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NF VALIDATION - Validation of alternative analysis methods
Application to the food industry

Summary report
according to the standard EN ISO 16140-2:2016

Qualitative method

VIDAS® *Listeria monocytogenes* II (VIDAS LMO2 – Ref. 30704)
Certificate # BIO 12/09-07/02
for the detection of *Listeria monocytogenes*

Protocol for a broad range of foods, excluding raw products for test portions in 25 g, in environmental samples and in dairy products excluding raw milk and powdered infant formula and cereals in test portions of 125 g

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This report contains 76 pages including 46 pages of appendices.

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Version 0 June 21st , 2022

Preamble

- **Protocols of validation:**

- **EN ISO 16140-1 and EN ISO 16140-2 (September 2016): Microbiology of the food chain — Method validation**
  Part 1: Vocabulary.
  Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method.

- **Requirements regarding comparison and interlaboratory studies for implementation of the standard EN ISO 16140-2 (project version 7).**

- **Reference method:**

- **EN ISO 11290-1 (1997)** : Horizontal method for the detection and enumeration of *Listeria monocytogenes* and *Listeria spp* – Part 1 : detection method.

- **EN ISO 11290-1 / A1 (2005)** : Horizontal method for the detection and enumeration of *Listeria monocytogenes* and *Listeria spp* – Part 1 : detection method.

- **EN ISO 11290-1 (July 2017):** Microbiology of the food chain – Horizontal method for the detection and enumeration of *Listeria monocytogenes* and *Listeria* spp- Part 1: Detection method.

- **Application scope:**

- **Human food products:**
  - meat products 25 g (excluding raw products),
  - dairy products 25 g (excluding raw products),
  - seafood products 25 g(excluding raw products),
  - vegetables 25 g (excluding raw products),
  - dairy products 125g (excluding raw milk),
  - powder infant formula and cereals 125 g.
- **Environmental samples.**

- **Certification body:**

- **AFNOR Certification** (https://nf-validation.afnor.org/).

Definitions

- **Method comparison study**

The method comparison study is the part of the validation process that is performed in the organizing laboratory. It consists of three parts namely the following:
- A comparative study of the results of the reference method to the results of the alternative method in (naturally and/or artificially) contaminated samples (so-called sensitivity study);
- A comparative study to determine the relative level of detection (RLOD) in artificially contaminated samples (so-called RLOD study);
- An inclusivity/exclusivity study of the alternative method.

- **Sensitivity study**

The sensitivity study aims to determine the difference in sensitivity between the reference and the alternative method.
The sensitivity is the ability of the reference method or alternative method to detect the analyte.

- **Relative level of detection study**

A comparative study is conducted to evaluate the level of detection (LOD) of the alternative method against the reference method. The evaluation is based on the calculation of the relative level of detection (RLOD).
The level of detection at 50% (LOD_{50}) is the measured analyte concentration, obtained by a given measurement procedure, for which the probability of detection is 50%.
The relative level of detection level of detection at P = 0,50 (LOD_{50}) of the alternative method divided by the level of detection at P = 0,50 (LOD_{50}) of the reference method.

- **Inclusivity and exclusivity study**

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

- **Interlaboratory study**

The interlaboratory study is a study performed by multiple laboratories testing identical samples at the same time, the results of which are used to estimate alternative-method performance parameters.
The aim of the interlaboratory study is to determine the difference in sensitivity between the reference and the alternative method when tested by different collaborators using identical samples (reproducibility conditions).

Table of contents

Appendices

1. Introduction

The VIDAS® LMO2 method is validated by AFNOR Certification under the NF VALIDATION EN ISO 16140 brand with the certification number BIO 12/09-07/02 for the detection of *Listeria monocytogenes* according to the standard EN ISO 16140-2:2016 for a broad range of foods, excluding raw products for test portions in 25 g, in environmental samples and in dairy products excluding raw milk and powdered infant formula and cereals in test portions of 125 g.

Table 1 summarizes the different steps of the validation that occurred since the initial validation.

Table 1: Steps of the validation AFNOR certification

Date	Study	Expert Laboratory	Standards
July 2002	Initial validation for all human food products	SERMHA – Institut Pasteur de Lille	- ISO 16140:2003 (preliminary study) - AFNOR requirements: interlaboratory study - ISO 11290-1:1997
September 2002	Extension for environmental samples of food production in accordance with EN ISO 16140		- ISO 16140:2003 (preliminary study) - ISO 11290-1/A1
June 2004	Modification of application scope with the exclusion of raw products (for each category of human food products)		- ISO 16140:2003 - ISO 11290-1/A1:2005
December 2006	First renewal. Complementary assays and completion of interlaboratory study.		- ISO 16140:2003 - ISO 11290-1/A1:2005
May 2010	Second renewal	Eurofins IPL Nord	- ISO 16140:2003 - ISO 11290-1/A1:2005
May 2014	Third renewal	Institut Scientifique d'Hygiène et d'Analyse (ISHA)	- ISO 16140:2003 - ISO 11290-1/A1:2005
May 2018	Fourth renewal. Complementary assays.		- ISO 16140-2:2016 - ISO 11290-1/A1:2005
June 2021	Extension for 2 new protocols	Microsept	- ISO 16140-2:2016 - ISO 11290-1:2017
June 2022	Fifth renewal	Microsept	- ISO 16140-2:2016 - ISO 11290-1:2017

The present document introduces a summary report for the AFNOR Certification validation of the of the VIDAS® *Listeria monocytogenes* II (LMO2) method according to the standard EN ISO 16140-2:2016 for a broad range of foods, excluding raw products for test portions in 25 g, in environmental samples and in dairy products excluding raw milk and powdered infant formula and cereals in test portions of 125 g.

2. Protocols of the methods

2.1. Alternative method

2.1.1. Principle of the method

VIDAS LMO2 is an enzyme-linked fluorescent immunoassay (ELFA) for use on the VIDAS family of instruments for the specific detection of *Listeria monocytogenes* antigens.

The Solid Phase Receptacle (SPR) serves as the solid phase as well as the pipetting device. The interior of the SPR is coated with anti-*L. monocytogenes* antibodies adsorbed on its surface. Reagents for the assay are ready-to-use and pre-dispensed in the sealed reagent strips.
All of the assay steps are performed automatically by the instrument. The reaction medium is cycled in and out of the SPR several times.

Part of the enrichment broth is dispensed into the reagent strip. The antigens present will bind to the anti- *L. monocytogenes* antibodies which are coated on the interior of the SPR. Unbound sample components are washed away. Antibodies conjugated with alkaline phosphatase are cycled in and out of the SPR and will bind to any *L. monocytogenes* antigens which are themselves bound to the antibodies on the SPR wall. Further wash steps remove unbound conjugate.

During the final detection step, the substrate (4-Methylumbelliferyl phosphate) is cycled in and out of the SPR. The conjugate enzyme catalyzes the hydrolysis of this substrate into a fluorescent product (4-Methylumbelliferone), the fluorescence of which is measured at 450 nm.

At the end of the assay, the results are analyzed automatically by the instrument which generates a test value for each sample. This value is compared to a set of stored standards (thresholds) and each result is interpreted (positive, negative), as shown in figure 1.

Figure 1: interpretation of the VIDAS LMO2 test

$Test\ value\ (TV) = {RFV_{sample}}/{RFV_{standard}}$	TV < 0.05: negative test TV ≥ 0.05: positive test

2.1.2. Protocol of the method

The protocols are as follows:

- **General protocol :**

- pre-enrichment in half-Fraser broth, incubated for 24 to 26 hours at 30±1°C,
- subculture in Fraser broth (1 ml in 10 ml), incubated for 24 to 26 hours at 30±1°C.

The VIDAS LMO2 test is then performed using an aliquot of 0.5 ml of the unheated Fraser broth.

Samples found to be positive using the VIDAS LMO2 test are confirmed through isolation on agar: PALCAM, Oxford or a chromogenic agar and confirmation according to one of the two following options:

- the characteristic colonies are confirmed using the tests set out in the methods standardized by CEN or ISO,
- if a chromogenic agar according to Ottaviani Agosti or part of an ISO 16140 validated method is used, the presence of typical *Listeria monocytogenes* colonies is sufficient to confirm the VIDAS LMO2 result.

If confirmation is not initiated immediately after a positive VIDAS test, store the enrichment broth at +2°C to +8°C. Confirmation must be initiated within 48 hours following the end of incubation.
The enrichment broth can be stored for 24 hours at +2°C to +8°C before the VIDAS test is performed.

- **Specific protocols**

- Dairy products excluding raw milk: **125 g** diluted at 1/10 in pre-warmed LX broth, incubation at 30±1°C for 22 – 26 h and subculture in LX broth (0,1 ml in 6 ml) incubated at 30±1°C for 22 – 26 h.
- Powder Infant Formula and cereals: **125 g** diluted at 1/10 in pre-warmed LX broth, incubation at 30±1°C for 26 – 30 h and subculture in LX broth (0,1 ml in 6 ml) incubated at 30±1°C for 22 – 26 h.

Samples found positive using the VIDAS LMO2 test are confirmed by streaking on agar according to Ottaviani and Agosti or Palcam agar from LX broth.
The presumptive positive colonies of *Listeria monocytogenes* are confirmed by the classical tests described in the reference method, including the purification step.
If a chromogenic agar according to Ottaviani Agosti or part of an ISO 16140 validated method is used, the presence of typical *Listeria monocytogenes* colonies is sufficient to confirm the VIDAS LMO2 result.

The workflow of the method is set out in Appendix A.

2.1.3. Restrictions

There are no restrictions on use for the VIDAS LMO2 method.

2.2. Reference method

Assays of 2002 study were performed according to the standard EN ISO 11290-1 (1997) "Horizontal method for the detection and enumeration of *Listeria monocytogenes* - Part 1: detection method" and 2006 studies were performed according to the standard EN ISO 11290-1 / A1 (2005) "Horizontal method for the detection and enumeration of *Listeria monocytogenes* - Part 1: detection method."
Assays of the 2018 study were performed according to the standard EN ISO 11290-1 (2017) "Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria* spp- Part 1: detection method."

Assays of the 2021 extension study were performed by the method described in the EN ISO 11290-1:2017 "Horizontal method for the detection and enumeration of *Listeria monocytogenes* and of *Listeria spp* - Part 1: detection method."

The workflow of the reference method is presented in Appendix B.

2.3. Application scope

The scope of the method concerns a broad range of foods and environmental samples including the categories presented in table 2.

Table 2: Scope of the VIDAS LMO2 method

<table>
<tr><th colspan="2">Categories</th><th>Protocol</th><th>Study design</th></tr>
<tr><td>❶ Meat products (25g)</td><td rowspan="4">Excluding raw products</td><td rowspan="5"><u>General protocol:</u>
Half Fraser – 24-26h – 30°C
Fraser (1 ml in 10 ml) – 24-26h – 30°C</td><td rowspan="5">Paired study</td></tr>
<tr><td>❷ Dairy products (25g)</td></tr>
<tr><td>❸ Seafood products (25g)</td></tr>
<tr><td>❹ Vegetal products (25g)</td></tr>
<tr><td colspan="2">❺ Environmental samples</td></tr>
<tr><td colspan="2">❻ Dairy products excluding raw milk (125g)</td><td><u>Specific protocol:</u>
Pre-warmed LX broth – 22-26h – 30°C
LX broth (0,1 ml in 6 ml) – 22-26h – 30°C</td><td>Unpaired study</td></tr>
<tr><td colspan="2">❼ Powder Infant Formula and cereals (125g)</td><td><u>Specific protocol:</u>
Pre-warmed LX broth – 26-30h – 30°C
LX broth (0,1 ml in 6 ml) – 22-26h – 30°C</td><td>Unpaired study</td></tr>
</table>

2.4. Study design

Concerning the general protocol, as there is a shared enrichment step for both the alternative and the reference methods, the same test portion is used for both methods. The study will thus provide paired data and the expression “paired study” is used to describe the study design.

For the categories using the new protocols added in extension study, enrichment broths are different, it is an “unpaired study”.

3. Methods comparison study

The study was conducted on a variety of samples and strains representative of food products. This is not an exhaustive list of the various matrices included in the application scope. For any remark on the alternative method, you can contact AFNOR Certification by connecting to the Internet page ***http://nf-validation.afnor.org/contact-2/***.

3.1. Sensitivity study

The purpose of this study is to compare the two methods – the reference method EN ISO 11290-1:2017 and the VIDAS LMO2 method – on samples contaminated or not contaminated with *Listeria monocytogenes.*

3.1.1. Protocols applied during the studies

- **Incubation times:**

The minimum incubation times were tested, namely:

- 24 hours for the enrichment in half Fraser broth and in Fraser broth for categories ❶,❷,❸,❹ & ❺
- 22 hours for the enrichment in LX pre-warmed broth for dairy products excluding raw milk ❻
- 26 hours for the enrichment in LX pre-warmed broth for Powder Infant Formula and cereals ❼
- 22 hours for the subculture in LX broth for categories ❻ & ❼

- **Confirmations:**

For general protocol, all positive and discordant samples were confirmed after isolation of Fraser broth on PALCAM and Oxford agar using the tests described in the ISO 11290-1 method (1997) for the 2002 study, the ISO 11290-1/A1 method for the 2006 study, and the ISO 11290-1 method (2017) for the 2018 study.

For specific protocols, the positive results following the VIDAS LMO2 test were confirmed by streaking of the unheated LX enrichment broth on two selective *Listeria* agars (selective Listeria agar according to Ottaviani and Agosti and Palcam agar and performing the conventional tests described in the CEN or ISO standardized methods (including the purification step).

- **Cold storage of the enriched broths:**

For general protocol, positive enrichment Fraser broths were also stored for 24 hours at 2 - 8° C then retested by the alternative method and confirmed if positive.

For specific protocols the positive enrichment LX broths were also stored for 72 hours at 2 - 8°C and then tested again using the alternative method and confirmed if positive, in order to document the impact of a cold storage.

3.1.2. Number and nature of the samples

The sensitivity study concerned 490 samples. Three hundred and nineteen (319) samples from the 2002 and the 2006 studies were kept for the statistical analysis.

Thirty-two (32) samples of the renewal study 2018 were added for the statistical analysis. One hundred and thirty-nine (139) samples were analyzed during the extension study in 2021.

Samples analyzed by category and type are presented in table 3.

Table 3: Distribution of the samples per category and type (: by any method)*

Category	Type		Positive results*	Negative results	Total
Meat products ❶	a	Prepared meals with meat	10	10	20
	b	Cooked sausages and delicatessen	22	23	45
	Total		**32**	**33**	**65**
Dairy products ❷	a	Cow's milk cheeses	10	15	25
	b	Cheeses from goat's milk or sheep's milk	10	15	25
	c	Desserts, milk powders, milks	10	10	20
	Total		**30**	**40**	**70**
Seafood products ❸	a	Shellfish	10	13	23
	b	Terrines	10	10	20
	c	Cooked dishes made from fish	13	12	25
	Total		**33**	**35**	**68**
Vegetal products ❹	a	Potato based precookers	10	16	26
	b	Vegetables cut	8	16	24
	c	Vegetables crushed, grinded, shredded	12	8	20
	Total		**30**	**40**	**70**
Environment samples ❺	a	Process water	10	10	20
	b	Surface samples	22	14	36
	c	Residues	8	14	22
	Total		**40**	**38**	**78**
Dairy products (excl. raw milk) 125g ❻	a	Raw milk cheese	11	18	29
	b	Pasteurized cheese	8	12	20
	c	Dairy powder	11	13	24
	Total		**30**	**43**	**73**
Powder infant formula and cereals 125g ❼	a	Infant formula w/o probiotic	10	11	21
	b	Infant formula with probiotic	10	14	24
	c	Infant cereal with & w/o probiotic	10	11	21
	Total		**30**	**36**	**66**
All categories	**Total**		**225**	**265**	**490**

3.1.3. Artificial contamination

Two hundred and twenty-five (225) positives samples were analyzed including 72 naturally contaminated samples.

Artificial contamination was carried out using Spiking or Seeding protocols in accordance with the requirements of the validation standard and of the AFNOR Certification Technical Board. None of the strains were used more than 6 times to get a positive result. For Spiking, strains were stressed using different treatments and the stress intensity was evaluated. For Seeding, bacterial suspensions were enumerated and inoculated in the matrices. The samples so contaminated were stored at 2 – 8°C for 48 to 72 hours. The results are presented in Appendix C.

Table 4 shows the proportion of naturally and artificially contaminated samples giving a positive result for all categories combined.

Table 4: distribution of the positive samples per level for all categories

Category		Number and percentage of samples analyzed per contamination levels					
		NC	Mixture	≤ 5 (spiking) ≤ 3 (seeding)	5-10 (sp.) 3-10 (se.)	>10	TOTAL
General protocol	❶ Meat products	12	0	10	7	3 (1 type a, 2 type b)	32
	❷ Dairy products	4	2	18	3	3 (1 type a, 1 type b, 1 type c)	30
	❸ Seafood products	7	0	20	6	0	33
	❹ Vegetal products	12	9	4	3	2 (2 type c)	30
	❺ Environmental samples	34	0	6	0	0	40
New protocol	❻ Dairy products excluding raw milk /125g	3	0	27	0	0	30
	❼ PIF and cereals /125g	0	0	30	0	0	30
TOTAL		**72**	**11**	**115**	**19**	**8**	**225**
%		**32%**	**4.9%**	**51.1%**	**8.4%**	**3.6%**	**100%**

225 samples gave a positive result by at least one of the 2 methods and 32% of them were naturally contaminated. In view of the scope of the method (exclusion of raw products) and the 2 categories added during the extension in 2021 (mainly milk powders), the rate of 40% of naturally contaminated samples required in the AFNOR rules (version 7) was difficult to maintain and was accepted by the Technical Board.

3.1.4. Results

Raw data are shown in appendix D.

Table 5 shows the results of the sensitivity study for all categories.

Table 5: results of the sensitivity study for both methods (R+/-: reference method positive or negative, A+/-: alternative method positive or negative, PA: positive agreement, NA: negative agreement, ND: negative deviation, PD: positive deviation, PP: presumptive positive before confirmation)

Category	Response	R+	R-
Meat products ❶	A+	PA = 29	PD = 1
	A-	ND = 2 incl. 0 PPND	NA = 33 incl. 0 PPNA
Dairy products ❷	A+	PA = 30	PD = 0
	A-	ND = 0 incl. 0 PPND	NA = 40 incl. 0 PPNA
Seafood products ❸	A+	PA = 29	PD = 2
	A-	ND = 2 incl. 0 PPND	NA = 35 incl. 0 PPNA
Vegetal products ❹	A+	PA = 30	PD = 0
	A-	ND = 0 incl. 0 PPND	NA = 40 incl. 0 PPNA
Environmental sample ❺	A+	PA = 39	PD = 0
	A-	ND = 1 incl. 0 PPND	NA = 38 incl. 0 PPNA
Dairy products (excl. raw milk) 125g ❻	A+	PA = 20	PD = 8
	A-	ND = 2 incl. 0 PPND	NA = 43 incl. 2 PPNA
Powder infant formula and cereals 125g ❼	A+	PA = 21	PD = 7
	A-	ND = 2 incl. 0 PPND	NA = 36 incl. 0 PPNA
All categories	A+	**PA = 198**	**PD = 18**
	A-	**ND = 9 incl. 0 PPND**	**NA = 265 incl. 2 PPNA**

3.1.5. Calculation of relative trueness (RT), sensitivity (SE) and false positive ratio (PFR)

The set of results obtained were used to calculate the relative trueness, the sensitivity and the false positive ratio for each of the categories and for all the categories, according to the formulas set out in the EN ISO 16140-2:2016 standard (table 6).

Table 6: values in % of sensitivity for the two methods, relative trueness and false positive ratio for the alternative method (SEalt: sensitivity for the alternative method, SEref: sensitivity for the reference method, RT: relative trueness, FPR: false positive ratio for the alternative method)

Categories	Type	PA	NA	ND	PD	N	Including PPND	Including PPNA	SEalt	SEref	RT	FPR
Meat products ❶	a	10	10	0	0	20	0	0	100.0%	100.0%	100.0%	0.0%
	b	19	23	2	1	45	0	0	90.9%	95.5%	93.3%	0.0%
	Total	29	33	2	1	65	0	0	93.8%	96.9%	95.4%	0.0%
Dairy products ❷	a	10	15	0	0	25	0	0	100.0%	100.0%	100.0%	0.0%
	b	10	15	0	0	25	0	0	100.0%	100.0%	100.0%	0.0%
	c	10	10	0	0	20	0	0	100.0%	100.0%	100.0%	0.0%
	Total	30	40	0	0	70	0	0	100.0%	100.0%	100.0%	0.0%
Seafood products ❸	a	8	13	1	1	23	0	0	90.0%	90.0%	91.3%	0.0%
	b	10	10	0	0	20	0	0	100.0%	100.0%	100.0%	0.0%
	c	11	12	1	1	25	0	0	92.3%	92.3%	92.0%	0.0%
	Total	29	35	2	2	68	0	0	93.9%	93.9%	94.1%	0.0%
Vegetal products ❹	a	10	16	0	0	26	0	0	100.0%	100.0%	100.0%	0.0%
	b	8	16	0	0	24	0	0	100.0%	100.0%	100.0%	0.0%
	c	12	8	0	0	20	0	0	100.0%	100.0%	100.0%	0.0%
	Total	30	40	0	0	70	0	0	100.0%	100.0%	100.0%	0.0%
Environmental samples ❺	a	9	10	1	0	20	0	0	90.0%	100.0%	95.0%	0.0%
	b	22	14	0	0	36	0	0	100.0%	100.0%	100.0%	0.0%
	c	8	14	0	0	22	0	0	100.0%	100.0%	100.0%	0.0%
	Total	39	38	1	0	78	0	0	97.5%	100.0%	98.7%	0.0%
Dairy products (excl. milk) ❻	a	9	18	1	1	29	0	2	90.9%	90.9%	93.1%	11.1%
	b	4	12	1	3	20	0	0	87.5%	62.5%	80.0%	0.0%
	c	7	13	0	4	24	0	0	100.0%	63.6%	83.3%	0.0%
	Total	20	43	2	8	73	0	2	93.3%	73.3%	86.3%	4.7%
Powder Infant formula & cereals ❼	a	8	11	0	2	21	0	0	100.0%	80.0%	90.5%	0.0%
	b	6	14	1	3	24	0	0	90.0%	70.0%	83.3%	0.0%
	c	7	11	1	2	21	0	0	90.0%	80.0%	85.7%	0.0%
	Total	21	36	2	7	66	0	0	93.3%	76.7%	86.4%	0.0%
All categories	**Total**	**169**	**265**	**9**	**18**	**490**	**0**	**2**	**95.4%**	**90.8%**	**88.6%**	**0.8%**

The results for all categories are summarized in the table 7 below.

Table 7: summary of the results for all categories

Parameter	Formula EN ISO 16140-2 :2016	Results for all categories
Sensitivity of the alternative method (SE_{alt})	$SE_{alt} = \frac{(PA + PD)}{(PA + ND + PD)} \times 100\ \%$	95.4 %
Sensitivity of the reference method (SE_{ref})	$SE_{ref} = \frac{(PA + ND)}{(PA + ND + PD)} \times 100\ \%$	90.8 %
Relative trueness (RT)	$RT = \frac{(PA + NA)}{N} \times 100\ \%$	88.6 %
False positive ratio (FPR)	$FPR = \frac{FP}{NA} \times 100\ \%$	0.8 %

3.1.6. Analysis of discordant results

Discordant results are examined according to the standard ISO 16140-2: 2016.
The negative deviations are given in table 8 and the positive deviations in table 9.

Table 8: summary of the negative deviations

Cat.	Sample number	Name	Type	Inocul-ation level CFU	Direct assay			Broth storage at 2-8°C		
					VIDAS test	Confir-mation	Concor-dance	VIDAS test	Confir-mation	Concor-dance
1	L9	Pâté country	b	nc	-	No charact colony	**ND**	/	/	/
	Q10	Ham	b	7.6	-	No charact colony	**ND**	/	/	/
3	R14	Shrimp shelled	a	0.8	-	*L. mono*	**ND**	/	/	/
	N13	Fish tajine	c	3.1	-	*L. mono*	**ND**	/	/	/
5	2002	Saucier post water	a	nc	-	*L. mono*	**ND**	/	/	/
6	1977572	Raw milk cow cheese (Morbier)	a	nc	-	-	**ND**	-	-	**ND**
	1977551	Pasteurized cow cheese	b	1.8	-	-	**ND**	-	-	**ND**
7	1977590	Organic infant milk 6-12 months *Lactobacillus fermentum hereditum* CECT5716 – 10^6 UFC/g	b	4.0	-	-	**ND**	-	-	**ND**
	1977746	Whole oat and wheat infant cereals *B. lactis* 6,8 10^6 CFU/g	c	3.4	-	-	**ND**	-	-	**ND**

Nine negative deviations were observed: 3 from naturally contaminated sample and 6 from artificially contaminated samples.

For 2 negatives deviations (L9 and Q10), the protocol of the alternative method was applied and non-typical colonies was observed. The first enrichment in half-Fraser is identical for the two methods, however time and temperature applied for the second enrichment in Fraser, are different between the two methods. It is probable that the enrichment of the alternative method did not allow to reach the threshold of the VIDAS LMO2 method.

Three (3) negative deviations (R14; N13; 2002) are false negative highlighted by the confirmation protocol of the alternative method. It is probable that the enrichment did not allow to reach the threshold of the VIDAS LMO2 test.

For four (4) negative deviations (1977572, 1977551, 1917790, 1977746), no typical colony was able to be recovered from the enriched LX broths. These 4 negative deviations most probably come from the nature of the study design. In an unpaired study, because of the difference of sampling between both methods, and the use of naturally contaminated samples or samples contaminated at low levels, no cell of *Listeria monocytogenes* may have been present in the sampling of one of the two methods.

Table 9: summary of the positive deviations

Cat.	Sample number	Sample	Type	Inocul-ation level CFU	Reference method ISO 11290-1						VIDAS LMO2 method				
					Half fraser		Fraser		Confir-mation	Result	VIDAS test	Conf. O&A and PALCAM	Conf. ISO	Result	Concor-dance
					O&A	PAL-CAM	O&A	PAL-CAM							
1	O14	Wieners	b	0,9	Ø	Ø	Ø	Ø	/	**A**	+	+LA	*L.monocytogenes*	**P**	**PD**
3	N15	Winkles	a	7,5	Ø	-ME	Ø	Ø	/	**A**	+	+MA	*L.monocytogenes*	**P**	**PD**
	N8	Waterzai of fish stew	c	3,1	Ø	Ø	Ø	Ø	/	**A**	+	+LA	*L.monocytogenes*	**P**	**PD**
6	1977823	Raw milk cow cheese (Tomme)	a	2,0	Ø	-EL	Ø	-EL	/	**A**	+	AM halo	*L.monocytogenes*	**P**	**PD**
	1977542	Pasteurized cow cheese (Munster)	b	1,8	-EM	-EM	Ø	-EM	/	**A**	+	AM halo	*L.monocytogenes*	**P**	**PD**
	1977545	Pasteurized cow cheese with pepper	b	1,6/2,2	AL sans halo	-EM	AM sans halo	-EM	*L.welshimeri*	**A**	+	AM halo+sans halo	*L.monocytogenes* *L.welshimeri*	**P**	**PD**
	1977546	Pasteurized sheep cheese	b	1,6/2,2	CL sans halo	-EM	AM sans halo	CM	*L.welshimeri*	**A**	+	AM halo+sans halo	*L.monocytogenes* *L.welshimeri*	**P**	**PD**
	1977555	Powdered whey	c	4,8/4,0	-EL	-EL	AM sans halo	DM	*L.innocua*	**A**	+	AM sans halo	*L.innocua* *L.monocytogenes*	**P**	**PD**
	1977581	Powdered whole milk	c	4,0	-EM	-EM	-EL	-EM	/	**A**	+	CL halo	*L.monocytogenes*	**P**	**PD**
	1977582	Skimmed milk powder	c	4,0	-EM	-EM	-EL	-EM	/	**A**	+	BM halo	*L.monocytogenes*	**P**	**PD**
	1977584	Powdered buttermilk	c	4,4	-EM	-EM	-EL	-EL	/	**A**	+	AM halo	*L.monocytogenes*	**P**	**PD**
7	1977567	Baby milk powder thickened formula 6-12 months	a	4,0	Ø	-EL	Ø	Ø	/	**A**	+	AM halo	*L.monocytogenes*	**P**	**PD**
	1977568	Junior baby milk powder + 18 months	a	4,0	Ø	-EL	Ø	-EL	/	**A**	+	AM halo	*L.monocytogenes*	**P**	**PD**
	1977592	Infant milk 0-6 months *B.Lactis* – 4,5 10^6 UFC/g	b	4,6	-EL	-EL	-EL	-EM	/	**A**	+	AM halo	*L.monocytogenes*	**P**	**PD**
	1977595	Infant milk 6-12 months Bifido. – 1,6 10^6 UFC/g	b	4,6	-EL	-EM	Ø	-EM	/	**A**	+	AM halo	*L.monocytogenes*	**P**	**PD**
	1978391	Infant milk 1-3 years *Lactobacillus reuteri* 5,4 10^6UFC/g	b	3,8	Ø	Ø	-EM	-EL	/	**A**	+	AL halo	*L.monocytogenes*	**P**	**PD**
	1977750	Infant chocolate cereals	c	2,8	Ø	-EL	Ø	-EL	/	**A**	+	AM halo	*L.monocytogenes*	**P**	**PD**
	1977751	Infant caramel cereals	c	2,6	Ø	-EL	Ø	-EL	/	**A**	+	AM halo	*L.monocytogenes*	**P**	**PD**

Eighteen positive deviations were observed and concern artificially contaminated samples.
For three (3) positive deviations (O14, N15, N8), the first enrichment in half-Fraser is identical for the two methods, however time and temperature applied for the second enrichment in Fraser, are different between the two methods
For the other 15 positive deviations (extension study), as with the negative deviations, they are most likely due to the nature of the study design. In an unpaired study, due to the difference in sampling between the two methods.

3.1.7. Calculation and interpretation of data

Table 10 shows the difference between negative deviations and positive deviations and the acceptability limits.

Table 10: acceptability limits

Category	Type	ND	PD	Unpaired		Paired				Combined	
				(ND-PD)	AL	(ND-PD)	AL	(ND+PD)	AL	(ND-PD)	AL
Meat products ❶	a	0	0			0	/	0	/	0	**3**
	b	2	1			1		3		1	
	Total	2	1			1	3	3	6	1	
Dairy products ❷	a	0	0			0	/	0	/	0	
	b	0	0			0		0		0	
	c	0	0			0		0		0	
	Total	0	0			0	3	0	6	0	
Seafood products ❸	a	1	1			0	/	2	/	0	
	b	0	0			0		0		0	
	c	1	1			0		2		0	
	Total	2	2			0	3	4	6	0	
Vegetal products ❹	a	0	0			0	/	0	/	0	
	b	0	0			0		0		0	
	c	0	0			0		0		0	
	Total	0	0			0	3	0	6	0	
Environm. sample ❺	a	1	0			1	/	1	/	1	
	b	0	0			0		0		0	
	c	0	0			0		0		0	
	Total	1	0			1	3	1	6	1	
DP (except raw milk) 125 g ❻	a	1	1	0	/					0	**3**
	b	1	3	-2						-2	
	c	0	4	-4						-4	
	Total	2	8	-6	3					-6	
PIF and cereals 125 g ❼	a	0	2	-2	/					-2	**3**
	b	1	3	-2						-2	
	c	1	2	-1						-1	
	Total	2	7	-5	3					-5	
All categories	***Total***	**9**	**18**							**-9**	**7**

The observed values (ND – PD) and (ND+PD) are below the acceptability limit for each category and for all categories. The alternative method produces results comparable to the reference method.

3.1.8. Enrichment broth storage at 2 – 8°C for 72 hours (extension study only)

A stability study of the enriched LX broths stored at 5±3°C for 72 hours was performed on all positive and discordant samples. After storage, the broths were reanalyzed and confirmed.
No change was observed from the initial analysis.

Table 11 shows the difference between negative deviations and positive deviations and the acceptability limits.

Table 11: acceptability limits

Category	Type	ND	PD	(ND-PD)	Acceptability limit (AL)	Observation
Dairy products (except raw milk) ❻	a	1	1	/	/	(ND-PD) ≤ AL
	b	1	3			
	c	0	4			
	Total	2	8	-6	3	
Powder infant formula and cereals ❼	a	0	2	/	/	
	b	1	3			
	c	1	2			
	Total	2	7	-5	3	
All categories	***Total***	**4**	**15**	**-11**	**4**	

The alternative method produces results comparable to the reference method after storage of the broths for 3 days at 5±3°C for the two categories tested.

3.1.9. Conclusion of the sensitivity study

The statistical tests of the EN ISO 16140-2:2016 standard conclude that the alternative method produces comparable results to the reference method.

3.2. Relative detection level study

3.2.1. Matrices used

Various "food matrix-strain" pairs were studied in parallel using the reference method and the alternative method, for the studied categories (cf. table 12).

Table 12: pairs matrix-strain for each category

Category	Matrix/strain pairs	Origin of the strain	Study
❶ **Meat products**	Rillettes / *Listeria monocytogenes 1/2c*	/	Previous validation
❷ **Dairy products**	Pasteurized milk / *Listeria monocytogenes 1/2b*	/	Previous validation
❸ **Seafood products**	Breaded fish / *Listeria monocytogenes 1/2a*	/	Previous validation
❹ **Vegetal products**	Pan-fried vegetables / *Listeria monocytogenes 4b*	/	Previous validation
❺ **Environmental sample**	Process water / *Listeria monocytogenes 1/2c*	/	Previous validation
❻ **Dairy products (except raw milk) 125g**	Cottage cheese with raw milk / *Listeria monocytogenes 4b* HBP652	Raw milk cheese	Microsept 2021
❼ **Powder infant formula and cereals 125g**	Infant milk powder with probiotics / *Listeria monocytogenes 1/2b* JAR249	Pasteurized milk cheese	Microsept 2021

For categories ❶, ❷, ❸, ❹, ❺ & ❻ the total flora of the matrix was determined.
For the category ❼, an enumeration of probiotics was carried out according to ISO 15214.
The results are presented in Appendix E.

3.2.2. Contamination protocol

- Protocol for categories ❶, ❷, ❸, ❹ and ❺ (previous validation)

One negative control and 3 to 4 level of contaminations were tested.
Six replicates for each level of contamination were inoculated and analyzed by the reference method and the alternative method.
Artificial contamination was carried out in accordance with the requirements of the EN ISO 16140 standard and of the AFNOR Technical Board in force.
As the two methods have the same enrichment step in half-Fraser, the same test portions of 25 g was tested by the two methods. Test portion were prepared for each level of contamination and individually inoculated with a calibrated bacterial suspension. Several dilutions of a calibrated and low-concentrated suspension of *Listeria monocytogenes* were used to spike the samples before analysis.
Simultaneously, a total viable count was performed on a portion of non-contaminated matrix to estimate the concentration of mesophilic aerobic flora. A detection of *Listeria monocytogenes* using the reference method was also performed to check the absence of the target analyte in the matrix.

- Protocol for categories ❻ & ❼ (assays 2021)

Three levels of contamination were prepared consisting of a negative control level, a low level, and a higher level.
For the category ❻, the cottage cheese with raw milk was contaminated using the seeding protocol.
Bulk contaminations were performed on the matrix for the different levels of contamination, then the matrix was stored at 5±3°C for two days before analysis. Samples were then analyzed by the reference and the alternative method.

For the category ❼, the infant milk powder with probiotics was contaminated using the spiking protocol. The strain of *Listeria monocytogenes* used was stressed with heat treatment. Each initial suspension was then contaminated with this stressed and calibrated strain.

The negative control level shall not produce positive results. Five replicates were tested for this level.
The low level shall be the theoretical detection level, it was contaminated at low level to obtain fractional recovery results. Twenty replicates were tested for this level.
The higher level shall be just above the theoretical detection level. Five replicates were tested for this level.

3.2.3. Results

The detailed results tables are set out in Appendix E.

The RLOD is defined as the ratio of the LODs of the alternative method and the reference method: RLOD= LOD_{alt} / LOD_{ref}.
The RLODs calculations were performed according to the standard ISO 16140-2: 2016 using the Excel spreadsheet available for download at http://standards.iso.org/iso/16140, with unknown concentrations. Values of the RLODs are set out in table 13.

Table 13: RLODs values for all categories (RLOD: the estimated relative level of detection value, RLODU: the upper limit of the 95% confidence interval for RLOD, RLODL: the lower limit of the 95% confidence interval for RLOD, b=ln(RLOD): logarithm of the RLOD value, sd(b): standard deviation of b, z-Test statistic: absolute value of the test statistic of the z-Test with the null hypothesis H0: b=0, p-value: p-value of the z-Test)

Matrix/strain pairs	RLOD	RLODL	RLODU	b=ln(RLOD)	sd(b)	z-Test statistic	p-value	AL
❶ **Rillettes / *L. mono 1/2c***	**1.000**	0.419	2.385	0.000	0.435	0.000	1.000	**1.5**
❷ **Pasteurized milk / *L. mono 1/2b***	**1.000**	0.383	2.608	0.000	0.479	0.000	1.000	**1.5**
❸ **Breaded fish / *L. mono 1/2a***	**1.000**	0.419	2.385	0.000	0.435	0.000	1.000	**1.5**
❹ **Pan-fried vegetables / *L. mono 4b***	**1.000**	0.360	2.775	0.000	0.510	0.000	1.000	**1.5**
❻ **Process water / *L. mono 1/2c***	**1.000**	0.386	2.591	0.000	0.476	0.000	1.000	**1.5**
❼ **Cottage cheese with raw milk / *L. mono 4b* HBP652**	**1.000**	0.466	2.145	0.000	0.382	0.000	1.000	**2.5**
❽ **Infant milk powder with probiotics /*L. mono 1/2b* JAR249**	**1.146**	0.498	2.636	0.136	0.417	0.327	0.744	**2.5**
Combined	**1.018**	**0.738**	**1.404**	**0.018**	**0.161**	**0.109**	**0.913**	**/**

The LOD_{50} calculations according to Wilrich & Wilrich POD-LOD calculation program - version 10, are given in Table 14.

Table 14: LOD50% for the alternative and reference method

Matrix	Strain	LOD50% (CFU/125g) alternative method	LOD50% (CFU/125g) Reference method
Rillettes	*L. monocytogenes 1/2c*	0.680	0.680
Pasteurized milk	*L. monocytogenes 1/2b*	0.748	0.748
Breaded fish	*L. monocytogenes 1/2a*	0.567	0.567
Pan-fried vegetables	*L. monocytogenes 4b*	0.338	0.338
Process water	*L. monocytogenes 1/2c*	0.592	0.592
Cottage cheese with raw milk (125g)	*L. monocytogenes 4b*	0.569	0.569
Infant milk powder with probiotics (125g)	*L. monocytogenes 1/2b* JAR249	0.669	0.596
Combined results		**0.597**	**0.584**

3.2.4. Interpretation and conclusion

RLOD values are below the acceptability limit set at 1.5 for paired studies and 2.5 for unpaired studies. In conclusion, alternative and reference methods show similar LODs values for the detection of *Listeria monocytogenes* in the categories tested.

3.3. Inclusivity and exclusivity study

3.3.1. Results

The inclusivity and exclusivity of the method were defined by analyzing, respectively, 50 positive strains and 43 negative strains. The results are set out in Appendix F .

Fifty *Listeria monocytogenes* strains and 43 non-*Listeria monocytogenes* strains, of which 28 strains not belonging to the *Listeria* genus, were tested using the VIDAS LMO2 test.

All the *Listeria monocytogenes* strains provided a positive result and no cross-reactions were observed with non-target strains.

3.3.2. Conclusion

The selectivity of the method is satisfactory.

3.4. Practicability

1. Storage conditions of the components (see package insert) – Expiration date of unopened products (see package insert)	The storage temperature of the VIDAS LMO2 kit is 2-8°C. The kit expiration date is shown on the box label and on the various vials.
2. Conditions of use after first use (see package insert)	The kit components should be stored at 2-8°C. If stored as recommended (pouch correctly resealed with desiccant after use, etc.), all the components will remain stable until the expiration date indicated on the label.
3. Time-to-result	

Step	Time required (Day) VIDAS LMO2 method	Time required (Day) EN ISO 11290-1 standard
Pre-enrichment of LX or Fraser	D0	D0
Inoculation of LX or Fraser	D1	D1
Streaking on selective media	/	D1 & D2
Perform VIDAS LMO2 test	D2	/
Plate reading	/	D3 & D4
Obtention of negative results (without confirmation**)**	**D2**	**D4**
Confirmation testing	D2	D3 to D5
Obtention of negative results (after negative confirmation testing if necessary)	**D4 to D6**	**D4 to D6**
Obtention of positive results (confirmation of typical colonies)	**D3 to D6**	**D4 to D6**

4. Steps common to the reference method	**Extension protocol**: no common step

3.5. Conclusion

The comparative study of the methods was performed according to the EN ISO 16140-2:2016 standard.

- **Sensitivity study**

The performance of the extension of the VIDAS LMO2 method was compared to that of the reference method EN ISO 11290-1: 2017 by analyzing 490 samples divided into seven product categories.

The observed values (ND – PD) were below to the acceptability limit for each category and for all categories after the initial test and after three days of conservation at 5±3°C for extension study. Statistically, the alternative method produces comparable results to that of the reference method.

- **Relative level of detection study**

The relative detection level of VIDAS LMO2 method and reference method was evaluated by artificially contaminating two different products.
The relative level of detection of the alternative method varies from 1,000 to 1,146 cells per test sample depending on the categories and is equal to 1,018 for all categories combined. The VIDAS LMO2 method and the reference method showed similar LODs values for the detection of *Listeria monocytogenes* in the categories tested.

- **Inclusivity and exclusivity study**

The method is satisfactory, all strains of *Listeria monocytogenes* have been detected and no cross-reaction has been observed with the non-target strains.

4. Interlaboratory study

4.1. Organization of the interlaboratory study

A validation extension was obtained in December 2006 following the completion of the inter-laboratory study in accordance with the EN ISO 16140 standard in force.
The interlaboratory study was realized by the expert laboratory and sixteen participating laboratories.

4.2. Experimental parameters

- Matrix: pasteurized milk
- Strain: *Listeria monocytogenes* L32 (origin "Raw milk cheese").
- Number of samples per laboratory: 24 samples per method were prepared to represent 3 levels of contamination, with 8 samples per level.

4.3. Control of the experimental parameters

4.3.1. Samples preparation and spiking

The following table shows the contamination rates obtained and the estimated accuracies:
Table 15: contamination levels

Level	Samples	Targeted theoretical level (CFU/25 g)	Real level (CFU/25 g)
Level 0 (L0)	6-7-8-14-15-19-20-21	0	0
Low level (L1)	1-2-9-1011-16-22-23	3	4.5
High level (L2)	3-4-5-12-13-17-18-24	30	46.6

4.3.2. Temperature and state of the samples

The measured temperatures are listed in the table 16.

Table 16: temperature measurements

Laboratory	Temperature at reception		Comments
	Communicated by the laboratory	Measured by the temperature probe	
A	4,0°C	4,4°C	/
B	/	12,4°C	Receipt at D2
C	/	12,4°C	Receipt at D2
D	2,5°C	1,4°C	/
E	6,5°C	5,9°C	/
F	4,3°C	5,0°C	/
G	4,0°C	3,4°C	/
H	6,2°C	4,4°C	/
I	6,5°C	3,9°C	/
J	7,1°C	6,0°C	/
K	8,5°C	7,9°C	/
L	6,6°C	3,9°C	/
M	5,5°C	5,9°C	/
N	4,4°C	4,9°C	/
O	5,7°C	6,0°C	/
P	7,8°C	7,5°C	/

Fourteen of the 16 laboratories received their samples the day after they were sent (B and C received at D2).

4.4. Results

Fourteen (14) laboratories among the 16 laboratories selected were finally retained for the study (exclusion of laboratories B and C).

4.4.1. Total viable counts

For the whole laboratories, the total viable counts at 30°C varied between 1.6 x 10^4 CFU/g and 7.3x10^8 CFU/ml.

4.4.2. Expert laboratory results

The results obtained by the expert laboratory are summarized in table 17 (raw results in appendix G).

Table 17 : positive results obtained by expert laboratory by both methods

Contamination level	Alternative method	Reference method
L0	0/8	0/8
L1	8/8	8/8
L2	8/8	8/8

The results are consistent with those expected.

4.4.3. Collaborators results

The results (number of positive samples/number of tested samples) are summarized in tables 18 and 19. Raw results are presented in appendix G.

- Reference method results

Table 18 : results for all laboratories (bc: before contamination, ac: after contamination)

Alternative method							Reference method			
LAB	L0		L1		L2		LAB	L0	L1	L2
	bc	ac	bc	ac	bc	ac				
A	0/8	0/8	8/8	8/8	8/8	8/8	A	0/8	8/8	8/8
D	0/8	0/8	8/8	8/8	8/8	8/8	D	0/8	8/8	8/8
E	0/8	0/8	8/8	8/8	8/8	8/8	E	0/8	8/8	8/8
F	0/8	0/8	4/4	4/4	8/8	8/8	F	0/8	4/4	8/8
G	0/8	0/8	8/8	8/8	8/8	8/8	G	0/8	8/8	8/8
H	0/8	0/8	8/8	8/8	8/8	8/8	H	0/8	8/8	8/8
I	0/8	0/8	8/8	8/8	8/8	8/8	I	0/8	8/8	8/8
J	0/8	0/8	8/8	8/8	8/8	8/8	J	0/8	8/8	8/8
K	0/8	0/8	8/8	8/8	8/8	8/8	K	0/8	8/8	8/8
L	0/8	0/8	8/8	8/8	8/8	8/8	L	0/8	8/8	8/8
M	0/8	0/8	8/8	8/8	8/8	8/8	M	0/8	8/8	8/8
N	0/8	0/8	8/8	8/8	8/8	8/8	N	0/8	8/8	8/8
O	0/8	0/8	8/8	8/8	8/8	8/8	O	0/8	8/8	8/8
P	0/8	0/8	8/8	8/8	8/8	8/8	P	0/8	8/8	8/8
Total	**0/112**	**0/112**	**108/108**	**108/108**	**112/112**	**112/112**	**Total**	**0/112**	**108/108**	**112/112**

4.4.4. Analysis of the results and collaborators selected for the statistical analysis

Laboratory F was excluded from the final statistical analysis of the results, as four samples had not been analyzed owing to leaks. The results of 13 laboratories were considered (table 14).

Table 19 : results kept for statistical analysis (bc: before contamination, ac: after contamination)

Alternative method							Reference method			
LAB	L0		L1		L2		**LAB**	L0	L1	L2
	bc	ac	bc	ac	bc	ac				
A	0/8	0/8	8/8	8/8	8/8	8/8	**A**	0/8	8/8	8/8
D	0/8	0/8	8/8	8/8	8/8	8/8	**D**	0/8	8/8	8/8
E	0/8	0/8	8/8	8/8	8/8	8/8	**E**	0/8	8/8	8/8
G	0/8	0/8	8/8	8/8	8/8	8/8	**G**	0/8	8/8	8/8
H	0/8	0/8	8/8	8/8	8/8	8/8	**H**	0/8	8/8	8/8
I	0/8	0/8	8/8	8/8	8/8	8/8	**I**	0/8	8/8	8/8
J	0/8	0/8	8/8	8/8	8/8	8/8	**J**	0/8	8/8	8/8
K	0/8	0/8	8/8	8/8	8/8	8/8	**K**	0/8	8/8	8/8
L	0/8	0/8	8/8	8/8	8/8	8/8	**L**	0/8	8/8	8/8
M	0/8	0/8	8/8	8/8	8/8	8/8	**M**	0/8	8/8	8/8
N	0/8	0/8	8/8	8/8	8/8	8/8	**N**	0/8	8/8	8/8
O	0/8	0/8	8/8	8/8	8/8	8/8	**O**	0/8	8/8	8/8
P	0/8	0/8	8/8	8/8	8/8	8/8	**P**	0/8	8/8	8/8
Total	**0/104**	**0/104**	**104/104**	**104/104**	**104/104**	**104/104**	**Total**	**0/104**	**104/104**	**104/104**

4.5. Interpretation of the results and statistical analysis

4.5.1. Interpretation of the results

The interpretation of the results is shown in the table below.

Table 20 : tests results for both methods (PA: positive agreement, NA: negative agreement, ND: negative deviation, PD: positive deviation)

Level	Alternative method (AM)	Reference method (RM)		
		RM+	RM-	Total
L0	AM+	PA= 0	PD= 0	0
	AM-	ND= 0 including PPND= 0	NA= 104 including PPNA= 0	104
	Total	0	104	104
L1	AM+	PA= 104	PD= 0	104
	AM-	ND= 0 including PPND= 0	NA= 0 including PPNA= 0	0
	Total	104	0	104
L2	AM+	PA= 104	PD= 0	104
	AM-	ND= 0 including PPND= 0	NA= 0 including PPNA= 0	0
	Total	**104**	**0**	**104**

4.5.2. Specificity of the methods

The percentage specificity of the reference method and the alternative method is calculated using the data after confirmation, based on the results of level L_0.

- Specificity of the reference method: $SP_{ref} = \left[1 - \left(\frac{P_0}{N\_}\right)\right] \times 100\%$ = 100.0%,

- Specificity of the alternative method: $SP_{alt} = \left[1 - \left(\frac{CP_0}{N\_}\right)\right] \times 100\%$ = 100.0%,

where:
*N_* is the number of all L_0 tests;
P_0 is the total number of false-positive results obtained with the blank samples before confirmation;
CP_0 is the total number of false-positive results obtained with blank samples.

4.5.3. Sensitivity of the two methods, relative trueness and false positive ratio of the alternative method

The sensitivity of the two methods, the relative trueness of the alternative method and the false positive ratio of the two methods are calculated. Results are presented in the table 21.

Table 21: summary of the sensitivity study results for all the categories of the application scope

Parameter	ISO 16140-2 formulas	Results for L1 and for L2
Sensitivity of the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + ND + PD)} \times 100\ \%$	100.0%
Sensitivity of the reference method	$SE_{ref} = \frac{(PA + ND)}{(PA + ND + PD)} \times 100\ \%$	100.0%
Relative trueness	$RT = \frac{(PA + NA)}{N} \times 100\ \%$	100.0%
False positive ratio	$FPR = \frac{FP}{NA} \times 100\ \%$	0%

4.5.4. Determination of the acceptability limit and conclusion

No fractional recovery was obtain for the level L1 and L2. That is why the difference between (ND – PD) and the addition (ND + PD) were calculated for the level L1 and the level L2. The observed value found for (ND – PD) and (ND+PD) shall not be higher than the acceptability limit (AL). Results are shown in the table 22.

Table 22: acceptability limits

Level	N_{lab}	(ND-PD)	(ND+PD)	Acceptability limit (AL)
L1	13	0	0	$(ND – PD)_{AL}=4$; $(ND + PD)_{AL}=5$
L2	13	0	0	$(ND – PD)_{AL}=4$; $(ND + PD)_{AL}=5$

The values (ND-PD) and (ND+PD) for the level L1 and L2 are inferior to the AL, so the requirements of the standard ISO 16140-2 : 2016 are fulfilled.

The performance of the alternative method and the reference method can be considered as equivalent.

4.5.5. Evaluation of the RLOD, $LOD_{50\%}$ and $LOD_{95\%}$

The evaluation of the RLOD between laboratories could not be determined using the Annex F of ISO 16140-2:2016 and using the Excel spreadsheet available at http://standards.iso.org/iso/16140 - RLOD_inter-lab-study_16140-2_AnnexF_ver1_28-06-2017.

Calculation of LOD50% and LOD95% are not possible because every sample at level 1 was positive for VIDAS LMO2 method.

5. General conclusion

- Method comparison study

The performance of the VIDAS LMO2 test is comparable to that of the standard ISO 11290-1 : 2017.
This study concerned 490 samples of seven categories of products.
Values obtained for the criteria of the sensitivity study are the following, depending on the incubation times and the protocol of confirmation:

- sensitivity of the alternative method : 95.4%
- sensitivity of the reference method : 90.8%
- relative trueness: 88.6%
- false positive ratio: from 0.8%

Some discordant results were observed. For categories ❶ at ❺, the first enrichment in half-Fraser is identical for the two methods, however time and temperature applied for the second enrichment in Fraser, are different between the two methods. That could be explain the discordant results observed. For categories ❻ and ❼, the unpaired study design is probably the source of the discordant results observed.

The relative level of detection of the alternative method and the reference method was evaluated for all categories. The results are comparable between the two methods. It varies between 1.000 and 1.146 CFU per test portion for the alternative method for all categories.

The specificity of the method is satisfactory.

The study of the practicability of the alternative method shows a simple and easy-to-use method and significant time savings compared to the reference method.

- Interlaboratory study

Concerning the interlaboratory study, the results obtained for the selected laboratories showed that the performance of the alternative method and the reference method can be considered as equivalent.

The data and the interpretation of the methods comparison study and of the interlaboratory study fulfill the requirements of the standard EN ISO 16140-2:2016. The VIDAS LMO2 method is considered as equivalent to the standard EN ISO 11290-1:2017.

Le Lion d'Angers, June 21th , 2022.
François Le Nestour
Head of the Microbiology Department

APPENDICES

APPENDIX A
ALTERNATIVE METHOD PROTOCOL

VIDAS LMO2 - General protocol

Primary enrichment :
X g of sample + 9 X mL of half-Fraser broth
Example: 1 swab into 10 mL,
1 sponge into 100 mL, 1 wipe into 225 mL

↓ Incubation 24-26h at 30±1°C

Secondary enrichment :
1mL enriched primary broth
+
10 mL of FRASER broth

↓ Incubation 24-26h at 30±1°C

Possibility to store the broth at 2-8°C for:
- 24 hours (VIDAS testing)
- 48 hours (confirmation)

VIDAS LMO2

Confirmation of positive results :

- On PALCAM or Oxford: the characteristic colonies are confirmed using the tests set out in the methods standardized by CEN or ISO,
- On a chromogenic agar according to Ottaviani Agosti: the presence of typical *Listeria monocytogenes* colonies is sufficient to confirm the VIDAS LMO2 result.

APPENDIX A
VIDAS LMO2 method – News protocols

125 g of sample +
1125 ml of pre-warmed LX broth

Incubation at 30±1°C for 22 at 26 h for Dairy products (excluding raw milk)

Incubation at 30±1°C for 26 at 30 h for Infant formula and cereals

Transfer of 0.1 ml in 6 ml of LX broth

Incubation at 30±1°C for 22 at 26 h

Transfer 0,5 ml at LX broth in VIDAS LMO2 test

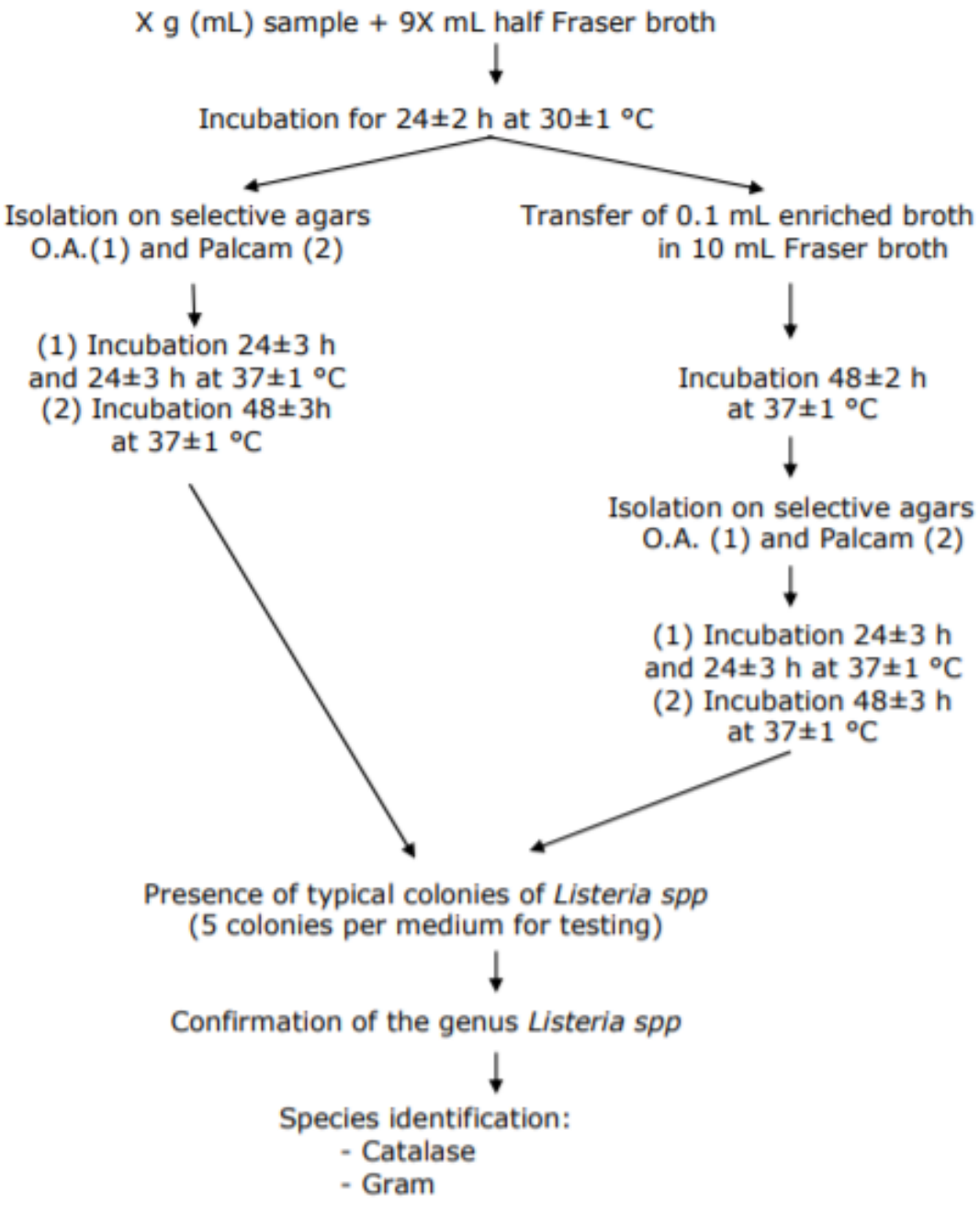
Confirmation at positive result
Streaking on agar *Listeria* according to Ottaviani and Agosti and PALCAM or OXFORD agar the LX broth

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

Typical colonies confirmed:
- by the confirmation tests of the ISO 11290-1/A1 method, including the purification step,
- the presence of typical colonies after isolation of the enrichment broth on chromogenic agar certified NF VALIDATION is sufficient to confirm the presence of *L. monocytogenes*.

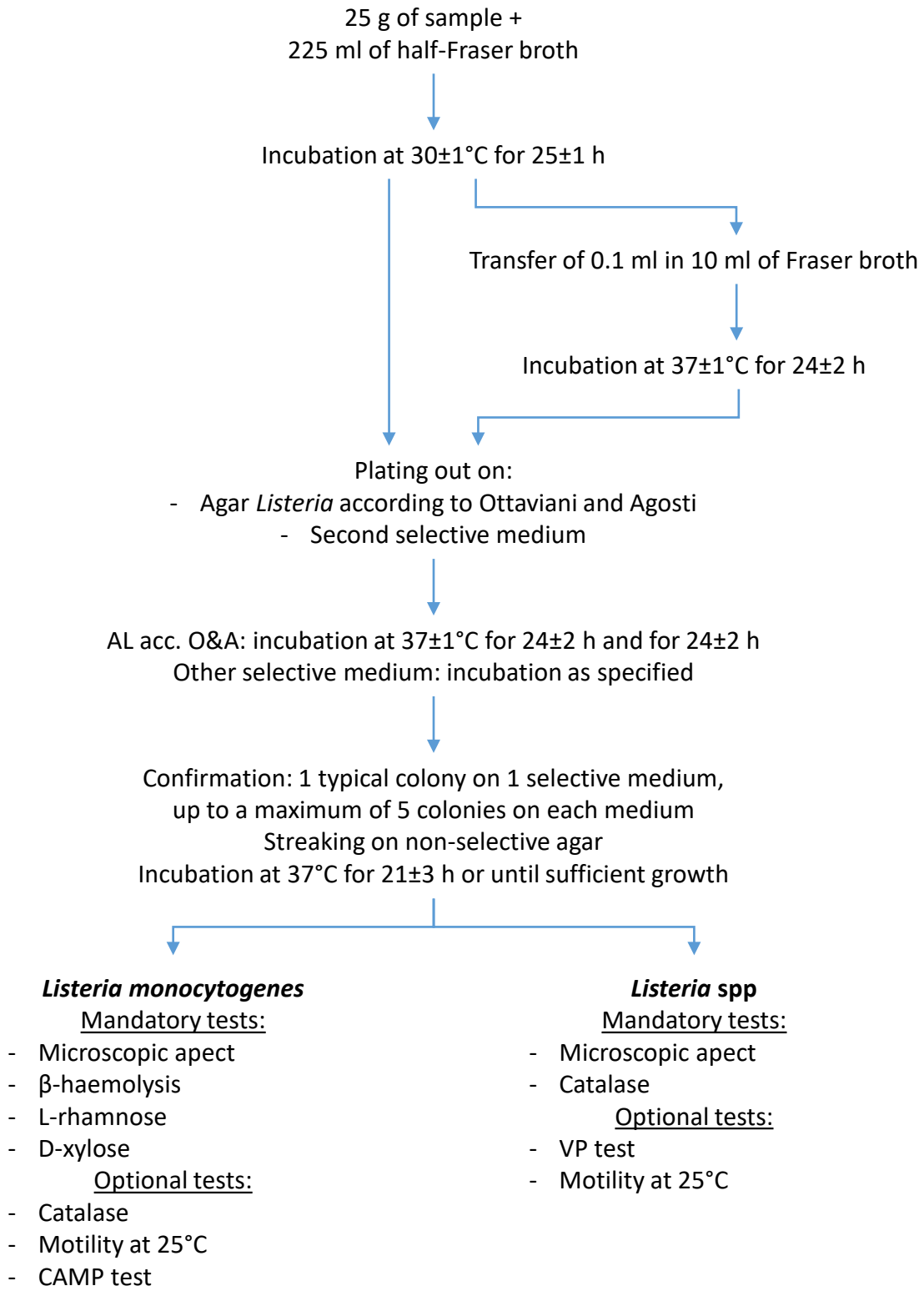
APPENDIX B : Protocol of the reference method

EN ISO 11290-1/A1 : 2005



APPENDIX B
EN ISO 11290-1:2017

Diagram of the procedure as described in the standard



Category	Type	Sample number	Sample	Code strain	*Strain*	Origin	Protocol of stress	Inoculation level (CFU/25g)	Global result
Meat products	**m1**	M1	Kidneys in Madeira sauce	L44	*L. mono ½ a*	Dried sausage	Spiking - 50 min at 55°C, 35 min at -80°C	7,2	+
	m1	M2	Pork spring rolls	L44	*L. mono ½ a*	Dried sausage	Spiking - 50 min at 55°C, 35 min at -80°C	4,5	+
	m1	M3	Chicken wings	L44	*L. mono ½ a*	Dried sausage	Spiking - 50 min at 55°C, 35 min at -80°C	2,7	+
	m1	M6	Breaded meat stuffed with cheese	L44	*L. mono ½ a*	Dried sausage	Spiking - 50 min at 55°C, 35 min at -80°C	4,5	+
	m1	M7	Sautéed pork with sauce	L44	*L. mono ½ a*	Dried sausage	Spiking - 50 min at 55°C, 35 min at -80°C	2,7	+
	m1	N1	Basque-style chicken	L10	*L. mono ½ a*	Rillettes	Spiking - 50 min at 55°C, 35 min at -80°C	12,3	+
	m1	N2	Meat with bolognese sauce	L10	*L. mono ½ a*	Rillettes	Spiking - 50 min at 55°C, 35 min at -80°C	9,8	+
	m1	1	Chicken baked with vegetable	LIS.4.27	*L. mono ½ a*	Ground beef	Seeding - 48h at 5±3 °C	2.4	+
	m1	3	Beef with potatoes	LIS.4.27	*L. mono ½ a*	Ground beef	Seeding - 48h at 5±3 °C	2.4	+
	m2	M4	Blood sausage	L44	*L. mono ½ a*	Dried sausage	Spiking - 50 min at 55°C, 35 min at -80°C	4,5	-
	m2	M5	Rillettes	L44	*L. mono ½ a*	Dried sausage	Spiking - 50 min at 55°C, 35 min at -80°C	7,2	+
	m2	M30	Sausages	L44	*L. mono ½ a*	Dried sausage	Spiking - 50 min at 55°C, 35 min at -80°C	4,5	+
	m2	N3	Cooked merguez sausage	L10	*L. mono ½ a*	Rillettes	Spiking - 50 min at 55°C, 35 min at -80°C	9,8	+
	m2	N4	Rillettes	L10	*L. mono ½ a*	Rillettes	Spiking - 50 min at 55°C, 35 min at -80°C	6,2	+
	m2	O10	Frankfurter sausage	L15	*L. mono ½ c*	Beef	Spiking - 50 min at 55°C, 35 min at -80°C	16,8	+
	m2	O11	Cervelas sausage	L15	*L. mono ½ c*	Beef	Spiking - 50 min at 55°C, 35 min at -80°C	12,6	+
	m2	O12	Cervelas sausage with mustard	L49	*L. mono ½ b*	Chicken liver mousse	Spiking - 50 min at 55°C, 35 min at -80°C	1,2	+
	m2	O13	Alsace sausage	L49	*L. mono ½ b*	Chicken liver mousse	Spiking - 50 min at 55°C, 35 min at -80°C	0,8	-
	m2	O14	Cervelas sausage	L49	*L. mono ½ b*	Chicken liver mousse	Spiking - 50 min at 55°C, 35 min at -80°C	0,9	+
	m2	Q9	Country-style pâté	L53	*L. mono ½ c*	Minced beef burger	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	5,7	+
	m2	Q10	Ham	L53	*L. mono ½ c*	Minced beef burger	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	7,6	+
	m2	R12	Cervelas sausage	L53	*L. mono ½ c*	Minced beef burger	Spiking - 50 min at 55°C, 35 min at -80°C	2,7	-
	m2	5	Francfort sausages	LIS.4.26	*L. mono 1/2a*	Ham	Seeding - 48h at 5±3 °C	2.2	+
Dairy products	**d1**	K11	Brie cheese	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	3.2	+
	d1	K14	Slices of Holland cheese	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	2	-
	d1	M22	Pasteurized St Nectaire cheese	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	0.2	-
	d1	M23	Young Gouda cheese	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	0.3	-
	d1	O15	Pasteurized St Nectaire cheese	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	4.5	+
	d1	O16	Mimolette cheese	L7	*L. mono ½ a*	Munster cheese rind	Spiking - 50 min at 55°C, 35 min at -80°C	11.2	+
	d1	O17	Époisses cheese	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	2.7	+
	d1	P5	Pasteurized Tomme cheese	L18	*L. mono ½ c*	Munster cheese rind	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	11	-
	d1	P6	Brin de paille cheese	L51	/	/	/	ND	-
	d1	P7	Époisses cheese	L51	/	/	/	ND	-
	d1	Q3	Pasteurized brie cheese	L32	*L. mono 4b*	Munster cheese rind	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	<1	-
	d1	Q4	Camembert	L32	*L. mono 4b*	Munster cheese rind	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	<1	-
	d1	R1	Carré de l'Est cheese	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	6.4	-
	d1	R2	Brie cheese	L18	*L. mono ½ c*	Munster cheese rind	Spiking - 50 min at 55°C, 35 min at -80°C	0.2	-
	d1	R3	Époisses cheese	L18	*L. mono ½ c*	Munster cheese rind	Spiking - 50 min at 55°C, 35 min at -80°C	0.3	-
	d1	R7	Camembert	mixture with naturally contaminated raw milk					-
	d1	R8	Époisses cheese	mixture with naturally contaminated raw milk					-
	d1	S2	Camembert	L37	*L. mono ½ b*	Maroilles cheese (raw milk)	Spiking - 50 min at 55°C, 35 min at -80°C	4	+
	d1	S3	Munster cheese (pasteurized milk)	L32	*L. mono 4b*	Munster cheese rind	Spiking - 50 min at 55°C, 35 min at -80°C	7.6	+
	d1	9	Cow cheese	LIS .4.23	*L. mono ½ a*	Fresh cheese	Seeding - 48h at 5±3 °C	2.0	+
	d1	11	Cow cheese	LIS .4.23	*L. mono ½ a*	Fresh cheese	Seeding - 48h at 5±3 °C	2.0	+

Category	Type	Sample number	Sample	Code strain	*Strain*	Origin	Protocol of stress	Inoculation level (CFU/25g)	Global result
Dairy products	**d1**	13	Saint Nectaire	LIS .4.23	*L. mono ½ a*	Fresh cheese	Seeding - 48h at 5±3 °C	2.0	+
	d2	J1	Pasteurized goat's cheese	L7	*L. mono ½ a*	Munster cheese rind	Spiking - 50 min at 55°C, 35 min at -80°C	0.2	-
	d2	J2	Petit Billy goat's cheese	L37	*L. mono ½ b*	Maroilles cheese made with raw milk	Spiking - 50 min at 55°C, 35 min at -80°C	0.9	-
	d2	J3	Etorki cheese	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	2.6	+
	d2	K17	Pasteurized goat's cheese log	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	3.2	+
	d2	M24	Pasteurized goat's cheese log	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	0.3	-
	d2	O18	Petit Billy goat's cheese	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	2.7	+
	d2	O20	Goat's cream cheese	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	3.6	+
	d2	P8	Limousin goat's cheese	L18	*L. mono ½ c*	Munster cheese rind	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	8.3	-
	d2	P9	Pasteurized goat's cheese log	L18	*L. mono ½ c*	Munster cheese rind	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	5.5	-
	d2	P10	Pasteurized goat's cheese log	L51	*L. mono ½ b*	Matured Germain cheese	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	ND	-
	d2	P11	Petit Billy goat's cheese	L51	*L. mono ½ b*	Matured Germain cheese	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	ND	-
	d2	Q1	Pasteurized goat's cheese log	L32	*L. mono 4b*	Munster cheese rind	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	<1	-
	d2	Q2	Pasteurized goat's cheese log	L32	*L. mono 4b*	Munster cheese rind	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	<1	-
	d2	R4	Petit Billy goat's cheese	L18	*L. mono ½ c*	Munster cheese rind	Spiking - 50 min at 55°C, 35 min at -80°C	0.2	-
	d2	R5	Pasteurized goat's cheese log	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	6.4	-
	d2	R6	Pasteurized goat's cheese	L18	*L. mono ½ c*	Munster cheese rind	Spiking - 50 min at 55°C, 35 min at -80°C	0.2	-
	d2	R9	Petit Billy goat's cheese	mixture with naturally contaminated raw milk					-
	d2	R10	Chabichou goat's cheese	mixture with naturally contaminated raw milk					+
	d2	S5	Chabichou goat's cheese	L37	*L. mono ½ b*	Maroilles cheese (raw milk)	Spiking - 50 min at 55°C, 35 min at -80°C	4.0	+
	d2	S6	St Maure cheese	L32	*L. mono 4b*	Munster cheese rind	Spiking - 50 min at 55°C, 35 min at -80°C	11.4	+
	d2	S7	Pasteurized goat's cheese	L32	*L. mono 4b*	Munster cheese rind	Spiking - 50 min at 55°C, 35 min at -80°C	7.6	+
	d2	15	Goat cheese	LIS.4.59	*L. mono*	Goat raw milk	Seeding - 48h at 5±3 °C	2.4	+
	d2	17	Ewe cheese	LIS.4.59	*L. mono*	Goat raw milk	Seeding - 48h at 5±3 °C	2.4	+
	d3	K5	Pasteurized milk	L37	*L. mono ½ b*	Maroilles cheese	Spiking - 50 min at 55°C, 35 min at -80°C	20,6	+
	d3	K6	Pasteurized milk	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	3,2	+
	d3	K9	Milk powder	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	4,0	+
	d3	L12	Pasteurized milk	mixture with naturally contaminated Chantilly cream					+
	d3	M20	Pasteurized milk	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	0,2	-
	d3	M21	Pasteurized milk	L62	*L. mono*	Reblochon cheese	Spiking - 50 min at 55°C, 35 min at -80°C	0,1	-
	d3	O21	Egg custard pie	L7	*L. mono ½ a*	Munster cheese rind	Spiking - 50 min at 55°C, 35 min at -80°C	7,0	+
	d3	19	Skimmed milk powder	LIS.4.32	*L. mono ½ b*	Raw milk	Seeding - 48h at 5±3 °C	2.2	+
	d3	21	Skimmed UHT milk	LIS.4.32	*L. mono ½ b*	Raw milk	Seeding - 48h at 5±3 °C	2.2	+
Seafood products	**s1**	M12	Ray wing	L5	*L. mono ½ a*	Smoked salmon lardons	Spiking - 50 min at 55°C, 35 min at -80°C	8,0	+
	s1	M16	Shrimps	L5	*L. mono ½ a*	Smoked salmon lardons	Spiking - 50 min at 55°C, 35 min at -80°C	8,0	+
	s1	M17	Whelks	L5	*L. mono ½ a*	Smoked salmon lardons	Spiking - 50 min at 55°C, 35 min at -80°C	5,0	+
	s1	M18	Crab claws	L5	*L. mono ½ a*	Smoked salmon lardons	Spiking - 50 min at 55°C, 35 min at -80°C	3,0	+
	s1	N5	Crab	L116	*L. mono ½ a*	Fish in cream sauce	Spiking - 50 min at 55°C, 35 min at -80°C	3,1	+
	s1	N6	Shrimp	L124	*L. mono*	Fillet of perch	Spiking - 50 min at 55°C, 35 min at -80°C	6,0	+
	s1	N14	Lobster	L116	*L. mono ½ a*	Fish in cream sauce	Spiking - 50 min at 55°C, 35 min at -80°C	4,3	+
	s1	N15	Sea snails	L124	*L. mono*	Fillet of perch	Spiking - 50 min at 55°C, 35 min at -80°C	7,5	+
	s1	O1	Cooked whelks	L20	*L. mono ½*	Smoked salmon offcuts	Spiking - 50 min at 55°C, 35 min at -80°C	1,4	-
	s1	O2	Shrimp	L20	*L. mono ½*	Smoked salmon offcuts	Spiking - 50 min at 55°C, 35 min at -80°C	1,1	-
	s1	Q5	Shrimps	L12	*L. mono ½ a*	Smoked salmon	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	0,4	-
	s1	Q6	Shrimps	L12	*L. mono ½ a*	Smoked salmon	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	0,3	-

Category	Type	Sample number	Sample	Code strain	*Strain*	Origin	Protocol of stress	Inoculation level (CFU/25g)	Global result
Seafood products	**s1**	R13	Vacuum-packed crayfish tails	L12	*L. mono ½ a*	Smoked salmon	Spiking - 50 min at 55°C, 35 min at -80°C	0,5	-
	s1	R14	Peeled shrimps	L12	*L. mono ½ a*	Smoked salmon	Spiking - 50 min at 55°C, 35 min at -80°C	0,8	+
	s1	T2	Crab	L20	*L. mono ½*	Smoked salmon offcuts	Spiking - 50 min at 55°C, 35 min at -80°C	ND	-
	s1	T3	Shrimps	L20	*L. mono ½*	Smoked salmon offcuts	Spiking - 50 min at 55°C, 35 min at -80°C	ND	-
	s2	N11	Salmon terrine	L116	*L. mono ½ a*	Fish in cream sauce	Spiking - 50 min at 55°C, 35 min at -80°C	3,1	+
	s2	N12	Crab terrine	L124	*L. mono*	Fillet of perch	Spiking - 50 min at 55°C, 35 min at -80°C	3,8	+
	s2	O3	Salmon terrine	L20	*L. mono ½*	Smoked salmon offcuts	Spiking - 50 min at 55°C, 35 min at -80°C	1,1	-
	s2	O4	Salmon terrine with pistachios	L20	*L. mono ½*	Smoked salmon offcuts	Spiking - 50 min at 55°C, 35 min at -80°C	0,8	-
	s2	O5	Tuna terrine	L20	*L. mono ½ a*	Smoked salmon offcuts	Spiking - 50 min at 55°C, 35 min at -80°C	0,7	+
	s2	P1	Potted seafood	L20	*L. mono ½*	Smoked salmon offcuts	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	3,8	-
	s2	P2	Salmon terrine with crème fraîche	L20	*L. mono ½ a*	Smoked salmon offcuts	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	3,8	+
	s2	P3	Salmon terrine with vegetables	L20	*L. mono ½ a*	Smoked salmon offcuts	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	2,5	+
	s2	Q7	Salmon rillette	L12	*L. mono ½ a*	Smoked salmon	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	0,2	-
	s2	Q8	Salmon terrine	L12	*L. mono ½ a*	Smoked salmon	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	0,3	+
	s2	R15	Terrine of scallops	L12	*L. mono ½ a*	Smoked salmon	Spiking - 50 min at 55°C, 35 min at -80°C	0,4	+
	s3	M13	Salmon steak with sorrel sauce	L5	*L. mono ½ a*	Smoked salmon lardons	Spiking - 50 min at 55°C, 35 min at -80°C	5,0	+
	s3	M14	Waterzooi fish stew	L5	*L. mono ½ a*	Smoked salmon lardons	Spiking - 50 min at 55°C, 35 min at -80°C	5,0	+
	s3	M15	Salmon paupiette	L5	*L. mono ½ a*	Smoked salmon lardons	Spiking - 50 min at 55°C, 35 min at -80°C	3,0	+
	s3	M25	Scallops in cream sauce	L5	*L. mono ½ a*	Smoked salmon lardons	Spiking - 50 min at 55°C, 35 min at -80°C	5,0	-
	s3	N7	Scallops in bechamel cream sauce	L116	*L. mono ½ a*	Fish in cream sauce	Spiking - 50 min at 55°C, 35 min at -80°C	5,0	-
	s3	N8	Waterzooi fish stew	L116	*L. mono ½ a*	Fish in cream sauce	Spiking - 50 min at 55°C, 35 min at -80°C	3,1	+
	s3	N9	Curried fish kebab	L124	*L. mono*	Fillet of perch	Spiking - 50 min at 55°C, 35 min at -80°C	6,0	+
	s3	N10	Tuna salad	L124	*L. mono*	Fillet of perch	Spiking - 50 min at 55°C, 35 min at -80°C	7,5	+
	s3	N13	Fish tagine	L116	*L. mono ½ a*	Fish in cream sauce	Spiking - 50 min at 55°C, 35 min at -80°C	3,7	+
	s3	O6	Tuna mayonnaise	L20	*L. mono ½*	Smoked salmon offcuts	Spiking - 50 min at 55°C, 35 min at -80°C	1,1	-
	s3	O7	Seafood paella	L20	*L. mono ½*	Smoked salmon offcuts	Spiking - 50 min at 55°C, 35 min at -80°C	1,1	+
	s3	P4	Minced tuna with peppers	L20	*L. mono ½*	Smoked salmon offcuts	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	5,0	-
	s3	R16	Fish fillet with sauce	L12	*L. mono ½ a*	Smoked salmon	Spiking - 50 min at 55°C, 35 min at -80°C	0,5	+
	s3	27	Salmon with sorrel sauce	LIS.4.83	*L. mono*	Fish with lemon sauce and rice	Seeding - 48h at 5±3 °C	2.6	+
Vegetal products	**v1**	O25	Cooked potatoes	L47	*L. mono ½ a*	Fried potatoes	Spiking - 50 min at 55°C, 35 min at -80°C	0,7	-
	v1	O26	Frozen fries	L47	*L. mono ½ a*	Fried potatoes	Spiking - 50 min at 55°C, 35 min at -80°C	0,9	-
	v1	R17	Frozen fries	L125	*L. mono*	Pan-fried vegetables	Spiking - 50 min at 55°C, 35 min at -80°C	ND	-
	v1	R20	Fried potatoes	mixture with naturally contaminated rice					+
	v1	R21	Frozen fries	mixture with naturally contaminated rice					+
	v1	S10	Frozen fries	L58	*L. mono 4b*	Salad	Spiking - 50 min at 55°C, 35 min at -80°C	3,6	+
	v2	N16	Pan-fried Mediterranean vegetables	L125	*L. mono*	Pan-fried vegetables	Spiking - 50 min at 55°C, 35 min at -80°C	5,6	+
	v2	N17	Pan-fried mushrooms and vegetables	L125	*L. mono*	Pan-fried vegetables	Spiking - 50 min at 55°C, 35 min at -80°C	7,0	-
	v2	N18	Pan-fried Mediterranean vegetables	L129	*L. mono ½ a*	Fried potatoes	Spiking - 50 min at 55°C, 35 min at -80°C	<1	-
	v2	N19	Mixed vegetables	L129	*L. mono ½ a*	Fried potatoes	Spiking - 50 min at 55°C, 35 min at -80°C	<1	-
	v2	N20	Creamed spinach	L125	*L. mono*	Pan-fried vegetables	Spiking - 50 min at 55°C, 35 min at -80°C	7,0	-
	v2	N23	Courgette with provençal sauce	L129	*L. mono ½ a*	Fried potatoes	Spiking - 50 min at 55°C, 35 min at -80°C	<1	-
	v2	O23	Pan-fried mushrooms and vegetables	L47	*L. mono ½ a*	Fried potatoes	Spiking - 50 min at 55°C, 35 min at -80°C	0,7	-
	v2	P12	Pan-fried mushrooms and vegetables	mixture with naturally contaminated rice					+
	v2	P16	Pan-fried "Romaine" vegetables	L47	*L. mono ½ a*	Fried potatoes	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	8,0	+
	v2	P17	Vegetables for casserole	mixture with naturally contaminated rice					+

Category	Type	Sample number	Sample	Code strain	*Strain*	Origin	Protocol of stress	Inoculation level (CFU/25g)	Global result
Vegetal products	**v2**	P18	Diced mixed vegetables	mixture with naturally contaminated rice					+
	v2	Q11	Mixed vegetables	L58	*L. mono 4b*	Salad	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	2,4	-
	v2	Q12	Ratatouille	L58	*L. mono 4b*	Salad	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	1,8	-
	v2	R22	Ratatouille	mixture with naturally contaminated rice					+
	v2	R23	Mixed vegetables	mixture with naturally contaminated rice					+
	v2	R25	Provencal mixed vegetables	L125	*L. mono*	Pan-fried vegetables	Spiking - 50 min at 55°C, 35 min at -80°C	ND	-
	v2	R26	Vichy carrots	L125	*L. mono*	Pan-fried vegetables	Spiking - 50 min at 55°C, 35 min at -80°C	ND	-
	v2	T4	Zucchini	L129	*L. mono ½ a*	Fried potatoes	Spiking - 50 min at 55°C, 35 min at -80°C	ND	-
	v3	N21	Saffron rice with baby vegetables	L125	*L. mono*	Pan-fried vegetables	Spiking - 50 min at 55°C, 35 min at -80°C	5,6	-
	v3	N22	Creole rice	L125	*L. mono*	Pan-fried vegetables	Spiking - 50 min at 55°C, 35 min at -80°C	3,5	+
	v3	N24	Green bean purée	L129	*L. mono ½ a*	Fried potatoes	Spiking - 50 min at 55°C, 35 min at -80°C	<1	-
	v3	O22	Frozen leek and carrot patties	L47	*L. mono ½ a*	Fried potatoes	Spiking - 50 min at 55°C, 35 min at -80°C	0,9	-
	v3	O24	Tuscan purée	L47	*L. mono ½ a*	Fried potatoes	Spiking - 50 min at 55°C, 35 min at -80°C	0,4	-
	v3	P13	Frozen broccoli patties	mixture with naturally contaminated rice					+
	v3	P14	Frozen cauliflower and carrot patties	mixture with naturally contaminated rice					+
	v3	P15	Frozen leek and carrot patties	L47	*L. mono ½ a*	Fried potatoes	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	16,0	+
	v3	P20	Tuscan purée	L47	*L. mono ½ a*	Fried potatoes	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	8,0	+
	v3	P21	Wheat	L47	*L. mono ½ a*	Fried potatoes	Spiking - 24 hrs at 4°C, 50 min at 55°C, 30 min at -80°C	16,0	+
	v3	R24	Frozen peas	L125	*L. mono*	Pan-fried vegetables	Spiking - 50 min at 55°C, 35 min at -80°C	ND	-
	v3	S11	Broccoli and carrot patties	L58	*L. mono 4b*	Salad	Spiking - 50 min at 55°C, 35 min at -80°C	2,4	-
	v3	29	Long grain rice	LIS.4.17	*L. mono 1/2a*	Crudeness	Seeding - 48h at 5±3 °C	2.4	+
	v3	33	Leek, carrot, potatoes cake	LIS.4.17	*L. mono 1/2a*	Crudeness	Seeding - 48h at 5±3 °C	2.4	+
Environ-mental sample	**e1**	35	Processed water 1	LIS.4.2	*L. mono*	Environment	Seeding - 48h at 5±3 °C	2.2	+
	e1	37	Processed water 2	LIS.4.2	*L. mono*	Environment	Seeding - 48h at 5±3 °C	2.2	+
	e2	E4	Surface sponge	L28	*L. mono 1/2a*	Surface sponge	Spiking - 50 min at 55°C, 35 min at -80°C	2,2	+
	e2	E5	Surface sponge	L28	*L. mono 1/2a*	Surface sponge	Spiking - 50 min at 55°C, 35 min at -80°C	4,4	+
	e3	39	Residue 1	LIS.4.44	*L. mono 3a*	Surface control	Seeding - 48h at 5±3 °C	2.4	+
	e3	41	Residue 2	LIS.4.44	*L. mono 3a*	Surface control	Seeding - 48h at 5±3 °C	2.4	+

APPENDIX C - Artificial contaminations (extension results)

#	Sample name	Category	Type	Strain			Injury protocol				Result
				Strain	Code	Origin	Type of stress	Applied stress	Delta log	Level (CFU/test portion)	
1977823	Raw milk cow cheese (Tomme)	Dairy products excluding raw milk	a	*L.monocytogenes 1/2b ou 3b ou 7*	BMU793	Raw milk dairy products	Seeding	72h at 4°C	/	2,0	+
1977824	Raw milk cow cheese (Abondancee)		a	*L.monocytogenes 1/2b ou 3b ou 7*	BMU793	Raw milk dairy products	Seeding	72h at 4°C	/	2,0	+
1977825	Raw milk cow cheese (Brie de Meaux)		a	*L.monocytogenes 1/2b ou 3b ou 7*	BMU793	Raw milk dairy products	Seeding	72h at 4°C	/	2,0	+
1977826	Raw milk cow cheese (Morbier)		a	*L.monocytogenes 1/2a ou 3a*	BLV059	Raw milk cheese	Seeding	72h at 4°C	/	2,2	-
1977827	Raw milk cow cheese (Chabichou)		a	*L.monocytogenes 1/2a ou 3a*	BLV059	Raw milk cheese	Seeding	72h at 4°C	/	2,2	+
1977828	Raw milk cow cheese (Roquefort)		a	*L.monocytogenes 1/2a ou 3a*	BLV059	Raw milk cheese	Seeding	72h at 4°C	/	2,2	+
2067968	Raw milk ewe cheese (Roquefort)		a	*L.monocytogenes 4d*	GCQ471	Raw milk cheese	Seeding	72h at 4°C	/	2,8	+
2067969	Raw milk goat cheese (Ste Maure)		a	*L.monocytogenes 4d*	GCQ471	Raw milk cheese	Seeding	72h at 4°C	/	2,8	+
2067970	Raw milk cow cheese (Camembert)		a	*L.monocytogenes 4d*	GCQ471	Raw milk cheese	Seeding	72h at 4°C	/	2,8	+
1977542	Pasteurized cow cheese (Munster)		b	*L.monocytogenes 1/2b*	CLM641	Raw milk cheese	Seeding	72h at 4°C	/	1,8	+
1977545	Pasteurized cow cheese with pepper		b	*L. monocytogenes 1/2a ou 3a - L.welshimeri*	FKZ497 - GLX736	Tartiflette brusheta - Infant formula industry	Seeding	72h at 4°C	/	1,6/2,2	+
1977546	Pasteurized sheep cheese		b	*L. monocytogenes 1/2a ou 3a - L.welshimeri*	FKZ497 - GLX736	Tartiflette brusheta - Infant formula industry	Seeding	72h at 4°C	/	1,6/2,2	+
1977547	Pasteurized cow cheese (Brie)		b	*L. monocytogenes 1/2a ou 3a - L.welshimeri*	FKZ497 - GLX736	Tartiflette brusheta - Infant formula industry	Seeding	72h at 4°C	/	1,6/2,2	+
1977548	Pasteurized sheep cheese (Bleu)		b	*L.monocytogenes 1/2a ou 3a*	FMJ325	Thermized milk cheese	Seeding	72h at 4°C	/	1,8	+
1977549	Pasteurized cow cheese (Merzer)		b	*L.monocytogenes 1/2a ou 3a*	FMJ325	Thermized milk cheese	Seeding	72h at 4°C	/	1,8	+
1977550	Pasteurized sheep cheese		b	*L.monocytogenes 1/2a ou 3a*	FMJ325	Thermized milk cheese	Seeding	72h at 4°C	/	1,8	+
1977551	Pasteurized cow cheese		b	*L.monocytogenes 1/2a ou 3a*	FMJ325	Thermized milk cheese	Seeding	72h at 4°C	/	1,8	+
1977555	Powdered whey		c	*L. monocytogenes 4b - L.innocua*	HBP652 - GPQ140	Raw milk cheese - Milk powder industry	Spiking	15 min at 56°C	1.63 / 1.26	4,8/4,0	+
1977557	Skimmed milk powder		c	*L.monocytogenes 1/2b ou 3b ou 7*	FLD375	Feta cheese	Spiking	15 min at 56°C	1,81	4,6	+
1977558	Goat milk powder		c	*L.monocytogenes 1/2b ou 3b ou 7*	FLD375	Feta cheese	Spiking	15 min at 56°C	1,81	4,6	+
1977559	Powdered caseinate		c	*L.monocytogenes 1/2b ou 3b ou 7*	FLD375	Feta cheese	Spiking	15 min at 56°C	1,81	4,6	+
1977581	Powdered whole milk		c	*L.monocytogenes 1/2b*	JAR249	Pasteurized milk cheese	Spiking	15 min at 56°C	1,03	4,0	+
1977582	Skimmed milk powder		c	*L.monocytogenes 1/2b*	JAR249	Pasteurized milk cheese	Spiking	15 min at 56°C	1,03	4,0	+
1977584	Powdered buttermilk		c	*L.monocytogenes 4b*	LAS822	Raw milk cheese	Spiking	15 min at 56°C	0,80	4,4	+
1977585	Semi-skimmed milk powder		c	*L.monocytogenes 4b*	LAS822	Raw milk cheese	Spiking	15 min at 56°C	0,80	4,4	+
1977577	Whey permeat		c	*L.monocytogenes 1/2a ou 3a*	GND673	Environment dairy industry	Spiking	15 min at 56°C	0,85	4,4	-
1977578	Organic skimmed milk powder		c	*L.monocytogenes 1/2a ou 3a*	GND673	Environment dairy industry	Spiking	15 min at 56°C	0,85	4,4	-
1977583	Whey permeat		c	*L.monocytogenes 1/2b*	JAR249	Pasteurized milk cheese	Spiking	15 min at 56°C	1,03	4,0	-
2067971	Whey permeate		c	*L.monocytogenes 1/2a ou 3a*	FKZ497	Tartiflette brushetta	Spiking	15 min at 56°C	1,12	4,2	+
2067972	Powdered buttermilk		c	*L.monocytogenes 1/2a ou 3a*	FKZ497	Tartiflette brushetta	Spiking	15 min at 56°C	1,12	4,2	+
2067973	Ewe whole milk powder		c	*L.monocytogenes 1/2a ou 3a*	FKZ497	Tartiflette brushetta	Spiking	15 min at 56°C	1,12	4,2	+
1977560	Baby milk powder 0-6 months	Powdered Infant Formula and cereals	a	*L.innocua - L.monocytogenes 1/2b ou 3b ou 7*	GRR943 - BMU793	Environment dairy industry - Fresh cream with raw milk	Spiking	15 min at 56°C	1.40 / 1.29	2,8/3,0	+
1977561	Baby milk powder 6-12 months batch 1		a	*L.innocua - L.monocytogenes 1/2b ou 3b ou 7*	GRR943 - BMU793	Environment dairy industry - Fresh cream with raw milk	Spiking	15 min at 56°C	1.40 / 1.29	2,8/3,0	+
1977562	Baby milk powder 1-3 years batch 1		a	*L.innocua - L.monocytogenes 1/2b ou 3b ou 7*	GRR943 - BMU793	Environment dairy industry - Fresh cream with raw milk	Spiking	15 min at 56°C	1.40 / 1.29	2,8/3,0	+
1977563	Baby growth milk powder 1-3 years		a	*L.innocua - L.monocytogenes 1/2a ou 3a*	GLE603 - BLV059	Environment dairy industry - Raw milk cheese	Spiking	15 min at 56°C	1.28 / 1.15	3,0/4,0	+
1977564	Baby goat milk powder 1- 3 years		a	*L.innocua - L.monocytogenes 1/2a ou 3a*	GLE603 - BLV059	Environment dairy industry - Raw milk cheese	Spiking	15 min at 56°C	1.28 / 1.15	3,0/4,0	+
1977565	Baby milk powder 1-3 years batch 2		a	*L.innocua - L.monocytogenes 1/2a ou 3a*	GLE603 - BLV059	Environment dairy industry - Raw milk cheese	Spiking	15 min at 56°C	1.28 / 1.15	3,0/4,0	+
1977568	Junior baby milk powder + 18 months		a	*L.monocytogenes 1/2a*	PCA920	Environment dairy industry	Spiking	15 min at 56°C	0,57	4,0	+
1977567	Baby milk powder thickened formula 6-12 months		a	*L.monocytogenes 1/2a*	PCA920	Environment dairy industry	Spiking	15 min at 56°C	0,57	4,0	+
1977569	Baby milk powder 6-12 months LOT 2		a	*L.monocytogenes 1/2a*	PCA920	Environment dairy industry	Spiking	15 min at 56°C	0,57	4,0	+
1977566	Baby growth milk powder1-3 years		a	*L.monocytogenes 1/2a*	PCA920	Environment dairy industry	Spiking	15 min at 56°C	0,57	4,0	-
2045465	Organic baby milk powder 6-12 months		a	*L.monocytogenes 1/2a ou 3a*	GND673	Environment dairy industry	Spiking	30 min at 60°C	1,73	3,8	+
1977589	Infant milk 1-3 years *Lactobacillus reuteri* DSM 17938 - 5,5 10^6 UFC/g		b	*L.monocytogenes 1/2b*	JAR249	Pasteurized milk cheese	Spiking	15 min at 56°C	1,03	4,0	+
1977590	Organic infant milk 6-12 months *Lactobacillus fermentum hereditum* - 10^6 UFC/g		b	*L.monocytogenes 1/2a*	PCA920	Environment dairy industry	Spiking	15 min at 56°C	1,26	4,0	+
1977591	Organic infant milk 1-3 years *Bifidobactérium lactis* - 2,1 10^7 UFC/g		b	*L.monocytogenes 1/2a*	PCA920	Environment dairy industry	Spiking	15 min at 56°C	1,26	4,0	+
1977592	Infant milk 0-6 months greedy baby *B.Lactis* - 4,5 10^6 UFC/g		b	*L.monocytogenes 4b*	HBP652	Raw milk cheese	Spiking	15 min at 56°C	1,02	4,6	+
1977593	Infant milk 6-12 months *Lactobacillus reuteri* DSM 17938 - 6,1 10^6 UFC/g		b	*L.monocytogenes 4b*	HBP652	Raw milk cheese	Spiking	15 min at 56°C	1,02	4,6	+
1977594	Infant milk 6-12 months *S.thermophilus* - 7,7 10^6 UFC/g		b	*L.monocytogenes 4b*	HBP652	Raw milk cheese	Spiking	15 min at 56°C	1,02	4,6	+
1977595	Infant milk 6-12 months thickened formula Bifidobactéries - 1,6 10^6 UFC/g		b	*L.monocytogenes 4b*	HBP652	Raw milk cheese	Spiking	15 min at 56°C	1,02	4,6	+
1978391	Infant milk 1-3 years *Lactobacillus reuteri* DSM 17938 - 5,4 10^6 UFC/g		b	*L.monocytogenes 1/2a ou 3a*	GND673	Environment dairy industry	Spiking	30 min at 60°C	1,73	3,8	+
1977586	Infant milk 0-6 months thickened formula *B.Lactis* - 4,7 10^6 UFC/g		b	*L.monocytogenes 1/2b*	JAR249	Pasteurized milk cheese	Spiking	15 min at 56°C	1,03	4,0	-
1977587	Infant milk 0-6 months (breastfeeding relay) *Lactobacillus reuteri* DSM 17938 - 4 10^5 UFC/g		b	*L.monocytogenes 4b*	LAS822	Raw milk cheese	Spiking	15 min at 56°C	0,8	4,4	-
1977588	Infant milk 6-12 months thickened formula *Bifidobactérium infantis* - 4,1 10^6 UFC/g		b	*L.monocytogenes 4b*	LAS822	Raw milk cheese	Spiking	15 min at 56°C	0,8	4,4	-
1978390	Organic infant milk 1-3 years *Lactobacillus fermemtum hereditum* CECT5716 - 5,8 10^6 UFC/g		b	*L.monocytogenes 1/2a ou 3a*	GND673	Environment dairy industry	Spiking	30 min at 60°C	1,73	3,8	-

APPENDIX C - Artificial contaminations (extension results)

#	Sample name	Category	Type	Strain			Injury protocol				Result
				Strain	Code	Origin	Type of stress	Applied stress	Delta log	Level (CFU/test portion)	
2067974	Organic infant milk 6-12 months Bifidobacterium infantis - 2,3 10^6 UFC/g	Powdered Infant Formula and cereals	b	*L.monocytogenes 1/2a*	LCM223	Environment dairy industry	Spiking	15 min at 56°C	0,9	4,8	+
2067975	Organic infant milk 0-6 months Bifidobacterium - 9,4 10^5 UFC/g		b	*L.monocytogenes 1/2a*	LCM223	Environment dairy industry	Spiking	15 min at 56°C	0,9	4,8	+
1977742	Infant cereal quinoa banana plum B. lactis 1,1 10^6 CFU/g		c	*L.monocytogenes 4b*	RCJ280	Plants	Spiking	30 min at 60°C	0,73	4	+
1977743	Infant cereals with honey B. lactis 3,4 10^6 CFU/g		c	*L.monocytogenes 4b*	RCJ280	Plants	Spiking	30 min at 60°C	0,73	4	+
1977744	Biscuit flavored infant cereals B. lactis 7 10^5 CFU/g		c	*L.monocytogenes 4b*	RCJ280	Plants	Spiking	30 min at 60°C	0,73	4	+
1977745	Infant cereals with 5 cereals B. lactis 5 10^5 CFU/g		c	*L.monocytogenes 4b*	RCJ280	Plants	Spiking	30 min at 60°C	0,73	4	+
1977746	Whole oat and wheat infant cereals B. lactis 6,8 10^6 CFU/g		c	*L.monocytogenes*	BNX114	Composite feeds	Spiking	15 min at 56°C	1,01	3,4	+
1977747	Infant multi-cereals with exotic fruits		c	*L.monocytogenes*	BNX114	Composite feeds	Spiking	15 min at 56°C	1,01	3,4	+
1977748	Brioche flavored Infant cereals		c	*L.monocytogenes 4b*	RCJ280	Plants	Spiking	30 min at 60°C	0,73	4	+
1977749	Infant vanilla cereals		c	*L.monocytogenes 4b*	LAS822	Raw milk cheese	Spiking	15 min at 56°C	1,72	2,8	-
1977750	Infant chocolate cereals		c	*L.monocytogenes 4b*	LAS822	Raw milk cheese	Spiking	15 min at 56°C	1,72	2,8	+
1977751	Infant caramel cereals		c	*L.monocytogenes 1/2b*	JAR249	Pasteurized milk cheese	Spiking	15 min at 56°C	1,85	2,6	+
1977780	Infant chocolate cereals		c	*L.monocytogenes 1/2a ou 3a*	GND673	Environment dairy industry	Spiking	30 min at 60°C	1,73	3,8	+

Appendix D - Sensitivity study - Raw results

Caption:

sp : spiking
se : seeding
AC : artificial contamination
Level of conta.: level of contamination
mix: contamination by mixture
OAA : Ottaviani & Agosti agar
OX: Oxford agar
PAL: Palcam agar
Chromo: Chromogenic agar
+ : positive result
- : negative result
/ : test not realized
PA : positive agreement
NA : negative agreement
PD : positive deviation
ND : negative deviation

Bacterial load (previous validation)

Ø : absence of colonies
Ø, L, M, H: level of bacterial load from absence to high
A: pure culture of suspected colonies
B: mixing with a majority of suspected colonies
C: mixing with a minority of suspected colonies
D: mixing with rare suspected colonies
E: absence of suspected colonies

Bacterial load (2018 study)

Ø : absence of annex flora
0 / 1 / 2 / 3 / 4 : level of typical flora, from absence to high
Ø / L / M / H : level of annex flora, from absence to high

Meat products

								EN ISO 11290-1 method						VIDAS LMO2 method							
								Half Fraser		Fraser		Confirmation		VIDAS LMO2			Confirmation				
Year	Code	Matrices (french name)	Matrices		Cat.	AC	level of conta.	P1	OX1(2002) OA1(2006, 2018)	P2	OX1/OA2(2002) OA2(2006, 2018)	Identification	Result	RFV	TV	Test result	PAL	OX/Chromo(2002) OAA(2006, 2018)	Identification	Final result	Comparison
2002	2002	Rôti de dindonneau	Roast turkey		m1	No	/	Ø	Ø	-LE	-LE	/	-		0.00	-	/	/	/	-	NA
2006	L6	Tripes à la tomate	Tripe with tomato		m1	No	/	Ø	Ø	Ø	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	L8	Foie gras	Foie gras		m1	No	/	Ø	Ø	Ø	Ø	/	-	-1	0.00	-	/	/	/	-	NA
2006	M4	Boudin noir	Black pudding		m1	sp	4.5	Ø	Ø	Ø	Ø	/	-	1	0.00	-	Ø	Ø	/	-	NA
2006	M26	Escalope de dinde panée	Breaded turkey cutlet		m1	No	/	-LE	-LE	-LE	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	M27	Sauté de porc en sauce	Sautéed pork in sauce		m1	No	/	Ø	-LE	Ø	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	Q15	Bœuf bourguignon	Beef bourguignon		m1	No	/	Ø	Ø	Ø	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	Q16	Escalope de veau à la crème	Escalopes of veal in cream sauce		m1	No	/	Ø	Ø	Ø	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	Q17	Sauté de porc aux légumes	Sautéed pork with vegetables		m1	No	/	Ø	Ø	Ø	Ø	/	-	2	0.00	-	/	/	/	-	NA
2006	Q22	Cervelas rémoulade	Cervelas rémoulade		m1	No	/	Ø	Ø	-LE	-LE	/	-	-1	0.00	-	/	/	/	-	NA
2002	2002	Saucisses de Strasbourg	Sausages from Strasbourg		m2	No	/	-HE	-HE	+HB	+HB / -HE	L.welshimeri	-		0.00	-	/	/	/	-	NA
2002	2002	Pâté	Paté		m2	No	/	+MB	+MB	+MB	-ME / -LE	L.welshimeri	-		0.00	-	/	/	/	-	NA
2002	2002	Noix de jambon	Ham nuts		m2	No	/	+MB	+MB	+HB	+HB / -LE	L.welshimeri	-		0.00	-	/	/	/	-	NA
2002	2002	Pâté de tête	Pâté de tête		m2	No	/	-LE	-ME	Ø	-HE	/	-		0.00	-	/	/	/	-	NA
2002	2002	Jambon	Ham		m2	No	/	Ø	-ME	-LE	-HE	/	-		0.00	-	/	/	/	-	NA
2002	2002	Jambon	Ham		m2	No	/	Ø	-LE	Ø	-HE	/	-		0.00	-	/	/	/	-	NA
2002	2002	Mortadelle	mortadella		m2	No	/	Ø	Ø	-ME	-ME	/	-		0.00	-	/	/	/	-	NA
2006	O13	Saucisse d'Alsace	Sausage of Alsace		m2	sp	0.75	-LE	Ø	Ø	Ø	/	-	1	0.00	-	/	/	/	-	NA
2006	P29	Saucisses de Montbéliard cuites	Cooked Montbéliard sausages		m2	No	/	Ø	Ø	Ø	Ø	/	-	-1	0.00	-	/	/	/	-	NA
2006	Q18	Saucisses de Strasbourg vinaigrette	Sausages of Strasbourg vinaigrette		m2	No	/	Ø	Ø	Ø	-LE	/	-	-3	0.00	-	/	/	/	-	NA
2006	Q20	Cervelas	Wieners		m2	No	/	Ø	Ø	Ø	Ø	/	-	-4	0.00	-	/	/	/	-	NA
2006	Q21	Saucisse de Frankfort	Wiener		m2	No	/	Ø	Ø	-ME	-LE	/	-	0	0.00	-	/	/	/	-	NA
2006	R11	Saucisses de Strasbourg	Sausages from Strasbourg		m2	No	/	-LE	Ø	Ø	-LE	/	-	-2	0.00	-	/	/	/	-	NA
2006	L3	Pâté de tête	Pâté de tête		m2	No	/	+HB	-HA	+HA	-HA	L.innocua	-	-1	0.00	-	/	/	/	-	NA
2006	L4	Mousse de foie	Liver mousse		m2	No	/	Ø	-LE	-ME	-ME	/	-	-2	0.00	-	/	/	/	-	NA
2006	L5	Saucisson sec	Dry sausage		m2	No	/	+LA	-MB	+MB	-HA	L.innocua	-	-2	0.00	-	/	/	/	-	NA
2006	M10	Pâté de tête	Pâté de tête		m2	No	/	-HE	-ME	-HE	-ME	/	-	1	0.00	-	-ME	-ME	/	-	NA
2006	M11	Saucisse à tartiner	Sausage spreads		m2	No	/	-LE	-LE	-HE	-ME	/	-	-1	0.00	-	-HE	-ME	/	-	NA
2006	Q19	Saucisson à l'ail	Garlic sausage		m2	No	/	Ø	Ø	-LE	-LE	/	-	0	0.00	-	/	/	/	-	NA
2006	R12	Cervelas	Wieners		m2	sp	2.7	Ø	Ø	Ø	Ø	/	-	36	0.00	-	/	/	/	-	NA
2018	2	Saussisses de Francfort	Francfort sausages	◊	m2	No	/	0Ø	0L	0Ø	0Ø	/	-	-4	0.00	-	0Ø	0Ø	/	A	NA
2018	4	Saussisses de Strasbourg	Strasbourg sausages	◊	m2	No	/	0Ø	0Ø	0Ø	0Ø	/	-	-5	0.00	-	0Ø	0Ø	/	A	NA
2018	6	Saussisses de poulet	Chicken sausages	◊	m2	No	/	0Ø	0Ø	0Ø	0Ø	/	-	-5	0.00	-	0Ø	0Ø	/	A	NA
2006	L7	Foie gras	Foie gras		m1	No	/	+LA	+MA	+MA	+HA	L.monocytogenes	+	9191	2.29	+	+HA	+HA	L.monocytogenes	+	PA
2006	M3	Ailerons de poulets	Chicken wings		m1	sp	2.7	+LB(5)	+LA(3)	+HB	+MA	L.monocytogenes	+	10027	2.63	+	+HA	+MA	L.monocytogenes	+	PA
2006	M7	Sauté de porc en sauce	Sautéed pork in sauce		m1	sp	2.7	+LA	+LA	+HA	+MA	L.monocytogenes	+	8597	2.25	+	+HA	+MA	L.monocytogenes	+	PA
2006	M2	Nems de porc	Nems of pork		m1	sp	4.5	+MB	+MB	+HB	+MB	L.monocytogenes	+	9152	2.40	+	+MA	+MA	L.monocytogenes	+	PA
2006	M6	Cordons bleus	Blue cords		m1	sp	4.5	+LA	+LA	+HA	+HB	L.monocytogenes	+	9344	2.45	+	+HA	+MA	L.monocytogenes	+	PA
2006	M1	Rognons sauce Madère	Madeira sauce kidneys		m1	sp	7.2	+LA	+LA	+HA	+MA	L.monocytogenes	+	9247	2.42	+	+HA	+HA	L.monocytogenes	+	PA
2006	N2	Viande à la bolognaise	Meat Bolognese		m1	sp	9.84	+MA	+MA	+HA	+MA	L.monocytogenes	+	9041	2.31	+	+HA	+HA	L.monocytogenes	+	PA
2006	N1	Poulet basquaise	Basque chicken		m1	sp	12.3	+MA	+MA	+HA	+HA	L.monocytogenes	+	9121	2.33	+	+HA	+HA	L.monocytogenes	+	PA
2018	1	Poulet cuisiné aux légumes	Chicken baked with vegetable	◊	m1	se	2.4	2h+Ø	2L	3h+Ø	3L	L.monocytogenes	+	11125	2.83	+	3h+Ø	2Ø	L.monocytogenes	+	PA
2018	3	Bœuf à la tomate	Beef with potatoes	◊	m1	se	2.4	2h+Ø	2Ø	2h+Ø	3Ø	L.monocytogenes	+	10899	2.78	+	3h+Ø	3Ø	L.monocytogenes	+	PA
2002	2002	Saucisses de Strasbourg	Sausages from Strasbourg		m2	No	/	+HA	+HA	+HB	+HB	L.monocytogenes	+		1.72	+	+HB	+HB / +HA	L.monocytogenes	+	PA
2002	2002	Saucisses de Strasbourg	Sausages from Strasbourg		m2	No	/	+HA	+HA	+HB	+HB	L.monocytogenes	+		1.90	+	+HB	+HB / +HA	L.monocytogenes	+	PA
2002	2002	Terrine de canard	Duck terrine		m2	No	/	+MA	+MA	+HA	+HA	L.monocytogenes	+		2.38	+	+HA	+HA	L.monocytogenes	+	PA
2002	2002	Tête de porc persillée	Blue pork head		m2	No	/	+MA	+MB	+HA	+HB / +HA	L.monocytogenes	+		2.06	+	+HB	+HB / +HA	L.monocytogenes	+	PA

Meat products

								EN ISO 11290-1 method						VIDAS LMO2 method							
								Half Fraser		Fraser		Confirmation		VIDAS LMO2			Confirmation				
Year	Code	Matrices (french name)	Matrices		Cat.	AC	level of conta.	P1	OX1(2002) OA1(2006, 2018)	P2	OX1/OA2(2002) OA2(2006, 2018)	Identification	Result	RFV	TV	Test result	PAL	OX/Chromo(2002) OAA(2006, 2018)	Identification	Final result	Comparison
2002	2002	Fritons de porc	Pork fries		m2	*No*	/	+HA	+HA	+MB	+MB	*L.monocytogenes L.innocua*	+		2.02	+	+HA	+HA / +HB	*L.monocytogenes L.innocua*	+	PA
2002	2002	Foie gras	Foie gras		m2	*No*	/	+HA	+HB	+HA	+HB / +HA	*L.monocytogenes*	+		1.40	+	+HA	+HB / +HA ; +HC	*L.monocytogenes*	+	PA
2006	O14	Cervelas	Wieners		m2	*sp*	*0.9*	Ø	Ø	Ø	Ø	/	-	1240	0.31	+	+MA	+LA	*L.monocytogenes*	+	PD
2006	O12	Cervelas à la moutarde	Cervelas with mustard		m2	*sp*	*1.2*	+LA(1)	Ø	+HA	+MA	*L.monocytogenes*	+	11158	2.86	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	M30	Saucisses	Sausages		m2	*sp*	*4.5*	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	8579	2.25	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	N3	Merguez cuite	Cooked merguez		m2	*sp*	*9.84*	+MA	+MA	+HA	+MA	*L.monocytogenes*	+	8939	2.29	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	O11	Cervelas	Wieners		m2	*sp*	*12.6*	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	8293	2.12	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	O10	Saucisse de Frankfort	Wiener		m2	*sp*	*16.8*	+MA	+MA	+HA	+MA	*L.monocytogenes*	+	8150	2.09	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	L9	Pâté de campagne	Country pâté		m2	*No*	/	Ø	-LE	+MA	+MA	*L.monocytogenes*	+	0	0.00	-	Ø	Ø	/	-	ND
2006	L2	Saucisse à tartiner	Sausage spreads		m2	*No*	/	+MB	+MB	+HA	+MB	*L.monocytogenes L.innocua*	+	10239	2.55	+	+HA	+MA	*L.monocytogenes L.innocua*	+	PA
2006	M8	Langue en gelée	Tongue in jelly		m2	*No*	/	+MB	+MB	+HC	+MD	*L.monocytogenes*	+	6536	1.71	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	M9	Mousse de foie	Liver mousse		m2	*No*	/	-ME	-ME	+HA	+MA	*L.monocytogenes*	+	11331	2.57	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	Q9	Pâté de campagne	Country pâté		m2	*sp*	*5.7*	+LA	+LB	+MA	+MB	*L.monocytogenes*	+	9262	2.37	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	N4	Rillettes	rillettes		m2	*sp*	*6.15*	+LA	+MA	+HA	+MA	*L.monocytogenes*	+	9108	2.33	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	M5	Rillettes	rillettes		m2	*sp*	*7.2*	+MB	+MB	+HA	+HA	*L.monocytogenes*	+	9709	2.54	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	Q10	Jambon	Ham		m2	*sp*	*7.6*	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	93	0.02	-	-ME	-LE	/	-	ND
2018	5	Saussisses de Francfort	Francfort sausages	◊	m2	*se*	*2.2*	1h+Ø	2Ø	3h+Ø	2Ø	*L.monocytogenes*	+	11434	2.91	+	3h+Ø	2Ø	*L.monocytogenes*	+	PA
2018	7	Saussisses de Strasbourg	Strasbourg sausages	◊	m2	*No*	/	2h+Ø	2Ø	3h+Ø	2Ø	*L.monocytogenes*	+	12029	3.06	+	3h+Ø	3Ø	*L.monocytogenes*	+	PA

Dairy products

								EN ISO 11290-1 method						VIDAS LMO2 method							
								Half Fraser		Fraser		Confirmation		VIDAS LMO2			Confirmation				
Year	Code	Matrices (french name)	Matrices		Cat.	AC	*level of conta.*	P1	OX1(2002) OA1(2006,2 018)	P2	OX1/OA2(2002) OA2(2006, 2018)	Identification	Result	RFV	TV	Test result	PAL	OX/Chromo(2002) OAA(2006, 2018)	Identification	Final result	Comparison
2006	K14	Tranchettes hollande	Dutch slicers		d1	*sp*	*2*	Ø	Ø	-LE	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	Q3	Brie pasteurisé	Pasteurized brie		d1	*sp*	*<1*	Ø	Ø	Ø	-ME	/	-	1	0.00	-	/	/	/	-	NA
2006	Q4	Camembert	Camembert		d1	*sp*	*<1*	Ø	Ø	Ø	Ø	/	-	14	0.00	-	/	/	/	-	NA
2006	R1	Carré de l'Est	Eastern Square		d1	*sp*	*6.4*	-LE	-LE	-ME	-LE	/	-	6	0.00	-	/	/	/	-	NA
2006	R2	Brie	Brie		d1	*sp*	*0.2*	-ME	-ME	-HE	-ME	/	-	2	0.00	-	/	/	/	-	NA
2006	R3	Epoisses	Epoisses		d1	*sp*	*0.3*	-LE	Ø	-LE	-LE	/	-	1	0.00	-	/	/	/	-	NA
2006	M22	St Nectaire pasteurisé	St Nectaire pasteurized		d1	*sp*	*0.2*	-ME	-ME	-LE	Ø	/	-	3	0.00	-	-LE	Ø	/	-	NA
2006	M23	Gouda jeune	Young Gouda		d1	*sp*	*0.32*	-LE	-LE	-LE	Ø	/	-	-2	0.00	-	Ø	Ø	/	-	NA
2006	P5	Tomme pasteurisée	Pasteurized Tomme		d1	*sp*	*11*	Ø	-LE	Ø	-ME	/	-	2	0.00	-	/	/	/	-	NA
2006	P6	Brin de paille	Straw		d1	*sp*	*ND*	Ø	-ME	Ø	-ME	/	-	8	0.00	-	/	/	/	-	NA
2006	P7	Epoisses	Epoisses		d1	*sp*	*ND*	Ø	Ø	-LE	Ø	/	-	1	0.00	-	/	/	/	-	NA
2006	R7	Camembert	Camembert		d1	*sp*	*mix*	-LE	-ME	Ø	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	R8	Epoisses	Epoisses		d1	*sp*	*mix*	Ø	Ø	-ME	-LE	/	-	-1	0.00	-	/	/	/	-	NA
2006	U2	Epoisses	Epoisses		d1	*No*	/	-LE	-LE	-LE	-LE	/	-	1	0.00	-	/	/	/	-	NA
2006	U5	Munster pasteurisé	Pasteurized Munster		d1	*No*	/	Ø	-LE	Ø	Ø	/	-	-5	0.00	-	/	/	/	-	NA
2006	J1	Fromage de chèvre pasteurisé	Pasteurized goat cheese		d2	*sp*	*0.15*	Ø	Ø	Ø	-LE	/	-	-2	0.00	-	/	/	/	-	NA
2006	J2	Petit Billy	Little Billy		d2	*sp*	*0.9*	Ø	Ø	Ø	-LE	/	-	-1	0.00	-	/	/	/	-	NA
2006	L1	Fromage de chèvre frais	Fresh goat cheese		d2	*No*	/	-LE	-LE	-LE	Ø	/	-	-2	0.00	-	-LE	Ø	/	-	NA
2006	M24	Bûche de chèvre pasteurisée	Pasteurized goat's log		d2	*sp*	*0.32*	Ø	Ø	Ø	Ø	/	-	28	0.00	-	Ø	Ø	/	-	NA
2006	P8	Fromage de chèvre du Limousin	Limousin goat cheese		d2	*sp*	*8.25*	Ø	Ø	Ø	Ø	/	-	17	0.00	-	/	/	/	-	NA
2006	P9	Bûche de chèvre pasteurisée	Pasteurized goat's log		d2	*sp*	*5.5*	Ø	Ø	Ø	Ø	/	-	-4	0.00	-	/	/	/	-	NA
2006	P10	Bûche de chèvre pasteurisée	Pasteurized goat's log		d2	*sp*	*ND*	-LE	-LE	-LE	Ø	/	-	10	0.00	-	/	/	/	-	NA
2006	P11	Petit Billy	Little Billy		d2	*sp*	*ND*	Ø	Ø	Ø	-LE	/	-	-1	0.00	-	/	/	/	-	NA
2006	Q1	Bûche de chèvre pasteurisée	Pasteurized goat's log		d2	*sp*	*<1*	Ø	Ø	Ø	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	Q2	Bûche de chèvre pasteurisée	Pasteurized goat's log		d2	*sp*	*<1*	Ø	Ø	Ø	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	R4	Petit Billy	Little Billy		d2	*sp*	*0.16*	Ø	Ø	Ø	Ø	/	-	3	0.00	-	/	/	/	-	NA
2006	R5	Bûche de chèvre pasteurisée	Pasteurized goat's log		d2	*sp*	*6.4*	Ø	Ø	Ø	Ø	/	-	6	0.00	-	/	/	/	-	NA
2006	R6	Fromage de chèvre pasteurisé	Pasteurized goat cheese		d2	*sp*	*0.2*	-LE	-LE	-LE	Ø	/	-	2	0.00	-	/	/	/	-	NA
2006	R9	Petit Billy	Little Billy		d2	*sp*	*mix*	Ø	Ø	Ø	-LE	/	-	-1	0.00	-	/	/	/	-	NA
2006	T8	Fromage de chèvre	Goat cheese		d2	*No*	/	Ø	Ø	Ø	Ø	/	-	-4	0.00	-	/	/	/	-	NA
2006	K1	Chou chantilly	Whipped cream		d3	*No*	/	Ø	Ø	Ø	Ø	/	-	-1	0.00	-	/	/	/	-	NA
2006	K3	Tartelettes cerise	Cherry tartlets		d3	*No*	/	Ø	Ø	Ø	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	K4	Tartelettes fraises	Strawberry tartlets		d3	*No*	/	Ø	Ø	Ø	Ø	/	-	1	0.00	-	/	/	/	-	NA
2006	L11	Tartelette aux fruits	Fruit tartlet		d3	*No*	/	Ø	Ø	-ME	-LE	/	-	8	0.00	-	/	/	/	-	NA
2006	M20	Lait pasteurisé	Pasteurized milk		d3	*sp*	*0.2*	Ø	Ø	-LE	-LE	/	-	-2	0.00	-	Ø	-LE	/	-	NA
2006	M21	Lait pasteurisé	Pasteurized milk		d3	*sp*	*0.12*	Ø	Ø	Ø	Ø	/	-	-2	0.00	-	Ø	Ø	/	-	NA
2018	8	Lait UHT entier	Whole UHT milk	◊	d3	*No*	/	0Ø	0Ø	0Ø	0Ø	/	-	-4	0.00	-	0Ø	0Ø	/	-	NA
2018	10	Lait UHT écrémé	Skimmed UHT milk	◊	d3	*No*	/	0Ø	0Ø	0Ø	0Ø	/	-	-5	0.00	-	0Ø	0Ø	/	-	NA
2018	12	Poudre de lait entier	Whole milk powder	◊	d3	*No*	/	0L	0L	0L	0L	/	-	-4	0.00	-	0L	0L	/	-	NA
2018	14	Poudre de lait écrémé	Skimmed milk powder	◊	d3	*No*	/	0L	0L	0L	0L	/	-	-5	0.00	-	0L	0L	/	-	NA
2006	U1	Epoisses	Epoisses		d1	*No*	/	+LA	+MA	+MA	+MA	*L.monocytogenes*	+	4393	1.13	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	O17	Epoisses	Epoisses		d1	*sp*	*2.7*	+LB(2)	-LE	+MB	+MA	*L.monocytogenes*	+	10006	2.56	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	K11	Brie	Brie		d1	*sp*	*3.2*	+LA	+LA(3)	+HA	+MA	*L.monocytogenes*	+	11013	2.75	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	S2	Camembert	Camembert		d1	*sp*	*4*	+LB	+LB	+MB	+MA	*L.monocytogenes*	+	11461	3.10	+	+HA	+MB	*L.monocytogenes*	+	PA
2006	O15	St Nectaire pasteurisé	St Nectaire pasteurized		d1	*sp*	*4.5*	+LB	+LC(1)	+HA	+MA	*L.monocytogenes*	+	10651	2.73	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	S3	Munster pasteurisé	Pasteurized Munster		d1	*sp*	*7.6*	+LB	+MC	+HA	+MA	*L.monocytogenes*	+	9406	2.54	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	O16	Mimolette	Mimolette		d1	*sp*	*11.2*	-LE	-LE	+HB	+MA	*L.monocytogenes*	+	10521	2.69	+	+HB	+MA	*L.monocytogenes*	+	PA
2018	9	Fromage au lait de vache	Cow cheese	◊	d1	*se*	*2*	2h+L	2h+L	3h+L	3h+L	*L.monocytogenes*	+	7538	1.92	+	2h+Ø	1L	*L.monocytogenes*	+	PA
2018	11	Fromage au lait de vache	Cow cheese	◊	d1	*se*	*2*	2h+L	1h+Ø	2h+L	2h+L	*L.monocytogenes*	+	4854	1.23	+	1h+Ø	1L	*L.monocytogenes*	+	PA
2018	13	Saint Nectaire	Saint Nectaire	◊	d1	*se*	*2*	2h+L	2h+L	3h+L	3h+L	*L.monocytogenes*	+	10533	2.68	+	2h+Ø	2L	*L.monocytogenes*	+	PA
2006	R10	Chabichou	Chabichou		d2	*sp*	*mix*	+LA(1)	Ø	+HA	+MB	*L.monocytogenes*	+	365	0.09	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	J3	Etorki	Etorki		d2	*sp*	*2.6*	+LA(1)	+LB	+HA	+MB	*L.monocytogenes*	+	10964	2.88	+	+MA	+MA	*L.monocytogenes*	+	PA

Dairy products

								EN ISO 11290-1 method						VIDAS LMO2 method							
								Half Fraser		Fraser		Confirmation		VIDAS LMO2			Confirmation				
Year	Code	Matrices (french name)	Matrices		Cat.	*AC*	*level of conta.*	P1	OX1(2002) OA1(2006,2 018)	P2	OX1/OA2(2002) OA2(2006, 2018)	Identification	Result	RFV	TV	Test result	PAL	OX/Chromo(2002) OAA(2006, 2018)	Identification	Final result	Comparison
2006	O18	Petit Billy	Little Billy		d2	*sp*	*2.7*	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	8171	2.09	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	K17	Bûche de chèvre pasteurisée	Pasteurized goat's log		d2	*sp*	*3.2*	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	7984	1.99	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	O20	Crème de chèvre	Goat cream		d2	*sp*	*3.6*	Ø	+LA(2)	+MA	+MA	*L.monocytogenes*	+	8512	2.18	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	S5	Chabichou	Chabichou		d2	*sp*	*4*	+LA	+LA	+HB	+MA	*L.monocytogenes*	+	9157	2.47	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	S7	Chèvre pasteurisé	Pasteurized goat		d2	*sp*	*7.6*	+LA	+LA	+HA	+HA	*L.monocytogenes*	+	9276	2.51	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	S6	Ste Maure	St. Maure		d2	*sp*	*11.4*	+LB	+MA	+HB	+MA	*L.monocytogenes*	+	11370	3.07	+	+MA	+MA	*L.monocytogenes*	+	PA
2018	15	Fromage au lait de chèvre	Goat cheese	◊	d2	*se*	*2.4*	2h+L	3h+Ø	3h+L	4h+L	*L.monocytogenes*	+	12486	3.18	+	2h+Ø	2L	*L.monocytogenes*	+	PA
2018	17	Fromage au lait de brebis	Ewe cheese	◊	d2	*se*	*2.4*	2h+L	2h+L	3h+L	3h+L	*L.monocytogenes*	+	12239	3.12	+	3h+Ø	2L	*L.monocytogenes*	+	PA
2006	K2	Coupe profiteroles	Cup profiteroles		d3	*No*	*/*	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	8534	2.13	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	L10	Coupe profiterolles	Cup profiteroles		d3	*No*	*/*	+MA	+MA	+HA	+MA	*L.monocytogenes*	+	8186	2.04	+	+MA	+HA	*L.monocytogenes*	+	PA
2006	U8	Lait	Milk		d3	*No*	*/*	+MA	+MA	+HA	+MA	*L.monocytogenes*	+	10768	2.78	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	L12	Lait pasteurisé	Pasteurized milk		d3	*sp*	*mix*	+MA	+MA	+HA	+MA	*L.monocytogenes*	+	10143	2.53	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	K6	Lait pasteurisé	Pasteurized milk		d3	*sp*	*3.2*	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	10224	2.55	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	K9	Lait en poudre	Powdered milk		d3	*sp*	*4*	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	8574	2.14	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	O21	Flan aux œufs	Egg flan		d3	*sp*	*7*	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	9841	2.52	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	K5	Lait pasteurisé	Pasteurized milk		d3	*sp*	*20.6*	+MA	+LA	+HA	+MA	*L.monocytogenes*	+	9329	2.32	+	+HA	+MA	*L.monocytogenes*	+	PA
2018	19	Poudre de lait écrémé	Skimmed milk powder	◊	d3	*se*	*2.2*	3h+Ø	2h+L	3h+Ø	3h+Ø	*L.monocytogenes*	+	10520	2.68	+	3h+Ø	3Ø	*L.monocytogenes*	+	PA
2018	21	Lait UHT écrémé	Skimmed UHT milk	◊	d3	*se*	*2.2*	3h+Ø	2h+L	3h+Ø	3h+Ø	*L.monocytogenes*	+	11605	2.96	+	3h+Ø	3Ø	*L.monocytogenes*	+	PA

Seafood products

								EN ISO 11290-1 method						VIDAS LMO2 method							
								Half Fraser		Fraser		Confirmation		VIDAS LMO2			Confirmation				
Year	Code	Matrices (french name)	Matrices		Cat.	AC	*level of conta.*	P1	OX1(2002) OA1(2006,2 018)	P2	OX1/OA2(2002) OA2(2006, 2018)	Identification	Result	RFV	TV	Test result	PAL	OX/Chromo(2002) OAA(2006, 2018)	Identification	Final result	Comparison
2006	L13	Crevettes	shrimps		s1	*No*	/	Ø	-LE	Ø	Ø	/	-	-1	0.00	-	/	/	/	-	NA
2006	L14	Crevettes	shrimps		s1	*No*	/	Ø	Ø	Ø	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	L16	Crevettes	shrimps		s1	*No*	/	Ø	-LE	-LE	-LE	/	-	1	0.00	-	/	/	/	-	NA
2006	M25	Coquilles St Jacques	St Jacques shells		s1	*sp*	*5.0*	Ø	-LE	Ø	Ø	/	-	-1	0.00	-	Ø	Ø	/	-	NA
2006	O1	Bulots cuits	Cooked buds		s1	*sp*	*1.4*	Ø	-LE	Ø	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	O2	Crevettes grises	Grey shrimp		s1	*sp*	*1.1*	Ø	-ME	Ø	Ø	/	-	-1	0.00	-	/	/	/	-	NA
2006	Q5	Gambas	Gambas		s1	*sp*	*0.4*	-ME	-ME	Ø	-ME	/	-	1	0.00	-	/	/	/	-	NA
2006	Q6	Crevettes	shrimps		s1	*sp*	*0.3*	Ø	-LE	-ME	-LE	/	-	-3	0.00	-	/	/	/	-	NA
2006	R13	Queues d'écrevisses sous-vide	Crayfish tails under vacuum		s1	*sp*	*0.5*	Ø	-ME	Ø	-LE	/	-	-2	0.00	-	/	/	/	-	NA
2006	R27	Ecrevisses marinées	Marinated crawfish		s1	*No*	/	-LE	-LE	Ø	Ø	/	-	-3	0.00	-	/	/	/	-	NA
2006	R28	Ecrevisses marinées	Marinated crawfish		s1	*No*	/	-LE	Ø	-LE	-LE	/	-	-3	0.00	-	/	/	/	-	NA
2006	T2	Tourteau	oilcake		s1	*sp*	*ND*	Ø	-LE	Ø	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	T3	Crevettes	shrimps		s1	*sp*	*ND*	-LE	-LE	Ø	-LE	/	-	-2	0.00	-	/	/	/	-	NA
2006	O3	Terrine de saumon	Salmon terrine		s2	*sp*	*1.1*	Ø	Ø	Ø	-LE	/	-	-1	0.00	-	/	/	/	-	NA
2006	O4	Terrine de saumon aux pistaches	Salmon terrine with pistachios		s2	*sp*	*0.8*	Ø	Ø	Ø	Ø	/	-	-1	0.00	-	/	/	/	-	NA
2006	P1	Rillettes de la mer	Rillettes of the sea		s2	*sp*	*3.8*	Ø	Ø	Ø	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	Q23	Terrine de St Jacques	Terrine of St Jacques		s2	*No*	/	Ø	Ø	Ø	Ø	/	-	4	0.00	-	/	/	/	-	NA
2006	Q24	Rillettes de la mer	Rillettes of the sea		s2	*No*	/	Ø	Ø	Ø	Ø	/	-	-3	0.00	-	/	/	/	-	NA
2006	Q25	Terrine St Jacques écrevisses	Terrine St Jacques crayfish		s2	*No*	/	Ø	Ø	Ø	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	Q26	Rillettes de thon	Tuna rillettes		s2	*No*	/	Ø	Ø	Ø	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	Q7	Rillettes de saumon	Salmon Rillettes		s2	*sp*	*0.2*	Ø	Ø	Ø	Ø	/	-	1	0.00	-	/	/	/	-	NA
2018	16	Rillettes de truite	Trout rillette	◊	s2	*No*	/	0L	0L	0Ø	0Ø	/	-	-1	0.00	-	0Ø	0Ø	/	-	NA
2018	18	Rillettes de saumon	Salmon rillette	◊	s2	*No*	/	0L	0L	0Ø	0Ø	/	-	-4	0.00	-	0Ø	0Ø	/	-	NA
2006	P4	Hachis de thon aux poivrons	Tuna hake with peppers		s3	*sp*	*5.0*	Ø	Ø	-ME	Ø	/	-	-1	0.00	-	/	/	/	-	NA
2006	M28	Aile de raie	Skate wing		s3	*No*	/	Ø	-LE	Ø	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	N7	Coquilles St Jacques béchamel	St Jacques scallops bechamel		s3	*sp*	*5.0*	Ø	Ø	Ø	-LE	/	-	-2	0.00	-	/	/	/	-	NA
2006	O6	Thon mayonnaise	Tuna mayonnaise		s3	*sp*	*1.1*	Ø	-LE	Ø	-LE	/	-	-2	0.00	-	/	/	/	-	NA
2006	Q27	Waterzoï de poisson	Waterzai of fish		s3	*No*	/	Ø	-LE	Ø	Ø	/	-	-3	0.00	-	/	/	/	-	NA
2006	R29	Calamars à l'Armoricaine	Calamari with Armorican		s3	*No*	/	-LE	-LE	-LE	Ø	/	-	-1	0.00	-	/	/	/	-	NA
2006	S13	Filet de raie sauce crabe	Stripe fillet with crab sauce		s3	*No*	/	Ø	Ø	Ø	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	S14	Lotte à l'Armoricaine	Lotte to the Armorican		s3	*No*	/	-LE	Ø	-LE	Ø	/	-	-1	0.00	-	/	/	/	-	NA
2006	S15	Blanquette de poisson	Blanquette of fish		s3	*No*	/	Ø	-LE	Ø	-LE	/	-	-2	0.00	-	/	/	/	-	NA
2006	T5	Méli-mélo saumon, légumes, pâtes	Salad mix, vegetables, pasta		s3	*No*	/	Ø	Ø	Ø	Ø	/	-	-3	0.00	-	/	/	/	-	NA
2006	T6	Lasagnes au saumon	Lasagna with salmon		s3	*No*	/	Ø	Ø	Ø	Ø	/	-	-3	0.00	-	/	/	/	-	NA
2006	T7	Saumon cuit	Cooked salmon		s3	*No*	/	Ø	Ø	Ø	Ø	/	-	-3	0.00	-	/	/	/	-	NA
2006	L15	Crevettes	shrimps		s1	*No*	/	+MA	+MB	+HA	+MA	*L.monocytogenes*	+	8403	2.09	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	T1	Grosses crevettes	Large shrimp		s1	*No*	/	+MA	+MB	+HA	+HA	*L.monocytogenes*	+	2808	0.72	+	+MA	+LA	*L.monocytogenes*	+	PA
2006	R14	Crevettes décortiquées	Shrimp shrimp		s1	*sp*	*0.8*	Ø	-ME	+HA	+MA	*L.monocytogenes*	+	1	0.00	-	+LA	+LB	*L.monocytogenes*	-	ND
2006	M18	Pinces de crabe	Crab tongs		s1	*sp*	*3.0*	+LA	+MD	+MA	+MA	*L.monocytogenes*	+	9922	2.60	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	N5	Tourteau	oilcake		s1	*sp*	*3.1*	Ø	+LC(1)	+HA	+MA	*L.monocytogenes*	+	9362	2.40	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	N14	Homard	Lobster		s1	*sp*	*4.3*	+LA(2)	+LD(1)	+HA	+MB	*L.monocytogenes*	+	9381	2.40	+	+HA	+MB	*L.monocytogenes*	+	PA
2006	M17	Bulots	whelks		s1	*sp*	*5.0*	+MA	+MB	+HA	+MA	*L.monocytogenes*	+	8540	2.24	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	N6	Crevettes grises	Grey shrimp		s1	*sp*	*6.0*	+MD(2)	-LE	+HA	+MB	*L.monocytogenes*	+	9602	2.20	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	N15	Bigorneaux	winkles		s1	*sp*	*7.5*	Ø	-ME	Ø	Ø	/	-	6494	1.66	+	+MA	+MA	*L.monocytogenes*	+	PD
2006	M16	Crevettes	shrimps		s1	*sp*	*8.0*	+MD	+MB	+HB	+MA	*L.monocytogenes*	+	9898	2.59	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	Q8	Terrine de saumon	Salmon terrine		s2	*sp*	*0.3*	+LA(1)	+LA(1)	+HA	+MA	*L.monocytogenes*	+	10518	2.69	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	R15	Terrine de St Jacques	Terrine of St Jacques		s2	*sp*	*0.4*	Ø	Ø	+HA	+MA	*L.monocytogenes*	+	9025	2.35	+	+HB	+MB	*L.monocytogenes*	+	PA
2006	O5	Terrine de thon	Tuna terrine		s2	*sp*	*0.7*	Ø	Ø	+HB	+MA	*L.monocytogenes*	+	10433	2.67	+	+LD	+LD	*L.monocytogenes*	+	PA
2006	P3	Terrine de saumon aux légumes	Salmon terrine with vegetables		s2	*sp*	*2.5*	Ø	Ø	+HA	+MA	*L.monocytogenes*	+	8701	2.23	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	N11	Terrine de saumon	Salmon terrine		s2	*sp*	*3.1*	+LB(5)	+LB	+HA	+MA	*L.monocytogenes*	+	10595	2.71	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	N12	Terrine de crabe	Shrimp soup		s2	*sp*	*3.8*	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	7588	1.94	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	P2	Terrine de saumon à la crème fraiche	Salmon terrine with fresh cream		s2	*sp*	*3.8*	+LA(4)	Ø	+HA	+MA	*L.monocytogenes*	+	11500	2.94	+	+MA	+MA	*L.monocytogenes*	+	PA

Seafood products

							EN ISO 11290-1 method						VIDAS LMO2 method							Comparison
							Half Fraser		Fraser		Confirmation		VIDAS LMO2			Confirmation			Final result	
Year	Code	Matrices (french name)	Matrices	Cat.	*AC*	*level of conta.*	P1	OX1(2002) OA1(2006,2 018)	P2	OX1/OA2(2002) OA2(2006, 2018)	Identification	Result	RFV	TV	Test result	PAL	OX/Chromo(2002) OAA(2006, 2018)	Identification		
2018	23	Crevettes marinées ail et persil	Marinated shrimps with garlic and parsley ◊	s2	*No*	/	3h+L	3L	3h+Ø	3Ø	*L.monocytogenes*	+	9894	2.52	+	3h+Ø	3Ø	*L.monocytogenes*	+	PA
2018	25	Thon provençal	Provencal tuna ◊	s2	*No*	/	3h+L	3L	3h+Ø	3Ø	*L.monocytogenes*	+	11995	3.06	+	3h+Ø	3Ø	*L.monocytogenes*	+	PA
2018	27	Salmon with sorrel sauce	Salmon with sorrel sauce ◊	s2	*se*	*2.6*	3h+L	3L	3h+Ø	3Ø	*L.monocytogenes*	+	11741	2.99	+	3h+Ø	3Ø	*L.monocytogenes*	+	PA
2002	2002	Tartare de thon	Tuna tartar sauce	s3	*No*		+LA	+HC	+HA	+HA	*L.monocytogenes*	+		0.15	+	+HB	+HB / +HA	*L.monocytogenes*	+	PA
2002	2002	Tartare de thon	Tuna tartar sauce	s3	*No*		+LA	+LC	+HB	+HB / +HA	*L.monocytogenes*	+		0.22	+	+HB	+HB / +HA	*L.monocytogenes*	+	PA
2006	P30	Tarama	Tarama	s3	*No*		Ø	Ø	+HA	+MA	*L.monocytogenes*	+	10235	2.62	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	R16	Filet de poisson en sauce	Fillet of fish in sauce	s3	*sp*	*0.5*	+LB	+LB	+HA	+HA	*L.monocytogenes*	+	10456	2.73	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	O7	Paella aux fruits de mer	Paella with seafood	s3	*sp*	*1.1*	+MA	+MA	+HB	+MA	*L.monocytogenes*	+	7952	2.03	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	M15	Paupiettes de saumon	Salmon Paupiettes	s3	*sp*	*3.0*	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	8748	2.29	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	N8	Waterzoï de poisson	Waterzai of fish	s3	*sp*	*3.1*	Ø	Ø	Ø	Ø	/	-	1346	0.34	+	+MA	+LA	*L.monocytogenes*	+	PD
2006	N13	Tajine de poisson	Fish Tajine	s3	*sp*	*3.7*	Ø	Ø	+MA	+MA	*L.monocytogenes*	+	146	0.03	-	+MA	+LA	*L.monocytogenes*	-	ND
2006	M13	Pavé de saumon sauce oseille	Salmon steak with sorrel sauce	s3	*sp*	*5.0*	+LA	+MA	+HB	+MA	*L.monocytogenes*	+	9724	2.55	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	M14	Waterzoï de poisson	Waterzai of fish	s3	*sp*	*5.0*	+MA	+MA	+HA	+MA	*L.monocytogenes*	+	9994	2.62	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	N9	Brochette de poisson au curry	Curry fish skewer	s3	*sp*	*6.0*	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	8624	2.21	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	N10	Salade de thon	Tuna salad	s3	*sp*	*7.5*	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	7563	1.93	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	M12	Aile de raie	Skate wing	s3	*sp*	*8.0*	+MA	+MA	+HA	+MA	*L.monocytogenes*	+	8738	2.29	+	+HA	+MA	*L.monocytogenes*	+	PA

Vegetable

								EN ISO 11290-1 method						VIDAS LMO2 method							
								Half Fraser		Fraser		Confirmation		VIDAS LMO2			Confirmation				
Year	Code	Matrices (french name)	Matrices		Cat.	AC	*level of conta.*	P1	OX1(2002) OA1(2006, 2018)	P2	OX1/OA2(2002) OA2(2006, 2018)	Identification	Result	RFV	TV	Test result	PAL	OX/Chromo(2002) OAA(2006, 2018)	Identification	Final result	Comparison
2002	2002	Frites surgelées	Frozen french fries		v1	*No*	/	Ø	Ø	Ø	Ø	/	-		0.00	-	/	/	/	-	NA
2002	2002	Frites surgelées	Frozen french fries		v1	*No*	/	Ø	-LE	Ø	Ø	/	-		0.00	-	/	/	/	-	NA
2006	M19	Frites surgelées	Frozen french fries		v1	*No*	/	-LE	-LE	-LE	-LE	/	-	-4	0.00	-	-ME	-ME	/	-	NA
2006	L18	Frites surgelées	Frozen french fries		v1	*No*	/	-LE	-ME	Ø	-ME	/	-	-3	0.00	-	/	/	/	-	NA
2006	P25	Frites surgelées	Frozen french fries		v1	*No*	/	-LE	-LE	-ME	-ME	/	-	-3	0.00	-	/	/	/	-	NA
2006	R19	Pommes de terre rissolées	Hash browns		v1	*No*	/	-LE	Ø	-ME	Ø	/	-	-3	0.00	-	/	/	/	-	NA
2006	L19	Frites surgelées	Frozen french fries		v1	*No*	/	Ø	-LE	Ø	-ME	/	-	-2	0.00	-	/	/	/	-	NA
2006	L20	Frites surgelées	Frozen french fries		v1	*No*	/	-LE	-ME	-ME	-ME	/	-	-2	0.00	-	/	/	/	-	NA
2006	O25	Pommes de terre cuisinées	Cooked potatoes		v1	*sp*	*0.69*	-LE	Ø	-ME	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	P23	Frites surgelées	Frozen french fries		v1	*No*	/	Ø	Ø	Ø	Ø	/	-	-1	0.00	-	/	/	/	-	NA
2006	Q14	Pommes de terre rissolées	Hash browns		v1	*No*	/	Ø	Ø	Ø	Ø	/	-	-1	0.00	-	/	/	/	-	NA
2006	P27	Frites surgelées	Frozen french fries		v1	*No*	/	Ø	Ø	Ø	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	Q13	Frites surgelées	Frozen french fries		v1	*No*	/	Ø	-ME	-ME	-ME	/	-	0	0.00	-	/	/	/	-	NA
2006	R17	Frites surgelées	Frozen french fries		v1	*sp*	*ND*	Ø	Ø	Ø	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	O26	Frites surgelées	Frozen french fries		v1	*sp*	*0.86*	Ø	-ME	Ø	-LE	/	-	1	0.00	-	/	/	/	-	NA
2006	M29	Pommes de terres cuisinées	Cooked potatoes		v1	*No*	/	Ø	Ø	Ø	-LE	/	-	5	0.00	-	/	/	/	-	NA
2002	2002	Poêlée méridionale	Southern stir-fry		v2	*No*	/	Ø	Ø	-ME	-LE	/	-		0.00	-	/	/	/	-	NA
2002	2002	Poêlée de champignons	Sautéed mushrooms		v2	*No*	/	-LE	-LE	-LE	-LE	/	-		0.00	-	/	/	/	-	NA
2002	2002	Poêlée de légumes	Fried vegetables		v2	*No*	/	Ø	-LE	Ø	-ME	/	-		0.00	-	/	/	/	-	NA
2002	2002	Betteraves rouges	Red beets		v2	*No*	/	Ø	-LE	Ø	-HE	/	-		0.00	-	/	/	/	-	NA
2006	N19	Mélange de légumes	Mix of vegetables		v2	*sp*	*<1*	-ME	-ME	-ME	-ME	/	-	-3	0.00	-	/	/	/	-	NA
2006	N18	Poêlée méridionale	Southern stir-fry		v2	*sp*	*<1*	Ø	Ø	Ø	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	Q12	Ratatouille	Ratatouille		v2	*sp*	*1.8*	Ø	-LE	-LE	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	T4	Courgettes	Zucchini		v2	*sp*	*ND*	-LE	Ø	Ø	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	O23	Poêlée champêtre	Pan-fried country		v2	*sp*	*0.69*	-LE	-LE	Ø	-LE	/	-	-1	0.00	-	/	/	/	-	NA
2006	R25	Mélange provençal	Provencal blend		v2	*sp*	*ND*	-LE	-LE	-LE	-LE	/	-	-1	0.00	-	/	/	/	-	NA
2006	Q28	Poêlée romaine	Roman pan-fried		v2	*No*	/	-LE	-LE	-LE	Ø	/	-	0	0.00	-	/	/	/	-	NA
2006	N17	Poêlée champêtre	Pan-fried country		v2	*sp*	*7*	Ø	-LE	Ø	-LE	/	-	1	0.00	-	/	/	/	-	NA
2006	Q11	Jardinière de légumes	Vegetable gardener		v2	*sp*	*2.4*	Ø	Ø	Ø	-ME	/	-	2	0.00	-	/	/	/	-	NA
2006	N20	Epinards à la crème	Spinach with cream		v2	*sp*	*7*	Ø	-ME	Ø	-ME	/	-	-4	0.00	-	/	/	/	-	NA
2006	N23	Courgette à la provençale	Provencal zucchini		v2	*sp*	*<1*	-ME	-ME	-HE	-ME	/	-	-4	0.00	-	/	/	/	-	NA
2006	R26	Carottes Vichy	Vichy carrots		v2	*sp*	*ND*	Ø	Ø	-LE	-LE	/	-	-1	0.00	-	/	/	/	-	NA
2002	2002	Taboulé	tabbouleh		v3	*No*	/	-LE	-ME	-HE	-HE	/	-		0.00	-	/	/	/	-	NA
2006	R24	Petits pois surgelés	Frozen peas		v3	*sp*	*ND*	-LE	-LE	-LE	-LE	/	-	-3	0.00	-	/	/	/	-	NA
2006	S11	Galettes brocolis carottes	Carrot broccoli cakes		v3	*sp*	*2.4*	Ø	Ø	-ME	Ø	/	-	-3	0.00	-	/	/	/	-	NA
2006	N21	Riz safrané aux petits légumes	Saffron rice with vegetables		v3	*sp*	*5.6*	-LE	-ME	-HE	-ME	/	-	-2	0.00	-	/	/	/	-	NA
2006	O24	Purée toscane	Tuscan puree		v3	*sp*	*0.43*	Ø	Ø	Ø	Ø	/	-	-2	0.00	-	/	/	/	-	NA
2006	N24	Purée de haricots verts	Mashed green beans		v3	*sp*	*<1*	-LE	-ME	-LE	-LE	/	-	-1	0.00	-	/	/	/	-	NA
2006	O22	Galettes surgelées poireaux carottes	Frozen pancakes leeks carrots		v3	*sp*	*0.86*	-LE	-LE	-ME	-ME	/	-	-1	0.00	-	/	/	/	-	NA
2018	20	Petits pois congelés	frozen peas	◊	v3	*No*	/	0L	0L	0Ø	0Ø	/	-	-4	0.00	-	0Ø	0Ø	/	-	NA
2006	R18	Pommes frites	French fries		v1	*No*	/	+MB	+MA	+MB	+MB	*L.monocytogenes*	+	7156	1.87	+	+HB	+MA	*L.monocytogenes*	+	PA
2006	P24	Pommes de terre rissolées	Hash browns		v1	*No*	/	+LA	+LB	+MB	+MB	*L.monocytogenes*	+	7543	1?93	+	+MB	+MA	*L.monocytogenes*	+	PA
2006	L17	Frites surgelées	Frozen french fries		v1	*No*	/	+MB	+MB	+HB	+MB	*L.monocytogenes*	+	8102	2.02	+	+HA	+HB	*L.monocytogenes*	+	PA
2006	P26	Pommes de terre rissolées	Hash browns		v1	*No*	/	+MB	+MA	+MB	+MA	*L.monocytogenes*	+	8295	2.12	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	U4	Frites surgelées	Frozen french fries		v1	*No*	/	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	10950	2.83	+	+HA	+HA	*L.monocytogenes*	+	PA
2002	2002	Pommes de terres rissolées surgelées	Frozen pickled potatoes		v1	*No*	/	+MA	+MA	+HB	+HB / +HA	*L.monocytogenes*	+		1.79	+	+HA	+HA / +HB	*L.monocytogenes*	+	PA
2002	2002	Pommes de terres rissolées surgelées	Frozen pickled potatoes		v1	*No*	/	+MA	+MA	+HA	+HB / +MB	*L.monocytogenes*	+		2.02	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	R20	Pommes de terre rissolées	Hash browns		v1	*sp*	*mix*	+HA	+HA	+HA	+HA	*L.monocytogenes*	+	8969	2.34	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	R21	Frites surgelées	Frozen french fries		v1	*sp*	*mix*	+HA	+HA	+HA	+HA	*L.monocytogenes*	+	9076	2.37	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	S10	Frites surgelées	Frozen french fries		v1	*sp*	*3.6*	+MB	+MC	+MB	+MD	*L.monocytogenes*	+	8795	2.38	+	+HA	+MC	*L.monocytogenes*	+	PA
2002	2002	Epinards à la crème	Spinach with cream		v2	*No*	/	+MB	+MB	+HB	+HB	*L.monocytogenes*	+		2.86	+	+HB	+HB	*L.monocytogenes*	+	PA
2006	P17	Légumes pour pot au feu	Vegetables for pot au feu		v2	*sp*	*mix*	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	8351	2.14	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	P18	Macédoine de légumes	mixed vegetables		v2	*sp*	*mix*	+MA	+MA	+HA	+HA	*L.monocytogenes*	+	8725	2.23	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	R23	Jardinière de légumes	Vegetable gardener		v2	*sp*	*mix*	+MA	+MA	+MB	+MB	*L.monocytogenes*	+	9348	2.44	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	R22	Ratatouille	Ratatouille		v2	*sp*	*mix*	+HA	+HA	+HB	+HB	*L.monocytogenes*	+	9405	2.45	+	+HA	+MA	*L.monocytogenes*	+	PA

Vegetable

							EN ISO 11290-1 method						VIDAS LMO2 method							
							Half Fraser		Fraser		Confirmation		VIDAS LMO2			Confirmation				
Year	Code	Matrices (french name)	Matrices	Cat.	*AC*	*level of conta.*	P1	OX1(2002) OA1(2006, 2018)	P2	OX1/OA2(2002) OA2(2006, 2018)	Identification	Result	RFV	TV	Test result	PAL	OX/Chromo(2002) OAA(2006, 2018)	Identification	Final result	Comparison
2006	P12	Poëlée champêtre	Country poel	v2	*sp*	*mix*	+MA	+MB	+MA	+LB	*L.monocytogenes*	+	9989	2.56	+	+MA	+MB	*L.monocytogenes*	+	PA
2006	N16	Poêlée méridionale	Southern stir-fry	v2	*sp*	*5.6*	Ø	-LE	+HA	+MA	*L.monocytogenes*	+	930	0.23	+	+MA	+LA	*L.monocytogenes*	+	PA
2006	P16	Poëlée romaine	Roman fillet	v2	*sp*	*8*	+LA	+LB	+HB	+MB	*L.monocytogenes*	+	8247	2.11	+	+HA	+MA	*L.monocytogenes*	+	PA
2002	2002	Riz cantonais	Cantonese rice	v3	*No*	*/*	+HA	+HB	+HA	+HA	*L.monocytogenes*	+		2.42	+	+HA	+HB / +HA	*L.monocytogenes*	+	PA
2002	2002	Riz cantonais	Cantonese rice	v3	*No*	*/*	+HA	+HA	+HA	+HA	*L.monocytogenes*	+		2.92	+	+HA	+HB / +HA	*L.monocytogenes*	+	PA
2006	N25	Riz et légumes	Rice and vegetables	v3	*No*	*/*	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	7558	1.93	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	P13	Galettes surgelées brocolis	Frozen broccoli patties	v3	*sp*	*mix*	+LA	+LA	+MA	+MA	*L.monocytogenes*	+	6783	1.73	+	+MA	+MA	*L.monocytogenes*	+	PA
2006	P14	Galettes surgelées chou fleur carottes	Frozen patties cauliflower carrots	v3	*sp*	*mix*	+MA	+MA	+HA	+MA	*L.monocytogenes*	+	8803	2.25	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	N22	Riz créole	Creole rice	v3	*sp*	*3.5*	Ø	+LA(1)	+MA	+MA	*L.monocytogenes*	+	11331	2.90	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	P20	Purée toscane	Tuscan puree	v3	*sp*	*8*	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	7651	1.96	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	P21	Blé	Corn	v3	*sp*	*16*	+LA	+LA	+HA	+MA	*L.monocytogenes*	+	7960	2.04	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	P15	Galettes surgelées poireaux carottes	Frozen pancakes leeks carrots	v3	*sp*	*16*	+LB(2)	+LB(1)	+HB	+MB	*L.monocytogenes*	+	10297	2.64	+	+HB	+HB	*L.monocytogenes*	+	PA
2018	29	Triz long grain	Long grain rice	◊ v3	*se*	*2.4*	3h+Ø	3Ø	3h+Ø	4Ø	*L.monocytogenes*	+	11662	2.96	+	3h+Ø	3Ø	*L.monocytogenes*	+	PA
2018	31	Petits pois congelés	Frozen peas	◊ v3	*No*	*/*	3h+L	3L	3h+Ø	3Ø	*L.monocytogenes*	+	11966	3.05	+	3h+Ø	4Ø	*L.monocytogenes*	+	PA
2018	33	Cake poireaux, carottes, pomme de terre	Leek, carrot, potatoes cake	◊ v3	*se*	*2.4*	3h+Ø	3Ø	3h+Ø	3Ø	*L.monocytogenes*	+	12798	3.26	+	3h+Ø	3Ø	*L.monocytogenes*	+	PA

Environmental samples

								EN ISO 11290-1 method						VIDAS LMO2 method							
								Half Fraser		Fraser		Confirmation		VIDAS LMO2			Confirmation				
Year	Code	Matrices (french name)	Matrices		Cat.	AC	level of conta.	P1	OX1(2002) OA1(2006, 2018)	P2	OX1/OA2(2002) OA2(2006, 2018)	Identification	Result	RFV	TV	Test result	PAL	mo(2002) OAA(20	Identification	Final result	Comparison
2002	2002	Eau évaporateur	Evaporator water		e1	No	/	-LE	-LE	-LE	Ø / -LE	/	-		0	-	/	/	/	-	NA
2006	E1	Eau sortie saucier	Sauce water outlet		e1	No	/	Ø	+LA(1)	+MA	+MA	L.innocua	-	-4	0	-	/	/	/	-	NA
2006	E2	Eau Steriflow	Steriflow Water		e1	No	/	Ø	Ø	Ø	Ø	/	-	-2	0	-	/	/	/	-	NA
2006	E6	Eau stagnante bac propre	Stagnant water clean tray		e1	No	/	Ø	Ø	Ø	-LE	/	-	3	0	-	/	/	/	-	NA
2006	E7	Eau machine à laver	Water washing machine		e1	No	/	Ø	Ø	Ø	Ø	/	-	0	0	-	/	/	/	-	NA
2006	F29	Eau bac de rinçage final	Water final rinse tank		e1	No	/	Ø	Ø	Ø	Ø	/	-	-1	0	-	/	/	/	-	NA
2006	F30	Eau de process	Process water		e1	No	/	Ø	Ø	Ø	Ø	/	-	-1	0	-	/	/	/	-	NA
2006	G10	Eau bac de rinçage final	Water final rinse tank		e1	No	/	+LA	+LA	+HA	+MA	L.innocua	-	-4	0	-	+MA	+MA	L.innocua	-	NA
2006	G11	Eau Stériflow	Stériflow water		e1	No	/	Ø	Ø	Ø	Ø	/	-	-1	0	-	/	/	/	-	NA
2018	22	Eau de process 1	Processed water 1	◊	e1	No	/	0Ø	0Ø	0Ø	0Ø	/	-	-5	0	-	0Ø	0Ø	/	-	NA
2002	2002	Surface étagère matériel local plonge	Surface shelf material local dives		e2	No	/	Ø	Ø	Ø	Ø	/	-		0	-	/	/	/	-	NA
2002	2002	Surface prise d'air niveau atelier	Surface air intake level workshop		e2	No	/	-ME	-LE	-ME	-ME	/	-		0	-	/	/	/	-	NA
2002	2002	Ecouvillon planche à découper	Swab cutting board		e2	No	/	Ø	Ø	-LE	-LE / Ø	/	-		0	-	/	/	/	-	NA
2002	2002	Surface chambre de surgélation	Freezing chamber surface		e2	No	/	Ø	Ø	Ø	Ø	/	-		0	-	/	/	/	-	NA
2002	2002	Ecouvillon plateau pâte à tarte	Swab tray pie crust		e2	No	/	+MB	+MB	+MB	+MB / Ø	L.innocua	-		0	-	/	/	/	-	NA
2002	2002	Ecouvillon planche à découper - atelier fromage	Swab cutting board - cheese workshop		e2	No	/	Ø	Ø	-LE	-LE	/	-		0	-	/	/	/	-	NA
2002	2002	Ecouvillon planche à découper - atelier fromage	Swab cutting board - cheese workshop		e2	No	/	Ø	Ø	Ø	Ø	/	-		0	-	/	/	/	-	NA
2002	2002	Ecouvillon couteau armoire UV	Swab UV cabinet knife		e2	No	/	Ø							0	-	/	/	/	-	NA
2002	2002	Surface emballeuse	Packing surface		e2	No	/	Ø		-LE		/			0	-	/	/	/	-	NA
2002	2002	Surface plan de travail - atelier pâtisserie	Surface worktop - pastry workshop		e2	No	/	Ø	Ø	-LE	-LE	/	-		0	-	/	/	/	-	NA
2002	2002	Surface emballeuse	Packing surface		e2	No	/	Ø	Ø	-LE	-ME / Ø	/	-		0	-	/	/	/	-	NA
2006	F25	Ecouvillon jonction sol mur	Swab junction ground wall		e2	No	/	-LE	-LE	-LE	-LE	/	-	0	0	-	/	/	/	-	NA
2006	F26	Sol chambre froide	Cold room floor		e2	No	/	-LE	-LE	-ME	-ME	/	-	-2	0	-	/	/	/	-	NA
2006	E11	Prélèvement surface découpe	Cutting surface sampling		e2	No	/	+MA	+MA	+HA	+MA	L.innocua	-	0	0	-	/	/	/	-	NA
2002	2002	Déchets lave-vaisselle local plonge	Local dishwasher waste plunges		e3	No	/	Ø	-HE	-LE	-ME / Ø	/	-		0	-	/	/	/	-	NA
2002	2002	Déchets bac de stockage crème et sucre atelier pâtisserie	Waste storage bin cream and sugar - pastry works		e3	No	/	Ø	Ø	Ø	Ø	/	-		0	-	/	/	/	-	NA
2002	2002	Résidus sac de stockage crème pâtissière à froid	Residue storage bag cold custard		e3	No	/	-ME	-ME	-HE	-ME	/	-		0	-	/	/	/	-	NA
2002	2002	Déchets siphon d'évacuation des eaux de dégivrage	Waste siphon draining defrost water		e3	No	/	-HE	-ME	-ME	Ø	/	-		0	-	/	/	/	-	NA
2002	2002	Déchets regards local silo	Local silo waste looks		e3	No	/	-LE	-LE	-LE	-LE / Ø	/	-		0	-	/	/	/	-	NA
2006	E10	Résidus table découpe poisson	Residue table cutting fish		e3	No	/	Ø	Ø	Ø	Ø	/	-	0	0	-	/	/	/	-	NA
2006	F22	Résidus dans hachoir	Residue in chopper		e3	No	/	Ø	-LE	Ø	Ø	/	-	-3	0	-	/	/	/	-	NA
2006	F23	Résidus plateau hachoir	Residue chopper tray		e3	No	/	Ø	-LE	Ø	-LE	/	-	-4	0	-	/	/	/	-	NA
2006	F24	Résidus atelier poisson	Fish workshop residues		e3	No	/	+MA	+MA	+MA	+MA	L.welshimeri	-	-3	0	-	/	/	/	-	NA
2006	F28	Résidus table découpe fromage	Residue table cut cheese		e3	No	/	Ø	-LE	-LE	-ME	/	-	-2	0	-	/	/	/	-	NA
2006	G12	Résidus stand poisson	Residue fish stand		e3	No	/	Ø	-ME	-ME	-ME	/	-	-3	0	-	/	/	/	-	NA
2006	G13	Résidus atelier poisson	Fish workshop residues		e3	No	/	-LE	-ME	+LD	+MB	L.seeligeri	-	-4	0	-	+LD	+MC	L.seeligeri	-	NA
2006	G14	Résidus table inox atelier	Residue table stainless steel workshop		e3	No	/	Ø	Ø	Ø	Ø	/	-	-4	0	-	/	/	/	-	NA
2006	G16	Résidus plateau atelier poisson	Residue tray fish workshop		e3	No	/	-LE						-3	0	-	/	/	/	-	NA
2002	2002	Eau d'égout poste saucier	Saucier post water		e1	No	/	+MB		+HB		L.monocytogenes			0	-	+MB	+MB / +MC	L.monocytogenes	-	ND
2002	2002	Eau d'égout local épices	Local sewage spices		e1	No	/	+MB	+MB	+HB	+HB / +MB	L.monocytogenes	+		2.22	+	+HB	+HB	L.monocytogenes	+	PA
2002	2002	Eau d'égout ensachage surgelés	Sewage bagging frozen		e1	No	/	+MB	+LB	+MB	+LB / +MB	L.monocytogenes	+		1.78	+	+HA	+HB / +HA ; +MA	L.monocytogenes	+	PA
2002	2002	Eau siphon lavabo atelier	Water siphon washbasin workshop		e1	No	/	+MA	+MA	+HA	+HA / +MA	L.monocytogenes	+		2.41	+	+HA	+HA / +MA	L.monocytogenes	+	PA
2002	2002	Eau d'égout laverie	Sewage water laundry		e1	No	/	+MB	+LD	+HB	+LC / +MB	L.monocytogenes	+		2.66	+	+HA	+MB / +MB ; +MA	L.monocytogenes	+	PA
2002	2002	Eau siphon lavabo atelier	Water siphon washbasin workshop		e1	No	/	+LB	+LB	+HB	+MB / +LB	L.monocytogenes	+		0.44	+	+MB	+MB	L.monocytogenes	+	PA
2006	E4	Eau sortie filtre	Water outlet filter		e1	sp	2.2	Ø	Ø	+MA	+MA	L.monocytogenes	+	2832	0.7	+	+MA	+MA	L.monocytogenes	+	PA
2006	E5	Eau rinçage doseuse	Water dosing rinse		e1	sp	4.4	+LA	+LA	+HA	+MA	L.monocytogenes	+	11280	2.81	+	+MA	+MA	L.monocytogenes	+	PA
2018	35	Eau de process 1	Processed water 1	◊	e1	se	2.2	3h+Ø	2Ø	2h+Ø	3Ø	L.monocytogenes	+	10521	2.68	+	3h+Ø	3Ø	L.monocytogenes	+	PA
2018	37	Eau de process 2	Processed water 2	◊	e1	se	2.2	2h+Ø	3Ø	3h+Ø	3Ø	L.monocytogenes	+	11307	2.88	+	3h+Ø	3Ø	L.monocytogenes	+	PA
2002	2002	Ecouvillon table pesée 4ème gamme	Swab table weighing 4th range		e2	No	/	+MA	+LB	+HA	+LB / +MA	L.monocytogenes	+		1.93	+	+HA	+HB / +HA	L.monocytogenes	+	PA
2002	2002	Ecouvillon bande transporteuse	Swab conveyor belt		e2	No	/	+LB	+LB	+MB	+LB / +MB	L.monocytogenes	+		1.79	+	+HA	+HB / +HA	L.monocytogenes	+	PA
2002	2002	Ecouvillon peseuse surgelées	Frozen weigher swab		e2	No	/	+LB	+LB	+HB	+LB / +MB	L.monocytogenes	+		1.72	+	+HA	+HB / +HA	L.monocytogenes	+	PA

Environmental samples

							EN ISO 11290-1 method						VIDAS LMO2 method							Comparison
							Half Fraser		Fraser		Confirmation		VIDAS LMO2			Confirmation			Final result	
Year	Code	Matrices (french name)	Matrices	Cat.	*AC*	*level of conta.*	P1	OX1(2002) OA1(2006, 2018)	P2	OX1/OA2(2002) OA2(2006, 2018)	Identification	Result	RFV	TV	Test result	PAL	mo(2002) OAA(20	Identification		
2002	2002	Surface machine surgelés	Frozen machine surface	e2	*No*	/	+MB	+LB	+MB	+LB / +MB	*L.monocytogenes*	+		1.95	+	+HA	+HA	*L.monocytogenes*	+	PA
2002	2002	Ecouvillon cellule de refroidissement	Cooling cell swab	e2	*No*	/	+MB	+MB	+MB	+MB / +MA	*L.monocytogenes*	+		1.87	+	+MB	+MB	*L.monocytogenes*	+	PA
2002	2002	Surface sol	Ground surface	e2	*No*	/	+MB	+MB	+HB	+HB / +MA	*L.monocytogenes*	+		2.46	+	+HB	+HB / +MB	*L.monocytogenes*	+	PA
2002	2002	Surface plan de travail atelier	Surface work plan workshop	e2	*No*	/	+MA	+MA	+HA	+HA / +MA	*L.monocytogenes*	+		2.42	+	+HB	+HB / +MB	*L.monocytogenes*	+	PA
2002	2002	Surface étagère atelier	Surface shelf workshop	e2	*No*	/	+HB	+HB	+HB	+HB / +HA	*L.monocytogenes*	+		2.54	+	+HB	+HB / +HA	*L.monocytogenes*	+	PA
2002	2002	Ecouvillon jonction sol cloison - atelier boulangerie	Swab junction soil partition - bakery workshop	e2	*No*	/	+LA	+LA	+MA	+MA	*L.monocytogenes*	+		0.54	+	Ø	Ø / +LA	*L.monocytogenes*	+	PA
2002	2002	Surface plan de travail	Surface work plan	e2	*No*	/	+MB							1.69	+	+HA	+HB / +MA	*L.monocytogenes*	+	PA
2002	2002	Surface plan de travail	Surface work plan	e2	*No*	/	+HB		+HB		L.monocytogenes			1.74	+	+HB	+HB	*L.monocytogenes*	+	PA
2002	2002	Surface lame couteau - stand charcuterie	Surface knife blade - charcuterie stand	e2	*No*	/	+MA	+LB	+HB	+HB	L.monocytogenes	+		1.58	+	+HB	+MC / +MA ; +HA	*L.monocytogenes*	+	PA
2002	2002	Surface fouet - atelier pâtisseries	Whisk surface - pastry workshop	e2	*No*	/	+MA	+LC	+HB	+MB	*L.monocytogenes*	+		1.61	+	+HB	+HC / +HB ; +HA	*L.monocytogenes*	+	PA
2002	2002	Surface plan de travail - atelier fromages	Surface worktop - cheese workshop	e2	*No*	/	+MB	-ME	+HB	+MD / +HB	*L.monocytogenes*	+		2.52	+	+HA	+HC / +HB ; +MA	*L.monocytogenes*	+	PA
2002	2002	Surface lame couteau pâté - stand charcuterie	Surface blade knife pâté - charcuterie stand	e2	*No*	/	+MA	+LC	+HB	+MD / +HB	*L.monocytogenes*	+		1.83	+	+HB	+HB	*L.monocytogenes*	+	PA
2002	2002	Surface plan de travail - tarterie	Worktop surface - tartar	e2	*No*	/	+MB	+MB	+HB	+HB / +MC	*L.monocytogenes*	+		2.1	+	+HB	+HB / +HD ; +MD	*L.monocytogenes*	+	PA
2002	2002	Surface sol tarterie	Ground surface tarring	e2	*No*	/	+LD	-LE	+HB	+MD / +HB	*L.monocytogenes*	+		1.92	+	+MB	+LC / +HB	*L.monocytogenes*	+	PA
2002	2002	Surface sol atelier	Ground floor workshop	e2	*No*	/	+HB	+HB	+HB	+HB / +HA	*L.monocytogenes*	+		2.58	+	+HB	+HB / +HA	*L.monocytogenes*	+	PA
2002	2002	Surface plan de travail	Surface work plan	e2	*No*	/	+HA	+HA	+MA	+MA	*L.monocytogenes*	+		2.15	+	+HA	+HA	*L.monocytogenes*	+	PA
2002	2002	Surface plan de travail	Surface work plan	e2	*No*	/	+MA	+MA	+MA	+MA	*L.monocytogenes*	+		2.39	+	+HA	+HA	*L.monocytogenes*	+	PA
2006	E9	Prélèvement surface atelier poisson	Sampling fish workshop area	e2	*No*	/	+MA	+MA	+HB	+MA	*L.monocytogenes*	+	7450	1.86	+	+HA	+MA	*L.monocytogenes*	+	PA
2006	G15	Bac sale atelier poisson	Dirty fish workshop	e2	*No*	/	+MA	+MA	+MA	+MA	*L.monocytogenes*	+	7686	1.91	+	+MA	+HA	*L.monocytogenes*	+	PA
2002	2002	Résidus sur machine à laver	Residues on washing machine	e3	*No*	/	+MB	+MB	+HB	+HB / +MB	*L.monocytogenes*	+		2.68	+	+HB	+HB / +MB ; +MA	*L.monocytogenes*	+	PA
2002	2002	Déchets orifice d'évacuation des eaux usées	Waste water discharge port	e3	*No*	/	+LA	+LA	+HB	+HB / +HA	*L.monocytogenes*	+		2.71	+	+HB	+LB / +HB ; +HA	*L.monocytogenes*	+	PA
2002	2002	Poudre sur plan de travail	Powder on worktop	e3	*No*	/	+MB	+MB	+HB	+MB	*L.monocytogenes*	+		1.93	+	+HA	+HB / +MA	*L.monocytogenes*	+	PA
2002	2002	Résidus dans lave-bottes	Residue in boot washer	e3	*No*	/	+MB	+MB	+HB	+HB	*L.monocytogenes*	+		0.25	+	+HB	+HB / Ø ; +LD	*L.monocytogenes*	+	PA
2006	E8	Résidus bac poisson	Fish tank residues	e3	*No*	/	+MA	+MA	+MA	+HA	*onocytogenes L.innoc*	+	8058	2.01	+	+MA	+MA	*L. monocytogenes L.innocua*	+	PA
2006	F27	Résidus plateau	Residues plateau	e3	*No*	/	+MA	+MA	+MA	+MA	*onocytogenes L.innoc*	+	4486	1.12	+	+MA*	+MA*	*L. monocytogenes L.innocua*	+	PA
2018	39	Residus 1	Residue 1 ◊	e3	*se*	*2.4*	2h+Ø	3Ø	3h+Ø	2Ø	*L.monocytogenes*	+	12165	3.1	+	3h+Ø	3Ø	*L.monocytogenes*	+	PA
2018	41	Residus 2	Residue 2 ◊	e3	*se*	*2.4*	3h+Ø						12967	3.3	+	3h+Ø	3Ø	*L.monocytogenes*	+	PA

Appendix D

Sensitivity

Extension study - Raw results

Caption: Bacterial burden
Ø: no culture
L = low
M = moderate
H = high

Breakdown of flora
A = pure culture of suspect colonies
B = mixture with a majority of suspect colonies
C = mixture with a minority of suspect colonies
D = mixture with rare suspect colonies
E = absence of suspect colonies
(x): x colonies characteristic of Listeria if x ≤ 5

Type	Code	Sample	Contamination				Reference method ISO 11290-1 #										Alternative method VIDAS *Listeria LMO2* 22-26h							Agreement	Alternative method VIDAS *Listeria LMO2* 22-26h - 4°C						
							Fraser 1/2				Fraser				Identification	Final result	VIDAS test LMO2			Confirmation			Final result		VIDAS test LMO2			Confirmations			Final result
			Strain	Type	Stress	Level	ALOA		Palcam		ALOA		Palcam				RFV	VT	Test result	Palcam	ALOA	Identification			RFV	VT	Test result	Palcam	ALOA	Identification	
a+	1977572	Raw milk cow cheese (Morbier)	/	nc	/	/	BM halo	BM halo	EM	EM	AL halo	AL halo	EM	EM	*L.monocytogenes*	P	12	0,00	NEGATIF	EM	Ø	/	A	ND	8	0,00	NEGATIF	EM	Ø	/	A
a+	1977573	Raw milk cow cheese (La ronde)	/	nc	/	/	AM halo	AM halo	EM	EM	AM halo	BM halo	EM	EM	*L.monocytogenes*	P	12366	3.69	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA	3660	1.09	POSITIF	EM	AM halo	*L.monocytogenes*	P
a+	1977822	Raw milk cow cheese (Maroilles)	/	nc	/	/	AM halo	AM halo	BM	BM	AM halo	AM halo	BL	BL	*L.monocytogenes*	P	9163	2,34	POSITIF	AM	AM halo	*L.monocytogenes*	P	PA	10783	2,75	POSITIF	AM	AM halo	*L.monocytogenes*	P
a+	1977823	Raw milk cow cheese (Tomme)	*L. mono* BMU793	ac	Seeding	2,0	Ø	Ø	EL	EL	Ø	Ø	EL	EL	/	A	8385	2,19	POSITIF	AM	AM halo	*L.monocytogenes*	P	PD	9113	2,54	POSITIF	AM	AM halo	*L.monocytogenes*	P
a+	1977824	Raw milk cow cheese (Abondancee)	*L. mono* BMU793	ac	Seeding	2,0	DL halo	DL halo	DL	DL	AL halo	AL halo	AL	AL	*L.monocytogenes*	P	10353	2,71	POSITIF	BM	AM halo	*L.monocytogenes*	P	PA	11241	3,13	POSITIF	BM	AM halo	*L.monocytogenes*	P
a+	1977825	Raw milk cow cheese (Brie de Meaux)	*L. mono* BMU793	ac	Seeding	2,0	AL halo	AL halo	DL	DL	AL halo	AL halo	AL	AL	*L.monocytogenes*	P	10586	2,77	POSITIF	BM	AM halo	*L.monocytogenes*	P	PA	10983	3,06	POSITIF	AM	AM halo	*L.monocytogenes*	P
a-	1977826	Raw milk cow cheese (Morbier)	*L. mono* BLV059	ac	Seeding	2,2	EL	EL	EL	EL	EL	EL	EL	EL	/	A	105	0,02	NEGATIF	EL	EL	/	A	NA	46	0,01	NEGATIF	Ø	Ø	/	A
a+	1977827	Raw milk cow cheese (Chabichou)	*L. mono* BLV059	ac	Seeding	2,2	DL halo	DL halo	EL	EL	CL halo	CL halo	EL	EL	*L.monocytogenes*	P	8552	2,24	POSITIF	AM	AM halo	*L.monocytogenes*	P	PA	10906	3,04	POSITIF	AM	AM halo	*L.monocytogenes*	P
a+	1977828	Raw milk ewe cheese (Roquefort)	*L. mono* BLV059	ac	Seeding	2,2	DL halo	DL halo	EL	EL	AL halo	AL halo	AL	AL	*L.monocytogenes*	P	8374	2,19	POSITIF	AM	AM halo	*L.monocytogenes*	P	PA	9265	2,58	POSITIF	AM	AM halo	*L.monocytogenes*	P
a+	2067968	Raw milk ewe cheese (Roquefort)	*L. mono* GCQ471	ac	Seeding	2,8	CM halo	CM halo	DL	DL	AL halo	AM halo	AM	AM	*L.monocytogenes*	P	9093	2,32	POSITIF	AM	AM halo	*L.monocytogenes*	P	PA	10999	2,83	POSITIF	AM	AM halo	*L.monocytogenes*	P
a+	2067969	Raw milk goat cheese (Ste Maure)	*L. mono* GCQ471	ac	Seeding	2,8	AM halo	AM halo	DL	DL	AM halo	BM halo	AL	AM	*L.monocytogenes*	P	8127	2,07	POSITIF	AM	BM halo	*L.monocytogenes*	P	PA	7954	2,03	POSITIF	AM	BM halo	*L.monocytogenes*	P
a+	2067970	Raw milk cow cheese (Camembert)	*L. mono* GCQ471	ac	Seeding	2,8	AL halo	AL halo	DL	DL	AM halo	AM halo	AM	AM	*L.monocytogenes*	P	9386	2,42	POSITIF	AM	AM halo	*L.monocytogenes*	P	PA	8341	2,08	POSITIF	AM	AM halo	*L.monocytogenes*	P
a-	1977520	Raw milk goat cheese	/	/	/	/	Ø	EL	EM	EM	EL	EL	EL	EL	/	A	56	0,01	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	/
a-	1977521	Raw milk cow cheese (Comté)	/	/	/	/	EM	EM	EM	EM	EM	EM	EM	EM	/	A	-2	-0.00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	/
a-	1977522	Raw milk cow cheese (St Nectaire)	/	/	/	/	Ø	EM	EM	EM	EL	EL	EM	EM	/	A	8	0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	/
a-	1977523	Raw milk cow cheese (Tomme de Savoie)	/	/	/	/	EL	EL	EM	EM	Ø	Ø	EM	EM	/	A	14	0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	/
a-	1977530	Raw milk cow cheese (Reblochon de Savoie)	/	/	/	/	EL	EL	EM	EM	Ø	EL	EM	EM	/	A	0	0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	/
a-	1977531	Raw milk cow cheese (Camembert AOP)	/	/	/	/	Ø	Ø	EM	EM	Ø	Ø	EM	EM	/	A	370 (58/66/75)	0,09 (0,01/0,01/0,01)	POSITIF (-/-/-)	EM	EL	/	A (FP)	NA (PP)	58	0,01	NEGATIF	EM	EL	/	A
a-	1977532	Raw milk cow cheese (Abondance)	/	/	/	/	Ø	Ø	EM	EM	Ø	EM	EM	EM	/	A	-2	-0.00	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	/
a-	1977533	Raw milk sheep cheese (Roquefort)	/	/	/	/	Ø	EL	EM	EM	EL	EL	EM	EM	/	A	10	0,00	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	/
a-	1977534	Raw milk goat cheese (Ste Maure)	/	/	/	/	Ø	EL	EL	EL	Ø	EL	EM	EM	/	A	3	0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	/
a-	1977535	Raw milk cow cheese (Pirudel)	/	/	/	/	EL	EM	EM	EM	Ø	EM	EM	EM	/	A	4	0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	/
a-	1977574	Raw milk cow cheese (Tomme)	/	/	/	/	Ø	Ø	EM	EM	Ø	EL	EM	EM	/	A	73	0.01	NEGATIF	EM	Ø	/	A	NA	117	0.03	NEGATIF	EM	EM	/	/
a-	1977782	White cheese made from raw milk batch 1	/	/	/	/	EL	EL	EM	EM	Ø	EM	EM	EM	/	A	65	0,01	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	/
a-	1977783	White cheese made from raw milk batch 2	/	/	/	/	EL	EL	EM	EM	Ø	EL	EL	EL	/	A	172	0,04	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	/
a-	1977784	Raw milk cow cheese (Reblochon)	/	/	/	/	EL	EL	EM	EM	Ø	EL	EM	EM	/	A	10	0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	/
a-	1977785	Raw milk cow cheese (St Nectaire) batch 1	/	nc	/	/	DM halo	DM halo	EM	EM	AM sans halo	AM sans halo	EM	EM	*L.innocua*	A	355 (30/30/26)	0.09 (0.00/0.00/0.00)	POSITIF (-/-/-)	EM	EM	/	A (FP)	NA (PP)	30	0,00	NEGATIF	EM	EM	/	A
a-	1977786	Raw milk cow cheese (St Nectaire) batch 2	/	nc	/	/	BL sans halo	BL sans halo	EM	EM	AM sans halo	AM sans halo	EM	EM	*L.innocua*	A	37	0,00	NEGATIF	EM	AL sans halo	*L.innocua*	A	NA	50	0,01	NEGATIF	EM	AL sans halo	*L.innocua*	A
a-	1977787	Raw milk cow cheese (St Nectaire) batch 3	/	/	/	/	EL	EL	EM	EM	Ø	EL	EM	EM	/	A	16	0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	/
b+	1977542	Pasteurized cow cheese (Munster)	*L. mono* CLM641	ac	Seeding	1,8	Ø	EM	EM	EM	Ø	Ø	EM	EM	/	A	7228	1,84	POSITIF	CM	AM halo	*L.monocytogenes*	P	PD	4535	1,15	POSITIF	EM	BM halo	*L.monocytogenes*	P
b+	1977545	Pasteurized cow cheese with pepper	*L. mono* FKZ497 *L.welshimeri* GLX736	ac	Seeding	1,6/2,2	AL sans halo	AL sans halo	EM	EM	AM sans halo	AM sans halo	EM	EM	*L.welshimeri*	A	867	0,,22	POSITIF	EM	AM halo+sans halo	*L.monocytogenes* *L.welshimeri*	P	PD	1013	0,25	POSITIF	EM	BM halo	*L.monocytogenes* *L.welshimeri*	P
b+	1977546	Pasteurized sheep cheese	*L. mono* FKZ497 *L.welshimeri* GLX736	ac	Seeding	1,6/2,2	CL sans halo	CL sans halo	CM	EM	AM sans halo	AM sans halo	CM	CM	*L.welshimeri*	A	6704	1,71	POSITIF	CM	AM halo+sans halo	*L.monocytogenes* *L.welshimeri*	P	PD	4301	1,09	POSITIF	EM	AM halo+ sans halo	*L.monocytogenes* *L.welshimeri*	P

Type	Code	Sample	Contamination				Reference method ISO 11290-1 #										Alternative method VIDAS *Listeria LMO2* 22-26h								Alternative method VIDAS *Listeria LMO2* 22-26h - 4°C						
							Fraser 1/2				Fraser						VIDAS test LMO2			Confirmation					VIDAS test LMO2			Confirmations			
			Strain	Type	Stress	Level	ALOA		Palcam		ALOA		Palcam		Identification	Final result	RFV	VT	Test result	Palcam	ALOA	Identification	Final result	Agreement	RFV	VT	Test result	Palcam	ALOA	Identification	Final result
b+	1977547	Pasteurized cow cheese (Brie)	*L. mono* FKZ497 *L.welshimeri* GLX736	ac	Seeding	1,6/2,2	AL sans halo+halo	AL sans halo+halo	BM	BM	AM sans halo+halo	AM sans halo+halo	AM	AM	*L.monocytogenes* *L.welshimeri*	P	8277	2,11	POSITIF	CM	AM halo	*L.monocytogenes*	P	PA	8394	2,14	POSITIF	EM	AM halo	*L.monocytogenes*	P
b+	1977548	Pasteurized sheep cheese (Bleu)	*L.mono* FMJ325	ac	Seeding	1,8	EL	AL halo	EM	EM	AM halo	AM halo	EM	EM	*L.monocytogenes*	P	8088	2,06	POSITIF	DM	AM halo	*L.monocytogenes*	P	PA	8776	2,24	POSITIF	DM	AM halo	*L.monocytogenes*	P
b+	1977549	Pasteurized cow cheese (Merzer)	*L.mono* FMJ325	ac	Seeding	1,8	Ø	Ø	EM	DM	Ø	BL	EM	EM	*L.monocytogenes*	P	3043	0,77	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA	2972	0,75	POSITIF	EM	AM halo	*L.monocytogenes*	P
b+	1977550	Pasteurized sheep cheese	*L.mono* FMJ325	ac	Seeding	1,8	Ø	AL halo	EM	EM	AM halo	AM halo	BM	BM	*L.monocytogenes*	P	9189	2,34	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA	5667	1,44	POSITIF	EM	AM halo	*L.monocytogenes*	P
b+	1977551	Pasteurized cow cheese	*L.mono* FMJ325	ac	Seeding	1,8	EM	EM	EM	EM	AM halo	AM halo	EM	EM	*L.monocytogenes*	P	7	0,00	NEGATIF	EM	Ø	/	A	ND	9	0,00	NEGATIF	EM	Ø	/	A
b-	1977512	Pasteurized cow cheese (Merzer)	/	/	/	/	Ø	Ø	EM	EM	Ø	Ø	EM	EM	/	A	-3	-0.00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	/
b-	1977513	Pasteurized cow cheese (Munster)	/	/	/	/	Ø	Ø	EM	EM	Ø	Ø	EM	EM	/	A	-3	-0.00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	/
b-	1977514	Pasteurized cow cheese (Le Bleu)	/	/	/	/	EM	EM	EM	EM	Ø	Ø	EM	EM	/	A	1	0.00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	/
b-	1977515	Pasteurized cow cheese (Brie)	/	/	/	/	EL	EL	EM	EM	Ø	Ø	EM	EM	/	A	-3	-0.00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	/
b-	1977516	Pasteurized sheep cheese (Bleu)	/	/	/	/	EL	EL	EM	EM	Ø	EM	EM	EM	/	A	-4	-0.00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	/
b-	1977517	Pasteurized sheep cheese	/	/	/	/	EL	EL	EM	EM	Ø	Ø	EM	EM	/	A	-3	-0.00	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	/
b-	1977518	Pasteurized goat chees	/	/	/	/	EL	EL	EM	EM	Ø	Ø	EM	EM	/	A	-4	-0.00	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	/
b-	1977519	Pasteurized goat cheese (Ossau Iraty)	/	/	/	/	EM	EM	EM	EM	EL	EL	EM	EM	/	A	-3	-0.00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	/
b-	1977536	Pasteurized cow cheese	/	/	/	/	EM	EM	EM	EM	EM	EM	EM	EM	/	A	11	0,00	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	/
b-	1977537	Pasteurized cow cheese with pepper	/	/	/	/	Ø	EM	EM	EM	EL	EL	EM	EM	/	A	89	0,02	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	/
b-	1977606	Pasteurized cow cheese (Emmental)	/	/	/	/	Ø	EL	EL	EL	/	EM	/	EM	/	A	-3	0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	A
b-	1977607	Pasteurized cow cheese (Le Paillé)	/	/	/	/	Ø	EL	EL	EL	/	Ø	/	EL	/	A	-3	0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	A
c+	1977555	Powdered whey	*L. mono* HBP652 *L.innocua* GPQ140	ac	Spiking	4,8/4.0	Ø	EL	EL	EL	AM sans halo	AM sans halo	DM	DM	*L.innocua*	A	2582	0,66	POSITIF	CM	AM sans halo	*L.innocua* *L.monocytogenes*	P	PD	2675	0,68	POSITIF	AM	AM sans halo	*L.innocua* *L.monocytogenes*	P
c+	1977557	Skimmed milk powder	*L. mono* FLD375	ac	Spiking	4,6	EM	DM	EM	EM	AM halo	AM halo	DM	DM	*L.monocytogenes*	P	9249	2,36	POSITIF	DM	BM halo	*L.monocytogenes*	P	PA	5485	1,40	POSITIF	DM	AM halo	*L.monocytogenes*	P
c+	1977558	Goat milk powder	*L. mono* FLD375	ac	Spiking	4,6	EM	EM	EM	EM	BM halo	BM halo	DM	DM	*L.monocytogenes*	P	11569	2,95	POSITIF	DM	BM halo	*L.monocytogenes*	P	PA	7749	1,98	POSITIF	DM	AM halo	*L.monocytogenes*	P
c+	1977559	Powdered caseinate	*L. mono* FLD375	ac	Spiking	4,6	Ø	AL halo	EL	AL	AM halo	AM halo	DM	DM	*L.monocytogenes*	P	8662	2,21	POSITIF	DM	BM halo	*L.monocytogenes*	P	PA	8860	2,26	POSITIF	DM	AM halo	*L.monocytogenes*	P
c+	1977581	Powdered whole milk	*L.mono* JAR249	ac	Spiking	4,0	EM	EM	EM	EM	Ø	EL	EM	EM	/	A	750	0,19	POSITIF	EM	CL halo	*L.monocytogenes*	P	PD	1676	0,42	POSITIF	EM	BM halo	*L.monocytogenes*	P
c+	1977582	Skimmed milk powder	*L.mono* JAR249	ac	Spiking	4,0	EM	EM	EM	EM	Ø	EL	EM	EM	/	A	2744	0,70	POSITIF	EM	BM halo	*L.monocytogenes*	P	PD	1075	0,27	POSITIF	EM	BM halo	*L.monocytogenes*	P
c+	1977584	Powdered buttermilk	*L.mono* LAS822	ac	Spiking	4,4	EM	EM	EM	EM	EL	EL	EL	EL	/	A	10063	2,59	POSITIF	BM	AM halo	*L.monocytogenes*	P	PD	12121	3,08	POSITIF	BM	AM halo	*L.monocytogenes*	P
c+	1977585	Semi-skimmed milk powder	*L.mono* LAS822	ac	Spiking	4,4	BM halo	BM halo	EM	EM	AM halo	AM halo	BM	BM	*L.monocytogenes*	P	12147	3,13	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA	8909	2,26	POSITIF	EM	AM halo	*L.monocytogenes*	P
c+	2067971	Whey permeate	*L.mono* FKZ497	ac	Spiking	4,2	EL	AL halo	EM	EM	AM halo	AM halo	EM	EM	*L.monocytogenes*	P	9386	2,42	POSITIF	CM	AM halo	*L.monocytogenes*	P	PA	8341	2,08	POSITIF	CM	AM halo	*L.monocytogenes*	P
c+	2067972	Powdered buttermilk	*L.mono* FKZ497	ac	Spiking	4,2	Ø	AL halo	EM	EM	AM halo	AM halo	BM	BM	*L.monocytogenes*	P	12053	3,11	POSITIF	DM	BM halo	*L.monocytogenes*	P	PA	11019	2,81	POSITIF	DM	AM halo	*L.monocytogenes*	P
c+	2067973	Ewe whole milk powder	*L.mono* FKZ497	ac	Spiking	4,2	EM	EM	EM	EM	BM halo	BM halo	DM	DM	*L.monocytogenes*	P	9013	2,30	POSITIF	DM	AM halo	*L.monocytogenes*	P	PA	7424	1,89	POSITIF	DM	AM halo	*L.monocytogenes*	P
c-	1977577	Whey permeat	*L. mono* GND673	ac	Spiking	4,4	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	/	A	-4	-0,00	NEGATIF	EM	Ø	/	A	NA	-5	-0,00	NEGATIF	EM	Ø	/	A
c-	1977578	Organic skimmed milk powder	*L. mono* GND673	ac	Spiking	4,4	EL	EL	EL	EL	Ø	EL	EL	EL	/	A	-3	-0,00	NEGATIF	EM	EL	/	A	NA	-5	-0,00	NEGATIF	EM	EL	/	A
c-	1977583	Whey permeate	*L.mono* JAR249	ac	Spiking	4,0	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	/	A	-3,00	-0,00	NEGATIF	EM	EL	/	A	NA	-3	-0,00	NEGATIF	EM	Ø	/	A
c-	1977732	Powdered whole milk	/	/	/	/	EL	EL	EM	EM	EL	EL	EM	EM	/	A	-2	-0,00	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	A

Type	Code	Sample	Contamination				Reference method ISO 11290-1 #										Alternative method VIDAS *Listeria LMO2* 22-26h							Agreement	Alternative method VIDAS *Listeria LMO2* 22-26h - 4°C						
							Fraser 1/2				Fraser				Identification	Final result	VIDAS test LMO2			Confirmation			Final result		VIDAS test LMO2			Confirmations			Final result
			Strain	Type	Stress	Level	ALOA		Palcam		ALOA		Palcam				RFV	VT	Test result	Palcam	ALOA	Identification			RFV	VT	Test result	Palcam	ALOA	Identification	
c-	1977733	Powdered whey	/	/	/	/	Ø	Ø	EM	EM	Ø	Ø	EM	EM	/	A	-2	-0,00	NEGATIF	EL	Ø	/	A	NA	/	/	/	/	/	/	A
c-	1977734	Semi-skimmed milk powder batch 1	/	/	/	/	Ø	EL	EL	EL	EL	EL	EM	EM	/	A	-3	-0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	A
c-	1977735	Skimmed milk	/	/	/	/	EL	EL	EM	EM	EL	EL	EM	EM	/	A	-2	-0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	A
c-	1977736	Goat milk powder	/	/	/	/	EL	EL	EM	EM	EL	EL	EM	EM	/	A	-3	-0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	A
c-	1977737	Skimmed milk	/	/	/	/	EL	EL	EM	EM	EL	EL	EM	EM	/	A	-3	-0,00	NEGATIF	EL	Ø	/	A	NA	/	/	/	/	/	/	A
c-	1977738	Powdered buttermilk	/	/	/	/	EL	EL	EM	EM	EL	EL	EM	EM	/	A	1	0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	A
c-	1977739	Whey permeate	/	/	/	/	Ø	Ø	EL	EL	Ø	Ø	EM	EM	/	A	-1	-0,00	NEGATIF	EL	Ø	/	A	NA	/	/	/	/	/	/	A
c-	1977740	Organic skimmed milk powder	/	/	/	/	EL	EL	EM	EM	EL	EL	EM	EM	/	A	-2	-0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	A
c-	1977741	Semi-skimmed milk powder batch 2	/	/	/	/	EL	EL	EM	EM	EL	EL	EM	EM	/	A	0	0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	A

Type	Code	Sample	Contamination				Reference method ISO 11290-1 #										Alternative method VIDAS *Listeria* LMO2 26-30h							Agreement	Alternative method VIDAS *Listeria* LMO2 26-30h - 4°C							Agreement
							Fraser 1/2				Fraser				Identification	Final result	VIDAS test LMO2			Confirmation			Final result		VIDAS test LMO2			Confirmations			Final result	
			Strain	Type	Stress	Level	ALOA		Palcam		ALOA		Palcam				RFV	VT	Test result	Palcam	ALOA	Identification			RFV	VT	Test result	Palcam	ALOA	Identification		
a+	1977560	Baby milk powder 0-6 months	*L.innocua* GRR943 *L.mono* BMU793	ac	Spiking	2,8/3,0	BM halo + sans	BM halo + sans	DM	DM	AM halo + sans	AM halo + sans	BM	BM	*L.innocua* *L.monocytogenes*	P	9444	2,41	POSITIF	DM	BM halo + sans	*L.innocua* *L.monocytogenes*	P	PA	6351	1,62	POSITIF	DM	BM halo + sans	*L.innocua* *L.monocytogenes*	P	PA
a+	1977561	Baby milk powder 6-12 months LOT 1	*L.innocua* GRR943 *L.mono* BMU793	ac	Spiking	2,8/3,0	BM halo + sans	BM halo + sans	DM	DM	AM halo + sans	AM halo + sans	BM	BM	*L.innocua* *L.monocytogenes*	P	3382	0,86	POSITIF	DM	AM halo + sans	*L.innocua* *L.monocytogenes*	P	PA	5236	1,33	POSITIF	DM	AM halo + sans	*L.innocua* *L.monocytogenes*	P	PA
a+	1977562	Baby milk powder 1-3 years LOT 1	*L.innocua* GRR943 *L.mono* BMU793	ac	Spiking	2,8/3,0	AM halo + sans	BM halo + sans	DM	DM	AM halo + sans	AM halo + sans	DM	DM	*L.innocua* *L.monocytogenes*	P	973	0,24	POSITIF	DM	AM halo + sans	*L.innocua* *L.monocytogenes*	P	PA	506	0,12	POSITIF	DM	AM halo + sans	*L.innocua* *L.monocytogenes*	P	PA
a+	1977563	Baby growth milk powder1-3 years	*L.innocua* GLE603 *L.mono* BLV059	ac	Spiking	3,0/4,0	BM halo + sans	BM halo + sans	EM	EM	AM halo + sans	AM halo + sans	BM	BM	*L.monocytogenes* *L. innocua*	P	7990	2,04	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA	8815	2,25	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA
a+	1977564	Baby goat milk powder 1- 3 years	*L.innocua* GLE603 *L.mono* BLV059	ac	Spiking	3,0/4,0	BM halo + sans	BM halo + sans	EM	EM	AM halo + sans	AM halo + sans	BM	BM	*L.monocytogenes* *L. innocua*	P	6708	1,71	POSITIF	DM	AM halo + sans	*L.monocytogenes* *L. innocua*	P	PA	4583	1,17	POSITIF	DM	AM halo + sans	*L.monocytogenes* *L. innocua*	P	PA
a+	1977565	Baby milk powder 1-3 years LOT 2	*L.innocua* GLE603 *L.mono* BLV059	ac	Spiking	3,0/4,0	BM halo + sans	BM halo	EM	EM	AM halo	AM halo	BM	BM	*L.monocytogenes*	P	4049	1,03	POSITIF	DM	AM halo + sans	*L.monocytogenes* *L. innocua*	P	PA	7331	1,87	POSITIF	DM	AM halo + sans	*L.monocytogenes* *L. innocua*	P	PA
a+	1977567	Baby milk powder thickened formula 6-12 months	*L.mono* PCA920	ac	Spiking	4,0	Ø	Ø	EL	EL	Ø	Ø	Ø	Ø	/	A	7768	1,98	POSITIF	DM	AM avec halo	*L.monocytogenes*	P	PD	7770	1,98	POSITIF	DM	AM avec halo	*L.monocytogenes*	P	PD
a+	1977568	Junior baby milk powder + 18 months	*L.mono* PCA920	ac	Spiking	4,0	Ø	Ø	EL	EL	Ø	Ø	EL	EL	/	A	7869	2,01	POSITIF	BM	AM avec halo	*L.monocytogenes*	P	PD	7848	2,00	POSITIF	BM	AM avec halo	*L.monocytogenes*	P	PD
a+	1977569	Baby milk powder 6-12 months LOT 2	*L.mono* PCA920	ac	Spiking	4,0	Ø	DL avec halo	EL	EL	AL avec halo	AL avec halo	DL	DL	*L.monocytogenes*	P	8497	2,17	POSITIF	BM	AM avec halo	*L.monocytogenes*	P	PA	6872	1,75	POSITIF	BM	AM avec halo	*L.monocytogenes*	P	PA
a+	2045465	Organic baby milk powder 6-12 months	*L.mono* GND673	ac	Spiking	3,8	BM halo	BM halo	EM	EM	AM halo	AM halo	BM	BM	*L.monocytogenes*	P	8150	2,02	POSITIF	BM	AM avec halo	*L.monocytogenes*	P	PA	7402	1,89	POSITIF	BM	AM avec halo	*L.monocytogenes*	P	PA
a-	1977566	Baby growth milk powder1-3 years	*L.mono* PCA920	ac	Spiking	4,0	Ø	Ø	EM	EM	Ø	Ø	EL	EL	/	A	-3	-0.00	NEGATIF	EM	Ø	/	A	NA	-4	-0.00	NEGATIF	EM	Ø	/	A	NA
a-	1977596	Baby milk powder 0-6 months	/	/	/	/	Ø	EL	EL	EL	/	EL	/	EM	/	A	-5	-0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
a-	1977597	Baby milk powder 6-12 months LOT 1	/	/	/	/	Ø	EL	EL	EL	/	Ø	/	EL	/	A	-5	-0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
a-	1977598	Baby milk powder 1-3 years LOT 1	/	/	/	/	Ø	EL	EL	EL	/	EL	/	EM	/	A	-3	-0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	A	NA
a-	1977599	Baby growth milk powder 1-3 years	/	/	/	/	Ø	EL	EL	EL	/	Ø	/	EL	/	A	-3	-0,00	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	A	NA
a-	1977600	Baby growth milk powder 1-3 years	/	/	/	/	Ø	EL	EL	EL	/	Ø	/	EL	/	A	-5	-0,00	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	A	NA
a-	1977601	Baby milk powder 1-3 years LOT 2	/	/	/	/	Ø	EL	EL	EL	/	EL	/	EL	/	A	-4	-0,00	NEGATIF	EM	EM	/	A	NA	/	/	/	/	/	/	A	NA
a-	1977602	Baby milk powder 1-3 years	/	/	/	/	Ø	EL	Ø	EL	/	Ø	/	Ø	/	A	1	0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
a-	1977603	Baby milk powder thickened formula 6-12 months	/	/	/	/	Ø	Ø	Ø	EL	/	Ø	/	EL	/	A	-5	-0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
a-	1977604	Junior baby milk powder + 18 months	/	/	/	/	Ø	Ø	Ø	Ø	/	Ø	/	Ø	/	A	-4	-0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
a-	1977605	Baby milk powder 6-12 months LOT 2	/	/	/	/	Ø	EL	EL	EL	/	Ø	/	EL	/	A	-4	-0,00	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	A	NA
b+	1977589	Infant milk 1-3 years *Lactobacillus reuteri* DSM 17938 - 5,5 10^6 UFC/g	*L.mono* JAR249	ac	Spiking	4,0	AL halo	AL halo	EL	EL	AM halo	AM halo	BM	BM	*L.monocytogenes*	P	11795	3,04	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA	9772	2,48	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA
b+	1977590	Organic infant milk 6-12 months *Lactobacillus fermentum hereditum* - 10^6 UFC/g	*L.mono* PCA920	ac	Spiking	4,0	AL halo	AL halo	EL	EL	AM halo	AM halo	EM	EM	*L.monocytogenes*	P	-3	0	NEGATIF	EM	Ø	/	A	ND	-3	0	NEGATIF	/	/	/	A	ND
b+	1977591	Organic infant milk 1-3 years *Bifidobactérium lactis* - 2,1 10^7 UFC/g	*L.mono* PCA920	ac	Spiking	4,0	EM	EM	EM	EM	AM halo	AM halo	BM	BM	*L.monocytogenes*	P	8298	2,14	POSITIF	EM	AL halo	*L.monocytogenes*	P	PA	9236	2,34	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA
b+	1977592	Infant milk 0-6 months greedy baby *B.Lactis* - 4,5 10^6 UFC/g	*L.mono* HBP652	ac	Spiking	4,6	Ø	EL	EL	EL	Ø	EL	EM	EM	/	A	11775	3,03	POSITIF	AM	AM halo	*L.monocytogenes*	P	PD	10317	2,62	POSITIF	DM	AM halo	*L.monocytogenes*	P	PD
b+	1977593	Infant milk 6-12 months *Lactobacillus reuteri* DSM 17938 - 6,1 10^6 UFC/g	*L.mono* HBP652	ac	Spiking	4,6	AL halo	AL halo	EL	EL	AM halo	AM halo	DM	EM	*L.monocytogenes*	P	8661	2,23	POSITIF	BM	AM halo	*L.monocytogenes*	P	PA	9232	2,34	POSITIF	BM	AM halo	*L.monocytogenes*	P	PA
b+	1977594	Infant milk 6-12 months *S.thermophilus* - 7,7 10^6 UFC/g	*L.mono* HBP652	ac	Spiking	4,6	AL halo	AL halo	EL	EL	Ø	Ø	EM	EM	*L.monocytogenes*	P	9298	2,39	POSITIF	BM	AM halo	*L.monocytogenes*	P	PA	9007	2,28	POSITIF	BM	AM halo	*L.monocytogenes*	P	PA
b+	1977595	Infant milk 6-12 months thickened formula Bifidobactéries - 1,6 10^6 UFC/g	*L.mono* HBP652	ac	Spiking	4,6	Ø	EL	EM	EM	Ø	Ø	EM	EM	/	A	11015	2,84	POSITIF	EM	AM halo	*L.monocytogenes*	P	PD	8766	2,33	POSITIF	EM	AM halo	*L.monocytogenes*	P	PD
b+	1978391	Infant milk 1-3 years *Lactobacillus reuteri* DSM 17938 - 5,4 10^6 UFC/g	*L.mono* GND673	ac	Spiking	3,8	Ø	Ø	Ø	Ø	EM	EM	EL	EL	/	A	2469	0,64	POSITIF	BL	AL halo	*L.monocytogenes*	P	PD	2675	0,68	POSITIF	BL	AL halo	*L.monocytogenes*	P	PD
b+	2067974	Organic infant milk 6-12 months Bifidobacterium infantis - 2,3 10^6 UFC/g	*L.mono* LCM223	ac	Spiking	4,8	AL halo	AL halo	DL	DL	Ø	Ø	DL	DL	*L.monocytogenes*	P	7899	1,96	POSITIF	BM	AL halo	*L.monocytogenes*	P	PA	8713	2,25	POSITIF	BM	AL halo	*L.monocytogenes*	P	PA
b+	2067975	Organic infant milk 0-6 months Bifidobacterium - 9,4 10^5 UFC/g	*L.mono* LCM223	ac	Spiking	4,8	AL halo	AL halo	DL	DL	Ø	Ø	DL	DL	*L.monocytogenes*	P	9451	2,44	POSITIF	BM	AL halo	*L.monocytogenes*	P	PA	8165	2,11	POSITIF	BM	AL halo	*L.monocytogenes*	P	PA
b-	1977586	Infant milk 0-6 months thickened formula *B.Lactis* - 4,7 10^6 UFC/g	*L.mono* JAR249	ac	Spiking	4,0	EL	EL	EM	EM	EL	EL	EM	EM	/	A	-5	-0,00	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	A	NA
b-	1977587	Infant milk 0-6 months (breastfeeding relay) *Lactobacillus reuteri* DSM 17938 - 4 10^5 UFC/g	*L.mono* LAS822	ac	Spiking	4,4	Ø	Ø	EL	EL	Ø	Ø	EM	EM	/	A	-4	-0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA

Powder Infant Formula and cereals

Type	Code	Sample	Contamination				Reference method ISO 11290-1 #										Alternative method VIDAS *Listeria* LMO2 26-30h							Agreement	Alternative method VIDAS *Listeria* LMO2 26-30h - 4°C							Agreement
							Fraser 1/2				Fraser				Identification	Final result	VIDAS test LMO2			Confirmation			Final result		VIDAS test LMO2			Confirmations			Final result	
			Strain	Type	Stress	Level	ALOA		Palcam		ALOA		Palcam				RFV	VT	Test result	Palcam	ALOA	Identification			RFV	VT	Test result	Palcam	ALOA	Identification		
b-	1977588	Infant milk 6-12 months thickened formula *Bifidobactérium infantis* - 4,1 10^6 UFC/g	*L.mono* LAS822	ac	Spiking	4,4	Ø	Ø	EL	EL	Ø	Ø	EM	EM	/	A	39	0,01	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	A	NA
b-	1977762	Infant milk 0-6 months thickened formula *B.Lactis* - 4,7 10^6 UFC/g	/	/	/	/	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	/	A	-2	-0,00	NEGATIF	Ø	Ø	/	A	NA	/	/	/	/	/	/	A	NA
b-	1977763	Infant milk 0-6 months (breastfeeding relay) *Lactobacillus reuteri* DSM 17938 - 4 10^6 UFC/g	/	/	/	/	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	/	A	-3	-0,00	NEGATIF	Ø	Ø	/	A	NA	/	/	/	/	/	/	A	NA
b-	1977764	Infant milk 6-12 months thickened formula *Bifidobactérium infantis* - 4,1 10^6 UFC/g	/	/	/	/	Ø	Ø	EL	EL	Ø	Ø	EL	EL	/	A	0	0,00	NEGATIF	EL	Ø	/	A	NA	/	/	/	/	/	/	A	NA
b-	1977765	Infant milk 1-3 years *Lactobacillus reuteri* DSM 17938 - 5,5 10^6 UFC/g	/	/	/	/	EL	EL	EL	EL	Ø	Ø	Ø	Ø	/	A	17	0,00	NEGATIF	Ø	EL	/	A	NA	/	/	/	/	/	/	A	NA
b-	1977766	Organic infant milk 6-12 months *Lactobacillus fermentum hereditum* - 10^6 UFC/g	/	/	/	/	Ø	Ø	Ø	Ø	Ø	Ø	EL	EL	/	A	-2	-0,00	NEGATIF	EL	Ø	/	A	NA	/	/	/	/	/	/	A	NA
b-	1977767	Organic infant milk 1-3 years *Bifidobactérium lactis* - 2,1 10^6 UFC/g	/	/	/	/	EL	EL	EM	EM	EL	EL	EL	EL	/	A	-2	-0,00	NEGATIF	EL	EL	/	A	NA	/	/	/	/	/	/	A	NA
b-	1977768	Infant milk 0-6 months greedy baby *B.Lactis* - 4,5 10^6 UFC/g	/	/	/	/	Ø	Ø	EL	EL	Ø	Ø	EL	EL	/	A	-2	-0,00	NEGATIF	EL	Ø	/	A	NA	/	/	/	/	/	/	A	NA
b-	1977769	Infant milk 6-12 months *Lactobacillus reuteri* DSM 17938 - 6,1 10^6 UFC/g	/	/	/	/	Ø	Ø	EL	EL	Ø	Ø	Ø	Ø	/	A	-3	-0,00	NEGATIF	Ø	Ø	/	A	NA	/	/	/	/	/	/	A	NA
b-	1977770	Infant milk 6-12 months *S.thermophilus* - 5,5 10^6 UFC/g	/	/	/	/	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	/	A	-2	-0,00	NEGATIF	Ø	EL	/	A	NA	/	/	/	/	/	/	A	NA
b-	1977771	Organic infant milk 1-3 years *Lactobacillus fermemtum hereditum* - 5,8 10^6 UFC/g	/	/	/	/	Ø	Ø	EL	EL	Ø	Ø	EL	EL	/	A	-3	-0,00	NEGATIF	EL	Ø	/	A	NA	/	/	/	/	/	/	A	NA
b-	1978390	Organic infant milk 1-3 years *Lactobacillus fermemtum hereditum* - 5,8 10^6 UFC/g	*L.mono* GND673	ac	Spiking	3,8	EL	EL	Ø	Ø	Ø	Ø	EL	EL	/	A	-2	-0,00	NEGATIF	EL	EL	/	A	NA	/	/	/	/	/	/	A	NA
c+	1977742	Infant cereal quinoa banana plum *B. lactis* 1,1 10^6 CFU/g	*L.mono* RCJ280	ac	Spiking	4	AL halo	AL halo	BM	BM	AM halo	AM halo	BM	BM	*L.monocytogenes*	P	8439	2,25	POSITIF	BM	AM halo	*L.monocytogenes*	P	PA	8997	2,39	POSITIF	BM	AM halo	*L.monocytogenes*	P	PA
c+	1977743	Infant cereals with honey *B. lactis* 3,4 10^6 CFU/g	*L.mono* RCJ280	ac	Spiking	4	AL halo	AL halo	BM	BM	AM halo	AM halo	BM	BM	*L.monocytogenes*	P	8489	2,26	POSITIF	BM	AM halo	*L.monocytogenes*	P	PA	8920	2,37	POSITIF	BM	AM halo	*L.monocytogenes*	P	PA
c+	1977744	Biscuit flavored infant cereals *B. lactis* 7 10^5 CFU/g	*L.mono* RCJ280	ac	Spiking	4	AL halo	AL halo	EL	EL	AM halo	AM halo	EM	EM	*L.monocytogenes*	P	8922	2,37	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA	9047	2,41	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA
c+	1977745	Infant cereals with 5 cereals *B. lactis* 5 10^5 CFU/g	*L.mono* RCJ280	ac	Spiking	4	AL halo	AL halo	EM	EM	AM halo	AM halo	EM	EM	*L.monocytogenes*	P	8330	2,22	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA	9118	2,43	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA
c+	1977746	Whole oat and wheat infant cereals *B. lactis* 6,8 10^6 CFU/g	*L.mono* BNX114	ac	Spiking	3,4	AL halo	AL halo	EL	EL	AM halo	AM halo	EM	EM	*L.monocytogenes*	P	0	0,00	NEGATIF	EL	Ø	/	A	ND	-2	-0,00	NEGATIF	EL	Ø	/	A	ND
c+	1977747	Infant multi-cereals with exotic fruits	*L.mono* BNX114	ac	Spiking	3,4	Ø	Ø	EL	EL	Ø	Ø	EL	EL	*L.monocytogenes*	P	8386	2,23	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA	9305	2,48	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA
c+	1977748	Brioche flavored Infant cereals	*L.mono* RCJ280	ac	Spiking	4	AL halo	AL halo	EM	EM	AM halo	AM halo	EM	EM	*L.monocytogenes*	P	8804	2,34	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA	8463	2,25	POSITIF	EM	AM halo	*L.monocytogenes*	P	PA
c-	1977749	Infant vanilla cereals	*L.mono* LAS822	ac	Spiking	2,8	Ø	Ø	EL	EL	Ø	Ø	EL	EL	/	A	-1	-0.00	NEGATIF	EL	Ø	/	A	NA	/	/	/	/	/	/	A	NA
c+	1977750	Infant chocolate cereals	*L.mono* LAS822	ac	Spiking	2,8	Ø	Ø	EL	EL	Ø	Ø	EL	EL	/	A	8962	2,39	POSITIF	EM	AM halo	*L.monocytogenes*	P	PD	8468	2,25	POSITIF	EM	AM halo	*L.monocytogenes*	P	PD
c+	1977751	Infant caramel cereals	*L.mono* JAR249	ac	Spiking	2,6	Ø	Ø	EL	EL	Ø	Ø	EL	EL	/	A	8761	2,33	POSITIF	EM	AM halo	*L.monocytogenes*	P	PD	8378	2,23	POSITIF	EM	AM halo	*L.monocytogenes*	P	PD
c+	1977780	Infant chocolate cereals	L.mono GND673	ac	Spiking	5	AM halo	AM halo	EM	EM	AM halo	AM halo	EM	EM	*L.mono*	P	8143	2,02	POSITIF	DM	AM halo	*L.monocytogenes*	P	PA	7362	1,96	POSITIF	DM	AM halo	*L.monocytogenes*	P	PA
c-	1977524	Infant cereal quinoa banana plum	/	/	/	/	EL	EL	EL	EL	Ø	Ø	Ø	Ø	/	A	-2	-0.00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
c-	1977525	Infant cereals with honey	/	/	/	/	EL	EL	EL	EL	Ø	Ø	EM	EM	/	A	-1	-0.00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
c-	1977526	Biscuit flavored infant cereals	/	/	/	/	EL	EL	EL	EL	Ø	Ø	EL	EL	/	A	-3	-0.00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
c-	1977527	Infant multi-cereals with exotic fruits	/	/	/	/	EL	EL	EL	EL	Ø	Ø	Ø	Ø	/	A	-3	-0.00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
c-	1977528	Infant cereals with 5 cereals	/	/	/	/	EL	EL	EM	EM	Ø	Ø	EM	EM	/	A	159	0,04	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
c-	1977529	Whole oat and wheat infant cereals	/	/	/	/	EL	EL	EL	EL	EL	EL	EM	EM	/	A	-2	-0.00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
c-	1977538	Brioche flavored Infant cereals	/	/	/	/	Ø	Ø	EL	EL	Ø	Ø	EM	EM	/	A	15	0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA
c-	1977539	Infant vanilla cereals	/	/	/	/	Ø	Ø	EL	EL	Ø	Ø	EM	EM	/	A	21	0,00	NEGATIF	EM	EL	/	A	NA	/	/	/	/	/	/	A	NA
c-	1977540	Infant chocolate cereals	/	/	/	/	EL	EL	EL	EL	Ø	Ø	Ø	Ø	/	A	13	0,00	NEGATIF	Ø	Ø	/	A	NA	/	/	/	/	/	/	A	NA
c-	1977541	Infant caramel cereals	/	/	/	/	EL	EL	EL	EL	Ø	Ø	EM	EM	/	A	21	0,00	NEGATIF	EM	Ø	/	A	NA	/	/	/	/	/	/	A	NA

Appendix E – RLOD study – Raw results

Caption

OAA : Ottaviani & Agosti agar

PAL: Palcam agar

+: positive result

- : negative result

/ : test not realized

Ø : absence of colonies

Ø, L, M, H: level of bacterial load from absence to high

A: pure culture of suspected colonies

B: mixing with a majority of suspected colonies

C: mixing with a minority of suspected colonies

D: mixing with rare suspected colonies

E: absence of suspected colonies

Rillettes - *Listeria monocytogenes* 1/2c – TVC: 640 000 CFU/g

Level	CFU/25ml	Reference method						Alternative method							Comparison
		Half Fraser		Fraser		Result	Conclusion	Signal (RFV)	Test value	Result	Confirmations		Result	Conclusion	
		PAL	OAA	PAL	OAA						PAL	OAA			
1	0	Ø	Ø	Ø	Ø	-	0/6	0	0,00	-	/	/	-	0/6	=
		Ø	Ø	Ø	Ø	-		-2	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-3	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-1	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-2	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-1	0,00	-	/	/	-		=
2	0,39	Ø	-LE	Ø	Ø	-	1/6	-2	0,00	-	/	/	-	1/6	=
		Ø	-LE	Ø	-ME	-		-1	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-4	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-2	0,00	-	/	/	-		=
		Ø	-LE	Ø	Ø	-		-4	0,00	-	/	/	-		=
		+MA	+MA	+HA	+MA	+		9398	2,46	+	+MA	+MA	+		=
3	0,78	+MA	+MA	+HA	+HA	+	4/6	9151	2,40	+	+HA	+MA	+	4/6	=
		Ø	-LE	Ø	-LE	-		3	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-2	0,00	-	/	/	-		=
		+MA	+MA	+MA	+MA	+		8348	2,19	+	+HA	+MA	+		=
		+MA	+MA	+HA	+MA	+		8645	2,26	+	+MA	+MA	+		=
		+MA	+MA	+HA	+MA	+		8272	2,17	+	+HA	+MA	+		=
5	2,34	+MA	+MB	+MA	+MA	+	5/6	8528	2,23	+	+MA	+MA	+	5/6	=
		+MA	+MB	+HA	+MA	+		8298	2,17	+	+HA	+HA	+		=
		+MA	+MA	+MA	+MA	+		9468	2,48	+	+HA	+MA	+		=
		+MA	+MA	+HA	+MA	+		9185	2,41	+	+HA	+MA	+		=
		+MA	+MA	+HA	+MA	+		9857	2,58	+	+MA	+MA	+		=
		-ME	-ME	-HE	-ME	-		-4	0,00	-	/	/	-		=
6	2,48	+LB	+LB	+HA	+HA	+	6/6	7733	2,02	+	+HB	+HB	+	6/6	=
		+LB	+LB	+HA	+MA	+		6982	1,83	+	+HB	+HB	+		=
		+LB	+LB	+HA	+MA	+		4424	1,16	+	+MB	+MB	+		=
		+LB	+LB	+MA	+MA	+		8440	2,21	+	+MB	+MB	+		=
		+LB	+LB	+HA	+MA	+		10896	2,85	+	+HA	+HB	+		=
		+LA	+LA	+HA	+HA	+		10056	2,63	+	+HA	+HA	+		=

Pasteurized milk - *Listeria monocytogenes* 1/2b – TVC: 20 CFU/ml et 10000 CFU/ml

Level	CFU/25ml	Reference method						Alternative method							Comparison
		Half Fraser		Fraser		Result	Conclusion	Signal (RFV)	Test value	Result	Confirmations		Result	Conclusion	
		PAL	OAA	PAL	OAA						PAL	OAA			
1	0	Ø	Ø	Ø	Ø	-	0/6	-2	0,00	-	/	/	-	0/6	=
		n	Ø	Ø	Ø	-		-3	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-2	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		1	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-2	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		1	0,00	-	/	/	-		=
2	0,28	+MA	+MA	+HA	+HA	+	1/6	8733	3,30	+	+HA	+MA	+	1/6	=
		Ø	Ø	Ø	Ø	-		-2	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-3	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-2	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-1	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		0	0,00	-	/	/	-		=
3	0,56	Ø	Ø	Ø	Ø	-	2/6	-2	0,00	-	/	/	-	2/6	=
		+MA	+MA	+HA	+HA	+		8094	2,13	+	+MA	+MA	+		=
		Ø	Ø	Ø	Ø	-		0	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-3	0,00	-	/	/	-		=
		+LA	+LA	+HA	+MA	+		8094	2,13	+	+HA	+HA	+		=
		Ø	Ø	Ø	Ø	-		0	0,00	-	/	/	-		=
4	1,12	+MA	+LA	+HA	+MA	+	4/6	8552	2,25	+	+HA	+HA	+	4/6	=
		+MA	+LA	+HA	+MA	+		8495	2,23	+	+HA	+MA	+		=
		+MA	+LA	+HA	+MA	+		8428	2,22	+	+HA	+MA	-		=
		+MA	+LA	+HA	+MA	+		8289	2,18	+	+HA	+MA	+		=
		Ø	Ø	Ø	Ø	-		-2	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-2	0,00	-	/	/	-		=
6*	3,54	+MA	+MA	+HA	+MB	+	6/6	8984	2,24	+	+HA	+MB	+	6/6	=
		+MA	+MB	+HA	+MB	+		8943	2,23	+	+HA	+MB	+		=
		+MA	+MA	+HA	+MB	+		9542	2,38	+	+HA	+MA	+		=
		+MA	+MB	+HA	+MB	+		9244	2,30	+	+HA	+MA	+		=
		+MA	+MA	+HA	+MB	+		9576	2,39	+	+HA	+MA	+		=
		+MA	+MA	+HA	+MB	+		9129	2,27	+	+HA	+MA	+		=

Breaded fish - *Listeria monocytogenes* 1/2a – TVC : 4 500 000 CFU/g

Level	CFU/25ml	Reference method						Alternative method							Comparison
		Half Fraser		Fraser		Result	Conclusion	Signal (RFV)	Test value	Result	Confirmation		Result	Conclusion	
		PAL	OAA	PAL	OAA						PAL	PAL			
1	0	Ø	Ø	-LE	-ME	-	0/6	-2	0,00	-	/	/	-	0/6	=
		-LE	Ø	-ME	-LE	-		-1	0,00	-	/	/	-		=
		-LE	-LE	-ME	-LE	-		0	0,00	-	/	/	-		=
		Ø	Ø	-ME	-LE	-		-1	0,00	-	/	/	-		=
		-LE	-ME	-LE	-ME	-		-2	0,00	-	/	/	-		=
		Ø	Ø	-LE	-ME	-		-3	0,00	-	/	/	-		=
2	0,36	Ø	-LE	-LE	-ME	-	1/6	-1	0,00	-	/	/	-	1/6	=
		Ø	Ø	-LE	-ME	-		-1	0,00	-	/	/	-		=
		Ø	Ø	-LE	Ø	-		1	0,00	-	/	/	-		=
		+MA	+MA	+HA	+MA	+		8843	2,20	+	+HA	+MA	-		=
		Ø	Ø	-LE	-LE	-		1	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		6	0,00	-	/	/	-		=
3	0,72	+MA	+MA	+MA	+MB	+	5/6	7998	1,99	+	+MA	+MA	+	5/6	=
		+MA	+MA	+MA	+MA	+		7900	1,97	+	+MA	+MA	+		=
		+MA	+MA	+MA	+MB	+		7945	1,98	+	+MA	+MA	+		=
		+MA	+MB	+HA	+MB	+		7775	1,94	+	+HA	+MA	+		=
		+MA	+MA	+MA	+MB	+		7856	1,96	+	+MA	+MA	+		=
		Ø	-LE	-LE	-ME	-		-1	0,00	-	/	/	-		=
4	1,44	+MA	+MA	+MA	+MB	+	4/6	8147	2,03	+	+MA	+MA	+	4/6	=
		+HA	+MA	+MB	+MA	+		8216	2,05	+	+HA	+MA	+		=
		Ø	Ø	Ø	Ø	-		2	0,00	-	/	/	-		=
		+MA	+MA	+MB	+MA	+		8037	2,00	+	+MA	+MA	+		=
		+MB	+MA	+HB	+MA	+		8093	2,02	+	+HA	+MA	+		=
		Ø	-LE	Ø	-ME	-		2	0,00	-	/	/	-		=
5	2,16	+MA	+MA	+HA	+MA	+	6/6	8481	2,11	+	+MA	+MA	+	6/6	=
		+HA	+MA	+MA	+MA	+		8309	2,07	+	+HA	+HA	+		=
		+MA	+MA	+MA	+MA	+		8495	2,12	+	+HA	+MA	+		=
		+MA	+MA	+MB	+MA	+		9627	2,40	+	+HA	+MA	+		=
		+MA	+MA	+HA	+MA	+		8649	2,16	+	+MA	+MA	+		=
		+MA	+MA	+MB	+MA	+		8309	2,07	+	+MA	+MA	+		=

Fried Vegetables - *Listeria monocytogenes* 1/2b – TVC : 530 CFU/g

Level	CFU/25ml	Reference method						Alternative method							Comparison
		Half Fraser		Fraser		Result	Conclusion	Signal (RFV)	Test value	Results	Confirmation		Result	Conclusion	
		PAL	OAA	PAL	OAA						PAL	OAA			
1	0	-LE	-LE	-LE	-LE	-	0/6	-4	0,00	-	/	/	-	0/6	=
		-LE	-LE	-ME	-LE	-		-2	0,00	-	/	/	-		=
		-LE	-LE	-ME	-HE	-		2	0,00	-	/	/	-		=
		-LE	-LE	-ME	Ø	-		-4	0,00	-	/	/	-		=
		-LE	-LE	-ME	-ME	-		-3	0,00	-	/	/	-		=
		-LE	-LE	-ME	-LE	-		0	0,00	-	/	/	-		=
2	0,27	-LE	-LE	-ME	-ME	-	2/6	-1	0,00	-	/	/	-	2/6	=
		-ME	-ME	-ME	-ME	-		0	0,00	-	/	/	-		=
		-ME	-ME	-ME	-ME	-		-4	0,00	-	/	/	-		=
		+MB	+MA	+HB	+MB	+		11246	2,95	+	+HB	+MB	+		=
		-LE	-LE	-ME	-LE	-		3	0,00	-	/	/	-		=
		+LB	+MB	+MB	+MB	+		8486	2,22	+	+HB	+HB	+		=
3	0,54	+MB	+MA	+HB	+MB	+	4/6	8552	2,24	+	+HB	+MB	+	4/6	=
		-LE	-LE	-ME	-LE	-		-1	0,00	-	/	/	-		=
		+MB	+MB	+HB	+HA	+		7856	2,06	+	+HB	+MB	+		=
		+MB	+MB	+HB	+MB	+		9779	2,56	+	+HB	+MB	+		=
		-LE	-LE	-ME	-LE	-		-2	0,00	-	/	/	-		=
		+MB	+MB	+MB	+MB	+		7828	2,05	+	+HB	+HB	+		=
5	1,62	+MB	+MB	+HB	+HA	+	6/6	8614	2,26	+	+HB	+MB	+	6/6	=
		+MB	+MA	+HB	+MA	+		8533	2,23	+	+HB	+MB	+		=
		+MB	+MB	+HB	+MB	+		8958	2,35	+	+HB	+HB	+		=
		+MB	+MA	+HB	+MB	+		8682	2,27	+	+HB	+MB	+		=
		+MB	+MB	+HB	+MB	+		8598	2,25	+	+HB	+MB	+		=
		+MB	+MB	+HB	+MB	+		8318	2,18	+	+HB	+HB	+		=

Process water - *Listeria monocytogenes* 1/2c – TVC: 100 CFU/ml

Level	CFU/25ml	Reference method						Alternative method							Comparison
		Half Fraser		Fraser		Result	Conclusion	Signal (RFV)	Test value	Result	Confirmation		Result	Conclusion	
		PAL	OAA	PAL	OAA						PAL	OAA			
1	0	Ø	Ø	Ø	Ø	-	0/6	-2	0,00	-	/	/	-	0/6	=
		Ø	Ø	Ø	Ø	-		-2	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-1	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		2	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-3	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-3	0,00	-	/	/	-		=
2	0,50	+LA	+LA	+MA	+MA	+	3/6	8709	2,17	+	+HA	+MA	+	3/6	=
		+LA	+LA	+HA	+MA	+		8730	2,18	+	+MA	+MA	+		=
		Ø	Ø	Ø	Ø	-		0	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		40	0,00	-	/	/	-		=
		Ø	Ø	Ø	Ø	-		-4	0,00	-	/	/	-		=
		+LA	+LA	+HA	+MA	+		7719	1,92	+	+HA	+MA	+		=
4	2,00	+LA	+LA	+HA	+MA	+	5/6	7848	1,96	+	+MA	+MA	+	5/6	=
		+LA	+LA(1)	+HA	+MA	+		7373	1,84	+	+HA	+MA	+		=
		Ø	Ø	Ø	Ø	-		0	0,00	-	/	/	-		=
		+LA	+LA	+HA	+HA	+		8427	2,10	+	+HA	+MA	+		=
		+LA	+LA	+HA	+MA	+		8347	2,08	+	+MA	+MA	+		=
		+LA	+LA	+HA	+MA	+		8219	2,05	+	+HA	+MA	+		=
5	3,00	+LA(2)	+LA(2)	+HA	+MA	+	6/6	8785	2,19	+	+MA	+MA	+	6/6	=
		+LA(5)	+LA(1)	+HA	+MA	+		9187	2,29	+	+MA	+MA	+		=
		+LA	+LA	+MA	+MA	+		9628	2,40	+	+HA	+MA	+		=
		+LA	+LA	+HA	+MA	+		10849	2,70	+	+MA	+MA	+		=
		+LA	+LA(3)	+HA	+MA	+		10390	2,59	+	+HA	+MA	+		=
		+LA(3)	+LA(2)	+HA	+MA	+		10786	2,69	+	+HA	+MA	+		=

Appendix E

Relative level of detection

Extension study - Raw results

Caption

Bacterial load	Distribution of the microflora
L = low	A = pure culture of typical colonies
M = medium	B = mix with a majority of typical colonies
H = high	C = mix with a minority of typical colonies
Ø = absence	D = mix with rare typical colonies
	E = absence of typical colonies

Matrix: cottage cheese with raw milk **Bacterial strain**: *Listeria monocytogenes* HBP652 **Enumeration of the microorganisms**: 10^9 CFU/g

Code	CFU/ 125g	Reference method: EN ISO 11290-1:2017 (*)							Alternative method: VIDAS LMO2							Number of positive results / method
		1/2 Fraser		Fraser		Confirmation		Final result	VIDAS LMO2			Alternative method confirmation			Final result	
		ALOA	PALCAM	ALOA	PALCAM	Res.	Identification		RFV LMO2	VT	Result LMO2	ALOA	PALCAM	Identification		
1978465	0	ø	ø	ø	ø	-	/	A	13	0.00	-	ø	ø	/	A	RM: 0/5 AM: 0/5
1978466		ø	ø	ø	ø	-	/	A	6	0.00	-	ø	ø	/	A	
1978467		ø	ø	ø	ø	-	/	A	30	0.00	-	ø	ø	/	A	
1978468		ø	ø	ø	ø	-	/	A	8	0.00	-	ø	ø	/	A	
1978469		ø	ø	ø	ø	-	/	A	19	0.00	-	ø	ø	/	A	
2034804	0.9	AL	AL	AM	AM	+	*L.monocytogenes*	P	8931	2,22	+	AM	AM	*L.monocytogenes*	P	RM: 13/20 AM: 13/20
2034805		ø	ø	ø	ø	-	/	A	19	0,00	-	EM	EL	/	A	
2034806		AL	AL	AM	AM	+	*L.monocytogenes*	P	22	0,00	-	ø	ø	/	A	
2034807		ø	ø	ø	ø	-	/	A	18	0,00	-	ø	ø	/	A	
2034808		AL	AL	AM	AM	+	*L.monocytogenes*	P	9251	2,30	+	AM	AM	*L.monocytogenes*	P	
2034809		AL	AL	AL	AL	+	*L.monocytogenes*	P	12	0,00	-	EL	EL	/	A	
2034810		AL	AL	AL	AL	+	*L.monocytogenes*	P	7901	1,96	+	AM	AM	*L.monocytogenes*	P	
2034811		AL	AL	AL	AL	+	*L.monocytogenes*	P	8017	1,99	+	AM	AM	*L.monocytogenes*	P	
2034812		AL	AL	AL	AL	+	*L.monocytogenes*	P	8316	2,07	+	AM	AM	*L.monocytogenes*	P	
2034813		AL	AL	AL	AL	+	*L.monocytogenes*	P	72	0,01	-	EL	EM	/	A	
2034814		AL	AL	AL	AL	+	*L.monocytogenes*	P	8234	2,04	+	AM	AM	*L.monocytogenes*	P	
2034815		AL	AL	AL	AL	+	*L.monocytogenes*	P	8219	2,04	+	AM	AM	*L.monocytogenes*	P	
2034816		ø	ø	ø	ø	-	/	A	8167	2,03	+	AM	AM	*L.monocytogenes*	P	
2034817		AL	AL	AL	AL	+	*L.monocytogenes*	P	151	0,03	-	EM	EL	/	A	
2034818		ø	ø	ø	ø	-	/	A	8966	2,23	+	AM	AM	*L.monocytogenes*	P	
2034819		ø	ø	ø	ø	-	/	A	9744	2,42	+	AM	AM	*L.monocytogenes*	P	
2034820		ø	ø	ø	ø	-	/	A	16	0,00	-	EL	EL	/	A	
2034821		ø	ø	AL	AL	+	*L.monocytogenes*	P	10500	2,61	+	AM	AM	*L.monocytogenes*	P	
2034822		ø	ø	ø	ø	-	/	A	11495	2,86	+	AM	AM	*L.monocytogenes*	P	
2034823		ø	ø	AL	AL	+	*L.monocytogenes*	P	8874	2,20	+	AM	AM	*L.monocytogenes*	P	
1978470	2.9	AM	AM	AM	AM	+	*L.monocytogenes*	P	7898	1.96	+	AM	AM	*L.monocytogenes*	P	RM: 5/5 AM: 5/5
1978471		AM	AM	AM	AM	+	*L.monocytogenes*	P	8188	2.03	+	AM	AM	*L.monocytogenes*	P	
1978472		AM	AM	AM	AM	+	*L.monocytogenes*	P	8137	2.02	+	AM	AM	*L.monocytogenes*	P	
1978473		AM	AM	AM	AM	+	*L.monocytogenes*	P	8155	2.03	+	AM	AM	*L.monocytogenes*	P	
1978474		AM	AM	AM	AM	+	*L.monocytogenes*	P	8152	2.02	+	AM	AM	*L.monocytogenes*	P	

Powder Infant Formula and cereals

Matrix: Infant milk powder with probiotics **Bacterial strain**: *Listeria monocytogenes* JAR249 **Enumeration of the probiotics *Lactobacillus reuteri* DSM 17938:** 5,4 10^6 CFU/g

Code	CFU/ 125g	Reference method: EN ISO 11290-1:2017 (*)							Alternative method: VIDAS LMO2							Number of positive results / method
		1/2 Fraser		Fraser		Confirmation		Final result	VIDAS LMO2			Alternative method confirmation			Final result	
		ALOA	PALCAM	ALOA	PALCAM	Res.	Identification		RFV LMO2	VT	Result LMO2	ALOA	PALCAM	Identification		
1978428	0	ø	ø	ø	ø	-	/	A	-4	-0,00	NEGATIF	ø	ø	/	A	RM:0/5 AM:0/5
1978429		ø	ø	ø	ø	-	/	A	-1	-0,00	NEGATIF	ø	ø	/	A	
1978430		ø	ø	ø	ø	-	/	A	-5	-0,00	NEGATIF	ø	ø	/	A	
1978431		ø	ø	ø	ø	-	/	A	-3	-0,00	NEGATIF	ø	ø	/	A	
1978432		ø	ø	ø	ø	-	/	A	-4	-0,00	NEGATIF	ø	ø	/	A	
2045368	1.0	AL	ø	AM	BM	+	*L.monocytogenes*	P	-2	-0,00	NEGATIF	ø	ø	/	A	RM:13/20 AM:12/20
2045369		AL	ø	AM	BM	+	*L.monocytogenes*	P	-4	-0,00	NEGATIF	ø	ø	/	A	
2045370		ø	ø	AM	BM	+	*L.monocytogenes*	P	8684	2,17	POSITIF	AM	DM	*L.monocytogenes*	P	
2045371		ø	ø	ø	EM	-	/	A	9361	2,34	POSITIF	AM	DM	*L.monocytogenes*	P	
2045372		AL	ø	AM	BM	+	*L.monocytogenes*	P	-3	-0,00	NEGATIF	ø	ø	/	A	
2045373		EL	EL	AM	EM	+	*L.monocytogenes*	P	6135	1,53	POSITIF	AM	DM	*L.monocytogenes*	P	
2045374		ø	EL	ø	EM	-	/	A	9524	2,38	POSITIF	AM	DM	*L.monocytogenes*	P	
2045375		AL	AL	AM	BM	+	*L.monocytogenes*	P	11604	2,90	POSITIF	AM	DM	*L.monocytogenes*	P	
2045376		ø	EL	ø	EM	-	/	A	9724	2,43	POSITIF	AM	DM	*L.monocytogenes*	P	
2045377		ø	EL	ø	EM	-	/	A	-3	-0,00	NEGATIF	ø	EM	/	A	
2045378		ø	EL	AM	BM	+	*L.monocytogenes*	P	8927	2,23	POSITIF	AM	AM	*L.monocytogenes*	P	
2045379		ø	EL	ø	EM	-	/	A	8627	2,15	POSITIF	AM	DM	*L.monocytogenes*	P	
2045380		AL	AL	AM	BM	+	*L.monocytogenes*	P	10258	2,56	POSITIF	AM	DM	*L.monocytogenes*	P	
2045381		ø	EL	ø	EM	-	/	A	881	0,22	POSITIF	AM	EM	*L.monocytogenes*	P	
2045382		AL	EL	AM	BM	+	*L.monocytogenes*	P	-4	-0,00	NEGATIF	EL	EM	/	A	
2045383		AL	AL	AM	BM	+	*L.monocytogenes*	P	8321	2,08	POSITIF	AM	DM	*L.monocytogenes*	P	
2045384		ø	ø	AM	BM	+	*L.monocytogenes*	P	8856	2,21	POSITIF	AM	AM	*L.monocytogenes*	P	
2045385		ø	ø	ø	EM	-	/	A	-4	-0,00	NEGATIF	ø	EM	/	A	
2045386		AL	EL	AM	BM	+	*L.monocytogenes*	P	-4	-0,00	NEGATIF	ø	EM	/	A	
2045387		AL	EL	AM	BM	+	*L.monocytogenes*	P	-3	-0,00	NEGATIF	ø	EM	/	A	
2045393	2.0	AL	BL	AM	BM	+	*L.monocytogenes*	P	8877	2.22	POSITIF	AM	AM	*L.monocytogenes*	P	RM:5/5 AM:5/5
2045394		AL	EL	AM	BM	+	*L.monocytogenes*	P	9023	2.25	POSITIF	AM	DM	*L.monocytogenes*	P	
2045395		BL	BL	AM	BM	+	*L.monocytogenes*	P	3405	0.85	POSITIF	AM	DM	*L.monocytogenes*	P	
2045396		AL	AL	AM	BM	+	*L.monocytogenes*	P	9124	2.28	POSITIF	AM	AM	*L.monocytogenes*	P	
2045397		ø	EL	AM	BM	+	*L.monocytogenes*	P	9969	2.49	POSITIF	AM	DM	*L.monocytogenes*	P	

Inclusivity Study

#	Strains	Origin	Test value	Result
1	*L.monocytogenes 1/2a*	Munster cheese	1.85	+
2	*L.monocytogenes 1/2a*	Maroilles cheese	1.82	+
3	*L.monocytogenes 1/2a*	Chicken cutlet	1.89	+
4	*L.monocytogenes 1/2a*	Minced beef burger	1.84	+
5	*L.monocytogenes 1/2a*	Dried sausage	1.95	+
6	*L.monocytogenes 1/2a*	Rabbit terrine	2.12	+
7	*L.monocytogenes 1/2a*	Smoked lardons	1.99	+
8	*L.monocytogenes 1/2a*	Salmon with dill	1.73	+
9	*L.monocytogenes 1/2a*	Rillettes	1.77	+
10	*L.monocytogenes 1/2a*	Fried potatoes	1.60	+
11	*L.monocytogenes 1/2a*	Pizza	1.88	+
12	*L.monocytogenes 1/2a*	Munster cheese	1.60	+
13	*L.monocytogenes 1/2a*	Munster cheese	1.63	+
14	*L.monocytogenes 1/2a*	Collection	2.05	+
15	*L.monocytogenes 1/2a*	Smoked salmon	1.71	+
16	*L.monocytogenes 1/2b*	Pork tongue	2.02	+
17	*L.monocytogenes 1/2b*	Chicken liver mousse	1.90	+
18	*L.monocytogenes 1/2b*	Blood sausage	1.83	+
19	*L.monocytogenes 1/2b*	Collection	2.35	+
20	*L.monocytogenes 1/2b*	Matured cheese	1.73	+
21	*L.monocytogenes 1/2b*	Pig's ear	1.65	+
22	*L.monocytogenes 1/2b*	Minced beef burger	1.73	+
23	*L.monocytogenes 1/2c*	Beef bourguignon	1.68	+
24	*L.monocytogenes 1/2c*	Minced meat	2.28	+
25	*L.monocytogenes 1/2c*	Beef	1.68	+
26	*L.monocytogenes 1/2c*	Pork belly	1.67	+
27	*L.monocytogenes 1/2c*	Munster cheese	1.70	+
28	*L.monocytogenes 1/2c*	Minced beef burger	2.02	+
29	*L.monocytogenes 3b*	Collection	1.81	+
30	*L.monocytogenes 3c*	Collection	2.75	+
31	*L.monocytogenes 4a*	Collection	2.17	+
32	*L.monocytogenes 4b*	Salad	2.09	+
33	*L.monocytogenes 4b*	Munster cheese	2.01	+
34	*L.monocytogenes 4b*	Collection	1.90	+
35	*L.monocytogenes 4b*	Collection	1.72	+
36	*L.monocytogenes 4d*	Collection	1.81	+
37	*L.monocytogenes 4e*	Collection	1.96	+
38	*L.monocytogenes 4e*	Reblochon cheese	1.87	+
39	*L.monocytogenes 4e*	Munster cheese	1.96	+
40	*L.monocytogenes 7*	Collection	2.28	+
41	*L.monocytogenes*	Herring fillet	1.92	+
42	Non-typable *L.monocytogenes*	Dried sausage	1.99	+
43	Non-typable *L.monocytogenes*	Smoked salmon	2.02	+
44	*L.monocytogenes*	Minced beef burger	1.71	+
45	*L.monocytogenes*	Dried sausage	1.80	+
46	*L.monocytogenes*	Mozzarella	1.99	+
47	*L.monocytogenes*	Neufchâtel cheese	1.70	+
48	*L.monocytogenes*	Spinach	1.72	+
49	*L.monocytogenes*	Fillet of perch	1.90	+
50	*L.monocytogenes*	Frozen vegetables	1.70	+

Exclusivity Study

Strains	Origin	Test value	Result
E.coli	Crépinette sausage parcel	0.00	-
Enterobacter cloacae	Dairy product	0.00	-
Hafnia alvei	Parsley	0.00	-
Klebsiella oxytoca	Milk	0.00	-
K.pneumoniae	Celery	0.00	-
P.fluorescens	Mineral water	0.00	-
Proteus mirabilis	Poultry	0.00	-
Serratia marcescens	Raw milk	0.00	-
Yersinia enterocolitica	Biscuit	0.00	-
Yersinia intermedia	Collection	0.00	-
Bacillus cereus	Egg	0.00	-
Bacillus cereus	Beetroot	0.00	-
Bacillus cereus	Vegetable	0.00	-
B.stearothermophilus	Dairy product	0.00	-
B.sphaericus	Meat product	0.00	-
B.coagulans	Meat product	0.00	-
S.aureus	Cheese	0.00	-
S.epidermidis	Yogurt	0.00	-
Brochotrix thermosphacta	Minced meat	0.00	-
Rhodococcus equi	Meat product	0.00	-
Enterococcus faecalis	Egg	0.00	-
Enterococcus faecalis	Collection	0.00	-
Micrococcus	Meat product	0.00	-
Streptococcus bovis	Meat product	0.00	-
Candida albicans	Collection	0.00	-
S.cerevisiae	Pastries	0.00	-
Rhodotorula rubra	Pastries	0.00	-
L.innocua	Munster cheese	0.00	-
L.innocua	Boulette d'Avesnes cheese	0.00	-
L.innocua	Rooster	0.00	-
L.innocua 6a	Toulouse sausage	0.00	-
L.innocua 6b	Minced beef burger	0.00	-
L.innocua	Époisses cheese	0.00	-
L.innocua	Époisses cheese	0.00	-
L.innocua	Spinach	0.00	-
L.ivanovii	Roquefort cheese	0.00	-
L.welshimeri	Rosette dried sausage	0.00	-
L.welshimeri 6a	Dried sausage	0.00	-
L.welshimeri 6b	Collection	0.00	-
L.welshimeri 6b	Minced beef burger	0.00	-
L.seeligeri 1/2b	Tongue	0.00	-
L.seeligeri	Minced beef burger	0.00	-
Jonesia denitrificans	Collection	0.00	-

Appendix G – Interlaboratory study

Raw results

Laboratoire Expert

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)						Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation		Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT		OAA	PALCAM		
6	Ø	Ø	Ø	Ø	-	=	-4	0.00	-	-	-	-	=
7	Ø	Ø	Ø	Ø	-	=	-4	0.00	-	-	-	-	=
8	Ø	Ø	Ø	Ø	-	=	-3	0.00	-	-	-	-	=
14	Ø	Ø	Ø	Ø	-	=	-3	0.00	-	-	-	-	=
15	Ø	Ø	Ø	Ø	-	=	-3	0.00	-	-	-	-	=
19	Ø	Ø	Ø	Ø	-	=	-4	0.00	-	-	-	-	=
20	Ø	Ø	Ø	-LE	-	=	-3	0.00	-	-	-	-	=
21	Ø	Ø	Ø	Ø	-	=	-3	0.00	-	-	-	-	=
1	+LA	+MA	+MA	+MA	+	=	8852	2.77	+	+	+	+	=
2	+LA	+LA	+MA	+HA	+	=	8593	2.69	+	+	+	+	=
9	+LA	+LA	+MA	+MA	+	=	8671	2.71	+	+	+	+	=
10	+LA	+LA	+MA	+MA	+	=	9057	2.83	+	+	+	+	=
11	+LA	+LA	+MA	+MA	+	=	8877	2.78	+	+	+	+	=
16	+LA	+LA	+MA	+MA	+	=	9111	2.85	+	+	+	+	=
22	+MA	+MA	+MA	+MA	+	=	9734	3.05	+	+	+	+	=
23	+LA	+LA	+MA	+MA	+	=	9733	3.05	+	+	+	+	=
3	+MA	+MA	+MA	+MA	+	=	8372	2.62	+	+	+	+	=
4	+MA	+MA	+MA	+HA	+	=	8798	2.75	+	+	+	+	=
5	+LA	+LA	+MA	+MA	+	=	8792	2.75	+	+	+	+	=
12	+LA	+MA	+MA	+MA	+	=	9274	2.90	+	+	+	+	=
13	+MA	+MA	+MA	+MA	+	=	9131	2.86	+	+	+	+	=
17	+LA	+LA	+MA	+HA	+	=	9148	2.86	+	+	+	+	=
18	+MA	+MA	+MA	+HA	+	=	9258	2.90	+	+	+	+	=
24	+MA	+MA	+MA	+HA	+	=	9506	2.97	+	+	+	+	=

Laboratory A

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-5	0.00	-	-	-	=
7	-	-	-	-	-	=	-5	0.00	-	-	-	=
8	-	-	-	-	-	=	-4	0.00	-	-	-	=
14	-	-	-	-	-	=	-5	0.00	-	-	-	=
15	-	-	-	-	-	=	-4	0.00	-	-	-	=
19	-	-	-	-	-	=	-4	0.00	-	-	-	=
20	-	-	-	-	-	=	-3	0.00	-	-	-	=
21	-	-	-	-	-	=	-1	0.00	-	-	-	=
1	+	+	+	+	+	=	7699	2.17	+	+	+	=
2	+	+	+	+	+	=	7805	2.20	+	+	+	=
9	+	+	+	+	+	=	6705	1.89	+	+	+	=
10	+	+	+	+	+	=	8593	2.43	+	+	+	=
11	+	+	+	+	+	=	8820	2.49	+	+	+	=
16	+	+	+	+	+	=	7949	2.24	+	+	+	=
22	+	+	+	+	+	=	8128	2.29	+	+	+	=
23	+	+	+	+	+	=	7919	2.23	+	+	+	=
3	+	+	+	+	+	=	7898	2.23	+	+	+	=
4	+	+	+	+	+	=	7809	2.20	+	+	+	=
5	+	+	+	+	+	=	7668	2.16	+	+	+	=
12	+	+	+	+	+	=	8967	2.53	+	+	+	=
13	+	+	+	+	+	=	8079	2.28	+	+	+	=
17	+	+	+	+	+	=	7756	2.18	+	+	+	=
18	+	+	+	+	+	=	7471	2.11	+	+	+	=
24	+	+	+	+	+	=	7698	2.17	+	+	+	=

Total viable count (en CFU/ml) : > 30 000

Laboratory D

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-3	0.00	-	-	-	=
7	-	-	-	-	-	=	-4	0.00	-	-	-	=
8	-	-	-	-	-	=	-4	0.00	-	-	-	=
14	-	-	-	-	-	=	-4	0.00	-	-	-	=
15	-	-	-	-	-	=	-3	0.00	-	-	-	=
19	-	-	-	-	-	=	-4	0.00	-	-	-	=
20	-	-	-	-	-	=	-4	0.00	-	-	-	=
21	-	-	-	-	-	=	-4	0.00	-	-	-	=
1	+	+	+	+	+	=	11503	3.28	+	+	+	=
2	-	+	+	+	+	=	10624	3.03	+	+	+	=
9	+	+	+	+	+	=	10347	2.95	+	+	+	=
10	-	-	+	+	+	=	9522	2.72	+	+	+	=
11	-	-	+	+	+	=	8970	2.56	+	+	+	=
16	-	+	+	+	+	=	6306	1.80	+	+	+	=
22	-	-	+	+	+	=	9372	2.67	+	+	+	=
23	-	-	+	+	+	=	9612	2.74	+	+	+	=
3	+	+	+	+	+	=	9089	2.59	+	+	+	=
4	+	+	+	+	+	=	9238	2.64	+	+	+	=
5	+	+	+	+	+	=	9268	2.62	+	+	+	=
12	+	+	+	+	+	=	8397	2.40	+	+	+	=
13	+	+	+	+	+	=	9585	2.74	+	+	+	=
17	-	+	+	+	+	=	8602	2.45	+	+	+	=
18	+	+	+	+	+	=	8812	2.51	+	+	+	=
24	+	+	+	+	+	=	7781	2.22	+	+	+	=

Total viable count (en CFU/ml) : 730 000 000

Laboratory E

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	13	0.00	-	-	-	=
7	-	-	-	-	-	=	-4	0.00	-	-	-	=
8	-	-	-	-	-	=	1	0.00	-	-	-	=
14	-	-	-	-	-	=	-3	0.00	-	-	-	=
15	-	-	-	-	-	=	-3	0.00	-	-	-	=
19	-	-	-	-	-	=	-5	0.00	-	-	-	=
20	-	-	-	-	-	=	-4	0.00	-	-	-	=
21	-	-	-	-	-	=	-1	0.00	-	-	-	=
1	+	+	+	+	+	=	9082	2.63	+	+	+	=
2	+	+	+	+	+	=	9192	2.66	+	+	+	=
9	+	+	+	+	+	=	9360	2.71	+	+	+	=
10	+	+	+	+	+	=	9675	2.80	+	+	+	=
11	+	+	+	+	+	=	9604	2.78	+	+	+	=
16	+	+	+	+	+	=	9608	2.78	+	+	+	=
22	+	+	+	+	+	=	8043	2.04	+	+	+	=
23	+	+	+	+	+	=	7673	1.94	+	+	+	=
3	+	+	+	+	+	=	9330	2.70	+	+	+	=
4	+	+	+	+	+	=	9408	2.72	+	+	+	=
5	+	+	+	+	+	=	9322	2.70	+	+	+	=
12	+	+	+	+	+	=	9488	2.74	+	+	+	=
13	+	+	+	+	+	=	9408	2.72	+	+	+	=
17	+	+	+	+	+	=	9540	2.76	+	+	+	=
18	+	+	+	+	+	=	9509	2.75	+	+	+	=
24	+	+	+	+	+	=	7608	1.93	+	+	+	=

Total viable count (en CFU/ml) : > 30 000

Laboratory F

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-4	0.00	-	-	-	=
7	-	-	-	-	-	=	-3	0.00	-	-	-	=
8	-	-	-	-	-	=	2	0.00	-	-	-	=
14	-	-	-	-	-	=	-4	0.00	-	-	-	=
15	-	-	-	-	-	=	-4	0.00	-	-	-	=
19	-	-	-	-	-	=	-5	0.00	-	-	-	=
20	-	-	-	-	-	=	-4	0.00	-	-	-	=
21	-	-	-	-	-	=	-3	0.00	-	-	-	=
1	+	+	+	+	+	=	7901	2.21	+	+	+	=
2	+	+	+	+	+	=	8211	2.30	+	+	+	=
9	+	+	+	+	+	=	7707	2.16	+	+	+	=
10	+	+	+	+	+	=	7853	2.20	+	+	+	=
11												
16												
22												
23												
3	+	+	+	+	+	=	7745	2.17	+	+	+	=
4	+	+	+	+	+	=	7590	2.12	+	+	+	=
5	+	+	+	+	+	=	7447	2.08	+	+	+	=
12	+	+	+	+	+	=	7663	2.14	+	+	+	=
13	+	+	+	+	+	=	7570	2.12	+	+	+	=
17	+	+	+	+	+	=	7764	2.17	+	+	+	=
18	+	+	+	+	+	=	7811	2.18	+	+	+	=
24	+	+	+	+	+	=	8223	2.30	+	+	+	=

Total viable count (en CFU/ml) : > 30 000

Laboratory G

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-4	0.00	-	-	-	=
7	-	-	-	-	-	=	2	0.00	-	-	-	=
8	-	-	-	-	-	=	-4	0.00	-	-	-	=
14	-	-	-	-	-	=	-2	0.00	-	-	-	=
15	-	-	-	-	-	=	-3	0.00	-	-	-	=
19	-	-	-	-	-	=	-2	0.00	-	-	-	=
20	-	-	-	-	-	=	-3	0.00	-	-	-	=
21	-	-	-	-	-	=	-2	0.00	-	-	-	=
1	+	+	+	+	+	=	8343	2.33	+	+	+	=
2	+	+	+	+	+	=	8390	2.34	+	+	+	=
9	+	+	+	+	+	=	9101	2.54	+	+	+	=
10	+	+	+	+	+	=	9713	2.71	+	+	+	=
11	+	+	+	+	+	=	9758	2.72	+	+	+	=
16	+	+	+	+	+	=	10354	2.89	+	+	+	=
22	+	+	+	+	+	=	9103	2.54	+	+	+	=
23	+	+	+	+	+	=	8740	2.44	+	+	+	=
3	+	+	+	+	+	=	9300	2.31	+	+	+	=
4	+	+	+	+	+	=	8438	2.35	+	+	+	=
5	+	+	+	+	+	=	8456	2.36	+	+	+	=
12	+	+	+	+	+	=	8689	2.42	+	+	+	=
13	+	+	+	+	+	=	8417	2.35	+	+	+	=
17	+	+	+	+	+	=	8766	2.44	+	+	+	=
18	+	+	+	+	+	=	8982	2.50	+	+	+	=
24	+	+	+	+	+	=	8358	2.33	+	+	+	=

Total viable count (en CFU/ml) : 16 000

Laboratory H

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-4	0.00	-	-	-	=
7	-	-	-	-	-	=	-5	0.00	-	-	-	=
8	-	-	-	-	-	=	-2	0.00	-	-	-	=
14	-	-	-	-	-	=	-5	0.00	-	-	-	=
15	-	-	-	-	-	=	-4	0.00	-	-	-	=
19	-	-	-	-	-	=	-3	0.00	-	-	-	=
20	-	-	-	-	-	=	-5	0.00	-	-	-	=
21	-	-	-	-	-	=	-5	0.00	-	-	-	=
1	+	+	+	+	+	=	7028	1.98	+	+	+	=
2	+	+	+	+	+	=	7502	2.12	+	+	+	=
9	+	+	+	+	+	=	7354	2.07	+	+	+	=
10	+	+	+	+	+	=	7250	2.05	+	+	+	=
11	+	+	+	+	+	=	7114	2.01	+	+	+	=
16	+	+	+	+	+	=	7069	1.99	+	+	+	=
22	+	+	+	+	+	=	7448	2.10	+	+	+	=
23	+	+	+	+	+	=	7322	2.07	+	+	+	=
3	+	+	+	+	+	=	7394	2.09	+	+	+	=
4	+	+	+	+	+	=	7313	2.06	+	+	+	=
5	+	+	+	+	+	=	7286	2.06	+	+	+	=
12	+	+	+	+	+	=	7099	2.00	+	+	+	=
13	+	+	+	+	+	=	7162	2.02	+	+	+	=
17	+	+	+	+	+	=	7168	2.02	+	+	+	=
18	+	+	+	+	+	=	7354	2.07	+	+	+	=
24	+	+	+	+	+	=	7057	1.99	+	+	+	=

Total viable count (en CFU/ml) : 16 000

Laboratory I

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-4	0.00	-	-	-	=
7	-	-	-	-	-	=	-5	0.00	-	-	-	=
8	-	-	-	-	-	=	-5	0.00	-	-	-	=
14	-	-	-	-	-	=	-5	0.00	-	-	-	=
15	-	-	-	-	-	=	-6	0.00	-	-	-	=
19	-	-	-	-	-	=	-5	0.00	-	-	-	=
20	-	-	-	-	-	=	-4	0.00	-	-	-	=
21	-	-	-	-	-	=	-6	0.00	-	-	-	=
1	+	+	+	+	+	=	9628	2.93	+	+	+	=
2	+	+	+	+	+	=	9463	2.88	+	+	+	=
9	+	+	+	+	+	=	9673	2.94	+	+	+	=
10	+	+	+	+	+	=	9604	2.92	+	+	+	=
11	+	+	+	+	+	=	9498	2.89	+	+	+	=
16	+	+	+	+	+	=	9761	2.97	+	+	+	=
22	+	+	+	+	+	=	9519	2.90	+	+	+	=
23	+	+	+	+	+	=	9485	2.89	+	+	+	=
3	+	+	+	+	+	=	9192	2.80	+	+	+	=
4	+	+	+	+	+	=	9615	2.93	+	+	+	=
5	+	+	+	+	+	=	9457	2.88	+	+	+	=
12	+	+	+	+	+	=	9427	2.87	+	+	+	=
13	+	+	+	+	+	=	9635	2.93	+	+	+	=
17	+	+	+	+	+	=	9786	2.98	+	+	+	=
18	+	+	+	+	+	=	9834	2.99	+	+	+	=
24	+	+	+	+	+	=	9748	2.97	+	+	+	=

Total viable count (en CFU/ml) : > 300 000

Laboratory J

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-5	0.00	-	-	-	=
7	-	-	-	-	-	=	-5	0.00	-	-	-	=
8	-	-	-	-	-	=	-5	0.00	-	-	-	=
14	-	-	-	-	-	=	-4	0.00	-	-	-	=
15	-	-	-	-	-	=	-4	0.00	-	-	-	=
19	-	-	-	-	-	=	-5	0.00	-	-	-	=
20	-	-	-	-	-	=	-5	0.00	-	-	-	=
21	-	-	-	-	-	=	-4	0.00	-	-	-	=
1	+	+	+	+	+	=	7774	2.31	+	+	+	=
2	+	+	+	+	+	=	7952	2.30	+	+	+	=
9	+	+	+	+	+	=	8782	2.61	+	+	+	=
10	+	+	+	+	+	=	8637	2.57	+	+	+	=
11	+	+	+	+	+	=	8332	2.48	+	+	+	=
16	+	+	+	+	+	=	8433	2.51	+	+	+	=
22	+	+	+	+	+	=	8994	2.68	+	+	+	=
23	+	+	+	+	+	=	8690	2.50	+	+	+	=
3	+	+	+	+	+	=	7953	2.37	+	+	+	=
4	+	+	+	+	+	=	7906	2.35	+	+	+	=
5	+	+	+	+	+	=	8034	2.39	+	+	+	=
12	+	+	+	+	+	=	8276	2.46	+	+	+	=
13	+	+	+	+	+	=	8159	2.43	+	+	+	=
17	+	+	+	+	+	=	8391	2.50	+	+	+	=
18	+	+	+	+	+	=	8477	2.52	+	+	+	=
24	+	+	+	+	+	=	8806	2.62	+	+	+	=

Total viable count (en CFU/ml) : 480 000

Laboratory K

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-3	0.00	-	-	-	=
7	-	-	-	-	-	=	-4	0.00	-	-	-	=
8	-	-	-	-	-	=	-3	0.00	-	-	-	=
14	-	-	-	-	-	=	-1	0.00	-	-	-	=
15	-	-	-	-	-	=	-4	0.00	-	-	-	=
19	-	-	-	-	-	=	-5	0.00	-	-	-	=
20	-	-	-	-	-	=	-3	0.00	-	-	-	=
21	-	-	-	-	-	=	-5	0.00	-	-	-	=
1	+	+	+	+	+	=	6804	1.94	+	+	+	=
2	+	+	+	+	+	=	6891	1.95	+	+	+	=
9	+	+	+	+	+	=	6424	1.82	+	+	+	=
10	+	+	+	+	+	=	6453	1.83	+	+	+	=
11	+	+	+	+	+	=	6687	1.89	+	+	+	=
16	+	+	+	+	+	=	6665	1.89	+	+	+	=
22	+	+	+	+	+	=	6523	1.85	+	+	+	=
23	+	+	+	+	+	=	6386	1.81	+	+	+	=
3	+	+	+	+	+	=	6707	1.90	+	+	+	=
4	+	+	+	+	+	=	6659	1.89	+	+	+	=
5	+	+	+	+	+	=	6413	1.82	+	+	+	=
12	+	+	+	+	+	=	6563	1.86	+	+	+	=
13	+	+	+	+	+	=	6920	1.98	+	+	+	=
17	+	+	+	+	+	=	6433	1.82	+	+	+	=
18	+	+	+	+	+	=	6616	1.87	+	+	+	=
24	+	+	+	+	+	=	6408	1.82	+	+	+	=

Total viable count (en CFU/ml) : > 30 000

Laboratory L

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-3	0.00	-	-	-	=
7	-	-	-	-	-	=	-5	0.00	-	-	-	=
8	-	-	-	-	-	=	-3	0.00	-	-	-	=
14	-	-	-	-	-	=	-4	0.00	-	-	-	=
15	-	-	-	-	-	=	-3	0.00	-	-	-	=
19	-	-	-	-	-	=	0	0.00	-	-	-	=
20	-	-	-	-	-	=	-4	0.00	-	-	-	=
21	-	-	-	-	-	=	-3	0.00	-	-	-	=
1	+	+	+	+	+	=	10452	2.75	+	+	+	=
2	+	+	+	+	+	=	10067	2.65	+	+	+	=
9	+	+	+	+	+	=	9006	2.37	+	+	+	=
10	+	+	+	+	+	=	8782	2.31	+	+	+	=
11	+	+	+	+	+	=	8667	2.28	+	+	+	=
16	+	+	+	+	+	=	10140	2.66	+	+	+	=
22	+	+	+	+	+	=	8600	2.26	+	+	+	=
23	+	+	+	+	+	=	8363	2.20	+	+	+	=
3	+	+	+	+	+	=	10228	2.69	+	+	+	=
4	+	+	+	+	+	=	9982	2.62	+	+	+	=
5	+	+	+	+	+	=	9996	2.63	+	+	+	=
12	+	+	+	+	+	=	8700	2.29	+	+	+	=
13	+	+	+	+	+	=	10878	2.86	+	+	+	=
17	+	+	+	+	+	=	9731	2.56	+	+	+	=
18	+	+	+	+	+	=	9845	2.59	+	+	+	=
24	+	+	+	+	+	=	8942	2.35	+	+	+	=

Total viable count (en CFU/ml) : > 30 000

Laboratory M

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-2	0.00	-	-	-	=
7	-	-	-	-	-	=	-3	0.00	-	-	-	=
8	-	-	-	-	-	=	-3	0.00	-	-	-	=
14	-	-	-	-	-	=	-4	0.00	-	-	-	=
15	-	-	-	-	-	=	-3	0.00	-	-	-	=
19	-	-	-	-	-	=	-3	0.00	-	-	-	=
20	-	-	-	-	-	=	-4	0.00	-	-	-	=
21	-	-	-	-	-	=	-4	0.00	-	-	-	=
1	+	+	+	+	+	=	7383	1.85	+	+	+	=
2	-	+	+	+	+	=	7964	2.00	+	+	+	=
9	+	+	+	+	+	=	7904	1.98	+	+	+	=
10	+	+	+	+	+	=	7508	1.88	+	+	+	=
11	+	+	+	+	+	=	8765	2.20	+	+	+	=
16	+	+	+	+	+	=	8267	2.07	+	+	+	=
22	+	+	+	+	+	=	7936	1.99	+	+	+	=
23	+	+	+	+	+	=	7891	1.98	+	+	+	=
3	+	+	+	+	+	=	7527	1.89	+	+	+	=
4	+	+	+	+	+	=	7546	1.89	+	+	+	=
5	+	+	+	+	+	=	7606	1.91	+	+	+	=
12	+	+	+	+	+	=	7536	1.89	+	+	+	=
13	+	+	+	+	+	=	7490	1.88	+	+	+	=
17	+	+	+	+	+	=	7938	1.99	+	+	+	=
18	+	+	+	+	+	=	8225	2.06	+	+	+	=
24	+	+	+	+	+	=	7331	1.84	+	+	+	=

Total viable count (en CFU/ml) : > 30 000

Laboratory N

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	0	0.00	-	-	-	=
7	-	-	-	-	-	=	-3	0.00	-	-	-	=
8	-	-	-	-	-	=	-4	0.00	-	-	-	=
14	-	-	-	-	-	=	-5	0.00	-	-	-	=
15	-	-	-	-	-	=	-1	0.00	-	-	-	=
19	-	-	-	-	-	=	-5	0.00	-	-	-	=
20	-	-	-	-	-	=	1	0.00	-	-	-	=
21	-	-	-	-	-	=	3	0.00	-	-	-	=
1	+	+	+	+	+	=	8119	2.00	+	+	+	=
2	+	+	+	+	+	=	8179	2.02	+	+	+	=
9	+	+	+	+	+	=	7619	1.88	+	+	+	=
10	+	+	+	+	+	=	7541	1.86	+	+	+	=
11	+	+	+	+	+	=	7565	1.86	+	+	+	=
16	+	+	+	+	+	=	8062	1.99	+	+	+	=
22	+	+	+	+	+	=	7903	1.95	+	+	+	=
23	+	+	+	+	+	=	7657	1.89	+	+	+	=
3	+	+	+	+	+	=	8109	2.00	+	+	+	=
4	+	+	+	+	+	=	7900	1.95	+	+	+	=
5	+	+	+	+	+	=	7974	1.97	+	+	+	=
12	+	+	+	+	+	=	7270	1.79	+	+	+	=
13	+	+	+	+	+	=	8192	2.02	+	+	+	=
17	+	+	+	+	+	=	7681	1.89	+	+	+	=
18	+	+	+	+	+	=	7647	1.89	+	+	+	=
24	+	+	+	+	+	=	7902	1.95	+	+	+	=

Total viable count (en CFU/ml) : > 15 000

Laboratory O

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-5	0.00	-	-	-	=
7	-	-	-	-	-	=	-5	0.00	-	-	-	=
8	-	-	-	-	-	=	-4	0.00	-	-	-	=
14	-	-	-	-	-	=	-4	0.00	-	-	-	=
15	-	-	-	-	-	=	-4	0.00	-	-	-	=
19	-	-	-	-	-	=	-4	0.00	-	-	-	=
20	-	-	-	-	-	=	-4	0.00	-	-	-	=
21	-	-	-	-	-	=	-5	0.00	-	-	-	=
1	+	+	+	+	+	=	8120	2.25	+	+	+	=
2	+	+	+	+	+	=	8203	2.27	+	+	+	=
9	+	+	+	+	+	=	7969	2.21	+	+	+	=
10	+	+	+	+	+	=	7609	2.11	+	+	+	=
11	+	+	+	+	+	=	7460	2.07	+	+	+	=
16	+	+	+	+	+	=	7751	2.15	+	+	+	=
22	+	+	+	+	+	=	7778	2.15	+	+	+	=
23	+	+	+	+	+	=	7538	2.09	+	+	+	=
3	+	+	+	+	+	=	7421	2.06	+	+	+	=
4	+	+	+	+	+	=	7352	2.04	+	+	+	=
5	+	+	+	+	+	=	8919	2.47	+	+	+	=
12	+	+	+	+	+	=	9173	2.54	+	+	+	=
13	+	+	+	+	+	=	9492	2.63	+	+	+	=
17	+	+	+	+	+	=	9246	2.56	+	+	+	=
18	+	+	+	+	+	=	9134	2.53	+	+	+	=
24	+	+	+	+	+	=	9028	2.50	+	+	+	=

Total viable count (en CFU/ml) : > 300 000

Laboratory P

Reference	Reference method					Comparison / expected results	Alternative method VIDAS LMO2 (30°C)					Comparison / expected results
	Fraser 1/2		Fraser		Results		LMO2 test		Results of the test	Confirmation	Results	
	OAA	PALCAM	OAA	PALCAM			RFV	VT				
6	-	-	-	-	-	=	-4	0.00	-	-	-	=
7	-	-	-	-	-	=	-3	0.00	-	-	-	=
8	-	-	-	-	-	=	-4	0.00	-	-	-	=
14	-	-	-	-	-	=	-4	0.00	-	-	-	=
15	-	-	-	-	-	=	-4	0.00	-	-	-	=
19	-	-	-	-	-	=	-3	0.00	-	-	-	=
20	-	-	-	-	-	=	-4	0.00	-	-	-	=
21	-	-	-	-	-	=	-3	0.00	-	-	-	=
1	+	+	+	+	+	=	8059	2.03	+	+	+	=
2	+	+	+	+	+	=	8032	2.02	+	+	+	=
9	+	+	+	+	+	=	7786	1.96	+	+	+	=
10	+	+	+	+	+	=	7315	1.84	+	+	+	=
11	+	+	+	+	+	=	8026	2.02	+	+	+	=
16	+	+	+	+	+	=	7902	1.99	+	+	+	=
22	+	+	+	+	+	=	7574	1.91	+	+	+	=
23	+	+	+	+	+	=	7680	1.93	+	+	+	=
3	+	+	+	+	+	=	7093	1.79	+	+	+	=
4	+	+	+	+	+	=	7444	1.88	+	+	+	=
5	+	+	+	+	+	=	7532	1.90	+	+	+	=
12	+	+	+	+	+	=	7543	1.90	+	+	+	=
13	+	+	+	+	+	=	7284	1.83	+	+	+	=
17	+	+	+	+	+	=	6992	1.76	+	+	+	=
18	+	+	+	+	+	=	7124	1.79	+	+	+	=
24	+	+	+	+	+	=	7554	1.90	+	+	+	=

Total viable count (en CFU/ml) : > 30 000