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AFNOR Certification of the OAA – short protocol method for L.monocytogenes & Listeria species detection, according to the EN ISO 16140 standard BIO 12/14-04/05 - 43641/43649

SUMMARY REPORT

Certification date:	01/04/2005
Extension date: (*new options of confirmation*)	14/09/2006
Extension date (*Interlaboratory study following EN ISO 16140*)	14/12/2006
Extension date: (*new options of confirmation*)	17/01/2008
Extension date: (*detection of Listeria spp.)*	27/03/2008
Renewal date:	26/03/2009
End certification date:	07/04/2013
Certificate number:	BIO 12/14–04/05

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APPENDICES

1 Introduction

1.1 Validation references

The Ottaviani Agosti Agar – short protocol (OAA) method has been validated since April 2005 according to the reference method EN ISO 16140:2003, with respect to the reference method EN ISO 11290/A1:2004.

1.2 Protocol and principle of the alternative method

1.2.1 Protocol

The diagram summarizing the method is shown in appendix A.

The protocol is:
- enrichment in half Fraser broth, incubated for 24 hours +/- 2 hours at 30°C +/- 1°C,
- then inoculation of 100 µL on an chromID Ottaviani Agosti agar, incubated for 22 to 26 hours at 37°C +/- 1°C,

The characteristic colonies of ***Listeria monocytogenes*** on chrom'ID Ottaviani Agosti agar have to be confirmed:
1) by the conventional tests described in the methods standardized by the CEN or ISO, including a purification step,
2) by the RAPIDEC® Lmono test, without purification if the colonies are well isolated,
3) by API Listeria strip, without purification if the colonies are well isolated,
4) by the Accuprobe *L.monocytogenes* test, directly from isolated or not colonies on chrom'ID Ottaviani Agosti agar,
5) by the VIDAS LMO2 test, directly from isolated or not colonies on chrom'ID Ottaviani Agosti agar.
6) By isolation on ALOA CONFIRMATION® agar, on Rapid'L.mono agar (6 ridges per plate) or ChroMagar® *Listeria* identification according to the procedure of the package inserts.

The characteristic colonies of ***Listeria spp.*** on chrom'ID Ottaviani Agosti agar have to be confirmed:
- by the conventional tests for the genus described in the methods standardized by the CEN or ISO, including a purification step,
- by performing a Gram stain and using the IDColor Catalase reagent directly on the typical isolated colonies,
- by using an isolated colony and stabbing PALCAM agar (up to 15 stabs per plate),
- by streaking on PALCAM agar, if the colony is not well isolated.

In the case of not properly isolated colonies on chrom'ID Ottaviani Agosti agar, a purification on TSAYE plate is necessary, before performing the confirmation tests, except for the Accuprobe *L.monocytogenes* test and the VIDAS LMO2 test.

1.2.2 Principle

The method uses the chromID™ Ottaviani Agosti agar, which complies with the formulation described in the standards EN ISO 11290-1/A1 and EN ISO 11290-2/A1
All the species of *Listeria* grow on the agar and produce blue-turquoise colonies (glucosidase activity).
The differentiation of *Listeria monocytogenes* is based on the appearance of an opaque halo around the colony (phospholipase C activity)

1.3 Application scope

All food products
Environmental samples

1.4 Reference method

EN ISO 11290-1/A1:2004 (#) standard method.
The diagram summarizing the method is shown in annex A.

1.5 Background of certification

The Ottaviani Agosti Agar – short protocol (OAA) method has been certified “AFNOR Validation” with the certificate number BIO 12/14–04/05.

- May 2005 : initial study
- September 2006 : addition of new confirmation procedures
- December 2006 : realization of the interlaboratory study according to EN ISO 16140 standard
- January 2008 : addition of new confirmation procedure (Rapidec® L mono)
- March 2008 : extension to the detection of the other *Listeria species*
- March 2009 : addition of new confirmation procedure (VIDAS® LMO2)

2 Comparative study of methods

2.1 Relative accuracy, relative specificity and relative sensitivity

Two studies for relative accuracy, relative specificity and relative selectivity were realized:
- one to assess the performances of the method for *Listeria monocytogenes* detection (2005)
- one to assess the performances of the method for *Listeria* spp. detection (2008)

2.1.1 OAA method – short protocol for the Listeria monocytogenes detection

The aim of this study, according to the reference document ISO 16140, was to compare the performances of the two methods:
- the reference method EN ISO 11290-1/A1:2004,
- the OAA method

on naturally and artificially *Listeria monocytogenes* contaminated samples and uncontaminated samples .

2.1.1.1 Number and nature of the samples

According to the ISO 16140 standard, a minimum of 60 products per category must be analyzed, with around 50% of positive products (at least 30 results) and 50% of negative products.

Each category was divided into various types and the results are displayed as follows:

Categories	Types	Positive*	Négative	Total
Meat products	Raw meat	10	20	30
	Raw seasoned meat	4	16	20
	Delicatessen	17	9	26
	Total	**31**	**45**	**76**
Dairy products	Raw milk cheese (cow)	7	11	18
	Raw milk cheese (goat and ewe)	14	12	26
	Raw milk and pastries	9	8	17
	Total	**30**	**31**	**61**
Produits de la pêche	Smoked fish	14	8	22
	Raw fish	8	15	23
	Ready-to-eat meals with fish and shellfish	9	11	20
	Total	**31**	**34**	**65**
Vegetables	Raw	8	11	19
	Frozen	9	8	17
	Cooked or seasoned	13	12	25
	Total	**30**	**31**	**61**
Environment	Various waters	11	10	21
	Surface samples	11	19	30
	Residues and scraps	8	13	21
	Total	**30**	**42**	**72**
TOTAL		**152**	**183**	**335**

* these are positive results by one or other of the methods

2.1.1.2 Artificially contaminated samples

Artificial contamination was achieved by using stressed bacterial suspensions, the stress treatment and efficiency of which have been determined according to EN ISO 16140 and AFNOR validation rules.
7 different strains were used to obtain 31 positive results.
In total, 20% of positive results were obtained as a result of artificial contamination.

2.1.1.3 Results

The analyses were conducted in single using the two methods.
The results of the 335 analyzed samples are presented in appendix B.

The tables of the results of samples are below:

	Positive reference method (R+)	**Negative reference method (R-)**
Positive alternative method (A+)	Positive agreement (A+/R+) **PA = 145**	Positive deviation (R-/A+) **PD = 3**
Negative alternative method **(A-)**	Negative deviation (A-/R+) **ND = 4 ***	Negative agreement (A-/R-) **NA = 183 ****

Legend: *A+ = positives confirmed*
*A- = immediate negatives **and** negatives after confirmation when presumed positive*
** 0 unconfirmed OAA presumptive positive result*
*** 1 unconfirmed OAA and ISO methods presumptive positive result, for a sample contaminated with L.ivanovii*

2.1.1.4 Calculation of relative accuracy (AC), relative specificity (SP) and relative sensitivity (SE) according to the EN ISO 16140 standard

Category	**PA**	**NA**	**ND**	**PD**	**Sum** N	**Relative accuracy AC (%)** [100x(PA+NA])/N	**N+** PA + ND	**Relative sensitivity SE (%)** [100xPA]/N+	**N-** NA + PD	**Relative specificity SP (%)** [100xNA]/N-
Meat products	**28**	**45**	**0**	**3**	**76**	96.1	28	100.0	48	93.8
Dairy products	**29**	**31**	**1**	**0**	**61**	98.4	30	96.7	31	100
Seafood	**30**	**34**	**1**	**0**	**65**	98.5	31	96.8	34	100
Vegetables	**30**	**31**	**0**	**0**	**61**	100.0	31	100	30	100
Environment	**28**	**42**	**2**	**0**	**72**	97.2	30	93.3	42	100
TOTAL	**145**	**183**	**4**	**3**	**335**	**97.9**	**149**	**97.3**	**186**	**98.4**

Results for the alternative method

*Relative accuracy : **AC***	**97.9 %**
*Relative specificity : **SP***	**98.4 %**
*Relative sensitivity : **SE***	**97.3 %**

The AFNOR Technical Board asks the sensitivity of the two methods to be recalculated with consideration of all the confirmed positives (this includes the additional positives of the alternative method):

Alternative method	**Reference method**
(PA + PD) / (PA + PD + ND) = **97.4 %**	(PA + ND) / (PA + PD + ND) = **98.0 %**

2.1.1.5 Analysis of discordances

The number of discordances between the reference method and the alternative was 7.
According to annex F of the EN ISO 16140 standard, the minimum number of discordances for which a statistical test must be conducted in order to compare the two methods is 6.
The statistic test was performed.

When the number of discordances is between 6 and 22, the aim is the determination of the M value, depending on the total number of discordances and according to the EN ISO 16140 (appendix F) and the comparison between M and an m-value, as the smaller of the two values of PD and ND. Both methods would be considered as equivalent if m > M.

Number of discordances	M	m	Conclusion
7	0	3	Equivalence

The alternative method and the reference method (EN ISO 11290-1/A1) can be considered as equivalent for the detection of *Listeria monocytogenes*.

2.1.2 OAA method – short protocol for the Listeria spp. detection

The aim of this study, according to the reference document ISO 16140, was to compare the performances of the two methods:
- the reference method EN ISO 11290-1/A1:2004,
- the OAA method
on naturally and artificially *Listeria spp* contaminated samples and uncontaminated samples.

2.1.2.1 Number and nature of the samples

According to the ISO 16140 standard, a minimum of 60 products per category must be analyzed, with around 50% of positive products (at least 30 results) and 50% of negative products.

Each category was divided into various types and the results are displayed as follows:

Categories	Types	Positive*	Négative	Total
Meat products	Raw meat	8	1	9
	Raw seasoned meat	11	7	18
	Delicatessen	15	25	40
	Total	**34**	**33**	**67**
Dairy products	Raw milk and raw milk cheese (cow)	12	13	25
	Raw milk and raw milk cheese (goat and ewe)	12	6	18
	Milk powder and pastries	10	13	23
	Total	**34**	**32**	**66**
Produits de la pêche	Raw fish and shellfish	15	32	47
	Smoked fish	9	31	40
	Ready-to-eat meals with fish	6	7	13
	Total	**30**	**70**	**100**
Vegetables	Frozen	10	5	15
	Raw	12	12	24
	Cooked or seasoned	9	14	23
	Total	**31**	**31**	**62**
Environment	Various waters	11	10	21
	Surface samples	11	21	32
	Residues and scraps	12	13	26
	Total	**34**	**44**	**78**
TOTAL		**163**	**210**	**373**

* these are positive results by one or other of the methods

2.1.2.2 Artificial contamination of the samples and percentage

Artificial contamination was achieved by using stressed bacterial suspensions, the stress treatment and efficiency of which have been determined according to EN ISO 16140 and AFNOR validation rules.
18 different strains were used to obtain 76 positive results.
In total, 47% of positive results were obtained as a result of artificial contamination.

2.1.2.3 Results of assays

The analyses were conducted singly using the two methods.
The results of the 373 analyzed samples are presented in appendix C.

The tables of the results of samples are below:

	Positive reference method (R+)	**Negative reference method (R-)**
Positive alternative method (A+)	Positive agreement (A+/R+) **PA = 156**	Positive deviation (R-/A+) **PD = 2**
Negative alternative method **(A-)**	Negative deviation (A-/R+) **ND = 5 ***	Negative agreement (A-/R-) **NA = 210 ****

Legend:
A+ = positives confirmed
*A- = immediate negatives **and** negatives after confirmation when presumed positive*
** 1 unconfirmed OAA presumptive positive result*
*** 9 unconfirmed OAA presumptive positive results, and 8 unconfirmed ISO standard presumed positive results (presence of Bacillus)*

2.1.2.4 Calculation of relative accuracy (AC), relative specificity (SP) and relative sensitivity (SE) according to the EN ISO 16140 standard

Category	**PA**	**NA**	**ND**	**PD**	**Sum** N	**Relative accuracy AC (%)** [100x(PA+NA])/N	**N+** PA + ND	**Relative sensitivity SE (%)** [100xPA]/N+	**N-** NA + PD	**Relative specificity SP (%)** [100xNA]/N-
Meat products	32	33	2	0	67	97.0	34	94.1	33	100
Dairy products	34	32	0	0	66	100	34	100	32	100
Seafood	28	38	2	0	68	97.1	30	93.3	38	100
Vegetables	28	31	1	2	62	95.2	29	96.6	33	93.9
Environment	34	44	0	0	78	100.0	34	100	44	100
TOTAL	**156**	**178**	**5**	**2**	**341**	**97.9**	**161**	**96.9**	**180**	**98.9**

Note : to avoid any bias in the calculations, 32 negative results for the Seafood products have been eliminated. These results are presented in the tables of Appendix C.

Results for the alternative method

*Relative accuracy : **AC***	**97.9 %**
*Relative specificity : **SP***	**98.9 %**
*Relative sensitivity : **SE***	**96.9 %**

The AFNOR Technical Bureau asks the sensitivity of the two methods to be recalculated with consideration of all the confirmed positives (this includes the additional positives of the alternative method):

Alternative method	**Reference method**
(PA + PD) / (PA + PD + ND) = **96.9 %**	(PA + ND) / (PA + PD + ND) = **98.8 %**

2.1.2.5 Analysis of discordances

The number of discordances between the reference method and the alternative was 7.
According to annex F of the EN ISO 16140 standard, the minimum number of discordances for which a statistical test must be conducted in order to compare the two methods is 6.
The statistic test was performed.

When the number of discordances is between 6 and 22, the aim is the determination of the M value, depending on the total number of discordances and according to the EN ISO 16140 (appendix F) and the comparison between M and an m-value, as the smaller of the two values of PD and ND. Both methods would be considered as equivalent if m > M.

Number of discordances	M	m	Conclusion
7	0	2	Equivalence

The alternative method and the reference method (EN ISO 11290-1/A1) can be considered as equivalent for the detection of *Listeria spp*.

2.2 Relative detection level

The objective was to determine the level of contamination for which less than 50% of the responses obtained are positive and that for which more than 50% of the responses obtained are positive.

Different food/strain combinations were studied in parallel with the reference method and the OAA method, for five categories with *Listeria monocytogenes* and two categories with *Listeria* other than *monocytogenes*.

The artificial contaminations were realized according to EN ISO 16140 and AFNOR validation rules.

The levels of detection, calculated according to the Spearman – Kärber* method (LOD_{50}), obtained for each combination « matrix – strain » were the following:

Matrice	Strain	Relative detection level for the reference method (UFC / 25 g or 25 mL)	Relative detection level for the alternative method (UFC / 25 g or 25 mL)
Rillettes	*L.monocytogenes* 1/2 c	0.7 [0.4 – 1.3]	0.8 [0.4 – 1.5]
	L.welshimeri	0.6 [0.4 – 1.0]	0.6 [0.4 – 1.0]
Raw milk	*L.monocytogenes* 1/2 b	0.4 [0.3 – 0.7]	0.4 [0.3 – 0.7]
	L.ivanovii	0.7 [0.4 – 1.4]	0.7 [0.4 – 1.4]
Smoked salmon	*L.monocytogenes* 1/2 a	0.4 [0.2 – 0.8]	0.4 [0.2 – 0.8]
Red cabbage	*L.monocytogenes* 4b	0.7 [0.5 – 1.1]	0.7 [0.5 – 1.1]
Process water	*L.monocytogenes* 1/2 c	0.5 [0.3 – 1.0]	0.5 [0.3 – 1.0]

** "Hitchins A. Proposed Use of a 50 % Limit of Detection Value in Defining Uncertainty Limits in the Validation of Presence-Absence Microbial Detection Methods, Draft 10th December, 2003".*

The level of detection obtained for the OAA method – detection of *Listeria monocytogenes* – was between 0.2 and 1.5 cells per 25 grams. For the reference method, it is between 0.2 and 1.3 cells per 25 grams.

The level of detection obtained for detection of *Listeria spp* was between 0.4 and 1.4 cells per 25 grams for both methods.

2.3 Inclusivity / exclusivity study

The inclusivity and the exclusivity of the method are defined by analysis, respectively, of 50 positive strains and 30 negative strains. The different studies (initial certification, extensions for additional confirmation protocols, extension for the *Listeria* other than *monocytogenes* detection) have allowed to obtain lot of data.

2.3.1 Protocols

Protocol for inclusivity
Each of the *Listeria* strains was tested following the complete protocol of the OAA method, from a half Fraser culture.

Protocol for exclusivity
The different negative strains were cultivated and diluted in nutrient broth to obtain levels of around 10^5 cells per mL. After incubation, a chrom'ID Ottaviani Agosti agar was streaked for each strain and incubated 24 hours at 37°C.

2.3.2 Results and conclusion

The results are presented in appendix D.

62 strains of *Listeria* other than *monocytogenes*, including 29 *Listeria ivanovii,* and 153 strains of *Listeria monocytogenes* were tested and were all detected on chrom'ID Ottaviani Agosti agar.

Among the 63 non-*Listeria* strains tested, some strains of *Bacillus* or *Enterococcus* gave blue colonies on the plates, but the confirmation tests were always negative. The same phenomenon is observed for the reference method.

2.3.3 Confirmation options

a) Confirmations for Listeria monocytogenes

In the initial certification study, three different confirmation options were tested:

- Utilisation of conventional tests described in the methods standardized by the CEN or ISO (haemolysis, API strip and Camp test) , without the purification step if the colonies were isolated
  The majority of confirmations was achieved without purification.
  For 7 samples, the purification step was necessary by the lack of isolated colonies:
  - 3 meat products, for which the interfering flora was too high,
  - 1 seafood product, contaminated with both *Listeria monocytogenes* and *Listeria innocua*: the reading of the halos was difficult,
  - 3 environmental samples where the presence of a *Bacillus* prevented the plates reading. Only one sample was positive for *Listeria monocytogenes*. The other two samples didn't contain *Listeria monocytogenes* (results concordant with the reference method).

- Confirmation by the Accuprobe *L.monocytogenes* test and by the VIDAS LMO2 test, directly from isolated or not colonies on chrom'ID Ottaviani Agosti agar
  All the plates with characteristic colonies of *Listeria monocytogenes* gave a positive GeneProbe test and a positive VIDAS LMO2 test, except for one meat product. For this sample, some characteristic colonies were present on chrom'ID Ottaviani Agosti agar, but the GeneProbe result and the VIDAS LMO2 test were negative. Further identifications of these characteristic colonies have led to *Listeria ivanovii*.

- Confirmation by the VIDAS LMO2 test, directly from isolated or not colonies on chrom'ID Ottaviani Agosti agar
  All the samples were confirmed by the VIDAS LMO2 test, from characteristic colonies and all

An **extension study** was performed to add three confirmation options : confirmations by streaking on ALOA *CONFIRMATION*™ or on RAPID'L.mono (6 streaks) or on CHROMagar™ Identification *Listeria*, directly from isolated colonies on chrom'ID Ottaviani Agosti agar (the protocols of each confirmation method are followed).

150 *Listeria monocytogenes* strains, with various serotypes and origin, presented a characteristic aspect on chrom'ID Ottaviani Agosti agar, were tested to verify that the confirmations options were positive.
100 non targeted strains including half of *Listeria* other than *monocytogenes* and half of strains from other genus like *Bacillus*, *Lactobacillus*, *Staphylococcus*, *Enterococcus*, …, which could grow on chrom'ID Ottaviani Agosti, were also tested.

All the results were consistent with those expected, with each confirmation option.
We can note that, even if the *Listeria ivanovii* strains gave characteristic colonies on chrom'ID Ottaviani Agosti agar, the confirmation results were negative.

In **the extension study** for the use of the RAPIDEC® Lmono test as a confirmation test, assays were realized on pure cultures.
The RAPIDEC® Lmono test was inoculated from an isolated colony on chrom'ID Ottaviani Agosti agar, on blood agar and on TSA agar. Each test was read after an incubation of 4 hours, 6 hours and 24 hours at 37°C and after storage at room temperature following the incubation at 37°C for a maximum of 72 hours after inoculati on.

150 *Listeria monocytogenes* strains, with various serotypes and origin, presented a characteristic aspect on chrom'ID Ottaviani Agosti agar, were tested to verify that the RAPIDEC® Lmono test was positive.
100 non targeted strains, including half of *Listeria* other than *monocytogenes* and half of strains from other genus like *Bacillus*, *Lactobacillus*, *Staphylococcus*, *Enterococcus*, …, which could grow on chrom'ID Ottaviani Agosti, were also tested.

Target strains :
From the chrom'ID Ottaviani Agosti agar, the results were consistent with those expected for 149 Listeria monocytogenes, after 6 hours incubation. From the blood agar, the results were consistent with those expected for 145 Listeria monocytogenes, after 6 hours incubation. For 4 *Listeria monocytogenes*, the results became conform to those expected after 24 hours incubation.
From the TSA agar, the results were consistent with those expected for 141 Listeria monocytogenes, after 6 hours incubation. For 8 *Listeria monocytogenes*, the results became conform to those expected after 24 hours incubation.
One strain of *Listeria monocytogenes* was not green (positive) with the RAPIDEC® Lmono testwhatever the length of incubation and the isolation agar.

Non target strains :
Results were consistent with those expected for the 100 strains tested

b) Confirmations for Listeria spp.

The characteristic colonies of ***Listeria spp.*** on chrom'ID Ottaviani Agosti agar have to be confirmed:

- by the conventional tests for the genus described in the methods standardized by the CEN or ISO, including a purification step,
- by performing a Gram stain and using the IDColor Catalase reagent directly on the typical isolated colonies,
- by using an isolated colony and stabbing PALCAM agar (up to 15 stabs per plate),
- by streaking on PALCAM agar, if the colony is not well isolated.

These confirmations were performed during the extension study to validate the *Listeria spp.* detection, on all samples tested in the relative accuracy, relative specificity and relative sensitivity assays.
All results were consistent with those expected. Purification and re-isolation on PALCAM plates when the colonies were not isolated, were conducted for 11 samples, representing 0.7% of the positive samples.

3 Interlaboratory study

3.1 Study organization

- Number of participating laboratories

16 laboratories received samples.

- Matrix used

Pasteurized milk

- Strain used for contamination

Listeria monocytogenes (origin « raw milk cheese »).

- Number of samples per laboratory

24 samples were prepared per laboratory, and were distributed in 3 levels, with 8 samples per level and method.

3.2 Control of experimental parameters

3.2.1 Contamination rates obtained after artificial contamination

The following table shows the contamination rates obtained and estimated precisions:

Level	Samples	Targeted theoretical rate (b/25ml)	Real rate (b/25ml sample)	Estimated lower contamination limit per 25ml sample	Estimated upper contamination limit per 25ml sample
Level 0 (L0)	6-7-8-14-15-19-20-21	0	0		
Low level (L1)	1-2-9-10-11-16-22-23	3	4.5	1.2	11.5
High level (L2)	3-4-5-12-13-17-18-24	30	46.6	34	62

3.2.2 Problems of temperature recorded during transport, temperature on reception and reception times

3.2.2.1 Analysis of temperature monitoring curves during transport

The temperature curves obtained following operation of thermo button data show that temperatures are stable during transport between 0℃ and 8℃ for most of th e laboratories.

3.2.2.2 Temperatures on reception and reception times

The temperatures obtained are recorded in the following tables:

Laboratory	Reception Temperatures (℃)		Comments
	communicated by the laboratory	indicated by the thermo button	
A	4.0℃	4.4℃	/
B	/	12.4℃	Delivery at D2
C	/	12.4℃	Delivery at D2
D	2.5℃	1.4℃	/
E	6.5℃	5.9℃	/
F	4.3℃	5.0℃	/
G	4.0℃	3.4℃	/
H	6.2℃	4.4℃	/
I	6.5℃	3.9℃	/
J	7.1℃	6.0℃	/
K	8.5℃	7.9℃	/
L	6.6℃	3.9℃	/
M	5.5℃	5.9℃	/
N	4.4℃	4.9℃	/
O	5.7℃	6.0℃	/
P	7.8℃	7.5℃	/

3.2.3 Conclusion

Following the delivery conditions, **14 laboratories** realized the analyses, because two 2 laboratories had not received the samples on time.

3.3 Results

3.3.1 Results obtained by cooperating laboratories

The detailed results are presented in appendix E and the following tables give a synthesis of the results obtained by the 14 laboratories which have realized the analyses.

Positive results obtained by the reference method

Laboratories	Levels of contamination					
	L0		L1		L2	
	Obtaines	Nb samples	Obtaines	Nb samples	Obtaines	Nb samples
Lab A	0	8	8	8	8	8
Lab D	0	8	8	8	8	8
Lab E	0	8	8	8	8	8
Lab F	0	8	4	4	8	8
Lab G	0	8	8	8	8	8
Lab H	0	8	8	8	8	8
Lab I	0	8	8	8	8	8
Lab J	0	8	8	8	8	8
Lab K	0	8	8	8	8	8
Lab L	0	8	8	8	8	8
Lab M	0	8	8	8	8	8
Lab N	0	8	8	8	8	8
Lab O	0	8	8	8	8	8
Lab P	0	8	8	8	8	8
Total	0	112	108	108	112	112

Positive results obtained by the alternative method

Laboratories	Levels of contamination					
	L0		L1		L2	
	Obtaines	Nb samples	Obtaines	Nb samples	Obtaines	Nb samples
Lab A	0	8	8	8	8	8
Lab D	0	8	8	8	8	8
Lab E	0	8	8	8	8	8
Lab F	0	8	4	4	8	8
Lab G	0	8	8	8	8	8
Lab H	0	8	8	8	8	8
Lab I	0	8	8	8	8	8
Lab J	0	8	8	8	8	8
Lab K	0	8	8	8	8	8
Lab L	0	8	8	8	8	8
Lab M	0	8	8	8	8	8
Lab N	0	8	8	8	8	8
Lab O	0	8	8	8	8	8
Lab P	0	8	8	8	8	8
Total	0	112	108	108	112	112

3.3.2 Comments (discordances with expected results, exclusions… for instance)

The laboratory F that reported some coagulated samples and leaks on some of them, had not analyzed four of the 24 samples, finding that the risk of cross contamination was too important. Its results have not been exploited.

The results of the reference method and the alternative method **were in agreement** for the 13 laboratories.
The used confirmation tests were various.

3.4 Calculations

The results of 13 laboratories were considered.
Note: the positive results of the alternative method were all confirmed.

3.4.1 Calculation of specificity percentage (%SP) and sensitivity percentage (% SE) for both methods

The percentages of specificity (SP) and sensitivity (SE) were calculated with the EN ISO 16140 formulas.

For level L0, it is requested that the specificity percentage (%SP) should be calculated using each of the methods:
SP = {1-(FP/N-)} x 100

where FP, number of false positives
N-, total number of tests L0

For levels L1 and L2, it is requested that the sensitivity percentage (%SE) should be calculated for each of the methods, compared with the number of expected positive results:
SE = (TP/N+) x 100

where TP, number of true positives
N+, total number of tests L1 or L2

The results are given in the following table:

Level	Reference method		Alternative method	
	SP/SE	**LCL* %**	**SP/SE**	**LCL* %**
L0	SP% = 100	98	SP% = 100	98
L1	SE% = 100	98	SE% = 100	98
L2	SE% = 100	98	SE% = 100	98
L1+L2	SE% = 100	98	SE% = 100	98

* LCL: low critical value, defined in standard ISO 16140

3.4.2 Calculation of the relative precision (AC)

The relative precision is calculated using the following formula:
AC = {(PA + NA) / N} x 100

where PA, number of positive agreements
NA, number of negative agreements

NA, number of negative agreements

	Positive reference method (R+)	**Negative reference method (R-)**	**Total**
Positive alternative method (A+)	**Positive agreement (A+/R+) PA = 208**	**Positive deviation (R-/A+) PD = 0**	**(N+) = 208**
Negative alternative method (A-)	**Negative deviation (A-/R+) ND = 0***	**Negative agreement (A-/R-) NA = 104***	**(N-) = 104**
Total	**(N+) = 208**	**(N-) = 104**	**N = 312**

** 0 unconfirmed OAA positive result*

For this study, the relative accuracy is 100%.

3.4.3 Analysis of discordances

As defined in appendix F in EN ISO 16140 standard, the minimum number of discordances beyond which a statistical test must be carried out to compare the two methods is 6. Therefore, this statistical test was not used because no discordance was observed between the two methods.

3.5 Interpretation

3.5.1 Comparison of relative precision (AC), specificity (SP) and sensitivity (SE) values

The values obtained in the two parts of the validation study are given in the following table:

	Interlaboratory study	Comparative study
Relative accuracy (AC)	100 %	97,9 %
Sensitivity (SE)	100 %	97,3 %
Specificity (SP)	100 %	98,4 %

The values obtained following the interlaboratory study are comparable to the values obtained during the preliminary study.

3.5.2 Accordance (DA)

The accordance is the percentage chance of finding the same result from two identical test portions analyzed in the same laboratory under repeatability conditions, in other words a single operator using the same instrument and the same reagents within the shortest feasible time interval.
The first step to calculate the accordance is to calculate the probability that two identical samples give the same result for each of the participating laboratories, and then to determine the average of the probabilities of all laboratories.

The different tables used to deduce the accordance are given in appendix F and the accordance for each of the methods at each of the levels are given in the following table:

Level	Reference method		Alternative method	
L0	DA % =	100 %	DA % =	100 %
L1	DA % =	100 %	DA % =	100 %
L2	DA % =	100 %	DA % =	100 %

3.5.3 Concordance

The concordance is the percentage chance of finding the same result for two identical samples analyzed in two different laboratories.
The objective is to calculate the percentage of all pairs giving the same results on all possible pairs of results.

Result tables used to make these calculations are given in appendix G and the concordance for each of the methods and for each of the levels are given in the following table:

Level	Reference method		Alternative method	
L0	Concordance % =	100 %	Concordance % =	100 %
L1	Concordance % =	100 %	Concordance % =	100 %
L2	Concordance % =	100 %	Concordance % =	100 %

3.5.4 Odds Ratio (COR)

The concordance odds ratio is calculated using the following formula:

$$COR = \frac{\text{accordance} \times (100 - \text{concordance})}{\text{concordance} \times (100 - \text{accordance})}$$

The concordance odds ratio for each of the methods and for each of the levels is given in the following table:

Level	Reference method		Alternative method	
L0	COR % =	1.00	COR % =	1.00
L1	COR % =	1.00	COR % =	1.00
L2	COR % =	1.00	COR % =	1.00

A value of 1.00 for the Odds ratio means that the degree of agreement and the agreement are equal.
When the Odds ratio increases, the interlaboratory variation becomes more predominant.

4 Practicability

Practicability was studied according to the 13 criteria defined by the AFNOR technical board, comparing the EN ISO 11290 reference method to the OAA method.

1. *Packaging mode of the components of the method (see package insert)* 2. *Reagent volumes (see package insert and vial packaging)*	The prepoured Petri plates are packed in a box set of 2 x 10 plates or 10 x 10 plates of ø 90 mm.
3. *Storage conditions of the components (see package insert) – Expiry of products not opened (see package insert)*	The storage temperature is between +2°C and +8°C, i n the dark.
4. Modalities of use after first use (see package insert)	Out of the box, plates can be stored for 2 weeks at 2-8°C in the cellophane sachet
5. Equipment or necessary specific premises (see package insert)	Among the required equipment, - an air incubator at 30°C ± 1°C - an air incubator at 37°C ± 1°C
6. Reagents ready for use or to be reconstituted (see package insert)	/
7. Duration of training of the operator not familiar with the method	Less than 1 day.

8. Real time handling - Flexibility of the technique relative to the number of samples to be analyzed

	Average time for a sample (min)	
Steps	Standard ISO 11290-1	**OAA method**
Preparation, weighing, dilution in half Fraser and stomaching	7	7
Transfer to selective Fraser broth	1	/
Streaking of Half Fraser and Fraser broths, on two selective media	2	/
Streaking of 100µl on chrom'ID Ottaviani Agosti agar	/	1
Plates reading and colonies selection for identification	2	1
Average total time (per sample)	**12 minutes**	**9 minutes**

In the case of positive samples, the necessary time for confirmation must be added.
And the average time for the confirmation of a typical colony by reference method tests can be evaluated at around 5 minutes.

9. Time-to-result

Steps	Time required ISO 11290-1 reference method	**Time required** **OAA method**
Realization of first enrichment (Half Fraser)	D0	D0
Transfer to selective broths (Fraser)	D1	/
Streaking of 10 µl on selective plates Streakinf of 100µl on chrom'ID Ottaviani Agosti agar	D1 and D3	 D1
Obtaining negative result	**D5**	**D2**
Confirmation tests : **Genus** - streaking on TSAYE - GRAM stain, catalase - Stab or streak on PALCAM plate **Specie *Listeria monocytogenes*** - streaking on TSAYE - GRAM stain, catalase - Camp-test, haemolysis, TSBYE broth - Rhamnose and xylose fermentation - API strip without purification - API strip after purification - Accuprobe - RAPIDEC Lmono test	 D2 to D5 D3 to D6 D2 to D5 D3 to D6 D3 to D6 D4 to D7 D3	 / (D2 if necessary) D2 D2 / (D2 if necessary) D2 D2 D3 to D6 D2 D3 D2 D2 to D3
Obtaining positive results or negative result after negative confirmation if done : **Genus** - after conventional tests (GRAM, catalase) - after stabing or streaking on PALCAM plate **Specie *Listeria monocytogenes*** - after conventional tests - after API strip and associated tests if necessary - after Accuprobe - after RAPIDEC Lmono test	 **D3 to D6** **D9 to D12** **D4**	 **D2** **D3** **D9** **D3 to D4** **D2** **D2 to D3**

10. Type of qualification of the operator:	level identical to that necessary for the reference method
11. Steps common to the reference method	First step of enrichment in half Fraser
12. Traceability of the analysis results	/
13. Maintenance by the laboratory	/

5 Conclusion

The validation study was conducted according to the reference document EN ISO 16140.

The **comparative study** allows assessing:
- the relative accuracy, the relative sensitivity and the relative specificity,
- the relative detection level,
- the inclusivity and the exclusivity.

The performances were assessed for the detection of *Listeria monocytogenes* on one hand, and of *Listeria spp.* on the other hand.
The performances of the Ottaviani Agosti Agar – short protocol (OAA) method are equivalent to those of the reference method EN ISO 11290-1/A1:2004. They were determined by analysis of samples distributed over five categories of products.

For the detection of *Listeria monocytogenes*:

1) The relative accuracy obtained was 97.9%, the relative sensitivity was 97.3% and the relative specificity was 98.4%, according to the calculations required by the EN ISO 16140 standard.
   Because the positive samples by the alternative method are positive confirmed samples, the sensitivities were recalculated relative to all positive results and are:
   - 98.0% for the reference method,
   - 97.4% for the alternative method.
2) The relative level of detection of the alternative method and of the reference method was evaluated by artificial contaminations of four different products, representative of the five categories tested.
   It is between 0.2 and 1.5 cells of *Listeria monocytogenes* per 25 g or mL of sample and the relative detection level of the reference method is between 0.2 and 1.3 cells of *Listeria monocytogenes* per 25 g or mL of sample.

For the detection of *Listeria* other than *monocytogenes*:

1) The relative accuracy obtained was 97.9%, the relative sensitivity was 96.9% and the relative specificity was 98.9%, according to the calculations required by the EN ISO 16140 standard.
   Because the positive samples by the alternative method are positive confirmed samples, the sensitivities were recalculated relative to all positive results and are:
   - 98.8% for the reference method,
   - 96.9% for the alternative method.
2) The relative level of detection of the alternative method and of the reference method was evaluated by artificial contaminations of four different products, representative of the five categories tested.
   It is between 0.4 and 1.4 cells of *Listeria* per 25 g or mL of sample and is identical to the one obtained for the reference method.

The inclusivity of the method is good since all the strains of *Listeria* were detected.
62 strains of *Listeria* other than *monocytogenes*, including 29 *Listeria ivanovii,* and 153 strains of *Listeria monocytogenes* were tested and were all detected on chrom'ID Ottaviani Agosti agar.
For the exclusivity, among the 63 non-*Listeria* strains tested, some strains of *Bacillus* or *Enterococcus* gave blue colonies on the plates, but the confirmation tests are always negative. The same phenomenon is observed for the reference method.

The **interlaboratory study results** obtained for all of the 13 selected laboratories show that the alternative method and the reference method have comparable values of relative accuracy, specificity and sensitivity as those obtained during the preliminary study.
The variability of the alternative method (accordance, concordance, Odds ratio) is comparable with the variability of the reference method.

Lille, the 20th October 2009

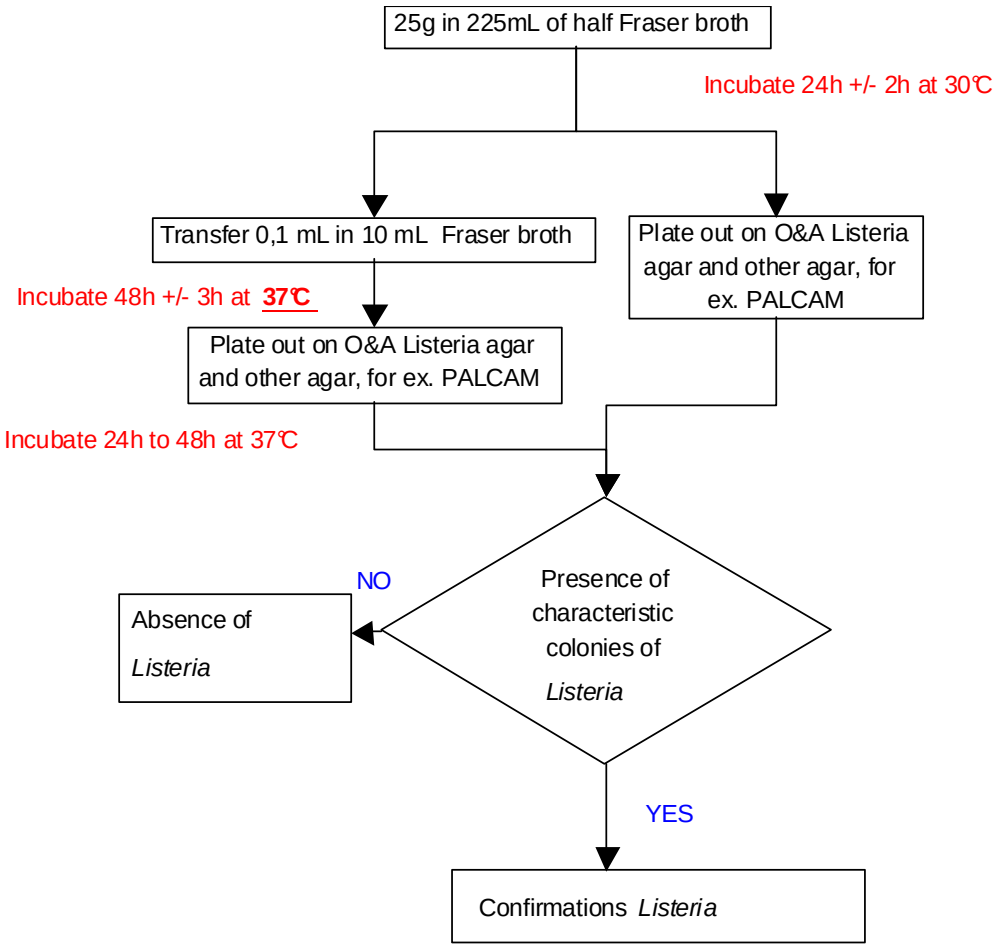
Virginie Ewe
Technical manager

APPENDICES

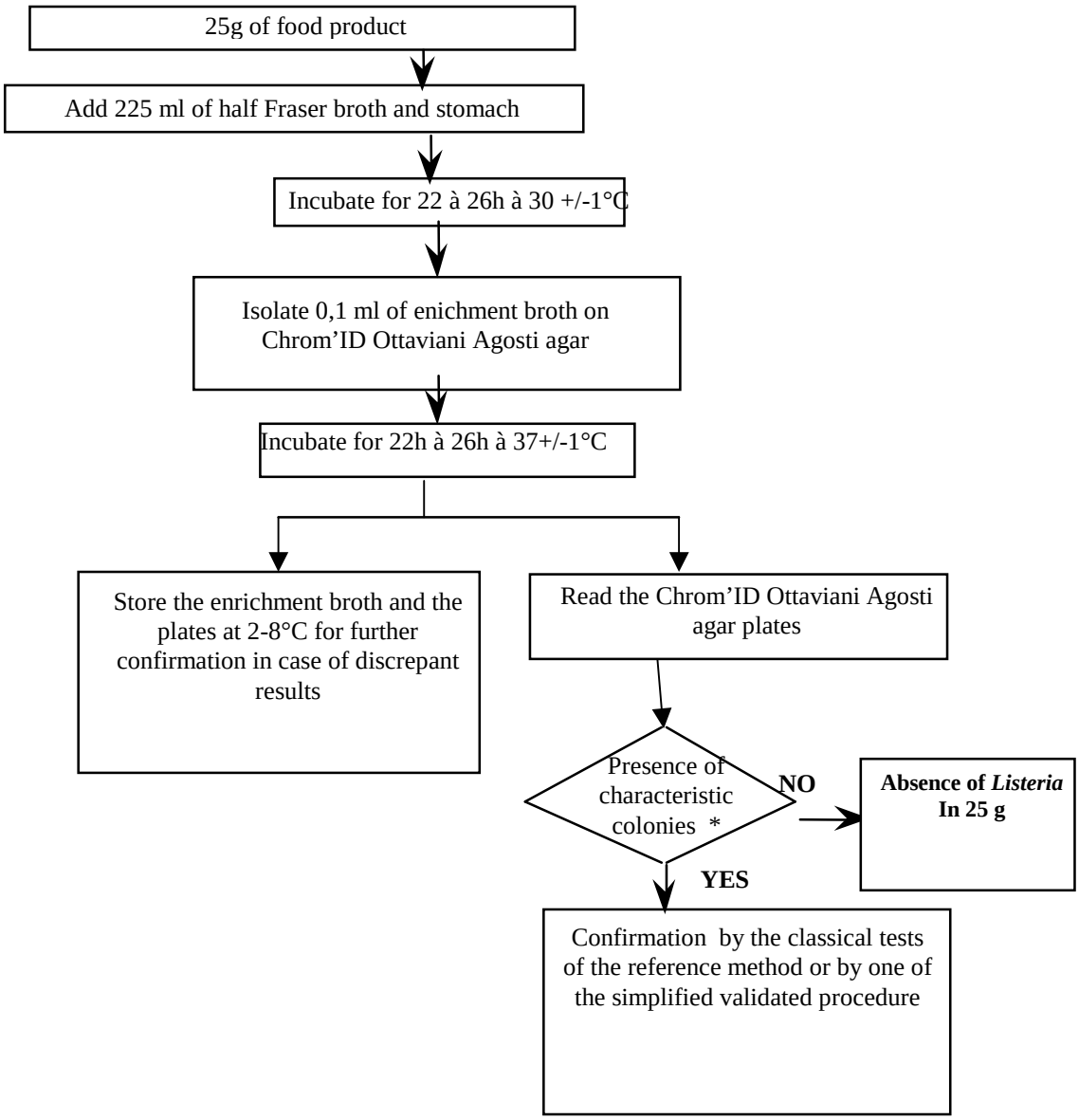
APPENDIX A :

ANALYTICAL PROTOCOLS

EN ISO STANDARD 11290-1/A1: 2004 (#)



Ottaviani Agosti Agar (OAA) METHOD (bioMerieux)



* :
blue colonies with halos for *Listeria monocytogenes* and *Listeria ivanovii*
blue colonies bleues without halo for *Listeria* other than *monocytogenes* and *ivanovii*

APPENDIX B:

RELATIVE ACCURACY, RELATIVE SPECIFICITY, RELATIVE SENSITIVITY
-
DETAILED RESULTS TABLES FOR EACH SAMPLE CATEGORY
Listeria monocytogenes

LEGEND

Total bacteria growth

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

Distribution of flora

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

Meat products

Ref	Cat	*Artif.C*	Sample	Reference method EN ISO 11290-1 (#)						Alternative method									Comparison
				Fraser 1/2 (10µl)		Fraser		*Identifications*	Result	Fraser 1/2 100 µl		Confirmations							
				P1	A1	P2	A2			OAA	Rés.	Haemolysis	CampT	Xyl.	Rham.	Api List	Accuprobe	VIDAS LMO2	*Identifications*	
M11	PC	*No*	Brawn	+LD(1)	+LD	+HA	+HA	*L.monocytogenes*	+	+LB	+	+	S+R-	-	+	6510	+	0,90	*L.monocytogenes*	=
M12	PC	*No*	Brawn	+LA	+MA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,84	*L.monocytogenes*	=
M13	PC	*No*	Streaky brawn	+MA	+MB	+HA	+HB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	0,11	*L.monocytogenes*	=
N19	PC	*No*	Pork tongue in jelly	+MB	+LB	+HB	+HB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	0,21	*L.monocytogenes*	=
P15	PC	*No*	Salt bacon	+MB	+LB	+HB	+HB	*L.monocytogenes*	+	+MB**	+	+	S+R-	-	+	6510	+	1,50	*L.monocytogenes*	=
P16	PC	*No*	Breast	+MA	+LA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	3,03	*L.monocytogenes*	=
P20	PC	*No*	Bacon	+MB	+LB	+HB	+HB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	0,94	*L.monocytogenes*	=
R1	PC	*No*	Various delicatessen	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
R4	PC	*No*	Ham sausage	+HA	+MA	+HA	+HB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,85	*L.monocytogenes*	=
R6	PC	*No*	Meat sausage	+MA	+MA	+HA	+HB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,61	*L.monocytogenes*	=
R9	PC	*No*	Ham	+MA	+LA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,78	*L.monocytogenes*	=
R12	PC	*No*	Salami	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
V19	PC	*No*	Parma ham	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
X11	PC	*No*	Brawn	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,99	*L.monocytogenes*	=
Y1	PC	*No*	Horse sausage	+LB	+LB	+HB	+HB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	0,49	*L.monocytogenes*	=
Y2	PC	*No*	White ham	+LA	+MA	+HA	+HA	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	2,67	*L.monocytogenes*	=
Y4	PC	*No*	Saucisson	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
Y5	PC	*No*	Merguez	Ø	-LE	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
Y6	PC	*No*	Tongue	+MA	+MA	+MB	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,71	*L.monocytogenes*	=
Z7	PC	*No*	Dust rillettes	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,85	*L.monocytogenes*	=
Z8	PC	*No*	White ham	-LE(2)	Ø	Ø	Ø	/	-	+LA(1)**	+	+	S+R-	-	+	6510	+	2,66	*L.monocytogenes*	PS
Z9	PC	*No*	Bacon	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
Z10	PC	*No*	Bacon	-LE(2)	-LE	+HB	-HE	*L.innocua*	-	-LE	-	/	/	/	/	/	/	/	/	=
41	PC	*No*	Bacon	-LE	-LE	-La	-ME	*L.welshimeri (5)*	-	-LE	-	/	/	/	/	/	/	/	/	=
59	PC	*No*	Brawn	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
60	PC	*No*	Bacon	+LD	-LE	+HA	-ME	*L.monocytogenes*	+	+MD	+	+	S+R-	-	+	6510	+	0,27	*L.monocytogenes*	=
N4	PC	*No*	Duck breast	+HB	+HB	+HB	+HB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	0,98	*L.monocytogenes*	=
N12	PC	*No*	Duck breast	+LA	-LE	+HA	-HE	*L.welshimeri*	-	Ø	-	/	/	/	/	/	/	/	/	=
N13	PC	*No*	Duck breast	+MB	+MB	+HB	+MB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	0,29	*L.monocytogenes*	=
P17	PC	*No*	Beef meat	Ø	Ø	Ø	Ø	/	-	-HE	-	/	/	/	/	/	/	/	/	=
P18	PC	*No*	Pork meat	+LB	+LA	+HB	+HA	*L.monocytogenes*	+	+MB**	+	+	S+R-	-	+	6510	+	2,89	*L.monocytogenes*	=
P19	PC	*No*	Pork kidneys	+MB	+MB	+HB	+HB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	1,54	*L.monocytogenes*	=
P21	PC	*No*	Chicken legs	+MA	-ME	+HA	-HE	*L.spp*	-	-HE	-	/	/	/	/	/	/	/	/	=
R2	PC	*No*	Beef minced meat	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,50	*L.monocytogenes*	=
R3	PC	*No*	Horse minced meat	Ø	-LE	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
R5	PC	*No*	Horse minced meat	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
R8	PC	*No*	Horse meat	Ø	Ø	Ø	-LE	/	-	+LC**	+	+	S+R-	-	+	6510	+	0,18	*L.monocytogenes*	PS
R11	PC	*No*	Turkey meat	+LA	+LC	+HA	-HA	*L.monocytogenes*	+	+LB	+	+	S+R-	-	+	6510	+	1,65	*L.monocytogenes*	=
R13	PC	*No*	Frozen ground beef	+LA	Ø	+HA	-ME	*L.spp*	-	-LE	-	/	/	/	/	/	/	/	/	=
V21	PC	*No*	Frozen beef balls	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
V22	PC	*No*	Ground beef	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
X12	PC	*No*	Chicken legs	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
Y8	PC	*No*	Chicken meat	+MB	+MB	+HB	+MC	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	1,28	*L.monocytogenes*	=
Y9	PC	*No*	Beef meat	-LE	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
Z12	PC	*No*	Ground beef	Ø	Ø	-HE	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
Z13	PC	*No*	Ground beef	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
17	PC	*No*	Ground beef	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
20	PC	*No*	Chicken legs	+LA	Ø	+HA	+MA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	2,90	*L.monocytogenes*	=
21	PC	*No*	Horse minced meat	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
28	PC	*No*	Chicken legs	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,97	*L.monocytogenes*	=
34	PC	*No*	Minced beef meat	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
35	PC	*No*	Minced beef meat	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
54	PC	*No*	Chicken meat	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
58	PC	*No*	Ground beef	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
63	PC	*No*	Minced meat	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
64	PC	*No*	Beef balls	Ø	-LE	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=

Meat products

Ref	Cat	*Artif.C*	Sample	Reference method EN ISO 11290-1 (#)						Alternative method									Comparison
				Fraser 1/2 (10µl)		Fraser		*Identifications*	Result	Fraser 1/2 100 µl		Confirmations							
				P1	A1	P2	A2			OAA	Rés.	Haemolysis	CampT	Xyl.	Rham.	Api List	Accuprobe	VIDAS LMO2	*Identifications*	
R7	PC	*No*	Bolognese minced meat	+LA	-LE	+HA	-ME	*L.spp*	-	-ME	-	/	/	/	/	/	/	/	/	=
P22	PC	*No*	Bolognese minced meat	+LA	-LE	+HB	-HE	*L.spp*	-	-ME	-	/	/	/	/	/	/	/	/	=
R10	PC	*No*	Merguez	+LA	+LC	+HB	+MC	*L.monocytogenes*	+	+LC	+	+	S+R-	-	+	6510	+	1,01	*L.monocytogenes*	=
R14	PC	*No*	Sausages	+HA	+MA	+HA	+MA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,20	*L.monocytogenes*	=
R15	PC	*No*	Bolognese minced meat	+LB	-LE	+HB	-ME	*L.welshimeri*	-	-ME	-	/	/	/	/	/	/	/	/	=
V20	PC	*No*	Rissolette of calf	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
V23	PC	*No*	Rissolette of calf	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
W3	PC	*No*	Burger with tomatoes	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
X14	PC	*No*	Beef tartare	+LA	+LA	+HA	+HA	*L.ivanovii*	-	+MB	-	++	S-R+	+	-	3370	-	0,00	*L.ivanovii*	=
Y3	PC	*No*	Beef tartare	-LE	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
Y7	PC	*No*	Sausage	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
Y10	PC	*No*	Beef tartare	-LE	-LE	-ME	-LE	/	-	-ME	-	/	/	/	/	/	/	/	/	=
Y11	PC	*No*	Burger with onions	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
Z11	PC	*No*	Rissolette of calf	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
Z14	PC	*No*	Frozen chicken nuggets	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
18	PC	*No*	Breaded calf	+MA	-ME	+HA	-ME	*L.innocua*	-	-ME	-	/	/	/	/	/	/	/	/	=
29	PC	*No*	Paupiettes of turkey	+LA	-LA	+MA	-MC	*L.welshimeri*	-	+LD	+	+	S+R-	-	+	6510	+	0,66	*L.monocytogenes*	=
37	PC	*No*	Thyme sausage	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
51	PC	*No*	Breaded calf	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
55	PC	*No*	Paupiettes of turkey	+LC	Ø	+MA	+MA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	2,57	*L.monocytogenes*	=

Dairy products

Ref	Cat	*Artif.C*	Sample	Reference method EN ISO 11290-1 (#)						Alternative method									Comparison
				Fraser 1/2 (10µl)		Fraser		*Identifications*	Result	Fraser 1/2 100 µl		Confirmations							
				P1	A1	P2	A2			OAA	Rés.	Haemolysis	CampT	Xyl.	Rham.	Api List	Accuprobe	VIDAS LMO2	*Identifications*	
P12	PL	*No*	Goat cheese (raw milk)	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
P13	PL	*No*	Goat cheese (raw milk)	+LC	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
R28	PL	*No*	Roquefort cheese	-ME	Ø	-ME	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
W6	PL	*No*	Goat cheese (raw milk)	-LE	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
W7	PL	*No*	Goat cheese (raw milk)	+LB	+LD	+HB	+HA	*L.monocytogenes*	+	+MD	+	+	S+R-	-	+	6510	+	0,70	*L.monocytogenes*	=
W8	PL	*No*	Goat cheese (raw milk)	-LE	Ø	-ME	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
W11	PL	*No*	Goat cheese (raw milk)	-LE	Ø	Ø	Ø	/	-	-HE	-	/	/	/	/	/	/	/	/	=
W12	PL	*No*	Goat cheese (raw milk)	+LA	+LA	+HB	+MA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,80	*L.monocytogenes*	=
X2	PL	*No*	Goat cheese (raw milk)	-LE	Ø	-LE	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
X5	PL	*No*	Goat cheese (raw milk)	-LE	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
X6	PL	*No*	Goat cheese (raw milk)	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,81	*L.monocytogenes*	=
Y12	PL	*No*	Goat cheese (raw milk)	Ø	Ø	-LE	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
Z15	PL	*No*	Ewe's raw milk cheese	-ME	Ø	+HA	+MA	*L.monocytogenes*	+	-LE**	-	/	/	/	/	/	-	0,00	/	FN
Z17	PL	*No*	Goat cheese (raw milk)	-LE(2)	Ø	+MA	+MA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	1,34	*L.monocytogenes*	=
Z18	PL	*No*	Goat cheese (raw milk)	+LB	-LE	+HB	-HE	*L.innocua*	-	-ME	-	/	/	/	/	/	/	/	/	=
Z19	PL	*No*	Goat cheese (raw milk)	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
12	PL	*No*	Goat cheese (raw milk)	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	3,07	*L.monocytogenes*	=
13	PL	*No*	Goat cheese (raw milk)	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	2,74	*L.monocytogenes*	=
14	PL	*No*	Goat cheese (raw milk)	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	2,61	*L.monocytogenes*	=
38	PL	*No*	Goat cheese (raw milk)	Ø	Ø	+LA	-LE	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	2,92	*L.monocytogenes*	=
39	PL	*No*	Goat cheese (raw milk)	+LA	+LA	+MA	-LE	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,83	*L.monocytogenes*	=
40	PL	*No*	Goat cheese (raw milk)	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
42	PL	*No*	Goat cheese (raw milk)	+LB	-LE	+LA	+MA	*L.monocytogenes*	+	+MC	+	+	S+R-	-	+	6510	+	2,17	*L.monocytogenes*	=
49	PL	*No*	Goat cheese (raw milk)	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	+LB	+	+	S+R-	-	+	6510	+	2,87	*L.monocytogenes*	=
52	PL	*No*	Goat cheese (raw milk)	+MB	+MA	+MA	+MA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,51	*L.monocytogenes*	=
53	PL	*No*	Goat cheese (raw milk)	+LA	+LA	+MA	+MA	*L.monocytogenes* *L.innocua (2)*	+	+MA	+	+	S+R-	-	+	6510	+	2,86	*L.monocytogenes*	=
P11	PL	*No*	Maroilles cheese (raw milk)	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
P14	PL	*No*	Maroilles cheese (raw milk)	Ø	-LE	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
R29	PL	*No*	Camembert cheese (raw milk)	+MA	+MA	+HB	+HB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,50	*L.monocytogenes*	=
R30	PL	*No*	Brie de Meaux cheese	+MC	+LC	+HA	+HC	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	0,85	*L.monocytogenes*	=
W9	PL	*No*	Epoisses cheese	Ø	-LE	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
W10	PL	*No*	Epoisses cheese	+HA	+HA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	3,13	*L.monocytogenes*	=
W14	PL	*No*	Raw cow's milk cheese	+LB	+MA	+MB	+MB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	0,77	*L.monocytogenes*	=
X3	PL	*No*	Raw cow's milk cheese	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
X4	PL	*No*	"Bergues" cheese (raw milk)	+LA	+MA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,99	*L.monocytogenes*	=
X13	PL	*No*	Munster cheese (raw milk)	+LB	+LC	+HB	+HB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	0,78	*L.monocytogenes*	=
Y13	PL	*No*	Raw cow's milk cheese	-ME	Ø	-ME	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
Z16	PL	*No*	Munster cheese (raw milk)	-LE(2)	-LE	-LE	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
Z20	PL	*No*	Raw cow's milk cheese	Ø	Ø	+HA	+HA	*L.monocytogenes*	+	+LB	+	+	S+R-	-	+	6510	+	2,42	*L.monocytogenes*	=
24	PL	*No*	Raw cow's milk cheese	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
25	PL	*No*	Raw cow's milk cheese	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
36	PL	*No*	Raw cow's milk cheese	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
43	PL	*No*	Raw cow's milk cheese	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
56	PL	*No*	Raw cow's milk cheese	Ø	Ø	-LE	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=

Dairy products

Ref	Cat	*Artif.C*	Sample	Reference method EN ISO 11290-1 (#)						Alternative method									Comparison
				Fraser 1/2 (10µl)		Fraser		*Identifications*	Result	Fraser 1/2 100 µl		Confirmations							
				P1	A1	P2	A2			OAA	Rés.	Haemolysis	CampT	Xyl.	Rham.	Api List	Accuprobe	VIDAS LMO2	*Identifications*	
M20	PL	*Yes*	Raw milk	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HB	+	+	S+R-	-	+	6510	+	0,54	*L.monocytogenes*	=
M21	PL	*Yes*	Raw milk	+MA	+MB	+HA	+HB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	1,90	*L.monocytogenes*	=
M22	PL	*Yes*	Raw milk	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	1,25	*L.monocytogenes*	=
M23	PL	*Yes*	Raw milk	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	3,01	*L.monocytogenes*	=
M24	PL	*Yes*	Raw milk	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	1,75	*L.monocytogenes*	=
O1	PL	*No*	Raw milk	-LE	-LE	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
O2	PL	*No*	Raw milk	-LE	-LE	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
O3	PL	*No*	Raw milk	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
O4	PL	*No*	Raw milk	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
O5	PL	*No*	Raw milk	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
N1	PL	*No*	Raw milk	Ø	Ø	-LE	-LE	/	-	-LE	-	/	/	/	/	/	/	/	/	=
P9	PL	*No*	Raw milk	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
P10	PL	*No*	Raw milk	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
V15	PL	*No*	Chocolate profiteroles	+MB	+MB	+HB	+MB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	2,52	*L.monocytogenes*	=
Y14	PL	*No*	Chocolate profiteroles	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,20	*L.monocytogenes*	=
W4	PL	*No*	Tart	+MA	+MA	+HB	+HB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	3,00	*L.monocytogenes*	=
W5	PL	*No*	Bun with whipped cream	+HB	+HA	+MB	+MB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,99	*L.monocytogenes*	=

Seafood products

Ref	Cat	*Artif.C*	Sample	Reference method EN ISO 11290-1 (#)						Alternative method									Comparison
				Fraser 1/2 (10µl)		Fraser		*Identifications*	Result	Fraser 1/2 100 µl		Confirmations							
				P1	A1	P2	A2			OAA	Rés.	Haemolysis	CampT	Xyl.	Rham.	Api List	Accuprobe	VIDAS LMO2	*Identifications*	
N2	PP	*No*	Haddock fillet	+LB	-LE	+HA	-ME	*L.spp*	-	-ME	-	/	/	/	/	/	/	/	/	=
N3	PP	*No*	Cutlass fish fillet	Ø	-LE	-LE	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
P2	PP	*No*	Herring fillet	+MA	+LA	+HA	+MA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,99	*L.monocytogenes*	=
P5	PP	*No*	Salmon fillet	+MA	+MA	+HB	+HB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,41	*L.monocytogenes*	=
P6	PP	*No*	Halibut fillet	+MA	+MA	+HB	+HB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,56	*L.monocytogenes*	=
P7	PP	*No*	Haddock fillet	+MB	+LB	+HB	+HC	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	1,42	*L.monocytogenes*	=
P8	PP	*No*	Cod fillet	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
S9	PP	*No*	Salmon fillet	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
T1	PP	*No*	Salmon steak	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
T2	PP	*No*	Fish fillet	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
T3	PP	*No*	Salmon fillet	+MB	-LE	+LB	-LE	*L.welshimeri*	-	-ME	-	/	/	/	/	/	/	/	/	=
T4	PP	*No*	Salmon fillet	+LB	-LE	+LB	-LE	*L.welshimeri*	-	-ME	-	/	/	/	/	/	/	/	/	=
T5	PP	*No*	Salmon fillet	+MB	-LE	+LB	-LE	*L.welshimeri*	-	-ME	-	/	/	/	/	/	/	/	/	=
T9	PP	*No*	Salmon	+MB	-ME	+HA	-HE	*L.innocua*	-	-ME	-	/	/	/	/	/	/	/	/	=
T10	PP	*No*	Salmon steak	-ME	Ø	-LE	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
T11	PP	*No*	Salmon	-LE	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
X10	PP	*No*	Salmon tartar	+LA(2)	+LA(2)	+HA	+HA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	2,50	*L.monocytogenes*	=
Z2	PP	*No*	Salmon tartar	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
Z5	PP	*No*	Salmon tartar	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
27	PP	*No*	Salmon fillet	Ø	Ø	+HA	+MA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	2,37	*L.monocytogenes*	=
33	PP	*No*	Salmon tartar	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
44	PP	*No*	Salmon tartar	Ø	+LA	+HA	+MA	*L.monocytogenes*	+	+LC	+	+	S+R-	-	+	6510	+	2,54	*L.monocytogenes*	=
48	PP	*No*	Salmon tartar	Ø	Ø	+MA	+MA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	2,40	*L.monocytogenes*	=
P1	PP	*No*	Fish with "bordelaise" sauce	+HA	+HA	+HB	+HB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,15	*L.monocytogenes*	=
P3	PP	*No*	Fish with "bordelaise" sauce	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,86	*L.monocytogenes*	=
S2	PP	*No*	White fish skewer	+LB	+LB	+HB	+HB	*L.monocytogenes* *L.innocua*	+	+LB**	+	+	S+R-	-	+	6510	+	0,74	*L.monocytogenes*	=
S5	PP	*No*	White fish skewer	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
S6	PP	*No*	Salmon yarrow	+LA	+LA(4)	+HB	+HB	*L.monocytogenes*	+	+LB	+	+	S+R-	-	+	6510	+	1,08	*L.monocytogenes*	=
S7	PP	*No*	Salmon yarrow	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
S8	PP	*No*	salmon paupiettes	+LA(1)	+LA(1)	+HA	+HA	*L.monocytogenes*	+	+LA(1)**	+	+	S+R-	-	+	6510	+	2,63	*L.monocytogenes*	=
O6	PP	*No*	Cooked shrimps	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
O7	PP	*No*	Cooked shrimps	Ø	Ø	-ME	-ME	/	-	-LE	-	/	/	/	/	/	/	/	/	=
O8	PP	*No*	Frozen peeled shrimps	Ø	Ø	-ME	-ME	/	-	-LE	-	/	/	/	/	/	/	/	/	=
O9	PP	*No*	Frozen peeled shrimps	Ø	Ø	-ME	-ME	/	-	-LE	-	/	/	/	/	/	/	/	/	=
O10	PP	*No*	Gray shrimps	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
W1	PP	*No*	Gray shrimps	+LA	+LB	+HB	+MB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	2,98	*L.monocytogenes*	=
W2	PP	*No*	Sweet herring fillet	-LE	Ø	+HA	+MA	*L.monocytogenes*	+	+MC	+	+	S+R-	-	+	6510	+	2,24	*L.monocytogenes*	=
X7	PP	*No*	Marinated herring fillets	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
X8	PP	*No*	Marinated herring fillets	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
X9	PP	*No*	Salmon tartar	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,93	*L.monocytogenes*	=
Z3	PP	*No*	Marinated herring fillets	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
Z6	PP	*No*	Cooked shrimps	+LB	+LB	+MB	+MB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	2,72	*L.monocytogenes*	=
45	PP	*No*	Herring fillet	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=

Seafood products

Ref	Cat	*Artif.C*	Sample	Reference method EN ISO 11290-1 (#)						Alternative method									Comparison
				Fraser 1/2 (10µl)		Fraser		*Identifications*	Result	Fraser 1/2 100 µl		Confirmations							
				P1	A1	P2	A2			OAA	Rés.	Haemolysis	CampT	Xyl.	Rham.	Api List	Accuprobe	VIDAS LMO2	*Identifications*	
P4	PP	*No*	Smoked salmon	+LA	+MA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,23	*L.monocytogenes*	=
V24	PP	*No*	Smoked salmon	+LA(5)	Ø	+MB	+MB	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	2,36	*L.monocytogenes*	=
Z1	PP	*No*	Smoked salmon from Norway	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
Z4	PP	*No*	Smoked tuna	+LB	+LA	+MA	+MA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,70	*L.monocytogenes*	=
16	PP	*No*	Smoked salmon	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,65	*L.monocytogenes*	=
19	PP	*No*	Smoked salmon	+MA	+MA	+LA	+MA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,77	*L.monocytogenes*	=
22	PP	*No*	Smoked salmon	Ø	+LA	+HA	+HA	*L.monocytogenes*	+	+LB	+	+	S+R-	-	+	6510	+	0,90	*L.monocytogenes*	=
23	PP	*No*	Smoked salmon	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
26	PP	*No*	Smoked fish fillet	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
30	PP	*No*	Smoked fish fillet	Ø	Ø	+HA	+MA	*L.monocytogenes*	+	Ø	-	/	/	/	/	/	/	/	/	FN
31	PP	*No*	Smoked salmon	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
32	PP	*No*	Smoked salmon	+MA	+MA	+LA	+LA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,99	*L.monocytogenes*	=
46	PP	*No*	Smoked salmon	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
47	PP	*No*	Smoked fish fillet	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
50	PP	*No*	Smoked salmon	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
57	PP	*No*	Smoked salmon	Ø	Ø	+MA	+MA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	1,71	*L.monocytogenes*	=
61	PP	*No*	Smoked salmon	+LA	+LA	+HB	+HA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	2,46	*L.monocytogenes*	=
62	PP	*No*	Smoked salmon	+LA	+MA	+HA	+MA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,71	*L.monocytogenes*	=
65	PP	*No*	Smoked salmon	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,50	*L.monocytogenes*	=
66	PP	*No*	Smoked salmon	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
67	PP	*No*	Smoked salmon	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,32	*L.monocytogenes*	=
68	PP	*No*	Smoked trout	+HA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,44	*L.monocytogenes*	=

Vegetables

Ref	Cat	*Artif.C*	Sample	Reference method EN ISO 11290-1 (#)						Alternative method									Comparison
				Fraser 1/2 (10µl)		Fraser		*Identifications*	Result	Fraser 1/2 100 µl		Confirmations							
				P1	A1	P2	A2			OAA	Rés.	Haemolysis	CampT	Xyl.	Rham.	Api List	Accuprobe	VIDAS LMO2	*Identifications*	
M1	PV	*Yes*	Mashed spinashes	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	1,92	*L.monocytogenes*	=
M3	PV	*Yes*	Vegetables soup	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,32	*L.monocytogenes*	=
M4	PV	*Yes*	Tomatoes	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,29	*L.monocytogenes*	=
M8	PV	*Yes*	Mashed vegetables	+HA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	1,33	*L.monocytogenes*	=
M10	PV	*Yes*	Mashed spinashes	+HA	+MA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,45	*L.monocytogenes*	=
N6	PV	*No*	Lentils salad	-LE	-ME	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
N7	PV	*No*	Vegetables pan fry	Ø	-LE	-ME	-ME	/	-	-ME	-	/	/	/	/	/	/	/	/	=
N9	PV	*No*	Couscous semolina and tomatoes	+MB	-LE	+MB	-ME	/	-	-ME	-	/	/	/	/	/	/	/	/	=
N10	PV	*No*	Cooked cauliflower	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
N18	PV	*No*	Cooked cabbage	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
P23	PV	*No*	Tabbouleh	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
P24	PV	*No*	Mixed vegetabes	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
P25	PV	*No*	Cantonese rice	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
R17	PV	*Yes*	Fruits salad	Ø	Ø	Ø	-LE	/	-	Ø	-	/	/	/	/	/	/	/	/	=
R19	PV	*Yes*	Mixed vegetabes	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	0,73	*L.monocytogenes*	=
R23	PV	*Yes*	Mashed green beans	+MA	+MA	+HA	+MB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,44	*L.monocytogenes*	=
R24	PV	*Yes*	Tomatoes	Ø	-LE	Ø	Ø	/	-	-HE	-	/	/	/	/	/	/	/	/	=
R26	PV	*Yes*	Vegetables pan fry	+LA	+LB	+HB	+HA	*L.monocytogenes*	+	+LC	+	+	S+R-	-	+	6510	+	0,32	*L.monocytogenes*	=
R27	PV	*Yes*	Tabbouleh	+MA	+MA	+HA	+HB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,59	*L.monocytogenes*	=
S1	PV	*No*	Mashed spinashes	+LA	+LA	+HB	+HB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	1,43	*L.monocytogenes*	=
V18	PV	*No*	Rice with cooked vegetables	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,57	*L.monocytogenes*	=
W13	PV	*No*	Vegetables pan fry	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
W16	PV	*No*	Cooked pasta	+LA	+LA	+MB	+MB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,95	*L.monocytogenes*	=
W18	PV	*No*	Zucchinis pan fry	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
Y16	PV	*No*	Cantonese rice	+MA	+HA	+MA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,73	*L.monocytogenes*	=
M5	PV	*Yes*	Beetroot	+HA	+HA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,11	*L.monocytogenes*	=
M6	PV	*Yes*	Mixed vegetabes	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	1,96	*L.monocytogenes*	=
M7	PV	*Yes*	Green beans	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,20	*L.monocytogenes*	=
M9	PV	*Yes*	Celery	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	1,42	*L.monocytogenes*	=
N8	PV	*No*	Salad	+MB	-ME	+MB	-ME	*L.spp*	-	-HE	-	/	/	/	/	/	/	/	/	=
N15	PV	*No*	Grated carrots	-LE	Ø	-ME	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
N16	PV	*No*	Mashed potatoes and tomatoes	+LA	Ø	+LA	Ø	*L.spp*	-	-ME	-	/	/	/	/	/	/	/	/	=
N17	PV	*No*	Green beans	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
P26	PV	*No*	Broccoli	+MA	+MA	+HA	+MA	*L.monocytogenes*	+	+LA	+	+	S+R-	-	+	6510	+	2,36	*L.monocytogenes*	=
P27	PV	*No*	Pasta	+LB	+LA	+HA	+MA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,94	*L.monocytogenes*	=
P28	PV	*No*	Cauliflower	-LE	Ø	-ME	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
R16	PV	*Yes*	Salad	-ME	-LE	-ME	-LE	/	-	-ME	-	/	/	/	/	/	/	/	/	=
R18	PV	*Yes*	Vegetables for couscous	+MA	+LA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,47	*L.monocytogenes*	=
R21	PV	*Yes*	Carrotts and celery	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
R22	PV	*Yes*	Grated celery	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,36	*L.monocytogenes*	=
S3	PV	*No*	Mushrooms	-LE	-LE	-ME	-ME	/	-	-LE	-	/	/	/	/	/	/	/	/	=
S4	PV	*No*	Zucchinis and tomatoes	Ø	Ø	Ø	-ME	/	-	-LE	-	/	/	/	/	/	/	/	/	=
V16	PV	*No*	Mushrooms	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
W20	PV	*No*	Broccoli	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=

Vegetables

Ref	Cat	*Artif.C*	Sample	Reference method EN ISO 11290-1 (#)						Alternative method									Comparison
				Fraser 1/2 (10µl)		Fraser		*Identifications*	Result	Fraser 1/2 100 µl		Confirmations							
				P1	A1	P2	A2			OAA	Rés.	Haemolysis	CampT	Xyl.	Rham.	Api List	Accuprobe	VIDAS LMO2	*Identifications*	
M2	PV	*Yes*	Frozen cauliflower	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,14	*L.monocytogenes*	=
N5	PV	*No*	Frozen french fries	Ø	Ø	-LE	-LE	/	-	-LE	-	/	/	/	/	/	/	/	/	=
N11	PV	*No*	Frozen browned potatoes	+MA	+MA	+HB	+MA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,98	*L.monocytogenes*	=
N14	PV	*No*	Frozen french fries	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
R20	PV	*Yes*	Frozen spinashes	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	1,87	*L.monocytogenes*	=
R25	PV	*Yes*	Frozen ratatouille	+MA	+LB	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,90	*L.monocytogenes*	=
V17	PV	*No*	Frozen browned potatoes	-LE	-LE	+MA	-ME	*L.innocua*	-	-LE	-	/	/	/	/	/	/	/	/	=
W15	PV	*No*	Frozen spinashes	+LB	+LA	+HB	+MB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,99	*L.monocytogenes*	=
W17	PV	*No*	Frozen browned potatoes	+MB	+LA	+HB	+MB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	3,16	*L.monocytogenes*	=
W19	PV	*No*	Frozen french fries	+MA	+MA	+MB	+HB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	3,09	*L.monocytogenes*	=
X1	PV	*No*	Frozen browned potatoes	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
Y15	PV	*No*	Frozen browned potatoes	+LB	+LA	+MA	+HA	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	2,95	*L.monocytogenes*	=
Y17	PV	*No*	Frozen french fries	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
Y18	PV	*No*	Frozen browned potatoes	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
Y19	PV	*No*	Frozen spinashes with cream	Ø	Ø	-LE	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
Y20	PV	*No*	Frozen french fries	-ME	+LA	+MA	+MA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	3,04	*L.monocytogenes*	=
15	PV	*No*	Frozen browned potatoes	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=

Environment

Ref	Cat	*Artif.C*	Sample	Reference method EN ISO 11290-1 (#)						Alternative method									Comparison
				Fraser 1/2 (10µl)		Fraser		*Identifications*	Result	Fraser 1/2 100 µl		Confirmations							
				P1	A1	P2	A2			OAA	Rés.	Haemolysis	CampT	Xyl.	Rham.	Api List	Accuprobe	VIDAS LMO2	*Identifications*	
M14	EN	*Yes*	New water for mushrooms washing	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	1,35	*L.monocytogenes*	=
M15	EN	*Yes*	Prewashing water for mushrooms	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	1,78	*L.monocytogenes*	=
M16	EN	*Yes*	Rinsing water	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,56	*L.monocytogenes*	=
M17	EN	*Yes*	New water for vegetables washing	+LA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	1,06	*L.monocytogenes*	=
M18	EN	*Yes*	Prewashing water for vegetables	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,08	*L.monocytogenes*	=
M19	EN	*Yes*	Rinsing water for vegetables	+LA	+MA	+HA	+HA	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,48	*L.monocytogenes*	=
R31	EN	*Yes*	Rinsing water	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
R32	EN	*Yes*	Rinsing water for mushrooms	+LA	+LA	+HA	+HB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	1,96	*L.monocytogenes*	=
R33	EN	*Yes*	Eau de rinçage, atelier champignons	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
R34	EN	*Yes*	Process water, mushroom plant	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
R35	EN	*Yes*	Process water	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
R36	EN	*Yes*	Rinsig water, fresh vegetables plant	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
R37	EN	*Yes*	Washing water, fresh vegetables plant	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
R38	EN	*Yes*	Rinsing water for mushrooms	Ø	Ø	+HA	+HA	*L.monocytogenes*	+	-LE	-	/	/	/	/	/	-	0,00	/	FN
R39	EN	*Yes*	Washing bath for mushrooms	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
T16	EN	*No*	Water from fish conveyor gutter	+LB	+LA	+HA	+HA	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	0,20	*L.monocytogenes*	=
U9	EN	*No*	Rinsing water	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
U10	EN	*No*	Rinsing baths	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
U11	EN	*No*	Rinsing baths	Ø	Ø	Ø	Ø	/	-	Ø	-	/	/	/	/	/	/	/	/	=
V1	EN	*No*	Siphon sewage	+MA	+MB	+MB	+MB	*L.monocytogenes*	+	+HB	+	+	S+R-	-	+	6510	+	1,17	*L.monocytogenes*	=
V25	EN	*No*	Water from fish conveyor	+MB	+LA	+MB	+MB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	2,11	*L.monocytogenes*	=
T7	EN	*No*	Surface Clean box	-LE	Ø	Ø	-LE	/	-	-ME	-	/	/	/	/	/	/	/	/	=
T8	EN	*No*	Surface Clean box	Ø	Ø	Ø	Ø	/	-	-LE	-	/	/	/	/	/	/	/	/	=
T26	EN	*No*	Stainless blade, RTE plant	-LE	Ø	-LE	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
U1	EN	*No*	Surface orange box after wahing	-ME	-LE	-LE	-LE	/	-	-ME**	-	/	/	/	/	/	/	/	/	=
U2	EN	*No*	Surface orange lid after wahing	-LE	-LE	Ø	-LE	/	-	-HE	-	/	/	/	/	/	/	/	/	=
U3	EN	*No*	Surface orange box before wahing	+LA	-ME	+HA	-HE	*L.welshimeri*	-	-HE	-	/	/	/	/	/	/	/	/	=
U4	EN	*No*	Surface orange box before wahing	-ME	-LE	+HA	-HE	*L.welshimeri*	-	-ME	-	/	/	/	/	/	/	/	/	=
U5	EN	*No*	Surface orange box before wahing	+LB	+MB	+HA	+HA	*L.monocytogenes* *L.welshimeri*	+	+MD**	+	+	S+R-	-	+	6510	+	2,18	*L.monocytogenes*	=
U6	EN	*No*	Surface box after washing	-ME	-ME	Ø	-ME	/	-	-ME	-	/	/	/	/	/	/	/	/	=
U7	EN	*No*	Surface red box after washing	+MB	+MB	+HB	+HB	*L.monocytogenes* *L.welshimeri*	+	+HD		+	S+R-	-	+	6510	+	0,26	*L.monocytogenes*	=
U8	EN	*No*	Surface box after washing	-LE	-LE	Ø	-ME	/	-	-ME	-	/	/	/	/	/	/	/	/	=
U12	EN	*No*	Surface beige chest before washing	-LE	-LE	+HA	-HE	*L.innocua*	-	-ME**	-	/	/	/	/	/	/	/	/	=
U13	EN	*No*	Surface green box before wahing	-LE	-LE	+MB	-ME	*L.welshimeri*	-	-HE	-	/	/	/	/	/	/	/	/	=
U14	EN	*No*	Surface fish box after drying	-ME	-ME	+LB	-LE	*L.welshimeri*	-	-HE	-	/	/	/	/	/	/	/	/	=
U15	EN	*No*	Gauze drying machine	-LE	Ø	-ME	-LE	/	-	-ME	-	/	/	/	/	/	/	/	/	=
U16	EN	*No*	Gauze exit washing machine	-LE	-LE	-LE	-ME	/	-	-ME	-	/	/	/	/	/	/	/	/	=
U17	EN	*No*	Gauze exit rinsing machine	-HE	-ME	-ME	-ME	/	-	-HE	-	/	/	/	/	/	/	/	/	=
U18	EN	*No*	Surface white chest before washing	+LB	+MB	+HA	+HA	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	0,27	*L.monocytogenes*	=
U19	EN	*No*	Surface beige box before washing	-LE	-LE	-LE	-LE	/	-	-HE	-	/	/	/	/	/	/	/	/	=
U21	EN	*No*	Surface dried red box after washing	-LE	-LE	-ME	-HE	/	-	-ME	-	/	/	/	/	/	/	/	/	=
U22	EN	*No*	Surface wet red box after washing	-LE	-ME	-HE	-HE	/	-	-ME	-	/	/	/	/	/	/	/	/	=
U23	EN	*No*	Surface gray box after washing	-ME	-ME	-LE	-ME	/	-	-ME	-	/	/	/	/	/	/	/	/	=
V2	EN	*No*	Surface conveyor	+HA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,74	*L.monocytogenes*	=
V4	EN	*No*	Surface gray box with fish fillets	+HA	+LA	+MB	+HB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	3,11	*L.monocytogenes*	=
V5	EN	*No*	Swab from knife	+HA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	3,03	*L.monocytogenes*	=
V7	EN	*No*	Gauze fish conveyor	+HA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	3,02	*L.monocytogenes*	=
V8	EN	*No*	Surface salmon scales	+HB	+HB	+MB	+MB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,97	*L.monocytogenes*	=
V11	EN	*No*	Surface white fish box	+HB	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	3,04	*L.monocytogenes*	=
V12	EN	*No*	Surface boxes conveyor	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	3,03	*L.monocytogenes*	=
V13	EN	*No*	Surface cutting table	+MA	+MA	+MA	+MC	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	2,75	*L.monocytogenes*	=

Environment

Ref	Cat	*Artif.C*	Sample	Reference method EN ISO 11290-1 (#)						Alternative method									Comparison
				Fraser 1/2 (10µl)		Fraser		*Identifications*	Result	Fraser 1/2 100 µl		Confirmations							
				P1	A1	P2	A2			OAA	Rés.	Haemolysis	CampT	Xyl.	Rham.	Api List	Accuprobe	VIDAS LMO2	*Identifications*	
T6	EN	*No*	Scraps from fish plant	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
T12	EN	*No*	Scraps from cutting machine	-ME	-LE	+LB	-ME	*L.welshimeri*	-	-ME	-	/	/	/	/	/	/	/	/	=
T13	EN	*No*	Scraps from box of fish fillets	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
T14	EN	*No*	Scraps from box of fish fillets	-LE	-LE	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
T15	EN	*No*	Scraps from conveyor	+MC	-LE	+LB	-LE	*L.welshimeri*	-	-ME	-	/	/	/	/	/	/	/	/	=
T17	EN	*No*	Scraps from conveyor	-LE	Ø	-LE	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
T18	EN	*No*	Scraps of fish fillets	+MB	-ME	+MC	-LE	*L.welshimeri*	-	-ME	-	/	/	/	/	/	/	/	/	=
T19	EN	*No*	Scraps from boxes	+MB	+MB	+HB	+MB	*L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	0,12	*L.monocytogenes*	=
T20	EN	*No*	Scraps from raw materials	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
T21	EN	*No*	Scraps from weighing conveyor	-Lb*	-LE	+MB	+MC	**L.welshimeri (5)* *L.monocytogenes*	+	-ME +MD**	- +	/ +	/ S+R-	/ +	/ -	/ 6510**	/ +	/ 0,72	/ *L.monocytogenes*	FN
T22	EN	*No*	Scraps from end conveyor	-ME	Ø	-LE	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
T23	EN	*No*	Scraps from salmons	Ø	Ø	Ø	Ø	/	-	-ME	-	/	/	/	/	/	/	/	/	=
T24	EN	*No*	Scraps from fishes	-LE	-LE	-LE	-LE	/	-	-ME	-	/	/	/	/	/	/	/	/	=
T25	EN	*No*	Scraps from stainless knife, RTE plant	+MA	-ME	+LC	-ME	*L.welshimeri*	-	-ME	-	/	/	/	/	/	/	/	/	=
T27	EN	*No*	Scraps from fishes	-LE	Ø	Ø	-LE	/	-	-ME	-	/	/	/	/	/	/	/	/	=
T28	EN	*No*	Scraps from fishes	+MB	+MB	+MB	+MB	*L.welshimeri* *L.monocytogenes*	+	+MB	+	+	S+R-	-	+	6510	+	0,53	*L.monocytogenes*	=
V3	EN	*No*	Scraps from weighing conveyor (white fish)	+HA	+MA	+MB	+MB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	3,17	*L.monocytogenes*	=
V6	EN	*No*	Scraps from conveyor	+HA	+HA	+MB	+MB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	3,05	*L.monocytogenes*	=
V9	EN	*No*	Scraps from weighing conveyor (salmon)	+MB	+MB	+HB	+MB	*L.monocytogenes*	+	+HA	+	+	S+R-	-	+	6510	+	3,11	*L.monocytogenes*	=
V10	EN	*No*	Scraps from waste gun	+MA	+MA	+MB	+HB	*L.monocytogenes*	+	+MA	+	+	S+R-	-	+	6510	+	3,08	*L.monocytogenes*	=
V14	EN	*No*	Scraps from cutting table	+HB	+MB	+MB	+MC	*L.monocytogenes*	+	+HB	+	+	S+R-	-	+	6510	+	0,36	*L.monocytogenes*	=

APPENDIX C:

RELATIVE ACCURACY, RELATIVE SPECIFICITY, RELATIVE SENSITIVITY
-
DETAILED RESULTS TABLES FOR EACH SAMPLE CATEGORY
Listeria other than *monocytogenes*

LEGEND

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

Distribution of flora
A = pure culture of suspicious colonies
B = mix with a majority of suspicious colonies
C = mix with a minority of suspicious colonies
D = mix with rare suspicious colonies
E = absence of suspicious colonies
(x) : x characteristic colonies of *Listeria monocytogenes* if $x \leq 5$

* : presence of two Listeria types

Confirmation
If purification, catalase test is performed with catalase ID on a strip
If no purification, catalase test is performed directly on OAA plate

If purification, streaking on PALCAM plate
IF no purification, stabbing on PALCAM plate

Meat products

Code	Sample	Cat	*Artif.*	Reference method EN ISO 11290-1 #						Alternative method OAA												Comparison
				Fraser 1/2		Fraser		*Identifications*	Result *Listeria* other than *monocytogenes*	Streaking		Confirmations								*Identifications*	Result *Listeria* other than *monocytogenes*	
				O&A1	P1	O&A2	P2			22H	+48H at 2-8°C	Purif (Y/N)	GRAM	Catalase	PALCAM	Api List	RAPIDEC					
C4	Horse minced meat	MP1	*No*	+LA	+LA	+MA	+HA	*L.welshimeri*	+	+LA	+LB	No	B+	+	+	7711	yellow				*L.welshimeri*	+	=
C7	Beef minced meat	MP1	*No*	+LB*	+LB*	+MB*	+MB*	*L.monocytogenes*	+	+LB*	+MB*	No				6510	green				*L.monocytogenes*	+	=
								**L.welshimeri*				No	B+	+	+	7711					**L.welshimeri*		
C19	Ground beef	MP1	*No*	+LA	+MA	+MA	+HA	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	7711					*L.welshimeri*	+	=
E9	Côtes de porc	MP1	*No*	+MA	+MA	+MA	+MB	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	7711					*L.welshimeri*	+	=
F4	Ground horse meat	MP1	*No*	Ø	-LE	Ø	Ø	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
F12	Ground horse meat	MP1	*No*	+LB*	+LB	+MB*	+MB*	*L.monocytogenes*	+	+MB*	+MB*	No				6510	green				*L.monocytogenes*	+	=
								**L.innocua*				No	B+	+	+	7510					**L.innocua*		
G17	Pork meat	MP1	*No*	+LB*	+LB*	+MB*	+MB*	*L.monocytogenes*	+	+MB*	+MB*	Yes	/	/	/	6510	green				*L.monocytogenes*	+	=
								**L.welshimeri*				Yes	B+	+	+	7711					**L.welshimeri*		
H11	Ground horse meat	MP1	*No*	+LB*	+LB*	+MB*	+HB*	*L.monocytogenes*	+	+MB*	+MB*	No				6510	blue				*L.monocytogenes*	+	=
								L.innocua				No	B+	+	+	7510					**L.innocua*		
H26	Pork shoulder	MP1	*No*	+MB	+MB	+MB	+MB	*L.welshimeri*	+	+MB	+MB	No	B+	+	+	7711					*L.welshimeri*	+	=
C5	Merguez	MP2	*No*	+MB*	+MB*	+MB*	+HB*	*L.monocytogenes*	+	+MA	+MB*	No	B+	+	+	7110					*L.innocua*	+	=
								**L.innocua*													**L.monocytogenes*		
C8	Beef meatballs	MP2	*No*	+LD	+MD	+MD	+MD	*L.seeligeri*	+	+MB	+MB	No	B+	+	+	2310					*L.seeligeri*	+	=
C9	Calf paupiettes	MP2	*No*	+MB*	+MB*	+MB*	+HB*	*L.monocytogenes*	+	+MB*	+MB*	No				6510	green				*L.monocytogenes*	+	=
								**L.welshimeri*				No	B+	+	+	7711					**L.welshimeri*		=
E1	Black pudding	MP2	*No*	-LE	-LE	Ø	-ME	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
E6	Chipolatas	MP2	*No*	Ø	-LE	Ø	-LE	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
E8	Chipolatas	MP2	*No*	+LA(2)	+LB(1)	+MB	+HB	*L.welshimeri*	+	+LA	+LB	No	B+	+	+	7511					*L.welshimeri*	+	=
E10	Bio sausages	MP2	*No*	+LA	+LB	+MB	+MB	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	7711					*L.welshimeri*	+	=
E11	Burger tomatoes	MP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
E16	Black pudding	MP2	*No*	-LE	-ME	-LE	-ME	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
I1	Marinated chicken legs	MP2	*No*	+LB*	+MB*	+MB*	+HB*	*L.monocytogenes*	+	+MB*	+MB*	No	/	/	/	6510	green				*L.monocytogenes*	+	=
								**L.innocua*				No	B+	+	+	7510					**L.innocua*		
I19	Chipolatas	MP2	*No*	Ø	-ME	Ø	-ME	/	-	+LB?	-LE	No	B+	+	/	/	/	/	/	/	*Bacillus*	-	= (FP)
I18	Spiced pork sausage	MP2	*No*	+LB	+LB(3)	+LB	+LB	*L.innocua*	+	+LB	+LB		B+	+	+	7510					*L.innocua*	+	=
I20	Sausage	MP2	*No*	+MA	+MB	+MB	+HB	*L.welshimeri*	+	+MB	+MB	No	B+	+	+	7711					*L.welshimeri*	+	=
J16	Pork sausage	MP2	*No*	+LB*	+MB*	+MB	+HB*	*L.monocytogenes*	+	+MB*	+MB*	No				6510	green				*L.monocytogenes*	+	=
								**L.welshimeri*				No	B+	+	+	7711					**L.welshimeri*		
J18	Merguez	MP2	*No*	+LB	+MB	+MB	+HB	*L.welshimeri*	+	+MB	+MB	No	B+	+	+	7711					*L.welshimeri*	+	=
J19	Pork sausage	MP2	*No*	+LB*	+LB*	+MA	+HB	*L.monocytogenes*	+	+MB*	+MB*	No				6510	green				*L.monocytogenes*	+	=
								**L.innocua*				No	B+	+	+	7110					**L.innocua*		
F13	Raw marinated chicken fillets	MP2	*No*	-ME	-ME	-ME	-ME	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
K11	Raw marinated chicken fillets	MP2	*No*	- LE	Ø	- ME	- LE	/	-	- ME	- ME	/	/	/	/	/	/	/	/	/	/	-	=

Meat products

Code	Sample	Cat	*Artif.*	Reference method EN ISO 11290-1 #						Alternative method OAA												Comparison
				Fraser 1/2		Fraser		*Identifications*	Result *Listeria* other than *monocytogenes*	Streaking		Confirmations									*Identifications*	Result *Listeria* other than *monocytogenes*	
				O&A1	P1	O&A2	P2			22H	+48H at 2-8°C	Purif (Y/N)	GRAM	Catalase	PALCAM	Api List	RAPIDEC						
B2	Saucisson	MP3	*No*	-LE	-LE	-ME	-ME	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
B5	Pâté	MP3	*No*	-LE	-LE	-LE	-LE	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
C11	Ham	MP3	*No*	+LB*	+LB*	+MB*	+MB*	*L.monocytogenes* **L.welshimeri*	+ +	+LB*	+LB*	No No	 B+	 +	 +	6510 6711	green yellow				*L.monocytogenes* **L.welshimeri*	+	= =
C26	Rosted chicken	MP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
D7	Quiche Lorraine	MP3	*No*	Ø	Ø	Ø	-LE	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
D8	Sandwich smoked ham	MP3	*No*	-LE	-ME	Ø	-LE	/	-	-LE	-ME	/	/	/	/	/	/	/	/	/	/	-	=
D20	Bayonne ham	MP3	*Yes*	-LE	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
D21	Pâté	MP3	*Yes*	+MA	+HA	+MA	+HA	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	7711					*L.welshimeri*	+	=
D26	Pizza with ham	MP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
E4	Roasting pork meat	MP3	*No*	Ø	Ø	-LE	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
E7	Frankfurter sausage	MP3	*No*	-LE	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
E17	Bacon	MP3	*No*	+LA	+MB	+MB	+MB	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	7711					*L.welshimeri*	+	=
E18	Breast of pork	MP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
E19	Andouille	MP3	*No*	+HA	+HA	+MB	+MB	*L.innocua*	+	+MA	+HA	No	B+	+	+	7510					*L.innocua*	+	=
F6	Savoie ham	MP3	*No*	Ø	-LE	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
F7	Saucisson	MP3	*No*	Ø	-ME	-ME	-ME	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
F14	Breast of pork	MP3	*No*	+MA	+MC	+MB	+MB	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	6711					*L.welshimeri*	+	=
F16	Pâté de campagne	MP3	*No*	+MA	+MC	+MB	+HB	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510					*L.innocua*	+	=
F20	Pâté le Much'ail	MP3	*No*	Ø	-LE	-LE	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
F21	Terrine Bourguignonne	MP3	*No*	-LE	-ME	-LE	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
G16	Cured ham	MP3	*No*	Ø	Ø	-ME	-ME	/	-	Ø	-LE	/				/	/	/	/	/	/	-	=
G18	Pita	MP3	*No*	-LE	-ME	+MB	+HB	*L.welshimeri*	+	+LB?	-LE	Yes	B+	+	/	/	/	/	/	/	*Bacillus*	-	FN
H8	Sandwich with ham	MP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
H21	Petits fours bacon and pâté	MP3	*No*	Ø	Ø	Ø	-LE	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
H22	Petits fours duck breast	MP3	*No*	+MB*	+MB*	+MB*	+MB*	*L.monocytogenes* **L.welshimeri*	+	+MB*	+MB*	No No	 B+	 +	 +	6510 7711	green				*L.monocytogenes* **L.welshimeri*	+	= =
I2	Bayonne ham	MP3	*No*	Ø	-LE	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
I3	White ham	MP3	*No*	-LE	Ø	-LE	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
I4	Pâté de campagne	MP3	*No*	+LA	+LA	+MA	+MB	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	7711					*L.welshimeri*	+	=
I5	Salami	MP3	*No*	Ø	-LE	-LE	-LE	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
I6	White ham	MP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
I17	Saucisson	MP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
J12	Saucisson	MP3	*No*	- LE	Ø	+MB	+MC	*L.welshimeri*	+	-LE	-ME	/	/	/	/	/	/	/	/	/	/	-	FN
J15	Saucisson	MP3	*No*	+LA	+MB	+MB	+HB	*L.welshimeri*	+	+MA	+MB	No	B+	+	+	7711					*L.welshimeri*	+	=
J17	Spiced minced meat	MP3	*No*	+LB*	+MB*	+MB*	+HD	*L.monocytogenes* **L.welshimeri*	+	+MB*	+MB*	No No	 B+	 +	 +	6510 7711	green				*L.monocytogenes* **L.welshimeri*	+	=
J21	smoked streaky bacon	MP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
K24	Potatoes bacon et sausages with mustard sauce	MP3	*No*	Ø	Ø	- ME	- LE	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
L13	Foie gras	MP3	*No*	+MA	+MA	+ MA	+HB	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510					*L.innocua*	+	=
L19	Cured ham	MP3	*No*	+MB*	+LB	+MA	+MB	*L.monocytogenes* **L.welshimeri*	+	+MB*	+MB*	No No	 B+	 +	 +	6510 7711	green				*L.monocytogenes* **L.welshimeri*	+	= =
L20	Sandwich with saucisson	MP3	*No*	- LE	Ø	- ME	Ø	/	-	Ø	- ME	/	/	/	/	/	/	/	/	/	/	-	=
L22	Toasted ham and cheese sandwich	MP3	*No*	+MA	+LB	+MA	+HB	*L.innocua*	+	+MA	+MB	No	B+	+	+	7110					*L.innocua*	+	=

Dairy products

Code	Sample	Cat	*Artif.*	Reference method EN ISO 11290-1 #						Alternative method OAA												Comparison
				Fraser 1/2		Fraser		*Identifications*	Result *Listeria* other than *monocytogenes*	Streaking		Confirmations									Result *Listeria* other than *monocytogenes*	
				O&A1	P1	O&A2	P2			22H	+48H at 2-8°C	Purif (Y/N)	GRAM	Catalase	PALCAM	Api List	RAPIDEC				*Identifications*	
D14	Reblochon cheese	DP1	*Yes*	+LB	+LB	+MA	+HB	*L.innocua*	+	+MC	+MC	No	B+	+	+	7510					*L.innocua*	+	=
D15	Maroilles cheese	DP1	*Yes*	+LB	+LD	+MA	+MA	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
D22	Raw milk	DP1	*No*	-LE	-LE	-LE	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
E23	Brie cheese (raw milk)	DP1	*Yes*	Ø	Ø	+MA	+MA	*L.welshimeri*	+	+LA(3)	+LB(3)	No	B+	+	+	7711	/	/	/	/	*L.welshimeri*	+	=
E24	Reblochon cheese (raw milk)	DP1	*Yes*	+LB	+LC	+MB	+HB	*L.welshimeri*	+	+LA	+MB	No	B+	+	+	7711	/	/	/	/	*L.welshimeri*	+	=
E27	Raw milk	DP1	*Yes*	+LA(3)	Ø	+MA	+HA	*L.welshimeri*	+	+LA	+LB	No	B+	+	+	7711	/	/	/	/	*L.welshimeri*	+	=
E28	Raw milk	DP1	*Yes*	+MB*	+MB*	+MB*	+MB*	*L.monocytogenes* *L.welshimeri*	+	+MB*	+MB*	No				6510	green				*L.monocytogenes*	+	=
												No	B+	+	+	6711	yellow				*L.welshimeri*		
G23	Raw milk cheese	DP1	*No*	-LE	Ø	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
G26	Reblochon cheese (raw milk)	DP1	*No*	-LE	Ø	Ø	Ø	/	-	-LE	-ME	/	/	/	/	/	/	/	/	/	/	-	=
H1	Camembert cheese (raw milk)	DP1	*No*	Ø	-LE	Ø	-LE	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
H7	Neufchatel cheese (raw milk)	DP1	*No*	Ø	-ME	Ø	-ME	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
H25	Camembert cheese (raw milk)	DP1	*No*	Ø	Ø	-LE	-LE	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
J10	Brique cheese (pasteurizd milk)	DP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
K13	Tomette de savoie cheese (raw milk)	DP1	*No*	- ME	- ME	- ME	- ME	/	-	- ME	- HE	/	/	/	/	/	/	/	/	/	/	-	=
L12	Morbier cheese (raw milk)	DP1	*No*	- ME	- LE	- LE	Ø	/	-	- ME	- ME	/	/	/	/	/	/	/	/	/	/	-	=
L24	Brie de Meaux AOC cheese (raw milk)	DP1	*No*	- LE	Ø	Ø	Ø	/	-	- LE	- ME	/	/	/	/	/	/	/	/	/	/	-	=
N2	Walnut soft cheese	DP1	*No*	+LB	+LB	+MB	+HB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	+
O15	Cow's raw milk cheese	DP1	*Yes*	- LE	Ø	- ME	- LE	/	-	Ø	-ME	/	/	/	/	/	/	/	/	/	/	-	=
O16	Reblochon cheese (raw milk)	DP1	*Yes*	- LE	- LE	Ø	- ME	/	-	Ø	-ME	/	/	/	/	/	/	/	/	/	/	-	=
O17	Epoisses cheese (raw milk)	DP1	*Yes*	+LA(2)	- LE	Ø	Ø	*L.innocua*	+	+LB	+LB	No	B+	+	+	7510					*L.innocua*	+	=
P16	Raclette cheese (raw milk)	DP1	*Yes*	+MA	+MA	+MA	+MA	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510					*L.innocua*	+	=
P19	Brie de Meaux AOC cheese (raw milk)	DP1	*Yes*	+MA	+MB	+MA	+HA	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
Q1	Reblochon cheese (raw milk)	DP1	*Yes*	+LA(1)	+LC(1)	+MB	+MB	*L.innocua*	+	+LA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
Q2	Cow's raw milk cheese	DP1	*Yes*	-ME	Ø	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
Q3	Camembert cheese (raw milk)	DP1	*Yes*	+LB	+LB(3)	+MB	+MB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
B7	Petit Bethmale (goat's cheese)	DP2	*No*	-ME	Ø	-LE	-LE	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
C21	Roquefort cheese	DP2	*No*	Ø	-LE	Ø	Ø	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
C22	Roquefort cheese	DP2	*No*	+LB	+LA	+MA	+HA	*L.welshimeri*	+	+LB	+LB	No	B+	+	+	7511					*L.welshimeri*	+	=
D11	Goat's cheese	DP2	*Yes*	+LB	+LB	+MA	+HA	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
D12	Ossau Iraty cheese	DP2	*Yes*	+MB	+MB	+MA	+HA	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
D13	Poitou goat's cheese	DP2	*Yes*	+MB	+MB	+MA	+HA	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510					*L.innocua*	+	=
E25	Ricotta cheese (raw ewe's milk)	DP2	*Yes*	+MB	+MB	+MB	+HB	*L.welshimeri*	+	+MA	+MB	No	B+	+	+	7711	/	/	/	/	*L.welshimeri*	+	=
E26	Goat's cheese (raw milk)	DP2	*Yes*	Ø	Ø	+MA	+HB	*L.welshimeri*	+	+LA(2)	+LB	No	B+	+	+	7711	/	/	/	/	*L.welshimeri*	+	=
F19	Goat's cheese (raw milk)	DP2	*No*	Ø	Ø	-LE	-LE	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
G22	Roquefort cheese	DP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/				/	/	/	/	/	/	-	=
J11	Charolais goat's cheese (raw milk)	DP2	*No*	+LB (2)	-LE	-LE	-LE	*Lseeligeri*	+	+LB	+LC	Yes	B+	+	+	2310					*Lseeligeri*	+	=
K15	Goat's cheese with pepper (raw milk)	DP2	*No*	- HE	-LE	- ME	- ME	/	-	- ME	- HE	/	/	/	/	/	/	/	/	/	/	-	=
M14	Roquefort cheese	DP2	*No*	+LC(1)	+LB(1)	+MA	+HB	*L.ivanovii*	+	+LC	+MD	No				2330	blue				*L.ivanovii*	+	=
N17	Feta and darl olives	DP2	*No*	+LB*	+LB*	+MB*	+MB*	*L.monocytogenes* *L.seeligeri*	+	+LB*	+LB*	No				6510	green				*L.monocytogenes*	+	=
												Yes	B+	+	+	3310					*L.seeligeri*		
O14	Goat's milk cheese (raw milk)	DP2	*Yes*	Ø	- LE	- LE	Ø	/	-	Ø	-ME	/	/	/	/	/	/	/	/	/	/	-	=
P17	Goat's milk cheese (raw milk)	DP2	*Yes*	+LA/+LB	+LB	+MB	+MB	*L.innocua*	+	+LA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
P18	Goat's milk cheese (raw milk)	DP2	*Yes*	+LA/+LB	+LB	+MB	+HB	*L.innocua*	+	+LA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
Q4	Goat's milk cheese (raw milk)	DP2	*Yes*	+LA(2)	+LB(1)	+LB	+LB	*L.innocua*	+	+LB	+LB	No	B+	+	+	7510					*L.innocua*	+	=

Dairy products

Code	Sample	Cat	*Artif.*	Reference method EN ISO 11290-1 #						Alternative method OAA												Comparison
				Fraser 1/2		Fraser		*Identifications*	Result *Listeria* other than *monocytogenes*	Streaking		Confirmations										Result *Listeria* other than *monocytogenes*	
				O&A1	P1	O&A2	P2			22H	+48H at 2-8°C	Purif (Y/N)	GRAM	Catalase	PALCAM	Api List	RAPIDEC				*Identifications*		
B8	Flan	DP3	*No*	Ø	Ø	-LE	-LE	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
C20	Pont l'Evêque cheese	DP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
D10	Custard	DP3	*No*	Ø	-LE	-LE	-ME	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
D16	Milk powder	DP3	*Yes*	+MA	+MA	+MB	+HB	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
D17	Milk powder	DP3	*Yes*	+MB	+MB	+MB	+HB	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
D18	Caramel and chocolate mousse	DP3	*Yes*	+MB	+MB	+MA	+HB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
D19	Whipped cream bun	DP3	*Yes*	+MA	+MA	+MB	+HB	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510					*L.innocua*	+	=
E29	Rasperries with whipped cream	DP3	*Yes*	+MB*	+MB*	+MA	+HA	*L.monocytogenes*	+	+MB*	+MB*	No				6510	green				*L.monocytogenes*	+	=
								**L.welshimeri*				No	B+	+	+	6711	yellow				**L.welshimeri*		=
F1	Rasperries tart	DP3	*No*	-LE	-LE	-ME	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
G25	Chou bun	DP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
J6	Pastry with whipped cream	DP3	*No*	Ø	-LE	Ø	-ME	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
J13	Coffee mousse	DP3	*No*	- LE	Ø	Ø	-ME	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
K1	Whipped cream bun	DP3	*No*	+MB*	+MB*	+MB*	+HB*	*L.monocytogenes*	+	+HA	+ HB*	Yes				6510	green				**L.monocytogenes*	+	=
								**L.innocua*				No	B+	+	+	7110					*L.innocua*		
K2	Rasperries tart	DP3	*No*	- LE	Ø	- ME	- LE	/	-	Ø	- ME	/	/	/	/	/	/	/	/	/	/	-	=
K3	Caroline (custard and whipped cream)	DP3	*No*	- LE	Ø	Ø	Ø	/	-	- ME	- ME	/	/	/	/	/	/	/	/	/	/	-	=
L10	Whipped cream bun	DP3	*No*	+ LB*	+ MB*	+MB*	+HB*	*L.monocytogenes*	+	+MB*	+MB*	No				6510	green				*L.monocytogenes*	+	=
								**L.innocua*				No	B+	+	+	7510					**L.innocua*		
L17	Whipped cream bun	DP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
L18	Forêt noire pastry	DP3	*No*	+MA	+MB	+MA	+HB	*L.innocua*	+	+MA	+MA	No	B+	+	+	7110					*L.innocua*	+	=
L23	Saint Honoré pastry	DP3	*No*	- LE	Ø	- ME	Ø	/	-	Ø	- LE	/	/	/	/	/	/	/	/	/	/	-	=
L25	Bavarois pastry with exotic fruits	DP3	*No*	Ø	Ø	- LE	- LE	/	-	Ø	- LE	/	/	/	/	/	/	/	/	/	/	-	=
N1	Strawberries and whipped cream	DP3	*No*	+MB*	+MB*	+MB*	+ HB*	*L.monocytogenes*	+	+MB*	+ HB*	No				6510	green				*L.monocytogenes*	+	+
								**L.innocua*				Yes	B+	+	+	3510					**L.innocua*		
O23	Fruits tart	DP3	*No*	-ME	Ø	-ME	-ME	*Bacillus*	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
Q5	Fruits tart	DP3	*No*	+LB	+LB(2)	+LB	+LA	*L.innocua*	+	+MB	+MB	No	B+	+	+	3510					*L.innocua*	+	=

Seafood products

Code	Sample	Cat	Artif.	Reference method EN ISO 11290-1 #						Alternative method OAA												Comparison
				Fraser 1/2		Fraser		Identifications	Result *Listeria* other than *monocytogenes*	Streaking		Confirmations									Identifications	Result *Listeria* other than *monocytogenes*	
				O&A1	P1	O&A2	P2			22H	+48H at 2-8°C	Purif (Y/N)	GRAM	Catalase	PALCAM	Api List	RAPIDEC						
A3	Salmon fillet	SP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
A4	Perch fillet	SP1	*No*	+MA	+MB*	+MB*	+MB*	*L.monocytogenes* **L.innocua*	+	+MA	+MA	No Yes	B+	+	+	7510	green				*L.monocytogenes* **L.innocua*	+	= =
A5	Shellfish cocktail	SP1	*No*	-LE	Ø	-LE	Ø	/	-	-HE	-HE	/	/	/	/	/	/	/	/	/	/	-	=
A6	Haddock fillet	SP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
A7	Salmon paupiettes	SP1	*No*	Ø	Ø	-LE	-ME	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
C3	Salmon fillet	SP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
C12	Schrimps	SP1	*No*	Ø	Ø	-LE	-ME	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
E2	Schrimps	SP1	*No*	-LE	-LE	Ø	-LE	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
E15	Hering fillet	SP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
F2	Schrimps	SP1	*No*	-LE	-LE	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
F3	Schrimps	SP1	*No*	+LB?/-LE	-LE	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
G5	Frozen salmon steaks	SP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
G6	Schrimps	SP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
G7	Schrimps	SP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
G13	White fish fillet	SP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
H4	Winkles	SP1	*No*	-LE	Ø	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
H5	Schrimps	SP1	*No*	-LE	Ø	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
H33	Winkles	SP1	*No*	-ME	Ø	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
I10	Schrimps	SP1	*No*	-ME	-LE	Ø	-ME	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
J1	Prawn	SP1	*No*	-LE	Ø	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
J2	Schrimps	SP1	*No*	-LE	Ø	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
J3	Schrimps	SP1	*No*	-ME	-LE	-LE	-LE	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
J4	Schrimps	SP1	*No*	-ME	Ø	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
J5	Schrimps	SP1	*No*	-ME	Ø	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
J7	Shellfish cocktail	SP1	*No*	+LA	+MA	+MB	+MB	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
K8	Hering fillet	SP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	- LE	/	/	/	/	/	/	/	/	/	/	-	=
K10	Hering fillet	SP1	*No*	Ø	Ø	Ø	Ø	/	-	- LE	- LE	/	/	/	/	/	/	/	/	/	/	-	=
K18	Hering fillet	SP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
K22	Shellfish cocktail	PP	*No*	+LB*	+MA	+MB*	+MB*	*L.monocytogenes* *L.welshimeri*	+	+ HB*	+HB*	No Yes	B+	+	+	6510 7711	green				*L.monocytogenes* *L.welshimeri*	+	=
L8	Winkles	SP1	*No*	- ME	- LE	- LE	- LE	/	-	- ME	- ME	/	/	/	/	/	/	/	/	/	/	-	=
L9	Winkles	SP1	*No*	+LB ?	Ø	- LE	- LE	*Bacillus*	-	+ MA?	- ME	No	B+	+	/	/	/	/	/	/	*Bacillus*	-	=
M18	Shellfish cocktail	SP1	*No*	+MA	+LB*	+MB	+HB	*L.monocytogenes* **L.innocua*	+	+MD*	+MD*	No No	B+	+	+	6510 7510	green				*L.monocytogenes* **L.innocua*	+	=
N5	Hering fillet	SP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	+
N8	Prawn	SP1	*No*	- LE	Ø	Ø	Ø	/	-	Ø	- LE	/	/	/	/	/	/	/	/	/	/	-	=
N6	Shellfish cocktail	SP1	*No*	- ME	- LE	+MA	+HA	*L.welshimeri*	+	- ME	- ME	/	/	/	/	/	/	/	/	/	/	-	FN
N7	Prawn	SP1	*No*	+MB*	+MB*	+MB*	+MB*	*L.monocytogenes* **L.innocua*	+	+MB*	+MB*	No No	B+	+	+	6510 7510	green				*L.monocytogenes* **L.innocua*	+	=
N9	Winkles	SP1	*No*	+MB	+MA	+MB	+HB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
N10	Smoked salmon fillet	SP1	*No*	+MB	+MB	+MB	+HB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
N11	Schrimps	SP1	*No*	- ME	Ø	- ME	- ME	/	-	- ME	- ME	/	/	/	/	/	/	/	/	/	/	-	=
O1	Gray schrimps	SP1	*Yes*	+LB	+LA	+MA	+MB	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
O2	Schrimps	SP1	*No*	+LB	+MD	+MD	+MD	*L.seeligeri*	+	+MC	+MC	No	B+	+	+	2310					*L.seeligeri*	+	=
O3	Prawn	SP1	*Yes*	- LE	Ø	- ME	Ø	/	-	- LE	- LE	/	/	/	/	/	/	/	/	/	/	-	=
O4	Gray schrimps	SP1	*Yes*	+MB	+LA	+MA	+HA	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
P8	Shellfish cocktail	SP1	*Yes*	+LB	+LD	+MA	+MA	*L.innocua*	+	+LA	+LB	No	B+	+	+	7510					*L.innocua*	+	=
P9	Schrimps	SP1	*Yes*	+LB	+LC	+MB	+HB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
Q7	Schrimps	SP1	*Yes*	+LB	+LA	+MA	+HB	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	7711					*L.welshimeri*	+	=
Q9	Salmon from Norway	SP1	*Yes*	+LB	+LA	+MB	+HA	*L.welshimeri*	+	+MB	+MB	No	B+	+	+	7711					*L.welshimeri*	+	=

Seafood products

Code	Sample	Cat	*Artif.*	Reference method EN ISO 11290-1 #						Alternative method OAA												Comparison
				Fraser 1/2		Fraser		*Identifications*	Result *Listeria* other than *monocytogenes*	Streaking		Confirmations										
				O&A1	P1	O&A2	P2			22H	+48H at 2-8°C	Purif (Y/N)	GRAM	Catalase	PALCAM	Api List	RAPIDEC				*Identifications*	Result *Listeria* other than *monocytogenes*	
A2	Smoked salmon	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
A8	Smoked salmon	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
A9	Smoked salmon tartar	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
E12	Smoked kipper	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
E13	Smoked salmon	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
G1	Smoked salmon from Atlantic	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
G3	Smoked salmon with 5 spices	SP2	*No*	Ø	Ø	-LE	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
G8	Smoked salmon from Norway	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
G10	Smoked trout	SP2	*No*	Ø	Ø	-LE	Ø	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
G11	Smoked trout	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-ME	/	/	/	/	/	/	/	/	/	/	-	=
G12	Smoked salmon from Atlantic	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
G19	Smoked salmon from Scotland	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
G20	Smoked haddock	SP2	*No*	+LB*	+LA	+MB*	+HB	*L.monocytogenes* *L.innocua*	+	+MB*	+MB*	No No	 B+	 +	 +	6510 7510	green					*L.monocytogenes* *L.innocua*	+	=
G31	Smoked salmon	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
H18	Smoked salmon	SP2	*No*	Ø	Ø	-LE	-ME	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
H20	Petits fours with smoked salmon	SP2	*No*	-LE	Ø	Ø	-ME	/	-	-LE	-ME	/	/	/	/	/	/	/	/	/	/	-	=
K4	Smoked salmon from Norway	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
K6	Smoked salmon from Atlantic	SP2	*No*	+LA (5)	+LA (3)	+MB	+HA	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	7711						*L.welshimeri*	+	=
K19	Smoked cod	SP2	*No*	- LE	Ø	Ø	Ø	/	-	- ME	- ME	/	/	/	/	/	/	/	/	/	/	-	=
K21	Smoked halibut	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	- LE	/	/	/	/	/	/	/	/	/	/	-	=
L1	Smoked salmon	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
L2	Smoked salmon	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
L3	Smoked trout	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
L4	Smoked salmon	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
L5	Smoked salmon	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
L6	Smoked halibut	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
M12	Smoked salmon from Norway	SP2	*No*	+MB	+MA	+MA	+MA	*L.welshimeri*	+	+MB	+MB	No	B+	+	+	7711						*L.welshimeri*	+	=
M13	Smoked salmon	SP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
M17	Smoked salmon paupiette	SP2	*No*	+MB	+MA	+MB	+HB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510						*L.innocua*		=
O5	Smoked salmon from Atlantic	SP2	*Yes*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
O6	Wild smoked salmon	SP2	*Yes*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
O7	Smoked salmon from Norway	SP2	*Yes*	+LB	+LA	+MA	+MA	*L.innocua*	+	+MB	+MC	No	B+	+	+	7510						*L.innocua*	+	=
O8	Smoked salmon from Norway	SP2	*Yes*	Ø	Ø	Ø	Ø	/	-	- LE	- LE	/	/	/	/	/	/	/	/	/	/	-	=
O9	Lardons de saumon	SP2	*Yes*	Ø	Ø	Ø	Ø	/	-	- LE	- LE	/	/	/	/	/	/	/	/	/	/	-	=
P10	Smoked salmon from Scotland	SP2	*Yes*	Ø	-LE	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
P11	Pieces of smoked salmon	SP2	*Yes*	-LE	-LE	+MA	+MA	*L.innocua*	+	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	FN
P12	Smoked salmon from Scotland	SP2	*Yes*	Ø	+LC(1)	+MA	+MA	*L.innocua*	+	+LD	+LD	No	B+	+	+	7510						*L.innocua*	+	=
P13	Smoked salmon	SP2	*Yes*	Ø	Ø	-ME	-ME	*Bacillus*	-	+LD(3)	-LE	No	B+	/	/	/	/	/	/	/	/	*Bacillus*	-	=
Q8	Smoked salmon from Atlantic	SP2	*Yes*	+MA	+MA	+MB	+HA	*L.welshimeri*	+	+HA	+HB	No	B+	+	+	7711						*L.welshimeri*	+	=
R1	Smoked salmon from Norway	SP2	*Yes*	+LA(5)	Ø	+MA	+HA	*L.ivanovii*	+	+LA	+LA	No	B+	+	+	3210	blue					*L.ivanovii*	+	=
E3	Sandwich with tuna	SP3	*No*	-LE	Ø	-ME	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
F22	Pasta salad with crab	SP3	*No*	Ø	-ME	-ME	-ME	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
G4	Terrine of cod and salmon with small vegetables	SP3	*No*	Ø	Ø	-LE	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
M19	Scallop	SP3	*No*	+MA	+MA	+MB	+MB	*L.welshimeri*	+	+MB	+MB	No	B+	+	+	7711						*L.welshimeri*		=
K9	Scallop and mixed vegetables	SP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	- LE	/	/	/	/	/	/	/	/	/	/	-	=
K23	Schrimps with exotic sauce	SP3	*No*	- ME	Ø	Ø	Ø	/	-	- ME	- ME	/	/	/	/	/	/	/	/	/	/	-	=
L28	Crab and vegetables salad	SP3	*No*	+LA(3)	- LE	-ME	-HE	*Bacillus*	-	+LA	- LE	Yes	B+	+	/	/	/	/	/	/	/	*Bacillus*	-	
O10	Fish paupiette	SP3	*Yes*	+MA	+MA	+MA	+HA	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510						*L.innocua*	+	=
O12	Schrimps with potatoes	SP3	*Yes*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
O13	Crayfish,quinua and avocado	SP3	*Yes*	+LD	+LB	+MB	+HB	*L.innocua*	+	+MD	+MD											*L.innocua*	+	=
P14	Roll surimi avocado and rice	SP3	*Yes*	+MA	+MB	+MB	+MB	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510						*L.innocua*	+	=
P15	Cod fillet with cream	SP3	*Yes*	+MA	+MA	+MA	+HA	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510						*L.innocua*	+	=
Q10	Mussels in white wine	SP3	*Yes*	+LA	+MB	+MA	+MB	*L.welshimeri*	+	+HA	+HA	No	B+	+	+	7711						*L.welshimeri*	+	=

Vegetables

Code	Sample	Cat	*Artif.*	Reference method EN ISO 11290-1 #						Alternative method OAA													Comparison
				Fraser 1/2		Fraser		*Identifications*	Result *Listeria* other than *monocytogenes*	Streaking		Confirmations										Result *Listeria* other than *monocytogenes*	
				O&A1	P1	O&A2	P2			22H	+48H at 2-8°C	Purif (Y/N)	GRAM	Catalase	PALCAM	Api List	RAPIDEC				*Identifications*		
A11	Frozen spinashes	VP1	*No*	+MB*	+HA	+MB*	+MB*	*L.monocytogenes* **L.innocua*	+	+MB*	+MB*	No Yes	 B+	 +	 +	 7510	green yellow				*L.monocytogenes* **L.innocua*	+	=
B1	Frozen french pies	VP1	*No*	+LB*	+LB*	+MB*	+LB*	*L.monocytogenes* **L.seeligeri*	+	+MB	+MB*	No No	 B+	 +	 +	6510 3310	green colourless				**L.monocytogenes* *L.seeligeri*	+	=
C13	Frozen spinashes	VP1	*No*	+LA	+LA(2)	+MA	+HB	*L.innocua*	+	+MD	+MD	Yes	B+	+	+	7510					*L.innocua*	+	=
E35	Frozen green beans	VP1	*Yes*	+MA	+MA	+MB	+MB	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510					*L.innocua*	+	=
E36	Frozen vegetables	VP1	*Yes*	+MB	+MB	+MA	+MB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
H6	Frozen french pies	VP1	*No*	+LB	Ø	Ø	-LE	*L.grayi*	+	+LB	+LB	Yes	B+	+	+	3120					*L.grayi*	+	=
H9	Frozen browned potatoes	VP1	*No*	+MB	-LE	+MB	+MB	*L.seeligeri*	+	+MB	+MB	Yes Yes	B+ B+	+ +	+ +	3120 3310					*L.grayi* *L.seeligeri*	+	= =
L15	Purely potatoes	VP1	*No*	+LB	Ø	- LE	- LE	*L.grayi*	+	+MA	+MA	No	B+	+	+	7120					*L.grayi*	+	=
L16	Purely potatoes	VP1	*No*	+MB*	+MB*	+MB*	+MB	*L.monocytogenes* **L.innocua*	+	+MB*	+MB*	No No	 B+	 +	 +	6510 7510	green				*L.monocytogenes* **L.innocua*	+	=
P2	French pies	VP1	*No*	+MA	+MB	+MA	+MB	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
G14	Frozen french pies	VP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
M16	Green peas	VP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
N23	Frozen french pies	VP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	- LE	/	/	/	/	/	/	/	/	/	/	-	=
N25	Precooked potatoes	VP1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
N26	Frozen french pies	VP1	*No*	Ø	- LE	- ME	- LE	/	-	- LE	- LE	/	/	/	/	/	/	/	/	/	/	-	=
C18	Grated carotts	VP2	*No*	+LB(1)	-LE	+LB(2)	+MD	*L.seeligeri*	+	+LA(2)	+LB(2)	No	B+	+	+	2310					*L.seeligeri*	+	=
C23	Beet	VP2	*No*	+LB	+LB	+MA	+LB*	*L.seeligeri*	+	+MB	+MB	Yes	B+	+	+	3310					*L.seeligeri*	+	=
C24	Cucumber	VP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
D1	Mixed vegetables	VP2	*No*	Ø	-LE	Ø	-ME	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
E32	Grated carotts	VP2	*Yes*	+MA	+MA	+MB	+HA	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
E33	Red cabbage	VP2	*Yes*	Ø	+LA(1)	+MA	+HA	*L.innocua*	+	+LA	+LB	No	B+	+	+	7510					*L.innocua*	+	=
E34	Salad	VP2	*Yes*	+LB	+MB	+MB	+MB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
G24	"Patata paja"	VP2	*No*	+LA	+LB	+MB	+MB	*pas de L.grayi* *L.monocytogenes*	-	+MB*	+MB*	Yes Yes	B+ B+	+ +	+ +	6120 6510	 green				*L.grayi* *L.monocytogenes*	+	PS
H2	Mushrooms	VP2	*No*	-LE	Ø	-LE	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
M9	Beet	VP2	*No*	+LB	+LA	+MA	+HA	*L.welshimeri*	+	+LA	+LB	No	B+	+	+	7711					*L.welshimeri*	+	=
M11	Beet	VP2	*No*	Ø	Ø	-LE	-LE	/	/	Ø	Ø										/	-	=
N12	Salad	VP2	*Yes*	- ME	Ø	Ø	Ø	/	-	Ø	- ME	/	/	/	/	/	/	/	/	/	/	-	=
N13	Salad	VP2	*Yes*	Ø	Ø	Ø	Ø	/	-	Ø	- LE	/	/	/	/	/	/	/	/	/	/	-	=
N14	Beet	VP2	*Yes*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
O21	Beet	VP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
O22	Beet	VP2	*No*	- LE	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
P1	Mushrooms	VP2	*No*	Ø/-LE	Ø	-ME	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
P5	Grated carotts	VP2	*Yes*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
W5	Salad	VP2	*Yes*	+LA	+LA	+MB	+MB	*L.ivanovii*	+	+MA	+MB	No				3350	blue				*L.ivanovii*	+	=
W6	Salad	VP2	*Yes*	+LA	+LA	+MB	+MB	*L.ivanovii*	+	+MA	+MB	No				3350	blue				*L.ivanovii*	+	=
W7	Salad	VP2	*Yes*	+MA	+MA	+MA	+MA	*L.innocua*	+	+MA	+HA										*L.innocua*	+	=
W8	Salad	VP2	*Yes*	+MA	+MA	+MA	+MA	*L.innocua*	+	+MA	+HA										*L.innocua*	+	=
W9	Salad	VP2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-ME	/	/	/	/	/	/	/	/	/	/	-	=
W14	Carotts	VP2	*Yes*	+LB	+LB	+MB	+MB	*L.ivanovii*	+	+MB	+HB	No				3350	blue				*L.ivanovii*	+	=

Vegetables

Code	Sample	Cat	*Artif.*	Reference method EN ISO 11290-1 #						Alternative method OAA												Comparison
				Fraser 1/2		Fraser		*Identifications*	Result *Listeria* other than *monocytogenes*	Streaking		Confirmations									*Identifications*	Result *Listeria* other than *monocytogenes*	
				O&A1	P1	O&A2	P2			22H	+48H at 2-8°C	Purif (Y/N)	GRAM	Catalase	PALCAM	Api List	RAPIDEC						
C2	Mushrooms with sauce	VP3	*No*	-LE	-LE	-ME	-ME	/	-	+LB	-LE	No	B+	+	jaune		colourless				*Bacillus*	-	= (FP)
D3	Potatoes / tomatoes / salad	VP3	*No*	-LE	-ME	-LE	-ME	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
D4	Salmon - avocado salad	VP3	*No*	-LE	-LE	-ME	-HE	/	-	-LE	-ME	/	/	/	/	/	/	/	/	/	/	-	=
E20	Tabbouleh	VP3	*No*	-LE	-LE	-LE	-HE	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
E30	Cooked carotts	VP3	*Yes*	+MA	+MB	+MA	+HA	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510					*L.innocua*	+	=
E31	Mixed vegetables	VP3	*Yes*	+MA	+MA	+MB	+HB	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510					*L.innocua*	+	=
H3	Carotts, tomatoes, celery	VP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
H16	Grated carotts	VP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
H19	Grated carotts	VP3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-ME	/	/	/	/	/	/	/	/	/	/	-	=
J8	Grated carotts and celery	VP3	*No*	Ø	Ø	-LE	-ME	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
J9	Corn and carotts with vinaigrette sauce	VP3	*No*	Ø	-LE	Ø	-ME	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
J14	Salad, tomatoes and potatoes	VP3	*No*	Ø	Ø	Ø	-ME	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
J28	Salad, leek and tomatoes	VP3	*No*	Ø	-LE	Ø	-ME	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
M7	Vegetables pan fry	VP3	*No*	+LC*	+LB*	+MA	+MB	*L.monocytogenes* *L.innocua*	+	+MC*	+MD*	No No	B+	+	+	6510 7511	green				*L.monocytogenes* *L.innocua*	+	=
M8	Tabbouleh	VP3	*No*	+MB	+MA	+MB	+HB	*L.welshimeri*	+	+HA	+HB	No	B+	+	+	7711					*L.welshimeri*	+	=
N15	Zucchinis	VP3	*Yes*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
P3	Zucchinis with curry sauce	VP3	*Yes*	Ø	Ø	Ø	Ø	/	-	+LA(2)	+LB(2)	No	B+	+	+	7711					*L.welshimeri*	+	PS
P4	Salad, sweet pepper, zucchinis	VP3	*Yes*	+MB	+LC	+MA	+MB	*L.welshimeri*	+	+MB	+MB	No	B+	+	+	7711					*L.welshimeri*	+	=
P6	Cauliflower	VP3	*Yes*	Ø	Ø	+MA	+MB	*L.welshimeri*	+	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	FN
P7	Vegetables pan fry	VP3	*Yes*	Ø	-LE	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
Q6	Celery	VP3	*No*	-LE	-LE	-ME	-ME	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
R4	Mixed vegetables	VP3	*Yes*	+LB	+LA(2)	+MA	+MA	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
R5	Cooked carotts	VP3	*Yes*	+MA	+MA	+MA	+HA	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510					*L.innocua*	+	=

Environment

Code	Sample	Cat	*Artif.*	Reference method EN ISO 11290-1 #						Alternative method OAA												Comparison
				Fraser 1/2		Fraser		*Identifications*	Result *Listeria* other than *monocytogenes*	Streaking		Confirmations									*Identifications*	Result *Listeria* other than *monocytogenes*	
				O&A1	P1	O&A2	P2			22H	+48H at 2-8°C	Purif (Y/N)	GRAM	Catalase	PALCAM	Api List	RAPIDEC						
B16	Vegetables washing water	EN1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
C14	Washing water from dirty tank	EN1	*No*	+MA	+LA	+MA	+MB	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510					*L.innocua*	+	=
C15	Stagnant water	EN1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
E37	Iced water	EN1	*Yes*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
E38	New water	EN1	*Yes*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
E39	Process water	EN1	*Yes*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
E40	Process water	EN1	*Yes*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
I12	Water from preparation tank	EN1	*Yes*	Ø	+LA(1)	+MA	+MA	*L.innocua*	+	+LA(2)	+LA(2)	No	B+	+	+	7510					*L.innocua*	+	=
M21	Process water	EN1	*No*	+MB	+MA	+MA	+MB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
N21	Process water	EN1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
N24	Rinsing water	EN1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
O20	Vegetables rinsing water	EN1	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
O25	Process water	EN1	*Yes*	+LA	+LA	+MA	+MB	*L.innocua*	+	+MA	+MA	No	B+	+	+	7110					*L.innocua*	+	=
O26	Iced water	EN1	*Yes*	+LA	+LA	+MA	+MA	*L.innocua*	+	+MA	+MA	No	B+	+	+	7110					*L.innocua*	+	=
O27	Sewage	EN1	*No*	-LE/-ME	-ME	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
Q11	Process water	EN1	*Yes*	+MA	+MA	+MA	+MA	*L.innocua*	+	+MA	+MA	No	B+	+	+	7110					*L.innocua*	+	=
Q12	Process water	EN1	*Yes*	+MA	+MA	+HA	+HA	*L.innocua*	+	+MA	+MA	No	B+	+	+	7110					*L.innocua*	+	=
W1	Process water	EN1	*Yes*	+LA	+MA	+MA	+MA	*L.innocua*	+	+HA	+HA	No	B+	+	+	7110					*L.innocua*	+	=
W2	Process water	EN1	*Yes*	+MA	+MA	+MA	+MA	*L.innocua*	+	+HA	+HA	No	B+	+	+	7110					*L.innocua*	+	=
W3	Process water	EN1	*Yes*	+MA	+MA	+MA	+MA	*L.innocua*	+	+HA	+HA	No	B+	+	+	7110					*L.innocua*	+	=
W4	Process water	EN1	*Yes*	+MA	+MA	+MA	+MA	*L.innocua*	+	+MA	+HA	No	B+	+	+	7110					*L.innocua*	+	=
B15	Packing machine surface	EN2	*No*	Ø	Ø	-LE	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
C16	Conveyor surface	EN2	*No*	+MB*	+MB*	+MB*	+MB	*L.monocytogenes*	+	+MB*	+MB*	Yes				6510	green				**L.monocytogenes*	+	=
								**L.innocua*				No	B+	+	+	7110					*L.innocua*		
F5	Surface plant	EN2	*No*	-ME	-ME	-LE	-LE	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
G28	Surface plant	EN2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
G29	Surface working table	EN2	*No*	Ø	Ø	-LE	Ø	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
G30	Surface cutting machine	EN2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
H27	Surface cutting table	EN2	*No*	+LB*	+MB*	+MB*	+MB*	*L.monocytogenes*	+	+MB*	+MB*	No				6510	green				*L.monocytogenes*	+	=
								**L.welshimeri*				No	B+	+	+	7711					**L.welshimeri*		=
H29	Surface cutting machine	EN2	*No*	Ø	-LE	Ø	-ME	/	-	-LE	-ME	/	/	/	/	/	/	/	/	/	/	-	=
H32	Surface stainless table	EN2	*No*	-LE	Ø	Ø	-LE	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
I8	Surface dirty knife	EN2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
I9	Surface fillet machine	EN2	*No*	-LE	Ø	Ø	-LE	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
I14	Surface smoked salmons tank	EN2	*Yes*	+MA	+MA	+MA	+HA	*L.innocua*	+	+MA	+MA	No	B+	+	+	7510					*L.innocua*		=
I15	Surface cutting machine	EN2	*Yes*	+MB*	+MB*	+MB*	+MB*	*L.monocytogenes*	+	+MB*	+MB*	No				6510	green				*L.monocytogenes*	+	=
								**L.innocua*				No	B+	+	+	7510					**L.innocua*		
J24	Surface weighing conveyor	EN2	*No*	Ø	-LE	-LE	-ME	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
J25	Surface cutting machine	EN2	*No*	-LE	-ME	-LE	-ME	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
J26	Surface red box	EN2	*No*	+LB*	+LB	+MB*	+HB	*L.monocytogenes*	+	+MB*	+MB*	No				6510	green				*L.monocytogenes*	+	=
								**L.innocua*				No	B+	+	+	7510					**L.innocua*		
J27	Surface waste tank	EN2	*No*	+MA	+MB	+MB	+MB	*L.welshimeri*	+	+MA	+MB	No	B+	+	+	7711					*L.welshimeri*	+	=
K16	Surface cutting table	EN2	*No*	+LA	+MA	+MB	+MB	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	7711					*L.welshimeri*	+	=
K17	Surface cutting table	EN2	*No*	- LE	- LE	- ME	- ME	/	-	- LE	- ME	/	/	/	/	/	/	/	/	/	/	-	=
M2	Surface sewer	EN2	*No*	+MB?	-LE	- ME	- LE	*Bacillus*	-	+MA	-ME	Yes	B+	+	/	/					*Bacillus*	-	=
N19	Surface working table	EN2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	- LE	/	/	/	/	/	/	/	/	/	/	-	=
O28	Surface window in vegetables workshop	EN2	*Yes*	+LB	+MA	+MB	+HB	*L.innocua*	+	+MA	+MB	No	B+	+	+	7110					*L.innocua*	+	=
O29	Surface in delicatessen retail	EN2	*Yes*	+MA	+MA	+MA	+MA	*L.innocua*	+	+MA	+MA	No	B+	+	+	7110					*L.innocua*	+	=
O30	Surface siphon	EN2	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
O31	Surface sewer	EN2	*No*	Ø/-LE	Ø	-LE	-ME	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=
O32	Surface	EN2	*No*	Ø/-LE	-LE	-LE	-LE	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
O33	Surface cutting table	EN2	*No*	+MB	-ME	-ME	Ø	*Bacillus*	-	+MB	-ME	No	B+	/	/	/	/	/	/	/	*Bacillus*	-	=
P22	Surface preparation table	EN2	*No*	-LE	-ME	Ø	Ø	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
P23	Surface fillets conveyor	EN2	*No*	Ø/-LE	-ME	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
P24	Swab calibration conveyor	EN2	*No*	-LE	-LE	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
Q13	Surface washing plant	EN2	*Yes*	+MB	+MB	+MB	+HB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7110					*L.innocua*	+	=
Q14	Surface stainless table	EN2	*Yes*	+MB	+MB	+MB	+HB	*L.innocua*	+	+MA	+MB	No	B+	+	+	7110					*L.innocua*	+	=

Environment

Code	Sample	Cat	*Artif.*	Reference method EN ISO 11290-1 #						Alternative method OAA													Comparison
				Fraser 1/2		Fraser		*Identifications*	Result *Listeria* other than *monocytogenes*	Streaking		Confirmations										Result *Listeria* other than *monocytogenes*	
				O&A1	P1	O&A2	P2			22H	+48H at 2-8°C	Purif (Y/N)	GRAM	Catalase	PALCAM	Api List	RAPIDEC				*Identifications*		
C17	Scraps dirty tank	EN3	*No*	+LA	+LA	+MA	+HA	*L.welshimeri*	+	+MA	+MB	No	B+	+	+	7711					*L.welshimeri*		=
E14	Scraps fishes dirty tank	EN3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
F18	Scraps dirty tank	EN3	*No*	Ø	Ø	Ø	-LE	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
G27	Scraps fabrication line	EN3	*No*	-LE	Ø	-LE	Ø	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
H28	Scraps floor	EN3	*No*	Ø	-LE	Ø	-ME	/	-	-LE	-ME	/	/	/	/	/	/	/	/	/	/	-	=
H30	Scraps working table	EN3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-ME	/	/	/	/	/	/	/	/	/	/	-	=
I7	Scraps cutting machine	EN3	*No*	Ø	Ø	Ø	-LE	/	-	Ø	Ø	/	/	/	/	/	/	/	/	/	/	-	=
I11	Scraps cutting machine	EN3	*Yes*	+MA	+MA	+MB	+MB	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
I16	Scraps convoyeur déchets smoked salmon line	EN3	*Yes*	+MB*	+MB*	+MB*	+MB*	*L.monocytogenes* **L.innocua*	+	+MB*	+MB*	No No	 B+	 +	 +	6510 7510	green				*L.monocytogenes* **L.innocua*	+	=
J22	Scraps dirty tank	EN3	*No*	+MA	+MA	+MA	+HA	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	7711					*L.welshimeri*	+	=
J23	Scraps fabrication line	EN3	*No*	+LA	+LA	+MA	+HA	*L.welshimeri*	+	+MA	+MB	No	B+	+	+	7711					*L.welshimeri*	+	=
L29	Scraps cutting machine	EN3	*No*	+MB ?	- LE	-ME	-HE	*Bacillus*	-	+MC	- ME	Yes	B+	+	/	/	/	/	/	/	*Bacillus*	-	=
L30	Scraps cutting tank	EN3	*No*	+MB	+LA	+MA	+HA	*L.welshimeri*	+	+MB	+MB	No	B+	+	+	7711					*L.welshimeri*	+	=
M1	Scraps cutting machine	EN3	*No*	+MC	+MC	+MB	+MB	*L.welshimeri*	+	+MB	+MB	Yes	B+	+	+	7711					*L.welshimeri*	+	=
N16	Scraps waste tank	EN3	*No*	+MB	+MA	+MB	+HB	*L.innocua*	+	+MB	+MB	No	B+	+	+	7510					*L.innocua*	+	=
N18	Scraps siphon	EN3	*No*	+MB	- LE	- ME	- LE	*Bacillus*	-	+MB	- ME	No	B+	/	/	/	/	/	/	/	*Bacillus*	-	=
O18	Scraps retail	EN3	*No*	+MA	+MA	+MA	+HA	*L.welshimeri*	+	+MA	+MA	No	B+	+	+	7711					*L.welshimeri*	+	=
O19	Scraps vegetables fabrication line	EN3	*No*	- LE	Ø	- LE	Ø	/	-	Ø	-ME	/	/	/	/	/	/	/	/	/	/	-	=
O24	Scraps floor	EN3	*No*	Ø	Ø	Ø	Ø	/	-	-ME	-ME	/	/	/	/	/	/	/	/	/	/	-	=
P20	Scraps	EN3	*No*	+MA	+MA	+MB	+MB	*L.innocua*	+	+MA	+MB	No	B+	+	+	7510					*L.innocua*	+	=
P21	Scraps	EN3	*No*	Ø	-LE	Ø	Ø	/	-	-LE	-LE	/	/	/	/	/	/	/	/	/	/	-	=
W10	Scraps	EN3	*Yes*	+LA	+LA	+MB	+MB	*L.ivanovii*	+	+MA	+MB	No				3350	blue				*L.ivanovii*	+	=
W11	Scraps	EN3	*Yes*	+LA	+LA	+MA	+MA	*L.innocua*	+	+LA	+MB										*L.innocua*	+	=
W12	Scraps	EN3	*No*	-LE	Ø	-LE	-LE	/	-	-LE	-ME	/	/	/	/	/	/	/	/	/	/	-	=
W13	Scraps	EN3	*No*	Ø	Ø	Ø	Ø	/	-	Ø	-LE	/	/	/	/	/	/	/	/	/	/	-	=

APPENDIX D:

INCLUSIVITY / EXCLUSIVITY

RESULTS OF Inclusivity

Strain		Origin	Aspect on OAA plate after 24h of' incubation at 37℃
L81	*Listeria grayi*	ATCC 19120	blue colony without halo
L143	*Listeria grayi*	Frozen french pies	blue colony without halo
L146	*Listeria grayi*	CIP 103 213	blue colony without halo
L147	*Listeria grayi*	ATCC 25401	blue colony without halo
L1	*Listeria innocua* 6a	ATCC 33090	blue colony without halo
L3	*Listeria innocua*	Ox liver	blue colony without halo
L64	*Listeria innocua*	Epoisses cheese	blue colony without halo
L78	*Listeria innocua*	Cockerel	blue colony without halo
L66	*Listeria innocua*	Spinashes	blue colony without halo
L71	*Listeria innocua*	Munster cheese	blue colony without halo
L72	*Listeria innocua*	Boulettes d'Avesnes cheese	blue colony without halo
L78	*Listeria innocua*	Cockerel	blue colony without halo
L108	*Listeria innocua*	Gorgonzola cheese	blue colony without halo
L113	*Listeria innocua*	Smoked halibut	blue colony without halo
L114	*Listeria innocua*	Lake water	blue colony without halo
L175	*Listeria innocua*	Environmental water	blue colony without halo
L77	*Listeria innocua* 6a	Toulouse sausage	blue colony without halo
L76	*Listeria innocua* 6b	Ground meat	blue colony without halo
L80	*Listeria ivanovii*	Collection	blue colony with halo
L133	*Listeria ivanovii*	Roquefort cheese	blue colony with halo
L150	*Listeria ivanovii*	Dairy product	blue colony with halo
L151	*Listeria ivanovii*	Ground meat	blue colony with halo
L153	*Listeria ivanovii*	Environmental sample	blue colony with halo
L154	*Listeria ivanovii*	Sausage with herbs	blue colony with halo
L158	*Listeria ivanovii*	NSB 79332	blue colony with halo
L171	*Listeria ivanovii*	NSB 22442	blue colony with halo
L172	*Listeria ivanovii*	ATCC 19119	blue colony with halo
L173	*Listeria ivanovii*	Collection	blue colony with halo
L177	*Listeria ivanovii*	Net	blue colony with halo
L178	*Listeria ivanovii*	Tank	blue colony with halo
L179	*Listeria ivanovii*	Environment	blue colony with halo
L180	*Listeria ivanovii*	Net	blue colony with halo
L182	*Listeria ivanovii*	Tank	blue colony with halo
L185	*Listeria ivanovii*	Net	blue colony with halo
L157	*Listeria ivanovii spp. ivanovii*	Collection	blue colony with halo (48h)
L159	*Listeria ivanovii spp. ivanovii*	Collection	blue colony with halo
L160	*Listeria ivanovii spp. ivanovii*	NSB 22439	blue colony with halo
L161	*Listeria ivanovii spp. ivanovii*	Meat product	blue colony with halo
L162	*Listeria ivanovii spp. ivanovii*	ATCC 700402	blue colony with halo
L163	*Listeria ivanovii spp. ivanovii*	Meat product	blue colony with halo
L164	*Listeria ivanovii spp. londoniensis*	Floor	blue colony with halo
L165	*Listeria ivanovii spp. londoniensis*	Collection	blue colony with halo
L166	*Listeria ivanovii spp. londoniensis*	Collection	blue colony with halo
L167	*Listeria ivanovii spp. londoniensis*	Cheese	blue colony with halo
L168	*Listeria ivanovii spp. londoniensis*	Water	blue colony with halo
L169	*Listeria ivanovii spp. londoniensis*	Sewage sludge	blue colony with halo
L170	*Listeria ivanovii spp. londoniensis*	Collection	blue colony with halo
L84	*Listeria seeligeri*	Ground meat	blue colony without halo
L85	*Listeria seeligeri*	Collection	blue colony without halo
L115	*Listeria seeligeri*	Lake water	blue colony without halo
L140	*Listeria seeligeri*	Frozen french pies	blue colony without halo
L142	*Listeria seeligeri*	Raw milk cheese	blue colony without halo
L82	*Listeria seeligeri* 1/2b	ATCC 35967	blue colony without halo
L83	*Listeria seeligeri* 1/2b	Beef tongue	blue colony without halo
L89	*Listeria welshimeri* 6a	Ground meat	blue colony without halo
L86	*Listeria welshimeri* 6b	ATCC 35897	blue colony without halo
L87	*Listeria welshimeri* 6b	Ground meat	blue colony without halo
L101	*Listeria welshimeri*	Ham	blue colony without halo
L91	*Listeria welshimeri*	Pure pork slicing sausage	blue colony without halo
L99	*Listeria welshimeri*	Sausages	blue colony without halo
L100	*Listeria welshimeri*	Pâté	blue colony without halo
L195	*Listeria welshimeri*	Roquefort cheese	blue colony without halo

RESULTS OF Inclusivity

Strain		Origin	Aspect on OAA plate after 24h of' incubation at 37℃
L4	*Listeria monocytogenes* 1/2a	ATCC 35152	blue colony with halo
L5	*Listeria monocytogenes* 1/2a	Pieces of smoked salmon	blue colony with halo
L6	*Listeria monocytogenes* 1/2a	Pizza	blue colony with halo
L7	*Listeria monocytogenes* 1/2a	Munster cheese (rind)	blue colony with halo
L9	*Listeria monocytogenes* 1/2a	Munster cheese (rind)	blue colony with halo
L10	*Listeria monocytogenes* 1/2a	Rillettes	blue colony with halo
L11	*Listeria monocytogenes* 1/2a	Munster cheese (rind)	blue colony with halo
L12	*Listeria monocytogenes* 1/2a	Smoked salmon	blue colony with halo
L13	*Listeria monocytogenes* 1/2b	Pork ear	blue colony with halo
L14	*Listeria monocytogenes* 1/2c	Ground meat	blue colony with halo
L15	*Listeria monocytogenes* 1/2c	Beef meat	blue colony with halo
L16	*Listeria monocytogenes* 1/2c	Ground meat	blue colony with halo
L17	*Listeria monocytogenes* 1/2c	Bacon	blue colony with halo
L18	*Listeria monocytogenes* 1/2c	Munster cheese (rind)	blue colony with halo
L20	*Listeria monocytogenes* 1/2	Smoked salmon	blue colony with halo
L21	*Listeria monocytogenes* 1/2	Bacon	blue colony with halo
L22	*Listeria monocytogenes* 1/2	Bacon	blue colony with halo
L23	*Listeria monocytogenes* 1/2	Pork breast	blue colony with halo
L24	*Listeria monocytogenes* 1/2	Pork meat	blue colony with halo
L25	*Listeria monocytogenes* 1/2	Chicken	blue colony with halo
L26	*Listeria monocytogenes* 1/2	Saucisson	blue colony with halo
L27	*Listeria monocytogenes* 1/2	Saucisson	blue colony with halo
L28	*Listeria monocytogenes* 1/2c	Environment sample	blue colony with halo
L29	*Listeria monocytogenes* 1/2	Potatoe	blue colony with halo
L30	*Listeria monocytogenes* 1/2	Yeast	blue colony with halo
L31	*Listeria monocytogenes* 1/2	Parsley	blue colony with halo
L32	*Listeria monocytogenes* 4b	Munster cheese (rind)	blue colony with halo
L33	*Listeria monocytogenes* 4b	ATCC 19115	blue colony with halo
L34	*Listeria monocytogenes*	Yeast	blue colony with halo
L35	*Listeria monocytogenes*	Brie de Meaux cheese	blue colony with halo
L36	*Listeria monocytogenes*	Pork meat	blue colony with halo
L37	*Listeria monocytogenes* 1/2b	Maroille cheese	blue colony with halo
L38	*Listeria monocytogenes*	Coulommier cheese	blue colony with halo
L39	*Listeria monocytogenes*	Saucisson	blue colony with halo
L40	*Listeria monocytogenes* 1/2a	Munster cheese (rind)	blue colony with halo
L42	*Listeria monocytogenes* 1/2a	Chicken meat	blue colony with halo
L43	*Listeria monocytogenes* 1/2a	Ground meat	blue colony with halo
L44	*Listeria monocytogenes* 1/2a	Saucisson	blue colony with halo
L45	*Listeria monocytogenes* 1/2a	Wind terrine	blue colony with halo
L47	*Listeria monocytogenes* 1/2a	Browed potatoes	blue colony with halo
L48	*Listeria monocytogenes* 1/2b	Pork tongue	blue colony with halo
L49	*Listeria monocytogenes* 1/2b	Poultry pâté	blue colony with halo
L51	*Listeria monocytogenes* 1/2b	Germain cheese	blue colony with halo
L52	*Listeria monocytogenes* 1/2b	SLCC 2755	blue colony with halo
L53	*Listeria monocytogenes* 1/2c	Ground meat	blue colony with halo
L54	*Listeria monocytogenes* 1/2c	Meat product	blue colony with halo
L55	*Listeria monocytogenes* 3b	SLCC 2540	blue colony with halo
L56	*Listeria monocytogenes* 3c	SLCC 2479	blue colony with halo
L57	*Listeria monocytogenes* 4a	ATCC 19114	blue colony with halo
L58	*Listeria monocytogenes* 4b	Salad	blue colony with halo
L59	*Listeria monocytogenes* 4b	ATCC 19115	blue colony with halo
L60	*Listeria monocytogenes* 4d	ATCC	blue colony with halo
L61	*Listeria monocytogenes* 4e	ATCC 19118	blue colony with halo
L62	*Listeria monocytogenes* 4e	Reblochon cheese	blue colony with halo
L63	*Listeria monocytogenes* 4e	Munster cheese (rind)	blue colony with halo
L67	*Listeria monocytogenes* 7	SLCC 2482	blue colony with halo
L69	*Listeria monocytogenes*	Saucisson	blue colony with halo
L70	*Listeria monocytogenes*	Salmon from Ireland	blue colony with halo

RESULTS OF Inclusivity

Strain		Origin	Aspect on OAA plate after 24h of' incubation at 37℃
L116	*Listeria monocytogenes* 1/2a	Fish meal	blue colony with halo
L117	*Listeria monocytogenes* 1/2c	Montbeliard sausage	blue colony with halo
L118	*Listeria monocytogenes* 1/2a	Smoked salmon	blue colony with halo
L119	*Listeria monocytogenes*	Spinashes	blue colony with halo
L120	*Listeria monocytogenes*	Munster cheese	blue colony with halo
L121	*Listeria monocytogenes*	Neufchatel cheese	blue colony with halo
L122	*Listeria monocytogenes*	Soya	blue colony with halo
L123	*Listeria monocytogenes*	Mozzarella cheese	blue colony with halo
L124	*Listeria monocytogenes*	Perch fillet	blue colony with halo
L125	*Listeria monocytogenes*	Vegetables pan fry	blue colony with halo
L126	*Listeria monocytogenes*	Munster cheese	blue colony with halo
L127	*Listeria monocytogenes* 1/2a	Feed	blue colony with halo
L128	*Listeria monocytogenes* 1/2a	Soya cattle cake	blue colony with halo
L129	*Listeria monocytogenes* 1/2a	Browed potatoes	blue colony with halo
L130	*Listeria monocytogenes*	Ground meat	blue colony with halo
L137	*Listeria monocytogenes*	Ground meat	blue colony with halo
L138	*Listeria monocytogenes* 4b	Collection	blue colony with halo
L141	*Listeria monocytogenes*	Environmental sample	blue colony with halo
L149	*Listeria monocytogenes*	Environmental sample	blue colony with halo
L152	*Listeria monocytogenes*	Environmental sample	blue colony with halo
L156	*Listeria monocytogenes*	French pies	blue colony with halo
L176	*Listeria monocytogenes*	Beef meat	blue colony with halo
L187	*Listeria monocytogenes*	Bacon	blue colony with halo
L191	*Listeria monocytogenes* 3a	Environmental sample	blue colony with halo
L192	*Listeria monocytogenes* 3a	Environmental sample	blue colony with halo
L193	*Listeria monocytogenes* 3b	Environmental sample	blue colony with halo
L194	*Listeria monocytogenes* 4d	Environmental sample	blue colony with halo
L 196	*Listeria monocytogenes* 1/2c	ATCC 19112	blue colony with halo
L 197	*Listeria monocytogenes* 3a	ATCC 19113	blue colony with halo
L 198	*Listeria monocytogenes* 4d	ATCC 19117	blue colony with halo
L 199	*Listeria monocytogenes*	Frozen vegetables	blue colony with halo
L 200	*Listeria monocytogenes*	Cod tarama	blue colony with halo
L 201	*Listeria monocytogenes*	Ground meat	blue colony with halo
L 202	*Listeria monocytogenes*	Salmon tarama	blue colony with halo
L 203	*Listeria monocytogenes*	Prawn	blue colony with halo
L 204	*Listeria monocytogenes*	Bacon	blue colony with halo
L 205	*Listeria monocytogenes*	Chipolatas	blue colony with halo
L 206	*Listeria monocytogenes*	Frozen broccoli	blue colony with halo
L 207	*Listeria monocytogenes*	Ham	blue colony with halo
L 208	*Listeria monocytogenes*	Mozzarella cheese	blue colony with halo
L 209	*Listeria monocytogenes*	Ground meat	blue colony with halo
L 210	*Listeria monocytogenes*	Collection	blue colony with halo
CTML1	*Listeria monocytogenes* 1/2a	Environment sample	blue colony with halo
CTML2	*Listeria monocytogenes* 1/2b	Fish cutting machine	blue colony with halo
CTML3	*Listeria monocytogenes* 1/2a	Herring fillet	blue colony with halo
CTML4	*Listeria monocytogenes* 4b	Siphon water	blue colony with halo
CTML5	*Listeria monocytogenes* 1/2a	Siphon water	blue colony with halo
CTML6	*Listeria monocytogenes* 4b	Siphon waste room	blue colony with halo
CTML7	*Listeria monocytogenes* 1/2a	Stainless table	blue colony with halo
CTML8	*Listeria monocytogenes* 4d	Sewage	blue colony with halo
CTML9	*Listeria monocytogenes* 1/2b	Environmental sample	blue colony with halo
CTML10	*Listeria monocytogenes* 1/2a	Fish fillet	blue colony with halo
CTML11	*Listeria monocytogenes* 1/2b	Waste tank	blue colony with halo
CTML12	*Listeria monocytogenes* 3a	Environmental sample	blue colony with halo
CTML13	*Listeria monocytogenes* 3b	Salmon	blue colony with halo
CTML14	*Listeria monocytogenes* 4b	Environmental sample	blue colony with halo
CTML15	*Listeria monocytogenes* 4b	Salmon	blue colony with halo
CTML16	*Listeria monocytogenes* 4b	Salmon terrine	blue colony with halo
CTML17	*Listeria monocytogenes* 3a	Fish fillet	blue colony with halo
CTML18	*Listeria monocytogenes* 3a	Raw salmon	blue colony with halo
CTML19	*Listeria monocytogenes* 3a	Salmon	blue colony with halo

RESULTS OF Inclusivity

Strain		Origin	Aspect on OAA plate after 24h of' incubation at 37℃
CTML20	*Listeria monocytogenes* 1/2a	Raw salmon with basil	blue colony with halo
CTML21	*Listeria monocytogenes* 3a	Blinis	blue colony with halo
CTML22	*Listeria monocytogenes* 1/2c	Smoked salmon	blue colony with halo
CTML23	*Listeria monocytogenes* 1/2c	Environmental sample	blue colony with halo
CTML24	*Listeria monocytogenes* 1/2b	Sewer	blue colony with halo
CTML25	*Listeria monocytogenes* 3a	Salmon	blue colony with halo
CTML26	*Listeria monocytogenes* 3a	Salmon slice	blue colony with halo
CTML27	*Listeria monocytogenes* 1/2a	Salmon paupiette with scallops	blue colony with halo
CTML28	*Listeria monocytogenes* 1/2a	Salmon tartar	blue colony with halo
CTML29	*Listeria monocytogenes* 1/2a	Salmon fillet	blue colony with halo
CTML30	*Listeria monocytogenes* 4b	Smoked hering	blue colony with halo
CTML31	*Listeria monocytogenes* 1/2a	Environmental sample	blue colony with halo
CTML32	*Listeria monocytogenes* 1/2a	Kipper	blue colony with halo
CTML33	*Listeria monocytogenes* 1/2a	Smoked tuna	blue colony with halo
CTML34	*Listeria monocytogenes* 1/2a	Environmental sample	blue colony with halo
CTML35	*Listeria monocytogenes* 1/2a	Herring fillet	blue colony with halo
CTML36	*Listeria monocytogenes* 1/2a	Brine	blue colony with halo
CTML37	*Listeria monocytogenes* 4b	Frozen raw herring	blue colony with halo
CTML38	*Listeria monocytogenes* 4b	Scraps	blue colony with halo
CTML39	*Listeria monocytogenes* 4b	Salmon	blue colony with halo
CTML40	*Listeria monocytogenes* 1/2a	Halibut fillet	blue colony with halo
CTML41	*Listeria monocytogenes* 1/2a	Frozen halibut	blue colony with halo
CTML42	*Listeria monocytogenes* 1/2a	Smoked salmon	blue colony with halo
CTML43	*Listeria monocytogenes* 1/2a	Kipper	blue colony with halo
CTML44	*Listeria monocytogenes* 1/2c	Raw salmon	blue colony with halo
CTML45	*Listeria monocytogenes* 1/2c	Salmon skin	blue colony with halo
CTML46	*Listeria monocytogenes* 1/2c	Environmental sample	blue colony with halo
CTML47	*Listeria monocytogenes* 1/2c	Environmental sample	blue colony with halo
CTML48	*Listeria monocytogenes* 1/2a	Floor	blue colony with halo
CTML49	*Listeria monocytogenes* 3a	Herring terrine	blue colony with halo
CTML50	*Listeria monocytogenes* 3a	Salmon carpaccio	blue colony with halo
CTML51	*Listeria monocytogenes* 3a	Herring terrine	blue colony with halo
CTML52	*Listeria monocytogenes* 1/2a	Salmon fillet	blue colony with halo
CTML53	*Listeria monocytogenes* 1/2a	Salmon tartar with tomatoes	blue colony with halo

RESULTS OF Exclusivity

Strain		Origin	Aspect on OAA plate after 24h of' incubation at 37℃
BA20	*Bacillus amyloliquefaciens*	Tabbouleh	Ø
BA1	*Bacillus cereus*	Whole egg	Ø
BA2	*Bacillus cereus*	Beet	Ø
BA3	*Bacillus cereus*	Collection	Ø
BA9	*Bacillus cereus*	Potatoes flakes	Ø
BA14	*Bacillus cereus*	Egg	Ø
BA15	*Bacillus cereus*	Custard	Ø
BA19	*Bacillus cereus*	Environmental sample	Ø
BA21	*Bacillus cereus*	Tabbouleh	Ø
BA18	*Bacillus circulans*	Custard	Ø
BA7	*Bacillus coagulans*	Collection	Ø
BA5	*Bacillus megaterium*	Collection	Ø
BA6	*Bacillus mycoïdes*	Collection	Ø
BA8	*Bacillus licheniformis*	Dairy product	Ø
BA16	*Bacillus licheniformis*	Custard	Ø
BA13	*Bacillus megaterium*	Yoghurt	Ø
BA17	*Bacillus pumilus*	Custard	Ø
BA22	*Bacillus pumilus*	Tabbouleh	Ø
BA23	*Bacillus sphaericus*	Collection	blue colony without halo
BA4	*Bacillus stearothermophilus*	Collection	Ø
(E41)	*Bacillus spp.*	Environmental sample	blue colony without halo
15	*Brochotrix thermosphacta*	Ground meat	white colony
LE3	*Candida albicans*	Collection	Ø
3	*Corynebacterium spp.*	Collection	Ø
26	*Corynebacterium aquaticum*	Raw milk cheese	Ø
E8	*Enterococcus durans*	Collection	Ø
E10	*Enterococcus durans*	Collection	blue little colony without halo
E1	*Enterococcus faecalis*	Egg	Ø
E2	*Enterococcus faecium*	ATCC 3286	Ø
E6	*Enterococcus faecalis*	ATCC 19433	Ø
E7	*Enterococcus faecium*	CIP 543	Ø
E9	*Enterococcus faecium*	Tarama	blue little colony without halo
L139	*Jonesia denitrificans*	ATCC 55134	blue trace
LAC52	*Lactobacillus casei*	Collection	white little colony
LAC41	*Lactobacillus fermentum*	ATCC 9338	Ø
LAC5	*Lactobacillus reuteri*	Dairy product	Ø
LAC35	*Lactobacillus paracasei*	Collection	Ø
LAC22	*Lactobacillus plantarum*	Collection	Ø
LAC34	*Lactobacillus plantarum*	Collection	Ø
LAC40	*Lactobacillus plantarum*	ATCC19435	Ø
LAC33	*Lactococcus lactis*	Collection	white little colony
M5	*Micrococcus luteus*	Collection	blue little colony without halo
M6	*Micrococcus roseus*	Collection	translucent colony
M1	*Micrococcus spp.*	Environmental sample	Ø
M3	*Micrococcus spp.*	Environmental sample	translucent colony
39	*Oekskovia xanthineolytica*	Reblochon cheese	blue little colony without halo
LE1	*Rhodotorula rubra*	Collection	Ø
32	*Rhodococcus equi*	Meat product	blue trace
LE5	*Saccharomyces cerevisiae*	Coffee extract	Ø
STA1	*Staphylococcus aureus*	Collection	green colony
STA9	*Staphylococcus aureus*	Giblets	white colony
STA14	*Staphylococcus aureus*	Giblets	Ø
STA16	*Staphylococcus aureus*	Meat product	Ø
STA17	*Staphylococcus aureus*	Ices yoghurt	Ø
STA13	*Staphylococcus aureus*	ATCC 25923	Ø
STA3	*Staphylococcus epidermidis*	Strawberries yoghurt	Ø
STA15	*Staphylococcus epidermidis*	ATCC 12228	Ø
STA20	*Staphylococcus epidermidis*	Smoked salmon	white colony
STA25	*Staphylococcus hyicus*	Meat product	white colony
STA26	*Staphylococcus intermedius*	Collection	Ø
E3	*Streptococcus bovis*	Collection	Ø
E13	*Streptococcus bovis*	CIP 5623	Ø
E17	*Streptococcus equinus*	Collection	Ø

APPENDIX E:

INTERLABORATORY STUDY DETAILED RESULTS OF PARTICIPANT LABORATORIES

Laboratory A

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : catalase, haemolysis, API strip	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=
Total flora of milk (UFC/ml):			> 30 000							

Laboratory D

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : RAPID'*L.Mono*	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	-	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	-	-	+	+	+	=	+	+	+	=
11	-	-	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	-	+	+	+	+	=	+	+	+	=
17	-	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	-	-	+	+	+	=	+	+	+	=
23	-	-	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=
Total flora of milk (UFC/ml):			730 000 000							

Laboratory E

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : RAPID'*L.Mono*	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=
Total flora of milk (UFC/ml):			> 30 000							

Laboratory F

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : Accuprobe Test	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11										
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16										
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22										
23										
24	+	+	+	+	+	=	+	+	+	=
Total flora of milk (UFC/ml):			> 30 000							

Laboratory G

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : RAPID'*L.Mono*	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=
Total flora of milk (UFC/ml):			16 000							

Laboratory H

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : RAPID'*L.Mono* + ALOA *CONFIRMATION*	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=
Total flora of milk (UFC/ml):			16 000							

Laboratory I

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : RAPID'*L.Mono* + haemolysis	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=
Total flora of milk (UFC/ml):			> 300 000							

Laboratory J

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : RAPID'*L.Mono* + haemolysis	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=
Total flora of milk (UFC/ml):			480 000							

Laboratory K

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : RAPID'*L.Mono*	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=
Total flora of milk (UFC/ml):			> 30 000							

Laboratory L

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : RAPID'*L.Mono*	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=

Total flora of milk (UFC/ml): > 30 000

Laboratory M

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : RAPID'*L.Mono*	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	-	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=

Total flora of milk (UFC/ml): > 30 000

Laboratory N

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : RAPID'*L.Mono*	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=

Total flora of milk (UFC/ml): > 15 000

Laboratory O

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : catalase, GRAM, haemolysis, API strip	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=
Total flora of milk (UFC/ml):			> 300 000							

Laboratory P

Code	Reference method					Comparison / expected results	Alternative method OAA - Short protocol			Comparison / expected results
	Fraser 1/2		Fraser		Result		Presence of characteristic colonies	Confirmation : RAPID'*L.Mono*	Result	
	OAA	PALCAM	OAA	PALCAM						
1	+	+	+	+	+	=	+	+	+	=
2	+	+	+	+	+	=	+	+	+	=
3	+	+	+	+	+	=	+	+	+	=
4	+	+	+	+	+	=	+	+	+	=
5	+	+	+	+	+	=	+	+	+	=
6	-	-	-	-	-	=	-	-	-	=
7	-	-	-	-	-	=	-	-	-	=
8	-	-	-	-	-	=	-	-	-	=
9	+	+	+	+	+	=	+	+	+	=
10	+	+	+	+	+	=	+	+	+	=
11	+	+	+	+	+	=	+	+	+	=
12	+	+	+	+	+	=	+	+	+	=
13	+	+	+	+	+	=	+	+	+	=
14	-	-	-	-	-	=	-	-	-	=
15	-	-	-	-	-	=	-	-	-	=
16	+	+	+	+	+	=	+	+	+	=
17	+	+	+	+	+	=	+	+	+	=
18	+	+	+	+	+	=	+	+	+	=
19	-	-	-	-	-	=	-	-	-	=
20	-	-	-	-	-	=	-	-	-	=
21	-	-	-	-	-	=	-	-	-	=
22	+	+	+	+	+	=	+	+	+	=
23	+	+	+	+	+	=	+	+	+	=
24	+	+	+	+	+	=	+	+	+	=
Total flora of milk (UFC/ml):			> 30 000							

APPENDIX F:

INTERLABORATORY STUDY
-
ACCORDANCE

ALTERNATIVE METHOD

Level L0

Laboratory	Nb of negatives expected	Nb of negatives obtained	Probability of negatives	Probability of negative pairs	Probability of positives	Probability of positive pairs	Probability of identical result pairs
Laboratory A	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory D	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory E	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory G	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory H	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory I	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory J	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory K	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory L	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory M	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory N	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory O	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory P	8	8	1,00	1,00	0,00	0,00	1,00
						Mean :	**1,00**
						Accordance :	**100%**

Level L1

Laboratory	Nb of positives expected	Nb of positives obtained	Probability of positives	Probability of positive pairs	Probability of negatives	Probability of negative pairs	Probability of identical result pairs
Laboratory A	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory D	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory E	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory G	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory H	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory I	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory J	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory K	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory L	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory M	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory N	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory O	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory P	8	8	1,00	1,00	0,00	0,00	1,00
						Mean :	**1,00**
						Accordance :	**100%**

Level L2

Laboratory	Nb of positives expected	Nb of positives obtained	Probability of positives	Probability of positive pairs	Probability of negatives	Probability of negative pairs	Probability of identical result pairs
Laboratory A	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory D	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory E	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory G	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory H	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory I	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory J	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory K	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory L	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory M	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory N	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory O	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory P	8	8	1,00	1,00	0,00	0,00	1,00
						Mean :	**1,00**
						Accordance :	**100%**

REFERENCE METHOD

Level L0

Laboratory	Nb of negatives expected	Nb of negatives obtained	Probability of negatives	Probability of negative pairs	Probability of positives	Probability of positive pairs	Probability of identical result pairs
Laboratory A	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory D	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory E	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory G	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory H	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory I	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory J	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory K	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory L	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory M	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory N	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory O	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory P	8	8	1,00	1,00	0,00	0,00	1,00
						Mean :	**1,00**
						Accordance :	**100%**

Level L1

Laboratory	Nb of positives expected	Nb of positives obtained	Probability of positives	Probability of positive pairs	Probability of negatives	Probability of negative pairs	Probability of identical result pairs
Laboratory A	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory D	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory E	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory G	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory H	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory I	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory J	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory K	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory L	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory M	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory N	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory O	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory P	8	8	1,00	1,00	0,00	0,00	1,00
						Mean :	**1,00**
						Accordance :	**100%**

Level L2

Laboratory	Nb of positives expected	Nb of positives obtained	Probability of positives	Probability of positive pairs	Probability of negatives	Probability of negative pairs	Probability of identical result pairs
Laboratory A	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory D	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory E	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory G	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory H	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory I	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory J	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory K	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory L	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory M	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory N	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory O	8	8	1,00	1,00	0,00	0,00	1,00
Laboratory P	8	8	1,00	1,00	0,00	0,00	1,00
						Mean :	**1,00**
						Accordance :	**100%**

APPENDIX G:

INTERLABORATORY STUDY
-
CONCORDANCE

ALTERNATIVE METHOD

Level L0

Laboratory	Nb of negatives expected	Nb of negatives obtained	Inter-laboratory pairs with the same result	Total number of inter-laboratory pairs
Laboratory A	8	8	768	768
Laboratory D	8	8	768	768
Laboratory E	8	8	768	768
Laboratory G	8	8	768	768
Laboratory H	8	8	768	768
Laboratory I	8	8	768	768
Laboratory J	8	8	768	768
Laboratory K	8	8	768	768
Laboratory L	8	8	768	768
Laboratory M	8	8	768	768
Laboratory N	8	8	768	768
Laboratory O	8	8	768	768
Laboratory P	8	8	768	768
Total			**9984**	**9984**
Concordance	100,00%			

Level L1

Laboratory	Nb of positives expected	Nb of positives obtained	Inter-laboratory pairs with the same result	Total number of inter-laboratory pairs
Laboratory A	8	8	768	768
Laboratory D	8	8	768	768
Laboratory E	8	8	768	768
Laboratory G	8	8	768	768
Laboratory H	8	8	768	768
Laboratory I	8	8	768	768
Laboratory J	8	8	768	768
Laboratory K	8	8	768	768
Laboratory L	8	8	768	768
Laboratory M	8	8	768	768
Laboratory N	8	8	768	768
Laboratory O	8	8	768	768
Laboratory P	8	8	768	768
Total			**9984**	**9984**
Concordance	100%			

Level L2

Laboratory	Nb of positives expected	Nb of positives obtained	Inter-laboratory pairs with the same result	Total number of inter-laboratory pairs
Laboratory A	8	8	768	768
Laboratory D	8	8	768	768
Laboratory E	8	8	768	768
Laboratory G	8	8	768	768
Laboratory H	8	8	768	768
Laboratory I	8	8	768	768
Laboratory J	8	8	768	768
Laboratory K	8	8	768	768
Laboratory L	8	8	768	768
Laboratory M	8	8	768	768
Laboratory N	8	8	768	768
Laboratory O	8	8	768	768
Laboratory P	8	8	768	768
Total			**9984**	**9984**
Concordance	100,00%			

REFERENCE METHOD

Level L0

Laboratory	Nb of negatives expected	Nb of negatives obtained	Inter-laboratory pairs with the same result	Total number of inter-laboratory pairs
Laboratory A	8	8	768	768
Laboratory D	8	8	768	768
Laboratory E	8	8	768	768
Laboratory G	8	8	768	768
Laboratory H	8	8	768	768
Laboratory I	8	8	768	768
Laboratory J	8	8	768	768
Laboratory K	8	8	768	768
Laboratory L	8	8	768	768
Laboratory M	8	8	768	768
Laboratory N	8	8	768	768
Laboratory O	8	8	768	768
Laboratory P	8	8	768	768
Total			**9984**	**9984**
Concordance	100,00%			

Level L1

Laboratory	Nb of positives expected	Nb of positives obtained	Inter-laboratory pairs with the same result	Total number of inter-laboratory pairs
Laboratory A	8	8	768	768
Laboratory D	8	8	768	768
Laboratory E	8	8	768	768
Laboratory G	8	8	768	768
Laboratory H	8	8	768	768
Laboratory I	8	8	768	768
Laboratory J	8	8	768	768
Laboratory K	8	8	768	768
Laboratory L	8	8	768	768
Laboratory M	8	8	768	768
Laboratory N	8	8	768	768
Laboratory O	8	8	768	768
Laboratory P	8	8	768	768
Total			**9984**	**9984**
Concordance	100%			

Level L2

Laboratory	Nb of positives expected	Nb of positives obtained	Inter-laboratory pairs with the same result	Total number of inter-laboratory pairs
Laboratory A	8	8	768	768
Laboratory D	8	8	768	768
Laboratory E	8	8	768	768
Laboratory G	8	8	768	768
Laboratory H	8	8	768	768
Laboratory I	8	8	768	768
Laboratory J	8	8	768	768
Laboratory K	8	8	768	768
Laboratory L	8	8	768	768
Laboratory M	8	8	768	768
Laboratory N	8	8	768	768
Laboratory O	8	8	768	768
Laboratory P	8	8	768	768
Total			**9984**	**9984**
Concordance	100,00%			