s3	G7	2005	Fish recipe basquaise	>5,8	>5,8	6,80	6,80	6,800	0,000
	s3	1031	2006	Cod acras (NC)	>4,18	>4,18	5,18	5,18	5,180	0,000
	s3	1038	2006	Cod acras (NC)	<2	<2	1,00	1,00	1,000	0,000

Vegetal products										
	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		48h	
					log RM	Log AM 48h	Log RM	Log AM 48h	Mean	Difference
Above or below the quantification range	v1	P2	2005	Salad	<1	<1	0,00	0,00	0,000	0,000
	v1	P3	2005	Frozen peas	<1	<1	0,00	0,00	0,000	0,000
	v1	1007	2006	Spinach (NC)	<1	<1	0,00	0,00	0,000	0,000
	v1	1015	2006	Spinach (NC)	>5,18	5,08	6,18	/	5,630	-1,101
	v2	E1	2005	Frozen fries (NC)	3,70	<3	/	2,00	2,849	-1,699
	v2	I4	2005	Rustic poêlée	<1	<1	0,00	0,00	0,000	0,000
	v2	N3	2005	Frozen fries	<1	<1	0,00	0,00	0,000	0,000
	v2	P1	2005	Frozen fries	<1	<1	0,00	0,00	0,000	0,000
	v2	Q3	2005	Frozen fries	<1	<1	0,00	0,00	0,000	0,000
	v2	Q1	2005	Frozen potatoes	<1	<1	0,00	0,00	0,000	0,000
	v2	1039	2006	Fruits salad (NC)	0,65	1,34	/	/	0,995	0,690

Composite foods										
	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		48h	
					log RM	Log AM 48h	Log RM	Log AM 48h	Mean	Difference
Above or below the quantification range	c2	I5	2005	Beef and potatoes	<1	<1	0,00	0,00	0,000	0,000
	c2	1017	2006	Country-style " poêlée "	<1	<1	0,00	0,00	0,000	0,000
	c3	F7	2005	Short pastry	<1	<1	0,00	0,00	0,000	0,000

Environmental samples										
	Type	N° sample	Analysis date	Sample	Log (CFU/g)		Substituted value		48h	
					log RM	Log AM 48h	Log RM	Log AM 48h	Mean	Difference
Above or below the quantification range	e1	G2	2005	Water: evacuation, room: spice	3,70	<4	/	3,00	3,349	-0,699
	e1	G3	2005	Residual water Steriflow	<3	<3	2,00	2,00	2,000	0,000
	e1	G4	2005	Residual water: inner chamber Steriflow	1,40	<1	/	0,00	0,699	-1,398
	e1	1005	2006	Upstream stone trap water (NC)	0,69	1,00	/	/	0,845	0,310
	e1	1006	2006	Overflow water of vegetables rinse (NC)	<1	<1	0,00	0,00	0,000	0,000
	e1	1041	2006	Processed water (NC)	4,70	<5	/	4,00	4,349	-0,699
	e1	1042	2006	Processed water (NC)	<1	<1	0,00	0,00	0,000	0,000
	e2	S4	2005	Residues of cheese	<1	<1	0,00	0,00	0,000	0,000

Appendix 7 - Relative trueness study: calculations

RAPID'L.mono - Enumeration after 22 h incubation time

Category	n	T(0,05;70)	D	SD	ISO formula	95% lower limit	95% upper limit
1) Meat products	20	2,09	-0,10	0,15	0,32	-0,42	0,22
2) Dairy products	20	2,09	-0,04	0,11	0,24	-0,28	0,20
3) Seafood products	18	2,11	-0,05	0,15	0,33	-0,38	0,28
4) Vegetal products	17	2,12	-0,15	0,20	0,44	-0,59	0,29
5) Composite foods	18	2,11	-0,18	0,14	0,30	-0,48	0,12
6) Environmental samples	19	2,10	-0,05	0,13	0,28	-0,33	0,23
All categories	**112**	**1,98**	**-0,10**	**0,15**	**0,29**	**-0,39**	**0,20**

RAPID'L.mono - Enumeration after 48 h incubation time

Category	n	T(0,05;70)	D	SD	ISO formula	95% lower limit	95% upper limit
1) Meat products	28	2,05	-0,06	0,14	0,29	-0,35	0,23
2) Dairy products	28	2,05	-0,01	0,15	0,31	-0,32	0,30
3) Seafood products	27	2,06	-0,06	0,12	0,25	-0,31	0,19
4) Vegetal products	28	2,05	-0,08	0,12	0,25	-0,33	0,17
5) Composite foods	20	2,09	-0,13	0,11	0,24	-0,37	0,11
6) Environmental samples	29	2,05	-0,09	0,15	0,31	-0,40	0,22
All categories	**160**	**1,97**	**-0,07**	**0,13**	**0,26**	**-0,33**	**0,19**

Appendix 8 - Accuracy profile study: raw data

Matrix (category)	Total viable count (CFU/g or mL)	Code strain/ strain/origin	Lot	Level (CFU/g)	Reference method: NF ISO 11290-2									Alternative method: RAPID'*L.mono*								
					Dilution	CFU/plate		Confirmation				Result (CFU/g or mL)		Dilution	CFU/plate		Confirmation 1	Confirmation 2				Result (CFU/g or mL)	
						24h	48h	β Hemolysis	D Xyl	L Rham	Identifi-cation	24h	48h		22h	48h	Rhamnose test	β Hemolysis	D Xyl	L Rham	Identifi-cation	22h	48h
Ground beef 15% MG	1,50E+04	LIS.4.26 / *Listeria monocytogenes* 1/2a / Ham	L1T1R1	100	10	7	10	*Lmono*	-	+	*Lmono*	70	100	10	6	9	+	*Lmono*	-	+	*Lmono*	60	90
					100	1	1							100	1	1							
			L1T1R2		10	9	11	*Lmono*	-	+	*Lmono*	100	120	10	5	8	+	*Lmono*	-	+	*Lmono*	50	70
					100	2	2							100	0	0							
			L1T1R3		10	8	8	*Lmono*	-	+	*Lmono*	70	80	10	11	12	+	*Lmono*	-	+	*Lmono*	100	110
					100	0	1							100	0	0							
			L1T1R4		10	11	11	*Lmono*	-	+	*Lmono*	100	100	10	10	15	+	*Lmono*	-	+	*Lmono*	90	160
					100	0	0							100	0	2							
			L1T1R5		10	11	12	*Lmono*	-	+	*Lmono*	100	110	10	8	10	+	*Lmono*	-	+	*Lmono*	70	90
					100	0	0							100	0	0							
			L1T2R1	500	10	42	42	*Lmono*	-	+	*Lmono*	390	390	10	31	38	+	*Lmono*	-	+	*Lmono*	340	400
					100	1	1							100	6	6							
			L1T2R2		10	49	50	*Lmono*	-	+	*Lmono*	520	530	10	23	26	+	*Lmono*	-	+	*Lmono*	230	260
					100	8	8							100	2	2							
			L1T2R3		10	45	45	*Lmono*	-	+	*Lmono*	440	440	10	21	25	+	*Lmono*	-	+	*Lmono*	230	280
					100	3	3							100	4	6							
			L1T2R4		10	44	50	*Lmono*	-	+	*Lmono*	460	520	10	19	24	+	*Lmono*	-	+	*Lmono*	210	260
					100	7	7							100	4	4							
			L1T2R5		10	40	47	*Lmono*	-	+	*Lmono*	420	480	10	31	39	+	*Lmono*	-	+	*Lmono*	350	430
					100	6	6							100	7	8							
			L1T3R1	3000	100	30	31	*Lmono*	-	+	*Lmono*	2900	3000	100	31	31	+	*Lmono*	-	+	*Lmono*	3200	3200
					1000	2	2							1000	4	4							
			L1T3R2		100	28	28	*Lmono*	-	+	*Lmono*	2600	2700	100	23	26	+	*Lmono*	-	+	*Lmono*	3400	2600
					1000	1	2							1000	3	3							
			L1T3R3		100	24	26	*Lmono*	-	+	*Lmono*	2500	2700	100	27	27	+	*Lmono*	-	+	*Lmono*	2600	2600
					1000	4	4							1000	2	2							
			L1T3R4		100	36	37	*Lmono*	-	+	*Lmono*	3500	3600	100	33	33	+	*Lmono*	-	+	*Lmono*	3300	3300
					1000	3	3							1000	3	3							
			L1T3R5		100	34	34	*Lmono*	-	+	*Lmono*	3100	3100	100	37	37	+	*Lmono*	-	+	*Lmono*	3500	3500
					1000	0	0							1000	2	2							
Ground beef 15% MG	1,50E+04	LIS.4.26 / *Listeria monocytogenes* 1/2a / Ham	L2T1R1	100	10	18	18	*Lmono*	-	+	*Lmono*	170	170	10	17	17	+	*Lmono*	-	+	*Lmono*	170	170
					100	1	1							100	2	2							
			L2T1R2		10	16	16	*Lmono*	-	+	*Lmono*	150	150	10	13	15	+	*Lmono*	-	+	*Lmono*	120	140
					100	0	0							100	0	0							
			L2T1R3		10	8	9	*Lmono*	-	+	*Lmono*	80	90	10	9	10	+	*Lmono*	-	+	*Lmono*	90	100
					100	1	1							100	1	1							
			L2T1R4		10	18	18	*Lmono*	-	+	*Lmono*	160	160	10	13	14	+	*Lmono*	-	+	*Lmono*	120	130
					100	0	0							100	0	0							
			L2T1R5		10	8	9	*Lmono*	-	+	*Lmono*	80	90	10	9	11	+	*Lmono*	-	+	*Lmono*	80	100
					100	1	1							100	0	0							
			L2T2R1	500	10	46	46	*Lmono*	-	+	*Lmono*	460	460	10	44	52	+	*Lmono*	-	+	*Lmono*	430	500
					100	5	5							100	3	3							
			L2T2R2		10	47	50	*Lmono*	-	+	*Lmono*	490	520	10	34	37	+	*Lmono*	-	+	*Lmono*	380	410
					100	7	7							100	8	8							
			L2T2R3		10	36	38	*Lmono*	-	+	*Lmono*	370	390	10	35	47	+	*Lmono*	-	+	*Lmono*	340	470
					100	5	5							100	2	5							
			L2T2R4		10	54	58	*Lmono*	-	+	*Lmono*	550	580	10	23	33	+	*Lmono*	-	+	*Lmono*	240	330
					100	6	6							100	3	3							
			L2T2R5		10	32	36	*Lmono*	-	+	*Lmono*	340	370	10	34	36	+	*Lmono*	-	+	*Lmono*	340	360
					100	5	5							100	3	3							
			L2T3R1	3000	100	29	30	*Lmono*	-	+	*Lmono*	2700	2800	100	45	46	+	*Lmono*	-	+	*Lmono*	4400	4500
					1000	1	1							1000	3	4							
			L2T3R2		100	29	31	*Lmono*	-	+	*Lmono*	3000	3200	100	32	32	+	*Lmono*	-	+	*Lmono*	3400	3500
					1000	4	4							1000	5	6							
			L2T3R3		100	38	40	*Lmono*	-	+	*Lmono*	3500	3700	100	34	34	+	*Lmono*	-	+	*Lmono*	3200	3200
					1000	1	1							1000	1	1							
			L2T3R4		100	28	28	*Lmono*	-	+	*Lmono*	3000	3000	100	36	36	+	*Lmono*	-	+	*Lmono*	3500	3500
					1000	5	5							1000	2	2							
			L2T3R5		100	34	35	*Lmono*	-	+	*Lmono*	3400	3500	100	33	33	+	*Lmono*	-	+	*Lmono*	3200	3200
					1000	3	3							1000	2	2							

Matrix (category)	Total viable count (CFU/g or mL)	Code strain/ strain/origin	Lot	Level (CFU/g)	Reference method: NF ISO 11290-2									Alternative method: RAPID'*L.mono*									
					Dilution	CFU/plate		Confirmation				Result (CFU/g or mL)		Dilution	CFU/plate		Confirmation 1	Confirmation 2				Result (CFU/g or mL)	
						24h	48h	β Hemolysis	D Xyl	L Rham	Identifi-cation	24h	48h		22h	48h	Rhamnose test	β Hemolysis	D Xyl	L Rham	Identifi-cation	22h	48h
Raw milk cheese	6,10E+05	LIS.4.32 / *Listeria monocytogenes* 1/2b / raw milk	L1T1R1	100	10	14	17	*Lmono*	-	+	*Lmono*	130	160	10	10	14	+	*Lmono*	-	+	*Lmono*	110	140
					100	0	0							100	2	2							
			L1T1R2		10	11	12	*Lmono*	-	+	*Lmono*	100	110	10	11	12	+	*Lmono*	-	+	*Lmono*	100	110
					100	0	0							100	0	0							
			L1T1R3		10	10	13	*Lmono*	-	+	*Lmono*	90	120	10	6	19	+	*Lmono*	-	+	*Lmono*	60	180
					100	0	0							100	0	1							
			L1T1R4		10	7	12	*Lmono*	-	+	*Lmono*	60	110	10	4	10	+	*Lmono*	-	+	*Lmono*	50	100
					100	0	0							100	1	1							
			L1T1R5		10	17	18	*Lmono*	-	+	*Lmono*	170	180	10	14	17	+	*Lmono*	-	+	*Lmono*	160	180
					100	2	2							100	3	3							
			L1T2R1	500	10	53	63	*Lmono*	-	+	*Lmono*	530	630	10	37	50	+	*Lmono*	-	+	*Lmono*	420	540
					100	5	6							100	9	9							
			L1T2R2		10	33	54	*Lmono*	-	+	*Lmono*	370	560	10	55	60	+	*Lmono*	-	+	*Lmono*	530	570
					100	8	8							100	3	3							
			L1T2R3		10	41	50	*Lmono*	-	+	*Lmono*	420	510	10	37	47	+	*Lmono*	-	+	*Lmono*	410	500
					100	5	6							100	8	8							
			L1T2R4		10	45	55	*Lmono*	-	+	*Lmono*	430	530	10	26	37	+	*Lmono*	-	+	*Lmono*	310	410
					100	2	3							100	8	8							
			L1T2R5		10	36	45	*Lmono*	-	+	*Lmono*	390	480	10	26	47	+	*Lmono*	-	+	*Lmono*	260	560
					100	7	8							100	2	3							
			L1T3R1	3000	100	24	24	*Lmono*	-	+	*Lmono*	2300	2300	100	32	34	+	*Lmono*	-	+	*Lmono*	3300	3500
					1000	1	1							1000	4	4							
			L1T3R2		100	24	27	*Lmono*	-	+	*Lmono*	2500	2800	100	20	22	+	*Lmono*	-	+	*Lmono*	2000	2200
					1000	3	4							1000	2	2							
			L1T3R3		100	22	29	*Lmono*	-	+	*Lmono*	2200	2800	100	20	23	+	*Lmono*	-	+	*Lmono*	2000	2400
					1000	2	2							1000	2	3							
			L1T3R4		100	20	23	*Lmono*	-	+	*Lmono*	2300	2500	100	26	26	+	*Lmono*	-	+	*Lmono*	2500	2500
					1000	5	5							1000	1	1							
			L1T3R5		100	20	21	*Lmono*	-	+	*Lmono*	2000	2100	100	26	27	+	*Lmono*	-	+	*Lmono*	2600	2800
					1000	2	2							1000	3	4							
Raw milk cheese	6,10E+05	LIS.4.32 / *Listeria monocytogenes* 1/2b / raw milk	L2T1R1	100	10	8	11	*Lmono*	-	+	*Lmono*	90	130	10	9	14	+	*Lmono*	-	+	*Lmono*	90	140
					100	2	3							100	1	1							
			L2T1R2		10	11	14	*Lmono*	-	+	*Lmono*	100	140	10	8	12	+	*Lmono*	-	+	*Lmono*	70	110
					100	0	1							100	0	0							
			L2T1R3		10	6	10	*Lmono*	-	+	*Lmono*	70	110	10	12	13	+	*Lmono*	-	+	*Lmono*	110	120
					100	2	2							100	0	0							
			L2T1R4		10	15	16	*Lmono*	-	+	*Lmono*	140	150	10	17	17	+	*Lmono*	-	+	*Lmono*	160	160
					100	0	0							100	1	1							
			L2T1R5		10	15	19	*Lmono*	-	+	*Lmono*	140	170	10	15	15	+	*Lmono*	-	+	*Lmono*	140	140
					100	0	0							100	0	0							
			L2T2R1	500	10	41	51	*Lmono*	-	+	*Lmono*	400	490	10	31	38	+	*Lmono*	-	+	*Lmono*	300	360
					100	3	3							100	1	1							
			L2T2R2		10	44	44	*Lmono*	-	+	*Lmono*	410	410	10	36	36	+	*Lmono*	-	+	*Lmono*	360	360
					100	1	1							100	4	4							
			L2T2R3		10	51	51	*Lmono*	-	+	*Lmono*	540	540	10	34	34	+	*Lmono*	-	+	*Lmono*	380	380
					100	8	8							100	8	8							
			L2T2R4		10	43	43	*Lmono*	-	+	*Lmono*	460	460	10	52	52	+	*Lmono*	-	+	*Lmono*	500	500
					100	7	7							100	3	3							
			L2T2R5		10	12	63	*Lmono*	-	+	*Lmono*	110	630	10	46	46	+	*Lmono*	-	+	*Lmono*	500	500
					100	0	6							100	9	9							
			L2T3R1	3000	100	31	31	*Lmono*	-	+	*Lmono*	2900	2900	100	34	34	+	*Lmono*	-	+	*Lmono*	3300	3300
					1000	1	1							1000	2	2							
			L2T3R2		100	24	24	*Lmono*	-	+	*Lmono*	2400	2400	100	18	18	+	*Lmono*	-	+	*Lmono*	1800	1800
					1000	2	2							1000	2	2							
			L2T3R3		100	23	23	*Lmono*	-	+	*Lmono*	2700	2700	100	29	29	+	*Lmono*	-	+	*Lmono*	2600	2600
					1000	7	7							1000	0	0							
			L2T3R4		100	28	28	*Lmono*	-	+	*Lmono*	2900	2900	100	27	27	+	*Lmono*	-	+	*Lmono*	2800	2800
					1000	4	4							1000	4	4							
			L2T3R5		100	18	18	*Lmono*	-	+	*Lmono*	1900	1900	100	23	23	+	*Lmono*	-	+	*Lmono*	2200	2200
					1000	3	3							1000	1	1							

Matrix (category)	Total viable count (CFU/g or mL)	Code strain/ strain/origin	Lot	Level (CFU/g)	Reference method: NF ISO 11290-2									Alternative method: RAPID'*L.mono*								
					Dilution	CFU/plate		Confirmation				Result (CFU/g or mL)		Dilution	CFU/plate		Confirmation 1	Confirmation 2				Result (CFU/g or mL)	
						24h	48h	β Hemolysis	D Xyl	L Rham	Identifi-cation	24h	48h		22h	48h	Rhamnose test	β Hemolysis	D Xyl	L Rham	Identifi-cation	22h	48h
Whiting fillet	7,30E+03	LIS.4.47 / *Listeria monocytogenes* 4b / offcuts salmon	L1T1R1	100	10	11	11	*Lmono*	-	+	*Lmono*	110	110	10	12	12	+	*Lmono*	-	+	*Lmono*	120	120
					100	1	1							100	1	1							
			L1T1R2		10	16	16	*Lmono*	-	+	*Lmono*	160	160	10	13	13	+	*Lmono*	-	+	*Lmono*	130	130
					100	1	1							100	1	1							
			L1T1R3		10	15	15	*Lmono*	-	+	*Lmono*	160	160	10	15	15	+	*Lmono*	-	+	*Lmono*	160	160
					100	2	2							100	3	3							
			L1T1R4		10	18	18	*Lmono*	-	+	*Lmono*	170	170	10	14	14	+	*Lmono*	-	+	*Lmono*	130	130
					100	1	1							100	0	0							
			L1T1R5		10	10	10	*Lmono*	-	+	*Lmono*	90	90	10	13	13	+	*Lmono*	-	+	*Lmono*	130	130
					100	0	0							100	1	1							
			L1T2R1	500	10	48	48	*Lmono*	-	+	*Lmono*	480	480	10	54	54	+	*Lmono*	-	+	*Lmono*	600	600
					100	5	5							100	12	12							
			L1T2R2		10	56	56	*Lmono*	-	+	*Lmono*	520	520	10	54	54	+	*Lmono*	-	+	*Lmono*	540	540
					100	1	1							100	5	5							
			L1T2R3		10	60	60	*Lmono*	-	+	*Lmono*	610	610	10	50	50	+	*Lmono*	-	+	*Lmono*	530	530
					100	7	7							100	8	8							
			L1T2R4		10	54	54	*Lmono*	-	+	*Lmono*	540	540	10	73	73	+	*Lmono*	-	+	*Lmono*	690	690
					100	5	5							100	3	3							
			L1T2R5		10	60	60	*Lmono*	-	+	*Lmono*	590	590	10	67	67	+	*Lmono*	-	+	*Lmono*	660	660
					100	5	5							100	6	6							
			L1T3R1	3000	100	36	36	*Lmono*	-	+	*Lmono*	3800	3800	100	44	44	+	*Lmono*	-	+	*Lmono*	4200	4200
					1000	6	6							1000	2	2							
			L1T3R2		100	34	34	*Lmono*	-	+	*Lmono*	3700	3700	100	34	34	+	*Lmono*	-	+	*Lmono*	3500	3500
					1000	7	7							1000	4	4							
			L1T3R3		100	28	28	*Lmono*	-	+	*Lmono*	2500	2500	100	26	26	+	*Lmono*	-	+	*Lmono*	2500	2500
					1000	0	0							1000	1	1							
			L1T3R4		100	44	44	*Lmono*	-	+	*Lmono*	4500	4500	100	36	36	+	*Lmono*	-	+	*Lmono*	3800	3800
					1000	5	5							1000	6	6							
			L1T3R5		100	37	37	*Lmono*	-	+	*Lmono*	3500	3500	100	37	37	+	*Lmono*	-	+	*Lmono*	3400	3400
					1000	2	2							1000	0	0							
Whiting fillet	7,30E+03	LIS.4.47 / *Listeria monocytogenes* 4b / offcuts salmon	L2T1R1	100	10	12	12	*Lmono*	-	+	*Lmono*	130	130	10	12	12	+	*Lmono*	-	+	*Lmono*	150	150
					100	2	2							100	4	4							
			L2T1R2		10	15	15	*Lmono*	-	+	*Lmono*	140	140	10	15	15	+	*Lmono*	-	+	*Lmono*	140	140
					100	0	0							100	0	0							
			L2T1R3		10	14	14	*Lmono*	-	+	*Lmono*	140	140	10	10	10	+	*Lmono*	-	+	*Lmono*	90	90
					100	1	1							100	0	0							
			L2T1R4		10	18	18	*Lmono*	-	+	*Lmono*	170	170	10	10	10	+	*Lmono*	-	+	*Lmono*	90	90
					100	1	1							100	0	0							
			L2T1R5		10	13	13	*Lmono*	-	+	*Lmono*	130	130	10	11	11	+	*Lmono*	-	+	*Lmono*	120	120
					100	1	1							100	2	2							
			L2T2R1	500	10	54	54	*Lmono*	-	+	*Lmono*	560	560	10	46	46	+	*Lmono*	-	+	*Lmono*	460	460
					100	8	8							100	4	4							
			L2T2R2		10	64	64	*Lmono*	-	+	*Lmono*	650	650	10	44	44	+	*Lmono*	-	+	*Lmono*	440	440
					100	7	7							100	4	4							
			L2T2R3		10	65	65	*Lmono*	-	+	*Lmono*	660	660	10	45	45	+	*Lmono*	-	+	*Lmono*	440	440
					100	8	8							100	3	3							
			L2T2R4		10	56	56	*Lmono*	-	+	*Lmono*	560	560	10	58	58	+	*Lmono*	-	+	*Lmono*	580	580
					100	6	6							100	6	6							
			L2T2R5		10	52	52	*Lmono*	-	+	*Lmono*	530	530	10	54	54	+	*Lmono*	-	+	*Lmono*	560	560
					100	6	6							100	7	7							
			L2T3R1	3000	100	28	28	*Lmono*	-	+	*Lmono*	2900	2900	100	33	33	+	*Lmono*	-	+	*Lmono*	3100	3100
					1000	4	4							1000	1	1							
			L2T3R2		100	39	39	*Lmono*	-	+	*Lmono*	3500	3500	100	45	45	+	*Lmono*	-	+	*Lmono*	4400	4400
					1000	0	0							1000	3	3							
			L2T3R3		100	50	50	*Lmono*	-	+	*Lmono*	5000	5000	100	39	39	+	*Lmono*	-	+	*Lmono*	3300	3300
					1000	5	5							1000	2	2							
			L2T3R4		100	44	44	*Lmono*	-	+	*Lmono*	4500	4500	100	40	40	+	*Lmono*	-	+	*Lmono*	3300	3300
					1000	5	5							1000	1	1							
			L2T3R5		100	27	27	*Lmono*	-	+	*Lmono*	2800	2800	100	26	26	+	*Lmono*	-	+	*Lmono*	2600	2600
					1000	4	4							1000	3	3							

Matrix (category)	Total viable count (CFU/g or mL)	Code strain/ strain/origin	Lot	Level (CFU/g)	Reference method: NF ISO 11290-2									Alternative method: RAPID'*L.mono*								
					Dilution	CFU/plate		Confirmation				Result (CFU/g or mL)		Dilution	CFU/plate		Confirmation 1	Confirmation 2				Result (CFU/g or mL)	
						24h	48h	β Hemolysis	D Xyl	L Rham	Identifi-cation	24h	48h		22h	48h	Rhamnose test	β Hemolysis	D Xyl	L Rham	Identifi-cation	22h	48h
Grated carrot	8,10E+02	LIS.4.35 / *Listeria monocytogenes* 1/2c / chef sandwich salad	L1T1R1	100	10	8	10	*Lmono*	-	+	*Lmono*	70	100	10	9	11	+	*Lmono*	-	+	*Lmono*	80	100
					100	0	1							100	0	0							
			L1T1R2		10	6	10	*Lmono*	-	+	*Lmono*	60	90	10	9	10	+	*Lmono*	-	+	*Lmono*	80	100
					100	0	0							100	0	1							
			L1T1R3		10	7	12	*Lmono*	-	+	*Lmono*	60	110	10	10	10	+	*Lmono*	-	+	*Lmono*	110	110
					100	0	0							100	2	2							
			L1T1R4		10	8	11	*Lmono*	-	+	*Lmono*	80	110	10	8	11	+	*Lmono*	-	+	*Lmono*	80	110
					100	1	1							100	1	1							
			L1T1R5		10	10	10	*Lmono*	-	+	*Lmono*	100	100	10	10	10	+	*Lmono*	-	+	*Lmono*	90	90
					100	1	1							100	0	0							
			L1T2R1	500	10	33	33	*Lmono*	-	+	*Lmono*	320	320	10	28	31	+	*Lmono*	-	+	*Lmono*	280	310
					100	2	2							100	3	3							
			L1T2R2		10	28	30	*Lmono*	-	+	*Lmono*	270	290	10	24	28	+	*Lmono*	-	+	*Lmono*	250	280
					100	2	2							100	3	3							
			L1T2R3		10	33	33	*Lmono*	-	+	*Lmono*	330	330	10	27	27	+	*Lmono*	-	+	*Lmono*	260	260
					100	3	3							100	2	2							
			L1T2R4		10	29	37	*Lmono*	-	+	*Lmono*	280	360	10	33	35	+	*Lmono*	-	+	*Lmono*	340	340
					100	2	3							100	2	2							
			L1T2R5		10	40	43	*Lmono*	-	+	*Lmono*	390	420	10	28	30	+	*Lmono*	-	+	*Lmono*	280	310
					100	3	3							100	3	4							
			L1T3R1	3000	100	15	16	*Lmono*	-	+	*Lmono*	1700	1800	100	18	19	+	*Lmono*	-	+	*Lmono*	2100	2200
					1000	4	4							1000	5	5							
			L1T3R2		100	27	28	*Lmono*	-	+	*Lmono*	2700	2900	100	17	26	+	*Lmono*	-	+	*Lmono*	1800	2600
					1000	3	4							1000	3	3							
			L1T3R3		100	11	13	*Lmono*	-	+	*Lmono*	1300	1500	100	16	17	+	*Lmono*	-	+	*Lmono*	1800	1900
					1000	3	3							1000	4	4							
			L1T3R4		100	26	26	*Lmono*	-	+	*Lmono*	2500	2500	100	24	24	+	*Lmono*	-	+	*Lmono*	2500	2500
					1000	1	1							1000	3	3							
			L1T3R5		100	14	15	*Lmono*	-	+	*Lmono*	1700	1800	100	13	13	+	*Lmono*	-	+	*Lmono*	1400	1400
					1000	5	5							1000	2	2							
Grated carrot	8,10E+02	LIS.4.35 / *Listeria monocytogenes* 1/2c / chef sandwich salad	L2T1R1	100	10	5	8	*Lmono*	-	+	*Lmono*	50	70	10	12	12	+	*Lmono*	-	+	*Lmono*	120	120
					100	0	0							100	1	1							
			L2T1R2		10	13	15	*Lmono*	-	+	*Lmono*	130	150	10	11	13	+	*Lmono*	-	+	*Lmono*	120	140
					100	1	1							100	2	2							
			L2T1R3		10	10	12	*Lmono*	-	+	*Lmono*	100	120	10	11	16	+	*Lmono*	-	+	*Lmono*	110	160
					100	1	1							100	1	1							
			L2T1R4		10	7	11	*Lmono*	-	+	*Lmono*	60	100	10	8	10	+	*Lmono*	-	+	*Lmono*	70	110
					100	0	0							100	0	2							
			L2T1R5		10	13	16	*Lmono*	-	+	*Lmono*	130	160	10	8	12	+	*Lmono*	-	+	*Lmono*	80	120
					100	1	1							100	1	1							
			L2T2R1	500	10	47	49	*Lmono*	-	+	*Lmono*	440	460	10	27	37	+	*Lmono*	-	+	*Lmono*	260	360
					100	1	1							100	2	3							
			L2T2R2		10	31	31	*Lmono*	-	+	*Lmono*	310	310	10	26	29	+	*Lmono*	-	+	*Lmono*	250	270
					100	3	3							100	1	1							
			L2T2R3		10	27	27	*Lmono*	-	+	*Lmono*	250	250	10	39	39	+	*Lmono*	-	+	*Lmono*	360	370
					100	0	0							100	1	2							
			L2T2R4		10	32	34	*Lmono*	-	+	*Lmono*	320	340	10	26	30	+	*Lmono*	-	+	*Lmono*	260	300
					100	3	3							100	3	3							
			L2T2R5		10	27	28	*Lmono*	-	+	*Lmono*	260	270	10	30	32	+	*Lmono*	-	+	*Lmono*	290	310
					100	2	2							100	2	2							
			L2T3R1	3000	100	12	12	*Lmono*	-	+	*Lmono*	1300	1300	100	24	25	+	*Lmono*	-	+	*Lmono*	2300	2400
					1000	2	2							1000	1	1							
			L2T3R2		100	15	15	*Lmono*	-	+	*Lmono*	1500	1500	100	17	17	+	*Lmono*	-	+	*Lmono*	1700	1700
					1000	2	2							1000	2	2							
			L2T3R3		100	14	14	*Lmono*	-	+	*Lmono*	1500	1600	100	10	12	+	*Lmono*	-	+	*Lmono*	1100	1300
					1000	2	2							1000	2	2							
			L2T3R4		100	21	24	*Lmono*	-	+	*Lmono*	2000	2300	100	23	23	+	*Lmono*	-	+	*Lmono*	2300	2300
					1000	1	1							1000	2	2							
			L2T3R5		100	24	26	*Lmono*	-	+	*Lmono*	2400	2600	100	20	20	+	*Lmono*	-	+	*Lmono*	1900	1900
					1000	2	3							1000	1	1							

Matrix (category)	Total viable count (CFU/g or mL)	Code strain/ strain/origin	Lot	Level (CFU/g)	Reference method: NF ISO 11290-2									Alternative method: RAPID'*L.mono*									
					Dilution	CFU/plate		Confirmation				Result (CFU/g or mL)		Dilution	CFU/plate		Confirmation 1	Confirmation 2				Result (CFU/g or mL)	
						24h	48h	β Hemolysis	D Xyl	L Rham	Identifi-cation	24h	48h		22h	48h	Rhamnose test	β Hemolysis	D Xyl	L Rham	Identifi-cation	22h	48h
Mix salad: "Piemontese"	6,00E+01	LIS.4.46 / *Listeria monocytogenes* 3a / Sandwich	L1T1R1	100	10	12	17	*Lmono*	-	+	*Lmono*	120	160	10	12	16	+	*Lmono*	-	+	*Lmono*	110	160
					100	1	1							100	0	1							
			L1T1R2		10	13	13	*Lmono*	-	+	*Lmono*	130	140	10	6	10	+	*Lmono*	-	+	*Lmono*	60	100
					100	1	2							100	0	1							
			L1T1R3		10	10	13	*Lmono*	-	+	*Lmono*	90	120	10	11	16	+	*Lmono*	-	+	*Lmono*	100	160
					100	0	0							100	0	2							
			L1T1R4		10	11	18	*Lmono*	-	+	*Lmono*	100	160	10	10	13	+	*Lmono*	-	+	*Lmono*	90	120
					100	0	0							100	0	0							
			L1T1R5		10	12	14	*Lmono*	-	+	*Lmono*	110	130	10	11	15	+	*Lmono*	-	+	*Lmono*	110	160
					100	0	0							100	1	2							
			L1T2R1	500	10	14	41	*Lmono*	-	+	*Lmono*	170	450	10	18	34	+	*Lmono*	-	+	*Lmono*	180	340
					100	5	8							100	2	3							
			L1T2R2		10	15	43	*Lmono*	-	+	*Lmono*	150	410	10	21	44	+	*Lmono*	-	+	*Lmono*	220	350
					100	1	2							100	3	5							
			L1T2R3		10	11	39	*Lmono*	-	+	*Lmono*	120	390	10	23	38	+	*Lmono*	-	+	*Lmono*	230	360
					100	2	4							100	2	2							
			L1T2R4		10	9	40	*Lmono*	-	+	*Lmono*	100	400	10	12	38	+	*Lmono*	-	+	*Lmono*	120	370
					100	2	4							100	1	3							
			L1T2R5		10	10	40	*Lmono*	-	+	*Lmono*	90	400	10	16	30	+	*Lmono*	-	+	*Lmono*	160	290
					100	0	4							100	1	2							
			L1T3R1	3000	100	11	25	*Lmono*	-	+	*Lmono*	1200	2500	10	>150	>150	+	*Lmono*	-	+	*Lmono*	1400	2500
					1000	2	3							100	14	25							
			L1T3R2		100	10	25	*Lmono*	-	+	*Lmono*	900	2400	100	13	28	+	*Lmono*	-	+	*Lmono*	1200	2500
					1000	0	1							1000	0	0							
			L1T3R3		100	17	23	*Lmono*	-	+	*Lmono*	1600	2300	100	12	18	+	*Lmono*	-	+	*Lmono*	1300	1900
					1000	1	2							1000	2	3							
			L1T3R4		100	9	20	*Lmono*	-	+	*Lmono*	800	1900	100	12	20	+	*Lmono*	-	+	*Lmono*	1100	1900
					1000	0	1							1000	0	1							
			L1T3R5		100	14	20	*Lmono*	-	+	*Lmono*	1400	2000	100	19	29	+	*Lmono*	-	+	*Lmono*	1700	2700
					1000	1	2							1000	0	1							
Mix salad: "Piemontese"	6,00E+01	LIS.4.46 / *Listeria monocytogenes* 3a / Sandwich	L2T1R1	100	10	13	19	*Lmono*	-	+	*Lmono*	120	170	10	18	19	+	*Lmono*	-	+	*Lmono*	160	170
					100	0	0							100	0	0							
			L2T1R2		10	13	15	*Lmono*	-	+	*Lmono*	130	150	10	16	18	+	*Lmono*	-	+	*Lmono*	160	170
					100	1	1							100	1	1							
			L2T1R3		10	14	14	*Lmono*	-	+	*Lmono*	130	130	10	15	17	+	*Lmono*	-	+	*Lmono*	140	160
					100	0	0							100	0	0							
			L2T1R4		10	15	18	*Lmono*	-	+	*Lmono*	140	160	10	18	18	+	*Lmono*	-	+	*Lmono*	160	160
					100	0	0							100	0	0							
			L2T1R5		10	14	19	*Lmono*	-	+	*Lmono*	130	180	10	13	16	+	*Lmono*	-	+	*Lmono*	130	160
					100	0	1							100	1	1							
			L2T2R1	500	10	22	34	*Lmono*	-	+	*Lmono*	220	350	10	25	35	+	*Lmono*	-	+	*Lmono*	260	360
					100	2	4							100	4	4							
			L2T2R2		10	25	38	*Lmono*	-	+	*Lmono*	230	360	10	25	30	+	*Lmono*	-	+	*Lmono*	260	300
					100	0	1							100	3	3							
			L2T2R3		10	27	43	*Lmono*	-	+	*Lmono*	280	450	10	25	34	+	*Lmono*	-	+	*Lmono*	240	330
					100	4	6							100	1	2							
			L2T2R4		10	40	57	*Lmono*	-	+	*Lmono*	430	580	10	24	34	+	*Lmono*	-	+	*Lmono*	250	350
					100	7	7							100	3	4							
			L2T2R5		10	20	35	*Lmono*	-	+	*Lmono*	210	380	10	27	34	+	*Lmono*	-	+	*Lmono*	270	340
					100	3	7							100	3	3							
			L2T3R1	3000	100	4	19	*Lmono*	-	+	*Lmono*	360	1700	100	12	21	+	*Lmono*	-	+	*Lmono*	1200	2200
					1000	0	0							1000	1	3							
			L2T3R2		100	5	24	*Lmono*	-	+	*Lmono*	550	2300	100	17	32	+	*Lmono*	-	+	*Lmono*	1700	3100
					1000	1	1							1000	2	2							
			L2T3R3		100	6	21	*Lmono*	-	+	*Lmono*	640	2200	100	14	25	+	*Lmono*	-	+	*Lmono*	1400	2500
					1000	1	3							1000	1	3							
			L2T3R4		100	7	25	*Lmono*	-	+	*Lmono*	730	2500	100	16	28	+	*Lmono*	-	+	*Lmono*	1500	2700
					1000	1	2							1000	0	2							
			L2T3R5		100	9	21	*Lmono*	-	+	*Lmono*	820	2100	100	12	21	+	*Lmono*	-	+	*Lmono*	1300	2200
					1000	0	2							1000	2	3							

Matrix (category)	Total viable count (CFU/g or mL)	Code strain/ strain/origin	Lot	Level (CFU/g)	Reference method: NF ISO 11290-2									Alternative method: RAPID'*L.mono*									
					Dilution	CFU/plate		Confirmation				Result (CFU/g or mL)		Dilution	CFU/plate		Confirmation 1	Confirmation 2				Result (CFU/g or mL)	
						24h	48h	β Hemolysis	D Xyl	L Rham	Identifi-cation	24h	48h		22h	48h	Rhamnose test	β Hemolysis	D Xyl	L Rham	Identifi-cation	22h	48h
Process water: fishmonger's (Environmental samples)	4,30E+03	LIS.4.2 / *Listeria monocytogenes* / environment	L1T1R1	100	10	15	15	*Lmono*	-	+	*Lmono*	160	160	10	8	12	+	*Lmono*	-	+	*Lmono*	90	130
					100	2	2							100	2	2							
			L1T1R2		10	9	17	*Lmono*	-	+	*Lmono*	90	160	10	6	15	+	*Lmono*	-	+	*Lmono*	60	150
					100	1	1							100	1	1							
			L1T1R3		10	8	18	*Lmono*	-	+	*Lmono*	100	190	10	5	12	+	*Lmono*	-	+	*Lmono*	60	120
					100	3	3							100	1	1							
			L1T1R4		10	6	20	*Lmono*	-	+	*Lmono*	60	200	10	16	16	+	*Lmono*	-	+	*Lmono*	160	160
					100	0	2							100	1	1							
			L1T1R5		10	8	15	*Lmono*	-	+	*Lmono*	80	150	10	10	18	+	*Lmono*	-	+	*Lmono*	100	170
					100	1	1							100	1	1							
			L1T2R1	500	10	15	51	*Lmono*	-	+	*Lmono*	210	540	10	36	47	+	*Lmono*	-	+	*Lmono*	360	460
					100	8	8							100	4	4							
			L1T2R2		10	38	52	*Lmono*	-	+	*Lmono*	370	500	10	34	64	+	*Lmono*	-	+	*Lmono*	360	640
					100	3	3							100	6	6							
			L1T2R3		10	42	54	*Lmono*	-	+	*Lmono*	440	550	10	41	46	+	*Lmono*	-	+	*Lmono*	410	450
					100	6	6							100	4	4							
			L1T2R4		10	57	57	*Lmono*	-	+	*Lmono*	580	580	10	44	44	+	*Lmono*	-	+	*Lmono*	430	430
					100	7	7							100	3	3							
			L1T2R5		10	49	49	*Lmono*	-	+	*Lmono*	500	500	10	64	64	+	*Lmono*	-	+	*Lmono*	630	630
					100	6	6							100	5	5							
			L1T3R1	3000	100	34	34	*Lmono*	-	+	*Lmono*	3200	3200	100	30	30	+	*Lmono*	-	+	*Lmono*	3000	3000
					1000	1	1							1000	3	3							
			L1T3R2		100	34	34	*Lmono*	-	+	*Lmono*	3300	3300	100	30	30	+	*Lmono*	-	+	*Lmono*	3100	3100
					1000	2	2							1000	4	4							
			L1T3R3		100	30	30	*Lmono*	-	+	*Lmono*	2800	2800	100	32	32	+	*Lmono*	-	+	*Lmono*	3100	3100
					1000	1	1							1000	2	2							
			L1T3R4		100	34	34	*Lmono*	-	+	*Lmono*	3400	3400	100	27	27	+	*Lmono*	-	+	*Lmono*	2700	2700
					1000	3	3							1000	3	3							
			L1T3R5		100	29	29	*Lmono*	-	+	*Lmono*	2800	2800	100	38	38	+	*Lmono*	-	+	*Lmono*	3600	3600
					1000	2	2							1000	2	2							
Process water: fishmonger's (Environmental samples)	4,30E+03	LIS.4.2 / *Listeria monocytogenes* / environment	L2T1R1	100	10	19	19	*Lmono*	-	+	*Lmono*	190	190	10	13	13	+	*Lmono*	-	+	*Lmono*	150	150
					100	2	2							100	3	3							
			L2T1R2		10	19	19	*Lmono*	-	+	*Lmono*	200	200	10	26	26	+	*Lmono*	-	+	*Lmono*	250	250
					100	3	3							100	1	1							
			L2T1R3		10	16	16	*Lmono*	-	+	*Lmono*	160	160	10	16	16	+	*Lmono*	-	+	*Lmono*	160	160
					100	2	2							100	2	2							
			L2T1R4		10	18	18	*Lmono*	-	+	*Lmono*	190	190	10	11	11	+	*Lmono*	-	+	*Lmono*	120	120
					100	3	3							100	2	2							
			L2T1R5		10	11	11	*Lmono*	-	+	*Lmono*	110	110	10	10	10	+	*Lmono*	-	+	*Lmono*	110	110
					100	1	1							100	2	2							
			L2T2R1	500	10	53	53	*Lmono*	-	+	*Lmono*	550	550	10	44	44	+	*Lmono*	-	+	*Lmono*	440	440
					100	7	7							100	4	4							
			L2T2R2		10	61	61	*Lmono*	-	+	*Lmono*	600	600	10	45	45	+	*Lmono*	-	+	*Lmono*	450	450
					100	5	5							100	5	5							
			L2T2R3		10	47	47	*Lmono*	-	+	*Lmono*	460	460	10	33	33	+	*Lmono*	-	+	*Lmono*	330	330
					100	4	4							100	3	3							
			L2T2R4		10	54	54	*Lmono*	-	+	*Lmono*	550	550	10	47	47	+	*Lmono*	-	+	*Lmono*	460	460
					100	6	6							100	4	4							
			L2T2R5		10	50	50	*Lmono*	-	+	*Lmono*	530	530	10	61	61	+	*Lmono*	-	+	*Lmono*	590	590
					100	8	8							100	4	4							
			L2T3R1	3000	100	25	25	*Lmono*	-	+	*Lmono*	2600	2600	100	18	18	+	*Lmono*	-	+	*Lmono*	1700	1700
					1000	3	3							1000	1	1							
			L2T3R2		100	31	31	*Lmono*	-	+	*Lmono*	3300	3300	100	37	37	+	*Lmono*	-	+	*Lmono*	3500	3500
					1000	5	5							1000	1	1							
			L2T3R3		100	28	28	*Lmono*	-	+	*Lmono*	2300	2300	100	27	27	+	*Lmono*	-	+	*Lmono*	2600	2600
					1000	2	2							1000	2	2							
			L2T3R4		100	38	38	*Lmono*	-	+	*Lmono*	3600	3600	100	23	23	+	*Lmono*	-	+	*Lmono*	2300	2300
					1000	2	2							1000	2	2							
			L2T3R5		100	29	29	*Lmono*	-	+	*Lmono*	2900	2900	100	29	29	+	*Lmono*	-	+	*Lmono*	2700	2700
					1000	3	3							1000	1	1							

Appendix 9 – Inclusivity / Exclusivity: raw data (IPL 2001)

NIA : no information available

INCLUSIVITY						
Study	**No**	**Strain**	**Origin**	**Colony on RAPID'*L.mono* (48 h)**		**Result (*L. monocytogenes*)**
				Colour	Aspect	
IPL 1997	1	*Listeria monocytogenes* 1/2 a (85 strains)	NIA	Blue	Typical	+
IPL 1999	2	*Listeria monocytogenes* 1/2a	NIA	Blue	Typical	+
IPL 1997	3	*Listeria monocytogenes* 1/2 b (26 strains)	NIA	Blue	Typical	+
IPL 1999	4	*Listeria monocytogenes* 1/2 b	NIA	Blue	Typical	+
IPL 1997	5	*Listeria monocytogenes* 1/2 c (11 strains)	NIA	Blue	Typical	+
IPL 1999	6	*Listeria monocytogenes* 1/2	NIA	Blue	Typical	+
IPL 1997	7	*Listeria monocytogenes* 3a	NIA	White	/	-
IPL 1997	8	*Listeria monocytogenes* 3a	NIA	Blue	Typical	+
IPL 1997	9	*Listeria monocytogenes* 3b	NIA	Blue	Typical	+
IPL 1997	10	*Listeria monocytogenes* 3c	NIA	Blue	Typical	+
IPL 1997	11	*Listeria monocytogenes* 4a	NIA	Blue	Typical	+
IPL 1997	12	*Listeria monocytogenes* 4b (41 strains)	NIA	Blue	Typical	+
IPL 1998	13	*Listeria monocytogenes* 4b	Salad	Blue	Typical	+
IPL 1999	14	*Listeria monocytogenes* 4b	NIA	Blue	Typical	+
IPL 1997	15	*Listeria monocytogenes* 4c	NIA	Blue	Typical	+
IPL 1997	16	*Listeria monocytogenes* 4d	NIA	Blue	Typical	+
IPL 1997	17	*Listeria monocytogenes* 4e	NIA	Blue	Typical	+
IPL 1997	18	*Listeria monocytogenes* 7	NIA	Blue	Typical	+
IPL 1998	19	*Listeria monocytogenes*	Ground beef	Blue	Typical	+
IPL 1998	20	*Listeria monocytogenes*	ATCC 19115	Blue	Typical	+
IPL 1998	21	*Listeria monocytogenes*	Cheese (Brie de Meaux)	Blue	Typical	+
IPL 1998	22	*Listeria monocytogenes*	Scott A	Blue	Typical	+
IPL 1998	23	*Listeria monocytogenes*	Raw meat	Blue	Typical	+
IPL 1998	24	*Listeria monocytogenes*	Ground beef	Blue	Typical	+
IPL 1998	25	*Listeria monocytogenes*	Smoked salmon	Blue	Typical	+

EXCLUSIVITY								
Study	**No**	**Strain**			**Origin**	**Colony on RAPID'*L.mono* (48 h)**		**Result (*L. mono-cytogenes*)**
						Colour	Aspect	
IPL 1997	1	*Listeria*	*innocua*	6a (8 strains)	NIA	White	/	-
IPL 1997	2	*Listeria*	*innocua*	6b (3 strains)	NIA	White	/	-
IPL 1997	3	*Listeria*	*innocua*	4ab	NIA	White	/	-
IPL 1998	4	*Listeria*	*innocua*		Chicken legs	White	Small colonies	-
IPL 1998	5	*Listeria*	*innocua*		Ground beef	White	Small colonies	-
IPL 1998	6	*Listeria*	*innocua*		Cheese	White	Small colonies	-
IPL 1998	7	*Listeria*	*innocua*		Ground beef	White	Small colonies	-
IPL 1999	8	*Listeria*	*innocua*		NIA	White	Small colonies	-
IPL 1999	9	*Listeria*	*innocua*		NIA	White	Small colonies	-
IPL 1997	10	*Listeria*	*ivanovii* subsp ivanovii	5 (5 strains)	NIA	Blue with a yelllow	/	-
IPL 1997	11	*Listeria*	*ivanovii subsp londoniensis*	5 (5 strains)	NIA	Blue with a yelllow	/	-
IPL 1998	12	*Listeria*	*ivanovii*		Collection	Blue with a yelllow	Small colonies	-
IPL 1997	13	*Listeria*	*seeligeri*	1/2 b (4 strains)	NIA	Yellow	/	-
IPL 1997	14	*Listeria*	*seeligeri*	6b (3 strains)	NIA	Yellow	/	-
IPL 1997	15	*Listeria*	*seeligeri*	4c (2 strains)	NIA	Yellow	/	-
IPL 1997	16	*Listeria*	*seeligeri*		NIA	Yellow	/	-
IPL 1997	17	*Listeria*	*welshimeri*	4c (2 strains)	NIA	Pale yellow	/	-
IPL 1997	18	*Listeria*	*welshimeri*	6a (3 strains)	NIA	Pale yellow	/	-
IPL 1997	19	*Listeria*	*welshimeri*	6b (2 strains)	NIA	Pale yellow	/	-
IPL 1997	20	*Listeria*	*welshimeri*	(3 strains)	NIA	Pale yellow	/	-
IPL 1998	21	*Listeria*	*welshimeri*		Ground beef	Pale yellow	Small colonies	-
IPL 1997	22	*Listeria*	*grayi*		NIA	White	/	-
IPL 1998	23	*Bacillus*	*cereus*		Ground beef	Pink with purple center	Not typical	-
IPL 1998	24	*Bacillus*	*cereus*		Milk products	Light pink	Not typical	-
IPL 1998	25	*Bacillus*	*cereus*		Frozen vegetables	Pink	Not typical	-

EXCLUSIVITY						
Study	**No**	**Strain**	**Origin**	**Colony on RAPID'*L.mono* (48 h)**		**Result (*L. mono-cytogenes*)**
				Colour	Aspect	
IPL 1998	26	*Bacillus cereus*	Milk products	Pink with purple center	Not typical	-
IPL 1998	27	*Bacillus cereus*	Flour	Pink	Not typical	-
IPL 1998	28	*Bacillus cereus*	Frozen vegetables	Pink with purple center	Not typical	-
IPL 1999	29	*Bacillus cereus*	NIA	Pink with purple center	Not typical	-
IPL 1999	30	*Bacillus cereus*	NIA	Pink	Not typical	-
IPL 1998	31	*Bacillus subtilis*	Raw bread dough	White	Not typical	-
IPL 1998	32	*Bacillus megaterium*	Ground beef	∅	/	-
IPL 1998	33	*Bacillus megaterium*	Milk products	∅	/	-
IPL 1998	34	*Bacillus pumilus*	NIA	Pink-orange	Not typical	-
IPL 1998	35	*Staphylococcus aureus*	Milk products	∅	/	-
IPL 1998	36	*Staphylococcus aureus*	Milk products	∅	/	-
IPL 1998	37	*Staphylococcus aureus*	Milk products	∅	/	-
IPL 1998	38	*Staphylococcus aureus*	Milk products	∅	/	-
IPL 1998	39	*Staphylococcus aureus*	Ground beef	∅	/	-
IPL 1999	40	*Staphylococcus aureus*	NIA	Pink	/	-
IPL 1998	41	*Staphylococcus epidermidis*	Ground beef	White	/	-
IPL 1998	42	*Staphylococcus epidermidis*	Ground beef	∅	/	-
IPL 1999	43	*Staphylococcus cohnii*	NIA	White	Not typical (very small colonies)	-
IPL 1998	44	*Enterococcus faecalis*	Ground beef	White translucide	/	-
IPL 1999	45	*Enterococcus faecalis*	NIA	∅	/	-
IPL 1999	46	*Enterococcus faecalis*	NIA	∅	/	-
IPL 1999	47	*Enterococcus faecalis*	NIA	White	Not typical (very small colonies)	-
IPL 1999	48	*Enterococcus faecalis*	NIA	White	Not typical (very small colonies)	-
IPL 1998	49	*Enterococcus durans*	Ground beef	∅	/	-

EXCLUSIVITY							
Study	**No**	**Strain**		**Origin**	**Colony on RAPID'*L.mono* (48 h)**		**Result (*L. mono-cytogenes*)**
					Colour	Aspect	
IPL 1999	50	*Enterococcus*	*sp.*	NIA	∅	/	-
IPL 1998	51	*Lactobacillus*	*plantarum*	Milk products	∅	/	-
IPL 1998	52	*Lactobacillus*	*lactis lactis*	Milk products	∅	/	-
IPL 1998	53	*Lactobacillus*	*casei*	Milk products	∅	/	-
IPL 1998	54	*Lactobacillus*	*fermentum*	Ground beef	∅	/	-
IPL 1998	55	*Leuconostoc*	*mesenteroïdes*	Raw bread dough	∅	/	-
IPL 1998	56	*Rhodococcus*		NIA	∅	/	-
IPL 1998	57	*Brochotrix*		NIA	∅	/	-
IPL 1998	58	*Clostridium*	*perfringens*	Collection	∅	/	-
IPL 1998	59	*Escherichia*	*coli* O157	CIS 4288	Orange	/	-
IPL 1998	60	*Salmonella*	Typhimurium	Ground beef	Orange	/	-
IPL 1998	61	*Saccharomyces*	*cerevisiae*	Milk products	∅	/	-
IPL 1998	62	*Rhodotorula*	*rubra*	Cheese	∅	/	-
IPL 1998	63	*Saccharomyces*	*cerevisiae*	Biscuit	∅	/	-
IPL 1998	64	*Candida*	*parapsilosis*	Juice	∅	/	-
IPL 1998	65	*Candida*	*parapsilosis*	Milk products	White	/	-

Appendix 10 – Extension for confirmation protocols (rhamnose test)

IPL Legend

xx/xx: first test / second test

R (pink)= negative test O (orange)= positive test V = purple

Inclusivity

Strains		Origin	Agar	4h at 37°C	6h at 37°C	16h at 37°C	24h at 37°C	48h at 37°C	72h at 37°C	24h at 37°C then 24h at RT°	24h at 37°C then 48h at RT°	Test IQ Check L.mono
L4	*Listeria monocytogenes* 1/2a	ATCC 35152	RLM	P	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L5	*Listeria monocytogenes* 1/2a	Let us lard smoked salmon	RLM	- / P	-/+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L6	*Listeria monocytogenes* 1/2a	Pizza	RLM	P	+	+	+	+	+	+	+	+
			TSA	- / P	-/+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L7	*Listeria monocytogenes* 1/2a	Munster eats	RLM	-/O	P/+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L9	*Listeria monocytogenes* 1/2a	Munster eats	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L10	*Listeria monocytogenes* 1/2a	Rillettes	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L11	*Listeria monocytogenes* 1/2a	Munster eats	RLM	O	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L12	*Listeria monocytogenes* 1/2a	Smoked salmon	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L13	*Listeria monocytogenes* 1/2b	Pork's ear	RLM	-/O	P/+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L14	*Listeria monocytogenes* 1/2c	Minced beef	RLM	-	O	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	-/+	+	+	+	-/+	-/+	
L15	*Listeria monocytogenes* 1/2c	Beef MP	RLM	P	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L16	*Listeria monocytogenes* 1/2c	Minced beef	RLM	-/O	-/+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L17	*Listeria monocytogenes* 1/2c	Meat of pork belly	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L18	*Listeria monocytogenes* 1/2c	Munster eats	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	-/+	+	+	+	-/+	-/+	
L20	*Listeria monocytogenes* 1/2	Cracks of smoked salmon	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L21	*Listeria monocytogenes* 1/2	Poitrine salée	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	-	O	+	+	+	+	+	+	
L22	*Listeria monocytogenes* 1/2	Lardons	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L23	*Listeria monocytogenes* 1/2	Salty meat of pork belly	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L24	*Listeria monocytogenes* 1/2	Crystallized sirloin	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L25	*Listeria monocytogenes* 1/2	Hen	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	P	+	-/+	+	+	+	-/+	-/+	
L26	*Listeria monocytogenes* 1/2	Sausage	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L27	*Listeria monocytogenes* 1/2	Sausage	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L28	*Listeria monocytogenes* 1/2c	Environment (surface)	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	P	+	+	+	+	+	+	+	
L29	*Listeria monocytogenes* 1/2	Potatoes	RLM	P	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L30	*Listeria monocytogenes* 1/2	Yeast	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L31	*Listeria monocytogenes* 1/2	Flat-leaved parsley	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L32	*Listeria monocytogenes* 4b	Munster eats	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L33	*Listeria monocytogenes* 4b	ATCC 19115	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L34	*Listeria monocytogenes*	Yeast	RLM	O	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	P	+	+	+	+	+	+	+	
L35	*Listeria monocytogenes*	Brie de Meaux	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	

Strains		Origin	Agar	4h at 37°C	6h at 37°C	16h at 37°C	24h at 37°C	48h at 37°C	72h at 37°C	24h at 37°C then 24h at RT°	24h at 37°C then 48h at RT°	Test IQ Check L.mono
L36	*Listeria monocytogenes*	Salt pork	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L37	*Listeria monocytogenes* 1/2b	Raw milk Maroille	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L38	*Listeria monocytogenes*	Raw milk cheese Coulommier	RLM	P	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L39	*Listeria monocytogenes*	Salami ham	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L40	*Listeria monocytogenes* 1/2a	Munster cats	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L42	*Listeria monocytogenes* 1/2a	Chicken breast	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L43	*Listeria monocytogenes* 1/2a	Minced beef	RLM	P	O	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L44	*Listeria monocytogenes* 1/2a	Sausage	RLM	P	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L45	*Listeria monocytogenes* 1/2a	Rabbit terrine hazelnut	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L47	*Listeria monocytogenes* 1/2a	Fried potatoes	RLM	-/P	P/+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L48	*Listeria monocytogenes* 1/2b	Pork tongue	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	-/+	+	+	+	-/+	-/+	
L49	*Listeria monocytogenes* 1/2b	Cremate chicken liver	RLM	P	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	-/O	-/+	+	+	+	+	+	+	
L51	*Listeria monocytogenes* 1/2b	Affined Germain cheese	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L52	*Listeria monocytogenes* 1/2b	SLCC 2755	RLM	+	+	+	+	+	+	+	+	+
			TSA	-/-	-/-	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L53	*Listeria monocytogenes* 1/2c	Minced beef	RLM	O	+	+	+	+	+	+	+	+
			TSA	-/+	-/+	+	+	+	+	+	+	
			Blood agar	-/+	-/+	+	+	+	+	+	+	
L54	*Listeria monocytogenes* 1/2c	"Bœuf bourguignon"	RLM	P/O	O/+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L55	*Listeria monocytogenes* 3b	SLCC 2540	RLM	P	+	+		+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L56	*Listeria monocytogenes* 3c	SLCC 2479	RLM	-/P	-/+	+	+	+	+	+	+	+
			TSA	P/O	O/+	+	+	+	+	+	+	
			Blood agar	P	O	+	+	+	+	+	+	
L57	*Listeria monocytogenes* 4a	ATCC 19114	RLM	P	O	+	+	+	+	+	+	+
			TSA	-/O	R/+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L58	*Listeria monocytogenes* 4b	Salad	RLM	O	O	+	+	+	+	+	+	+
			TSA	O	O	+	+	+	+	+	+	
			Blood agar	O	O	+	+	+	+	+	+	
L59	*Listeria monocytogenes* 4b	ATCC 19115	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L60	*Listeria monocytogenes 4 d*	ATCC 19117	RLM	-/P	P/+	+	+	+	+	+	+	+
			TSA	-/P	P/+	+	+	+	+	+	+	
			Blood agar	P	+	+	+	+	+	+	+	
L61	*Listeria monocytogenes* 4e	ATCC 19118	RLM	-/VG	P/O	+	+	+	+	+	+	+
			TSA	P	O	+	+	+	+	+	+	
			Blood agar	P	O	+	+	+	+	+	+	
L62	*Listeria monocytogenes* 4e	Reblochon	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L63	*Listeria monocytogenes* 4e	Munster cats	RLM	O	+	+	+	+	+	+	+	+
			TSA	P	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L67	*Listeria monocytogenes* 7	SLCC 2482	RLM	P	O	+	+	+	+	+	+	+
			TSA	P	O	+	+	+	+	+	+	
			Blood agar	P	O	+	+	+	+	+	+	
L69	*Listeria monocytogenes*	Sausage	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L70	*Listeria monocytogenes*	Irlande salmon	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L116	*Listeria monocytogenes* 1/2a	Scallop of fish	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L117	*Listeria monocytogenes* 1/2c	Sausage of Montbéliard	RLM	P	O	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	

Strains		Origin	Agar	4h at 37°C	6h at 37°C	16h at 37°C	24h at 37°C	48h at 37°C	72h at 37°C	24h at 37°C then 24h at RT*	24h at 37°C then 48h at RT*	Test IQ Check L.mono
L118	*Listeria monocytogenes* 1/2a	Smoked salmon	RLM	P	+	+	+	+	+	+	+	+
			TSA	-	O	+	+	+	+	+	+	
			Blood agar	P	+	+	+	+	+	+	+	
L119	*Listeria monocytogenes*	Spinach	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L120	*Listeria monocytogenes*	Munster	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	P	+	+	+	+	+	+	+	
L121	*Listeria monocytogenes*	Cheese of "Neufchatel"	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L122	*Listeria monocytogenes*	Toasted soya	RLM	P	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L123	*Listeria monocytogenes*	Mozzarella	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L124	*Listeria monocytogenes*	Net of pole	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L125	*Listeria monocytogenes*	Vegetables stoves	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L126	*Listeria monocytogenes*	Farmer Munster	RLM	P	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L127	*Listeria monocytogenes* 1/2a	Chick	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L128	*Listeria monocytogenes* 1/2a	Soya bean oil cakes	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L129	*Listeria monocytogenes* 1/2a	Fried potatoes	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	-/O	P/+	+	+	+	+	+	+	
L130	*Listeria monocytogenes*	Ground beef	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L141	*Listeria monocytogenes*	Environment sample	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L149	*Listeria monocytogenes*	Environment sample	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	P	+	+	+	+	+	+	+	
L152	*Listeria monocytogenes*	Environment sample	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L156	*Listeria monocytogenes*	Chips	RLM	P	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	-	O	+	+	+	+	+	+	
L176	*Listeria monocytogenes*	Ox rib steak	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L187	*Listeria monocytogenes*	Bacon	RLM	P	+	+	+	+	+	+	+	+
			TSA	-	O	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L191	*Listeria monocytogenes* 3a	Workshop fish	RLM	P	O	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L192	*Listeria monocytogenes* 3a	Workshop fish	RLM	P	O	+	+	+	+	+	+	+
			TSA	P	O	+	+	+	+	+	+	
			Blood agar	-/+	P/+	+	+	+	+	+	+	
L193	*Listeria monocytogenes* 3b	Workshop fish	RLM	-	O	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	P	O	+	+	+	+	+	+	
L194	*Listeria monocytogenes* 4d	Workshop fish	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L196	*Listeria monocytogenes* 1/2c	ATCC 19112	RLM	-	O	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	P	+	+	+	+	+	+	+	
L197	*Listeria monocytogenes* 3a	ATCC 19113	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L198	*Listeria monocytogenes* 4d	ATCC 19117	RLM	P	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L199	*Listeria monocytogenes*	Frozen vegetables	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L200	*Listeria monocytogenes*	Taramasalata of cod	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L201	*Listeria monocytogenes*	Minced beef	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L202	*Listeria monocytogenes*	Taramasalata of salmon	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	

Strains		Origin	Agar	4h at 37°C	6h at 37°C	16h at 37°C	24h at 37°C	48h at 37°C	72h at 37°C	24h at 37°C then 24h at RT°	24h at 37°C then 48h at RT°	Test IQ Check L.mono
L203	*Listeria monocytogenes*	Scampi	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L204	*Listeria monocytogenes*	Smoked meat of pork belly	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L205	*Listeria monocytogenes*	Chipolatas	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L206	*Listeria monocytogenes*	Seep-frozen broccolis	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L207	*Listeria monocytogenes*	Ham	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L208	*Listeria monocytogenes*	Mozzarella	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L209	*Listeria monocytogenes*	Minced beef	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L210	*Listeria monocytogenes*	Collection	RLM	P	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM1	*Listeria monocytogenes* 1/2a	Libra net white fish environment sample	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM2	*Listeria monocytogenes* 1/2b	Peleuse	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	-/P	P/+	+	+	+	+	+	+	
CTLM3	*Listeria monocytogenes* 1/2a	Net of herring	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM4	*Listeria monocytogenes* 4b	Reception siphon	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM5	*Listeria monocytogenes* 1/2a	Reception siphon	RLM	P	O	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM6	*Listeria monocytogenes* 4b	Siphon of waste room	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM7	*Listeria monocytogenes* 1/2a	Stainless table packaging	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM8	*Listeria monocytogenes* 4d	Sewer shop	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM9	*Listeria monocytogenes* 1/2b	Stainless trolley wheel	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM10	*Listeria monocytogenes* 1/2a	Net of brosme	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM11	*Listeria monocytogenes* 1/2b	Waste tub	RLM	-/+	-/+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM12	*Listeria monocytogenes* 3a	Rubber apron	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM13	*Listeria monocytogenes* 3b	Salmon	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM14	*Listeria monocytogenes* 4b	Environment	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM15	*Listeria monocytogenes* 4b	Fresh salmon	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM16	*Listeria monocytogenes* 4b	Terrine of salmon	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM17	*Listeria monocytogenes* 3a	Seabass filet	RLM	P	O	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM18	*Listeria monocytogenes* 3a	Carpaccio of salmon	RLM	P	O	+	+	+	+	+	+	+
			TSA	-/-	P/O	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM20	*Listeria monocytogenes* 1/2a	Carpaccio of salmon basil	RLM	P	O	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM21	*Listeria monocytogenes* 3a	Blinis of salmon tartar	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM22	*Listeria monocytogenes* 1/2c	Smoked salmon	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM23	*Listeria monocytogenes* 1/2c	Railing of evacuation of cold room	RLM	P	O	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	

Strains		Origin	Agar	4h at 37°C	6h at 37°C	16h at 37°C	24h at 37°C	48h at 37°C	72h at 37°C	24h at 37°C then 24h at RT*	24h at 37°C then 48h at RT*	Test IQ Check L.mono
CTLM24	*Listeria monocytogenes* 1/2b	Manhole	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM25	*Listeria monocytogenes* 3a	Salmon	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM26	*Listeria monocytogenes* 3a	Cutlet of salmon	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM27	*Listeria monocytogenes* 1/2a	Olive of salmon St Jacques	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM28	*Listeria monocytogenes* 1/2a	Salmon tartar	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM29	*Listeria monocytogenes* 1/2a	Salmon filet	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM30	*Listeria monocytogenes* 4b	Smoked herring	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM31	*Listeria monocytogenes* 1/2a	Defrosting tube	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM32	*Listeria monocytogenes* 1/2a	Smoked herring	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM33	*Listeria monocytogenes* 1/2a	Smoked tuna	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM34	*Listeria monocytogenes* 1/2a	Railing of evacuation workshop	RLM	O	+			+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM35	*Listeria monocytogenes* 1/2a	Herring filet	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM36	*Listeria monocytogenes* 1/2a	Brine	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM37	*Listeria monocytogenes* 4b	Frozen raw herring	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM38	*Listeria monocytogenes* 4b	Waste of rotary filter	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM39	*Listeria monocytogenes* 4b	Salmon	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM40	*Listeria monocytogenes* 1/2a	Net of black halibut	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM41	*Listeria monocytogenes* 1/2a	Frozen net of halibut	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM42	*Listeria monocytogenes* 1/2a	Smoked salmon	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM43	*Listeria monocytogenes* 1/2a	Smoked herring	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM44	*Listeria monocytogenes* 1/2c	Raw salmon	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM45	*Listeria monocytogenes* 1/2c	Skin of salmon	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM46	*Listeria monocytogenes* 1/2c	Box of wash ling	RLM	O	+	+	+	+	+	+	+	+
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM47	*Listeria monocytogenes* 1/2c	Box of wash	RLM	+	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM48	*Listeria monocytogenes* 1/2a	Ground laundry	RLM	P	O	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM49	*Listeria monocytogenes* 3a	Terrine of nets of herrings	RLM	P	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
CTLM50	*Listeria monocytogenes* 3a	Carpaccio of salmon basil	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM51	*Listeria monocytogenes* 3a	Terrine of nets of herrings	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM52	*Listeria monocytogenes* 1/2a	Net of salmon	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
CTLM53	*Listeria monocytogenes* 1/2a	Tartar salmon tomato basil	RLM	O	+	+	+	+	+	+	+	+
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	

RT*: Room temperature

Exclusivity

Strains		Origin	Agars	4h at 37°C	6h at 37°C	16h at 37°C	24h at 37°C	48h at 37°C	72h at 37°C	24h at 37°C + 24h at RT°	24h at 37°C + 48h at RT°	Test iQ Check L.mono
L3	*L.innocua*	Cow's liver	RLM	O	+	+	+	+	+	+	+	-
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	P	+	+	+	+	+	+	+	
L64	*L.innocua*	Epoisses	RLM	O	+	+	+	+	+	+	+	-
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L78	*L.innocua*	Young cockerel	RLM	-	P	O	+	+	+	+	+	-
			TSA	P	O	O	+	+	+	+	+	
			Blood agar	P	O	O	+	+	+	+	+	
L66	*L.innocua*	Spinach	RLM	O	+	+	+	+	+	+	+	-
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	P	O	+	+	+	+	+	+	
L71	*L.innocua*	Munster	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L72	*L.innocua*	"Boulettes d'Avesnes" cheese	RLM	+	+	+	+	+	+	+	+	-
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L77	*L.innocua* 6a	Sausage of Toulouse	RLM	O	+	+	+	+	+	+	+	-
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L76	*L.innocua* 6b	Minced beef	RLM	+	+	+	+	+	+	+	+	-
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L78	*L.innocua*	Young cockerel	RLM	P	O	O	+	+	+	+	+	-
			TSA	O	O	O	+	+	+	+	+	
			Blood agar	O	O	O	+	+	+	+	+	
L80	*L.innocua*	Collection	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L108	*L.innocua*	Gorgonzola	RLM	O	+	+	+	+	+	+	+	-
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L113	*L.innocua*	Smoked halibut	RLM	O	+	+	+	+	+	+	+	-
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L175	*L.innocua*	Water environment	RLM	VR -	VR -	VR	VR -	VR -	VR -	VR -	VR -	-
			TSA	VR -	VR -	VR	VR -	VR -	VR -	VR -	VR -	
			Blood agar	VR -	VR -	VR	VR -	VR -	VR -	VR -	VR -	
CTLM19	*L.innocua*	Cutlet of salmon	RLM	P	O	+	+	+	+	+	+	-
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	O	+	+	+	+	+	+	+	
L133	*L.ivanovii*	Roquefort	RLM	-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	-
			TSA	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
L150	*L.ivanovii*	Dairy product	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L151	*L.ivanovii*	Minced beef	RLM	VP-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	-
			TSA	VP-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	
			Blood agar	VP-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	
L153	*L.ivanovii*	Environment sample	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L154	*L.ivanovii*	Sausage in herbs	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L157	*L.ivanovii sp. ivanovii*	Collection	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L158	*L.ivanovii*	NSB 79332	RLM	VR -	VR -	VR -	VR -	VR -	VR -	VR -	VR -	-
			TSA	VR -	VR -	VR -	VR -	VR -	VR -	VR -	VR -	
			Blood agar	VR -	VR -	VR -	VR -	VR -	VR -	VR -	VR -	
L159	*L.ivanovii sp. ivanovii*	Collection	RLM	-	-	VG-	VG-	VG-	VG-	VG-	VG-	-
			TSA	-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
L160	*L.ivanovii sp. ivanovii*	NSB 22439	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L161	*L.ivanovii sp. ivanovii*	Meat product	RLM	VP-	VP-	VP-	VG-	VG-	VG-	VG-	VG-	-
			TSA	VP-	VP-	VP-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	VP-	VP-	VP-	VG-	VG-	VG-	VG-	VG-	
L162	*L.ivanovii sp. ivanovii*	ATCC 700402	RLM	-	-	VG-	VG-	VG-	VG-	VG-	VG-	-
			TSA	-	-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	-	-	VG-	VG-	VG-	VG-	VG-	VG-	
L163	*L.ivanovii sp. ivanovii*	Meat product	RLM	-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	-
			TSA	VP-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	
			Blood agar	VP-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	
L164	*L.ivanovii sp. londoniensis*	Ground	RLM	-	-	-	-	-	-	-	-	-
			TSA	VR -	VR -	VR -	-	-	-	-	-	
			Blood agar	VR -	VR -	-	-	-	-	-	-	
L165	*L.ivanovii sp. londoniensis*	Collection	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L166	*L.ivanovii sp. londoniensis*	Collection	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	

Strains		Origin	Agars	4h at 37°C	6h at 37°C	16h at 37°C	24h at 37°C	48h at 37°C	72h at 37°C	24h at 37°C + 24h at RT°	24h at 37°C + 48h at RT°	Test IQ Check L.mono
L167	*L.ivanovii sp. londoniensis*	Cheese	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L168	*L.ivanovii sp. londoniensis*	Water	RLM	-	VR -	VR -	VR -	VR -	VR -	-	-	-
			TSA	VR -	VR -	-	VR -	VR -	VR -	-	-	
			Blood agar	-	VR -	-	VR -	VR -	VR -	-	-	
L169	*L.ivanovii sp. londoniensis*	Mud	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L170	*L.ivanovii sp. londoniensis*	Collection	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L171	*L.ivanovii*	NSB 22442	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L172	*L.ivanovii*	ATCC 19119	RLM	VP -	VP -	VG-	VG-	VG-	VG-	VG -	VG -	-
			TSA	VP -	VP -	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	-	-	VG-	VG-	VG-	VG-	VG -	VG -	
L173	*L.ivanovii*	Collection	RLM	-	-	VP -	VP -	VP -	VP -	VP -	VP -	-
			TSA	VP -	VP -	VP -	VP -	VP -	VP -	VP -	VP -	
			Blood agar	VP -	VP -	VP -	VP -	VP -	VP -	VP -	VP -	
L178	*L.ivanovii*	Wall of the pond	RLM	-	-	-	VR -	VR -	-	VR -	VR -	-
			TSA	VR -	VR -	VR -	VR -	VR -	-	VR -	VR -	
			Blood agar	VR -	VR -	VR -	VR -	VR -	-	VR -	VR -	
L179	*L.ivanovii*	Environment	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L182	*L.ivanovii*	Wall of the pond	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
L82	*L.seeligeri* 1/2b	ATCC 35967	RLM	-	-	VG-	VG-	VG-	VG-	VG-	VG-	-
			TSA	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
L83	*L.seeligeri* 1/2b	Tongue	RLM	VP-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	-
			TSA	VP-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	
			Blood agar	VP-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	
L84	*L.seeligeri* 1/2b	Minced beef	RLM	-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	-
			TSA	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
L115	*L.seeligeri*	Water of lake	RLM	VR-	VR-	VG-	VG-	VG-	VG-	VG-	VG-	-
			TSA	VR-	VR-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	VR-	VR-	VG-	VG-	VG-	VG-	VG-	VG-	
L142	*L.seeligeri*	Raw milk cheese	RLM	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	-
			TSA	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
L86	*L.welshimeri*	ATCC 35897	RLM	P	O	O	O	VG-	VG-	VG-	VG-	-
			TSA	P	O	O	O	VG-	VG-	VG-	VG-	
			Blood agar	P	O	O	O	VG-	VG-	VG-	VG-	
L87	*L.welshimeri*	Minced beef	RLM	-	P	O	+	+	+	+	+	-
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	P	+	+	+	+	+	+	+	
L89	*L.welshimeri*	Minced beef	RLM	O	+	+	+	+	+	+	+	-
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L91	*L.welshimeri*	Sausage	RLM	P	+	+	+	+	+	+	+	-
			TSA	O	+	+	+	+	+	+	+	
			Blood agar	-	-	+	+	+	+	+	+	
L100	*L.welshimeri*	Soft margarine	RLM	O	+	+	+	+	+	+	+	-
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L101	*L.welshimeri*	Ham in the former	RLM	O	+	+	+	+	+	+	+	-
			TSA	+	+	+	+	+	+	+	+	
			Blood agar	+	+	+	+	+	+	+	+	
L195	*L.welshimeri*	Roquefort	RLM	-	-	-	-	-	VR-	VR-	VR-	-
			TSA	-	-	-	-	-	VR-	VR-	VR-	
			Blood agar	-	-	-	-	-	VR-	VR-	VR-	
L146	*L.grayi*	CIP 103 213	RLM	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	-
			TSA	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	

Strains		Origin	Agars	4h at 37°C	6h at 37°C	16h at 37°C	24h at 37°C	48h at 37°C	72h at 37°C	24h at 37°C + 24h at RT°	24h at 37°C + 48h at RT°	Test IQ Check L.mono
Ba14	*Bacillus cereus (souche émétique)*	Egg	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba15	*Bacillus cereus (souche émétique)*	Custard	RLM	no growth								-
			TSA	VR-	VR-	VG-	-	-	-	-	-	
			Blood agar	VR-	VR-	VG-	-	-	-	-	-	
Ba1	*Bacillus cereus*	Whole egg	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba2	*Bacillus cereus*	Beets	RLM	no growth								-
			TSA	VRP-	VRP-	-	-	-	-	-	-	
			Blood agar	VP-	VRP-	-	-	-	-	-	-	
Ba3	*Bacillus cereus*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba9	*Bacillus cereus*	Flakes of potatoes	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba19	*Bacillus cereus*	Environment	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba21	*Bacillus cereus*	Tabbouleh	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba6	*Bacillus mycoides*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba24	*Bacillus mycoides*	Ground	RLM	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	-
			TSA	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
Ba7	*Bacillus coagulans*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba5	*Bacillus sphaericus*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba23	*Bacillus sphaericus*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba22	*Bacillus pumilus*	Tabbouleh	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba17	*Bacillus pumilus*	Custard	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba20	*Bacillus amyloliquefaciens*	Tabbouleh	RLM									-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba4	*Bacillus stearothermophilus*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba8	*Bacillus liquaniformis*	Dairy product	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba16	*Bacillus licheniformis*	Custard	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Ba18	*Bacillus circulans*	Custard	RLM	no growth								-
			TSA	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	no growth								
Ba13	*Bacillus megaterium*	Yoghurt	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
ST20	*Staphylococcus epidermidis*	Smoked salmon	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
ST3	*Staphylococcus epidermidis*	Yoghurt in the strawberry	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
ST14	*Staphylococcus aureus*	Giblets of poultry	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
ST17	*Staphylococcus aureus*	Frozen yoghurt	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
ST16	*Staphylococcus aureus*	Meat product	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
ST13	*Staphylococcus aureus*	ATCC 25923	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
ST26	*Staphylococcus intermedius*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
ST25	*Staphylococcus hyicus*	Meat product	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
39	*Oerskovia xanthineolytica*	Reblochon	RLM	VP-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	-
			TSA	VP-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	
			Blood agar	VP-	VP-	VP-	VP-	VP-	VP-	VP-	VP-	
L139	*Janesia denitrificans*	ATCC 55134	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	

Strains		Origin	Agars	4h at 37°C	6h at 37°C	16h at 37°C	24h at 37°C	48h at 37°C	72h at 37°C	24h at 37°C + 24h at RT°	24h at 37°C + 48h at RT°	Test IQ Check L.mono
E1	*Enterococcus faecalis*	Egg	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
E6	*Enterococcus faecalis*	ATCC 19433	RLM	no growth								-
			TSA	-	-	-	-	-	-	VG-	VG-	
			Blood agar	-	-	-	-	-	-	VG-	VG-	
E9	*Enterococcus faecium*	Taramasalata	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
E2	*Enterococcus faecium*	ATCC 3286	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
E8	*Enterococcus durans*	ATCC 3286	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
E10	*Enterococcus durans*	Collection	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
E13	*Streptococcus bovis*	CIP 5623	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
E3	*Streptococcus bovis*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
E17	*Streptococcus equinus*	Collection	RLM	no growth								-
			TSA	-	-	VP-	VP-	VG-	VG-	VG-	VG-	
			Blood agar	-	-	VP-	VP-	VG-	VG-	VG-	VG-	
15	*Brochothrix*	Ground beef	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
M5	*Micrococcus luteus*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
LAC33	*Lactococcus lactis*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
LAC41	*Lactobacillus rhamnosus*	ATCC 9338	RLM	no growth								-
			TSA	O	O	+	+	+	+	+	+	
			Blood agar	VG-	O	+	+	+	+	+	+	
LAC52	*Lactobacillus casei*	ATCC 9595	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
LAC5	*Lactobacillus reuteri*	ATCC 9595	RLM									-
			TSA	VG-	O	O	O	O	O	O	O	
			Blood agar	VG-	O	O	O	O	O	O	O	
47	*Carnobacterium gallinarum*	Ice surrounding a carcass of chicken	RLM	-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	-
			TSA	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	VG-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
49	*Erysipelothrix rhusiopathiae*	Pig's spleen with endocarditis	RLM	no growth								-
			TSA	-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
			Blood agar	-	VG-	VG-	VG-	VG-	VG-	VG-	VG-	
M1	*Micrococcus spp*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
M5	*Micrococcus spp*	Environment	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
32	*Rhodococcus equi*	Meat product	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Le 1	*Rhodotorula rubra*	Collection	RLM	no growth								-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	
Le 5	*Saccharomyces cerevisiae*	Extract of coffee	RLM	-	-	-	-	-	-	-	-	-
			TSA	-	-	-	-	-	-	-	-	
			Blood agar	-	-	-	-	-	-	-	-	

Appendix 11 - Inter-laboratory study: raw data (IPL, 2005)

Level 0

Number of characteristic colonies enumerated

Laboratories	Reference method (Ottaviani and Agosti at 24 h)																													
	Sample 2															Sample 6														
	-1				-1				-1		-2		-3		Result (CFU/ml)	-1				-1				-1		-2		-3		Result (CFU/ml)
	1 ml on 3 plates				1 ml on 3 plates				0,1 ml per plate		0,1 ml per plate		0,1 ml per plate			1 ml on 3 plates				1 ml on 3 plates				0,1 ml per plate		0,1 ml per plate		0,1 ml per plate		
	plate 1	plate 2	plate 3	**Total**	plate 1	plate 2	plate 3	**Total**	plate 1	plate 2	plate 1	plate 2	plate 1	plate 2		plate 1	plate 1	plate 2	**Total**	plate 1	plate 1	plate 2	**Total**	plate 1	plate 2	plate 1	plate 2	plate 1	plate 2	
A	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
B	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
C	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
D	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
E	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
F	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
G	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
H	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
I	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
J	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
L	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
M	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
N	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
O	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
Expert lab	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**
Expert lab*	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**	0	0	0	**0**	0	0	0	**0**	0	0	0	0	0	0	**<10**

Laboratories	Alternative method (RAPID'*L.mono* at 48 h)																	
	Sample 2								Sample 6									
	-1				-1	-2	-3	Result (CFU/ml	-1				-1	-2		-3		Result (CFU/ml)
	1 ml on 3 plates				0,1 ml per plate	0,1 ml per plate	0,1 ml per plate		1 ml on 3 plates				0,1 ml per plate	0,1 ml per plate		0,1 ml per plate		
	plate 1	plate 2	plate 3	**Total**	plate 1	plate 1	plate 1		plate 1	plate 2	plate 3	**Total**	plate 1	plate 1	plate 2	plate 1	plate 2	
A	0	0	0	**0**	0	0	0	**< 10**	0	0	0	**0**	0	0		0		**< 10**
B	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
C	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
D	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
E	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
F	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
G	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
H	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
I	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
J	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
L	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
M	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
N	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
O	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
Expert lab	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**
Expert lab*	0	0	0	**0**	0	0	0	**<10**	0	0	0	**0**	0	0		0		**<10**

* : analysis performed 48 h after preparation

NIVEAU 1

Number of characteristic colonies enumerated

Initial contamination : 86 *Listeria monocytogenes* / ml

Laboratories	Reference method (Ottaviani and Agosti at 24 h)																												
	Sample 4															Sample 8													
	-1				-1				-1		-2		-3		Result (CFU/ml)	-1				-1				-1		-2		-3		Result (CFU/ml)
	1 ml on 3 plates				1 ml on 3 plates				0,1 ml per plate		0,1 ml per plate		0,1 ml per plate			1 ml on 3 plates				1 ml on 3 plates				0,1 ml per plate		0,1 ml per plate		0,1 ml per plate		
	plate 1	plate 2	plate 3	Total	plate 1	plate 2	plate 3	Total	plate 1	plate 2	plate 1	plate 2	plate 1	plate 2		plate 1	plate 2	plate 3	Total	plate 1	plate 2	plate 3	Total	plate 1	Plate 2	plate 1	Plate 2	plate 1	Plate 2	
A	2	1	3	**6**	10	3	5	**18**	1	0	0	0	0	0	**120**	5	3	3	**11**	2	1	1	**4**	2	0	0	0	0	0	**75**
B	2	3	6	**11**	4	0	4	**8**	0	1	1	1	0	0	**95**	2	4	4	**10**	4	3	0	**7**	1	1	0	0	0	0	**85**
C	5	2	5	**12**	4	0	2	**6**	0	0	0	0	0	0	**90**	3	3	2	**8**	1	2	5	**8**	0	1	0	0	0	0	**80**
D	4	3	4	**11**	1	2	4	**7**	1	1	0	0	0	0	**90**	6	2	2	**10**	4	3	7	**14**	0	1	0	0	0	0	**120**
E	3	3	3	**9**	4	1	4	**9**	3	2	0	0	0	0	**90**	3	8	2	**13**	3	5	4	**12**	2	0	0	0	0	0	**125**
F	1	8	2	**11**	7	6	2	**15**	0	0	0	0	0	0	**130**	2	3	2	**7**	2	0	4	**6**	0	1	0	0	0	0	**65**
G	4	1	5	**10**	1	3	5	**9**	0	0	0	0	0	0	**95**	2	3	4	**9**	4	3	5	**12**	1	0	0	0	0	0	**105**
H	3	4	5	**12**	5	1	2	**8**	0	0	0	0	0	0	**100**	3	6	6	**15**	3	6	1	**10**	0	2	0	0	0	0	**125**
I	4	2	3	**9**	3	3	4	**10**	2	0	0	0	0	0	**95**	3	4	3	**10**	1	2	3	**6**	1	2	0	0	0	0	**80**
J	3	3	4	**10**	1	6	7	**14**	4	1	0	0	0	0	**120**	4	2	4	**10**	6	3	3	**12**	0	0	0	0	0	0	**110**
L	5	7	3	**15**	3	3	9	**15**	1	0	0	0	0	0	**150**	4	3	1	**8**	5	2	6	**13**	0	1	0	0	0	0	**105**
M	6	5	3	**14**	2	2	1	**5**	1	1	0	0	0	0	**95**	9	3	3	**15**	5	3	3	**11**	0	2	0	0	0	0	**130**
N	2	6	2	**10**	3	2	4	**9**	0	2	0	0	0	0	**95**	6	2	2	**10**	0	3	3	**6**	3	0	0	0	0	0	**80**
O	2	2	3	**7**	1	3	2	**6**	0	0	0	0	0	0	**65**	5	3	5	**13**	2	1	3	**6**	0	0	0	0	0	0	**95**
Expert lab	4	3	5	**12**	5	2	2	**9**	0	1	0	0	0	0	**105**	3	3	0	**6**	2	1	2	**5**	0	1	0	0	0	0	**55**
Expert lab*	3	3	1	**7**	2	0	1	**3**	3	0	0	0	0	0	**50**	3	3	4	**10**	6	3	1	**10**	2	0	0	0	0	0	**100**

Laboratories	Alternative method (RAPID'*L.mono* at 48 h)															
	Sample 4								Sample 8							
	-1				-1	-2	-3	Result (CFU/ml)	-1				-1	-2	-3	Result (CFU/ml)
	1 ml on 3 plates				0,1 ml per plate	0,1 ml per plate	0,1 ml per plate		1 ml on 3 plates				0,1 ml per plate	0,1 ml per plate	0,1 ml per plate	
	plate 1	plate 2	plate 3	Total					plate 1	plate 2	plate 3	Total				
A	2	2	2	**6**	1	0	0	**60**	2	1	1	**4**	0	0	0	**40**
B	1	4	2	**7**	2	0	0	**70**	2	2	6	**10**	2	0	0	**100**
C	1	1	6	**8**	0	1	0	**80**	2	2	1	**5**	1	0	0	**50**
D	3	4	2	**9**	2	0	0	**90**	4	4	9	**17**	0	0	0	**170**
E	3	0	1	**4**	0	0	0	**40**	3	2	2	**7**	1	0	0	**70**
F	1	2	2	**5**	0	0	0	**50**	3	2	7	**12**	2	0	0	**120**
G	3	4	2	**9**	0	0	0	**90**	3	4	6	**13**	1	0	0	**130**
H	2	3	4	**9**	0	0	0	**90**	3	4	4	**11**	1	0	0	**110**
I	6	5	3	**14**	1	0	0	**140**	5	2	2	**9**	0	0	0	**90**
J	5	3	1	**9**	1	2	0	**90**	5	3	3	**11**	2	0	0	**110**
L	5	3	1	**9**	0	0	0	**90**	5	4	3	**12**	1	0	0	**120**
M	3	6	2	**11**	1	0	0	**110**	2	5	6	**13**	1	0	0	**130**
N	4	3	2	**9**	0	0	0	**90**	6	4	5	**15**	1	0	0	**150**
O	6	0	5	**11**	2	0	0	**110**	1	2	2	**5**	2	0	0	**50**
Expert lab	2	2	2	**6**	3	0	0	**60**	5	7	3	**15**	2	0	0	**150**
Expert lab*	4	2	5	**11**	0	0	0	**110**	2	8	2	**12**	1	0	0	**120**

* : analysis performed 48 h after preparation

NIVEAU 2

Number of characteristic colonies enumerated

Initial contamination : 780 *Listeria monocytogenes* / ml

Laboratories	Reference method (Ottaviani and Agosti at 24 h)																													
	Sample 1															Sample 5														
	-1				-1				-1		-2		-3		Result (CFU/ml)	-1				-1				-1		-2		-3		Result (CFU/ml)
	1 ml on 3 plates				1 ml on 3 plates				0,1 ml per plate		0,1 ml per plate		0,1 ml per plate			1 ml on 3 plates				1 ml on 3 plates				1 ml on 3 plates		1 ml on 3 plates		0,1 ml par boite		
	plate 1	plate 2	plate 3	**Total**	plate 1	plate 2	plate 1	plate 1	plate 1	plate 2	plate 1	plate 2	plate 1	plate 2		plate 1	plate 2	plate 3	**Total**	plate 1	plate 2	plate 3	**Total**	plate 1	plate 2	plate 1	plate 2	plate 1	plate 2	
A	40	33	49	**122**	60	50	33	**143**	10	11	0	1	0	0	**1300**	48	27	40	**115**	81	27	30	**138**	9	12	1	1	0	0	**1245**
B	37	34	37	**108**	28	29	30	**87**	11	11	1	0	0	0	**986**	44	28	30	**102**	16	60	46	**122**	16	7	3	0	0	0	**1123**
C	26	42	36	**104**	35	30	34	**99**	9	10	2	2	0	0	**1009**	43	23	26	**92**	37	36	37	**110**	9	11	0	3	0	0	**1009**
D	37	29	28	**94**	24	31	47	**102**	12	15	2	1	0	0	**1014**	31	26	34	**91**	45	32	22	**99**	11	5	2	0	0	0	**936**
E	28	41	29	**5,8**	13	36	46	**95**	3	9	0	0	0	0	**513**	33	36	28	**97**	41	28	36	**105**	21	10	2	1	0	0	**1059**
F	25	31	40	**12,8**	31	35	45	**111**	7	8	0	3	0	0	**631**	41	29	31	**101**	37	30	45	**112**	12	11	1	1	0	0	**1073**
G	33	29	27	**89**	34	31	26	**91**	9	12	2	0	0	0	**914**	27	28	35	**90**	29	33	34	**96**	12	8	2	0	0	0	**936**
H	33	36	40	**109**	41	32	33	**106**	12	16	0	1	0	0	**1105**	47	28	40	**115**	25	20	34	**79**	11	15	1	2	0	0	**1000**
I	26	24	40	**90**	31	35	41	**107**	15	11	2	1	0	0	**1014**	47	41	35	**123**	29	26	40	**95**	16	16	1	1	0	0	**1136**
J	36	35	40	**111**	37	21	29	**87**	5	5	0	0	0	0	**945**	41	27	33	**101**	32	39	51	**122**	17	11	0	0	0	0	**1141**
L	26	28	42	**96**	27	35	34	**96**	18	11	1	0	0	0	**1005**	23	32	31	**86**	40	41	30	**111**	16	13	3	2	0	0	**1027**
M	37	47	36	**120**	28	23	27	**78**	23	7	0	1	0	0	**1036**	61	38	17	**116**	41	42	35	**118**	15	10	2	1	0	0	**1177**
N	31	40	21	**92**	29	24	40	**93**	3	19	1	0	0	0	**941**	24	26	34	**84**	39	32	33	**104**	6	22	4	0	0	0	**982**
O	29	26	30	**85**	32	25	26	**83**	6	6	2	1	0	0	**818**	61	37	29	**127**	49	30	31	**110**	8	12	0	7	0	0	**1168**
Expert lab	23	20	19	**62**	21	22	21	**64**	12	23	2	0	0	0	**732**	18	9	37	**64**	22	26	25	**73**	7	7	0	0	0	0	**686**
Expert lab*	32	34	33	**99**	37	33	33	**103**	22	12	0	1	0	0	**1073**															

Laboratoires	Alternative method (RAPID'*L.mono* at 48 h)															
	Sample 1								Sample 5							
	-1				-1	-2	-3	Result (CFU/ml)	-1				-1	-2	-3	Result (CFU/ml)
	1 ml on 3 plates				0,1 ml per plate	0,1 ml per plate	0,1 ml per plate		1 ml on 3 plates				0,1 ml per plate	0,1 ml per plate	0,1 ml per plate	
	plate 1	plate 2	plate 3	**Total**					boite 1	boite 2	boite 3	**Total**				
A	31	29	25	**85**	4	0	0	**809**	21	7	21	**49**	8	0	0	**518**
B	24	33	32	**89**	16	0	0	**955**	24	41	27	**92**	12	1	0	**945**
C	29	38	36	**103**	10	0	0	**1027**	41	31	40	**112**	10	1	0	**1109**
D	35	23	44	**102**	9	1	0	**1009**	26	36	33	**95**	4	2	0	**900**
E	33	24	34	**91**	11	3	0	**927**	27	35	29	**91**	10	0	0	**918**
F	37	28	15	**80**	9	0	0	**809**	29	30	42	**101**	11	0	0	**1018**
G	31	39	38	**108**	8	1	0	**1055**	37	29	36	**102**	10	2	0	**1018**
H	33	33	51	**117**	13	2	0	**1182**	31	40	45	**116**	6	4	0	**1109**
I	31	35	41	**107**	9	1	0	**1055**	32	28	39	**99**	9	1	0	**982**
J	30	41	45	**116**	15	0	0	**1191**	35	30	40	**105**	11	2	0	**1055**
L	33	20	26	**79**	12	1	0	**827**	38	43	46	**127**	11	1	0	**1255**
M	38	42	28	**108**	8	0	0	**1055**	27	33	18	**78**	13	0	0	**827**
N	26	14	23	**63**	9	0	0	**655**	23	33	24	**80**	9	1	0	**809**
O	25	22	21	**68**	2	0	0	**636**	28	36	32	**96**	7	2	0	**936**
Expert lab	25	21	25	**71**	9	1	0	**727**	36	27	28	**91**	10	0	0	**918**
Expert lab*	26	25	37	**88**	15	1	0	**936**								

* : analysis performed 48 h after preparation

NIVEAU 3

Number of characteristic colonies enumerated

Initial contamination : 7900 *Listeria monocytogenes* / ml

Laboratories	Reference method (Ottaviani and Agosti at 24 h)																													
	Sample 3															Sample 7														
	-1				-1				-1		-2		-3		Result (CFU/ml)	-1				-1				-1		-2		-3		Result (CFU/ml)
	1 ml on 3 plates				1 ml on 3 plates				0,1 ml per plate		0,1 ml per plate		0,1 ml per plate			1 ml on 3 plates				1 ml on 3 plates				0,1 ml per plate		0,1 ml per plate		0,1 ml per plate		
	plate 1	plate 2	plate 3	**Total**	plate 1	plate 2	plate 3	**Total**	plate 1	plate 2	plate 1	plate 2	plate 1	plate 2		plate 1	plate 2	plate 3	**Total**	plate 1	plate 2	plate 3	**Total**	plate 1	plate 2	plate 1	plate 2	plate 1	plate 2	
A	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	100	96	7	11	2	0	**9727**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	105	85	10	14	2	1	**9727**
B	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	99	88	5	15	1	2	**9409**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	96	87	7	9	0	1	**9045**
C	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	107	95	10	9	0	0	**10045**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	123	100	11	19	0	0	**11500**
D	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	101	115	14	13	1	0	**11045**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	108	114	11	10	1	3	**11045**
E	> 150	> 150	> 150	**>450**	> 151	> 150	> 150	**>450**	91	94	13	13	1	2	**9591**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	85	120	15	3	2	1	**10136**
F	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	115	100	13	8	0	1	**10727**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	99	102	16	12	0	0	**10409**
G	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	136	127	14	16	0	1	**13318**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	124	116	12	14	1	1	**12091**
H	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	125	102	17	18	3	0	**11909**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	82	100	11	13	2	0	**9364**
I	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	103	122	13	17	1	2	**11591**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	115	123	14	13	3	0	**12045**
J	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	119	129	6	13	2	1	**12136**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	99	91	11	9	1	1	**9545**
L	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	149	160	13	10	5	1	**15091**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	212	333	28	46	1	1	**34545**
M	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	104	118	8	6	0	9	**10727**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	90	123	11	18	2	0	**11000**
N	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	137	115	9	5	4	2	**12091**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	124	118	19	15	1	0	**12545**
O	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	71	78	13	5	0	0	**7591**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	85	82	7	12	1	0	**8455**
Expert lab	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	105	90	9	11	1	2	**9773**	> 150	> 150	> 150	**>450**	> 150	> 150	> 150	**>450**	112	87	10	9	3	1	**9909**

Laboratories	Alternative method (RAPID'*L.mono* at 48 h)																
	Sample 3								Sample 7								
	-1				-1	-2	-3	Result (CFU/ml)	-1				-1	-2	-3	Result (CFU/ml)
	1 ml on 3 plates				0,1 ml per plate	0,1 ml per plate	0,1 ml per plate		1 ml on 3 plates				0,1 ml per plate	0,1 ml per plate	0,1 ml per plate	
	plate 1	plate 2	plate 3	**Total**					plate 1	plate 2	plate 3	**Total**				
A	> 150	> 150	> 150	**>450**	89	13	1	**7818**	> 150	> 150	> 150	**>450**	105	4	2	**9727**
B	> 150	> 150	> 150	**>450**	74	12	2	**7818**	> 150	> 150	> 150	**>450**	96	11	0	**9727**
C	> 150	> 150	> 150	**>450**	108	12	1	**10909**	> 150	> 150	> 150	**>450**	113	5	0	**10727**
D	> 150	> 150	> 150	**>450**	104	8	1	**10182**	> 150	> 150	> 150	**>450**	92	13	2	**9545**
E	> 150	> 150	> 150	**>450**	115	6	0	**11000**	> 150	> 150	> 150	**>450**	91	12	2	**9364**
F	> 150	> 150	> 150	**>450**	90	8	1	**8909**	> 150	> 150	> 150	**>450**	97	8	0	**9545**
G	> 150	> 150	> 150	**>450**	123	9	0	**12000**	> 150	> 150	> 150	**>450**	126	13	0	**12636**
H	> 150	> 150	> 150	**>450**	98	5	2	**9364**	> 150	> 150	> 150	**>450**	94	10	2	**9455**
I	> 150	> 150	> 150	**>450**	110	15	1	**11364**	> 150	> 150	> 150	**>450**	119	13	1	**12000**
J	> 150	> 150	> 150	**>450**	117	14	2	**11909**	> 150	> 150	> 150	**>450**	111	13	0	**11273**
L	> 150	> 150	> 150	**>450**	168	27	2	**26364**	> 150	> 150	> 150	**>450**	251	42	2	**40000**
M	> 150	> 150	> 150	**>450**	107	14	0	**11000**	> 150	> 150	> 150	**>450**	101	9	0	**10000**
N	> 150	> 150	> 150	**>450**	96	8	0	**9455**	> 150	> 150	> 150	**>450**	108	5	1	**10273**
O	> 150	> 150	> 150	**>450**	88	11	0	**9000**	> 150	> 150	> 150	**>450**	102	3	0	**9545**
Expert lab	> 150	> 150	> 150	**>450**	112	10	1	**11091**	> 150	> 150	> 150	**>450**	90	8	0	**8909**