

**NF VALIDATION**  
**Validation of alternative analytical methods**  
*Application in food microbiology*

**Summary report (41.5°C)**

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

**GENE-UP® *Salmonella* method**

(Certificate number: BIO 12/38-06/16)

for the detection of *Salmonella* spp. in a broad range of foods  
and production environmental samples

**Qualitative method**

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This report consists of 168 pages, including 9 appendices.

Only copies including the totality of this report are authorised.

Competencies of the laboratory are certified by COFRAC accreditation for the analyses marked with the symbol♦.

Version 1  
June 25, 2024

**Cancels and replaces the previous version**  
*which must be returned to ADRIA or destroyed internally.*



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**The modifications are highlighted.**

Quality assurance documents related to this study can be consulted upon request from **bioMérieux**.

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

<b>Validation protocols</b>	<ul style="list-style-type: none"> <li>▪ ISO 16140-1 (2016): Microbiology of the food chain - Method validation — <i>Part 1: Vocabulary</i></li> <li>▪ ISO 16140-2 (2016): Microbiology of the food chain - Method validation — <i>Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method</i></li> <li>▪ AFNOR technical rules (PR Revision 7).</li> </ul>
<b>Reference methods<sup>♦</sup></b>	<ul style="list-style-type: none"> <li>▪ EN ISO 6579-1 (February 2017): Microbiology of food and animal feeding stuffs - Horizontal method for the detection, enumeration and serotyping of <i>Salmonella</i> spp. - Part 1: detection of <i>Salmonella</i> spp.</li> <li>▪ ISO 6579-1/A1 (March 2020): Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of <i>Salmonella</i> spp. - Part 1: detection of <i>Salmonella</i> spp. Amendment 1: Broader range of incubation temperatures, amendment to the status of Annex D, and correction of the composition of MSRV and SC</li> </ul>
<b>Studied method</b>	<b>GENE-UP<sup>®</sup> <i>Salmonella</i></b>
<b>Scope</b>	<ul style="list-style-type: none"> <li>&gt; Broad range of foods</li> <li>&gt; Production environmental samples</li> </ul>
<b>Certification organism</b>	AFNOR Certification ( <a href="http://nf-validation.afnor.org/">http://nf-validation.afnor.org/</a> )

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

# 1 INTRODUCTION

The GENE-UP® *Salmonella* (GENE-UP SLM) method was validated in June 2016 (Certificate number: BIO 12/38 - 06/16) according to EN ISO 16140-2:2016. A summary of the different studies is given in Table 1.

This report contains protocols and results from the initial validation and extensions using 41.5°C incubation temperature.

**Table 1 - Summary of the initial and extension/renewal studies**

	Date	Categories	Incubation temperature	Version of ISO 6579
Initial validation study	June 2016	<input checked="" type="checkbox"/> Ready-to-eat and ready-to-reheat <input checked="" type="checkbox"/> Meat products <input checked="" type="checkbox"/> Raw meats ( <i>except poultry</i> ) (25 g sample size) - Short protocol	41.5 ± 1°C	ISO 6579 (2002)
Extension No 1	September 2016	<input checked="" type="checkbox"/> Dairy products ( <i>except raw milk-based products</i> ) <input checked="" type="checkbox"/> Vegetables, fruits and seafood <input checked="" type="checkbox"/> Ingredients and specific products <input checked="" type="checkbox"/> Raw meats ( <i>except poultry</i> ) (375 g sample size)	41.5 ± 1°C	ISO 6579 (2002)
Change N° 1	February 2017	<input checked="" type="checkbox"/> Routine software version 1.1.2 (minor modifications)	-	/
Extension No 2	March 2017	<input checked="" type="checkbox"/> Ready-to-eat and ready-to-reheat <input checked="" type="checkbox"/> Meat products <input checked="" type="checkbox"/> Dairy products <input checked="" type="checkbox"/> Vegetables ( <i>except sprouts</i> ), fruits and seafood <input checked="" type="checkbox"/> Ingredients and specific products <input checked="" type="checkbox"/> Production environmental samples	<b>37 ± 1°C</b>	ISO 6579 (2002)
Change N° 2	July 2017	<input checked="" type="checkbox"/> Routine software version 2.0	-	/
Extension No 3	November 2017	<input checked="" type="checkbox"/> Cocoa and chocolates (375 g sample size) <input checked="" type="checkbox"/> Milk powders and infant formula with and without probiotics (375 g sample size)	<b>37 ± 1°C</b>	ISO 6579-1 (2017)
Extension No 4	January 2018	<input checked="" type="checkbox"/> Production environmental samples	41.5 ± 1°C	ISO 6579-1 (2017)
		<input checked="" type="checkbox"/> Pet food (25 g sample size) <input checked="" type="checkbox"/> Pet food (375 g sample size)	<b>37 ± 1°C <sup>(1)</sup></b>	ISO 6579-1 (2017)

	Date	Categories	Incubation temperature	Version of ISO 6579
Extension No 5	October 2018	<input checked="" type="checkbox"/> Milk powders, infant formula and infant cereals without probiotics including ingredients (25 g sample size), <input checked="" type="checkbox"/> Infant formula and infant cereals with probiotics (25 g sample size), <input checked="" type="checkbox"/> Milk powders, infant formula and infant cereals with or without probiotics including ingredients (excluding whey protein concentrates) (375 g sample size)	37 ± 1°C	ISO 6579-1 (2017)
Extension No 6 for a new format of the kit (Unit-Dose) reference 423105 associated with software version 3.0	December 2018	<input checked="" type="checkbox"/> Broad range of food <input checked="" type="checkbox"/> Production environmental samples	41.5 ± 1°C	ISO 6579-1 (2017)
		<input checked="" type="checkbox"/> Broad range of food <input checked="" type="checkbox"/> Pet food <input checked="" type="checkbox"/> Production environmental samples	37 ± 1°C	ISO 6579-1 (2017)
Extension No 7	November 2019	<input checked="" type="checkbox"/> Milk powders (375 g)	37 ± 1°C	ISO 6579-1 (2017)
Renewal study	May 2020	<input checked="" type="checkbox"/> Broad range of food <input checked="" type="checkbox"/> Production environmental samples	41.5 ± 1°C	ISO 6579-1 (2017)
		<input checked="" type="checkbox"/> Broad range of food <input checked="" type="checkbox"/> Pet food <input checked="" type="checkbox"/> Production environmental samples	37 ± 1°C	ISO 6579-1 (2017)
Extension No 8	December 2020	<input checked="" type="checkbox"/> Primary production samples using the specific protocol <sup>®</sup> .	37 ± 1°C	ISO 6579-1 (2017) ISO 6579-1/A1
Extension No 9	October 2023	<input checked="" type="checkbox"/> Milk powders, infant formula and infant cereals with and without probiotics, early life nutrition (ELN) (375 g test portion size)	37 ± 1°C	ISO 6579-1 (2017) ISO 6579-1/A1
Extension No 11	October 2023	<input checked="" type="checkbox"/> Raw material for chocolate industry (375 g test portion size)	37 ± 1°C	ISO 6579-1 (2017) ISO 6579-1/A1
Extension No 10	December 2023	<input checked="" type="checkbox"/> Chocolates and confectionaries (375 g test portion size) <input checked="" type="checkbox"/> Ingredients (375 g test portion size)	37 ± 1°C	ISO 6579-1 (2017) ISO 6579-1/A1
Extension No 13	February 2024	<input checked="" type="checkbox"/> Infant formula products: milk powders, infant formula and infant cereals with and without probiotics, early life nutrition (ELN) with BACTVIAB PMAxx (375 g test portion size)	37 ± 1°C	ISO 6579-1 (2017) ISO 6579-1/A1
Extension No12	April 2024	<input checked="" type="checkbox"/> Pet food for cat and dog (375 g test portion)	37 ± 1°C	ISO 6579-1 (2017) ISO 6579-1/A1
Renewal study	June 2024	<input checked="" type="checkbox"/> Broad range of food <input checked="" type="checkbox"/> Production environmental samples	41.5 ± 1°C	ISO 6579-1 (2017)
		<input checked="" type="checkbox"/> Broad range of food <input checked="" type="checkbox"/> Pet food <input checked="" type="checkbox"/> Production environmental samples	37 ± 1°C	ISO 6579-1 (2017)

## 2 METHOD PROTOCOLS

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### 2.1 Alternative method

#### 2.1.1 Principle

The GENE-UP *Salmonella* kit is used with compatible PCR strip tubes in the GENE-UP thermocycler.

The GENE-UP *Salmonella* detection kit reference 423105 is based on the real time Polymerase Chain reaction (PCR) principle.

Each reaction vial contains all the necessary components for PCR, including sample-specific primers and probes, and an internal amplification control.

The GENE-UP thermocycler (Ref: 414056) detects fluorescence at several wavelengths to allow for multi-target detections in the same reaction vessel. The fluorescent signal from a sample is recorded in channel 640, while the signal for the internal amplification control is recorded in channel 705. The software GENE-UP routine automatically interprets the results.

Both the assay for the sample and the internal control use dual Fluorescence Resonance Energy Transfer (FRET) hybridization probes.

The resulting fluorescent signal from the FRET interaction provides a real-time amplification curve.

After amplification fluorescence detection is complete, the GENE-UP instrument can perform a melt by increasing the temperature such that the sample DNA strands begin to melt. As the DNA strands melt, the observed fluorescence of the target DNA decreases at a rate that is characteristic for a particular DNA sequence, such that genotyping can occur. Melt peaks are generated by taking the negative derivative of fluorescence against temperature.

At the end of the PCR program, the PCR products are melted to determine the presence of the DNA target. The software uses the melt peak to conclude to a positive or to a negative result.

Software versions from 1.0 to 2.0 were used to provide the data from the initial validation until the extension study No 5.

The routine software version 3.0. was used to provide the data for the extension study No 6, 7 and 8; version 3.2 was used for the extension studies No 9, 10, 11, 12 and 13.

### 2.1.2 PCR results decision

#### > PCR result determination with software version V1

The PCR call is based on the presence of a melting peak (giving a melting temperature, TM), and an amplification curve (giving a crossing point, CP). The target is positive when a TM is determined, whatever the CP (value, and presence/absence). When TM is not detected, the target is positive only when the combination of the CP and the fluorescence level is higher than defined values. These values are frozen in the algorithm with no possibilities for users to be modified.

#### > PCR result determination with software version V2

The following changes were implemented in the software version 2.0:

- Addition of a range of TM for the sample,
- Addition of a range of TM for the internal amplification control,
- Optimization of the level of fluorescence to declare a sample positive,
- No more display of CP and TM values when the measured TM is outside of the expected range.

The target is determined positive when the TM is within the expected range regardless of the CP (value, and presence/absence) On the other hand, when no TM is detected or TM is below the threshold of fluorescence or TM is outside of the expected range, the target is called negative.

No change occurred in the interpretation since version 2.0.

#### > PCR result determination with software version V3.2

The PCR results interpretation is performed with software 3.2. The PCR call is based on the presence of a melting peak (giving a melting temperature, TM).

The target is determined positive when the TM is within the expected range regardless of the CP (value, and presence/absence) On the other hand, when no TM is detected or TM is below the threshold of fluorescence or TM is outside of the expected range, the target is called negative.

### 2.1.3 Protocols

- Sample preparation and enrichment protocols: See Table 3 and **Appendix 1**
- Lysis step on 20 µl enrichment
- Real time PCR on 5 µl lysate
- Confirmation by:



- \* Direct streaking on ChromID *Salmonella* (SMA2) or XLD or ASAP or SALMA, followed by a direct Microgen latex test (form SM2 or ASAP or SALMA) or a direct API gallery on characteristic colonies or the confirmation tests of the ISO 6579 method after colony purification,
- \* Running a sub-culture in SX2 broth (for all the positive samples), before streaking onto XLD or ASAP or SALMA, followed by followed by GSD F42 or OXOID latex test or a direct API gallery on characteristic colonies or the confirmation tests of the ISO 6579 method after colony purification.

The categories and associated protocols are described in table 2.

**Table 2 - Categories and associated protocols with an incubation temperature at 41.5°C**

Categories	Sample size	Dilution	Protocol	Incubation time	Temperature	Validation
1. Ready to eat and ready to reheat products	25 g	1/10	Standard Protocol	18 - 26 h	41.5°C	Initial validation
2. Meat products	25 g	1/10	Standard Protocol	18 - 26 h	41.5°C	Initial validation
3. Milk and dairy products (except raw milk-based products)	25 g	1/10	Standard Protocol	18 - 26 h	41.5°C	Extension No 1
4. Vegetables, fruits, seafood	25 g	1/10	Standard Protocol	18 - 26 h	41.5°C	Initial validation
5. Specific ingredients and foods	25 g	1/10	Standard Protocol	18 - 26 h	41.5°C	Extension No 1
7. Production environmental samples	25 g or sampling device	1/10 or 10 ml or 100 ml or 225 ml	Standard protocol	18 - 26 h	41.5°C	Extension No 4
8. Raw meats (except poultry)	25 g	1/10	Specific protocol ①	8 - 24 h	41.5°C	Initial validation
9. Raw meats (except poultry)	375 g	1/4	Specific protocol ②	10 - 24 h	41.5°C	Extension No 1

It is possible to store the enrichment broth for 72 h at 5°C ± 3°C for all categories.

It is possible to store the lysates for 72 h at 5°C ± 3°C for all categories, except for Specific ingredients and foods.

### 2.1.4 Restrictions

The raw milk-based products are excluded from the scope.

## 2.2 Reference methods♦

The current reference methods are:

- The ISO 6579-1 (February 2017) - Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of *Salmonella* spp. - Part 1: detection of *Salmonella* spp.
- The ISO 6579-1/A1 (March 2020): Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of *Salmonella* spp. - Part 1: detection of *Salmonella* spp. Amendment 1: Broader range of incubation temperatures, amendment to the status of Annex D, and correction of the composition of MSR/V and SC.

The same test portion sizes were used for the reference method and the GENE-UP SML2 method.

## 2.3 Study design

For all protocols, as the reference and the alternative have different enrichment procedure, this is an unpaired study design.

The same sampling was applied for the reference method.

## 3 METHOD COMPARISON STUDY

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***The method comparison study is a study performed by the expert laboratory to compare the alternative method with the reference method.***

*The study was carried out on a diversity of samples and strains representative of agri-food products. This does not constitute an exhaustive list of the different matrices included in the scope.*

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

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

### 3.1 Sensitivity study

The sensitivity (SE) is the ability of the method to detect the analyte by either the reference or alternative method.

#### 3.1.1 Number and nature of samples

Taking into account all the studies, 530 samples were tested providing 264 positive and 266 negative samples for the longer incubation time.

The distribution per tested category and type is given in Table 3.

**Table 3 – Distribution per tested category and type**

Category		Type	Positive samples	Negative samples	Total	
1	Ready to eat and ready to reheat	a	Ready-To-Eat (RTE) foods	11	10	21
		b	Ready-To-Reheat (RTR) foods	11	10	21
		c	Cured and smoked products (no delicatessen)	11	10	21
		Total		33	30	63
2	Meat products	a	Raw meat products (frozen or fresh)	13	7	20
		b	Raw poultry (fresh or frozen)	8	20	28
		c	Raw delicatessen	10	10	20
		Total		31	37	68
3	Milk and dairy products (except raw milk-based products)	a	Pasteurized products	12	13	25
		b	Milk powders	10	10	20
		c	Ingredients, derivates and low moisture products	10	11	21
		Total		32	34	66
4	Vegetables, Fruits, Seafood	a	Fish and seafood	12	11	23
		b	Sprouts and produces	9	14	23
		c	Fruits and vegetables	10	13	23
		Total		31	38	69
5	Specific Ingredients and Foods	a	Raw ingredients	10	13	23
		b	Infant formula and cereals with probiotics	11	10	21
		c	Pasteurized eggs and egg powders	13	10	23
		Total		34	33	67
8	Raw meat (except poultry)- Specific protocol ① - 8h	a	Fresh meats	10	10	20
		b	Frozen meats	15	9	24
		c	Seasoned meats	10	11	21
		Total		35	30	65
	Raw meat (except poultry)- Specific protocol ① - 24h	a	Fresh meats	10	10	20
		b	Frozen meats	15	9	24
		c	Seasoned meats	10	11	21
		Total		35	30	65

Category		Type		Positive samples	Negative samples	Total
9	Raw meat (except poultry)- Specific protocol ② - 375g 10h	a	Fresh meats	11	10	21
		b	Frozen meats	12	10	22
		c	Seasoned meats	10	10	20
		Total		33	30	63
	Raw meat (except poultry)- Specific protocol ② - 375g- 24h	a	Fresh meats	13	8	21
		b	Frozen meats	13	9	22
		c	Seasoned meats	11	9	20
		Total		37	26	63
7	Production environmental samples	a	Dusts and Residues	10	10	20
		b	Cleaning and Process Waters	11	11	22
		c	Surface samples	10	17	27
		Total		31	38	69
<b>All categories shorter incubation time</b>				<b>260</b>	<b>270</b>	<b>530</b>
<b>All categories longer incubation time</b>				<b>264</b>	<b>266</b>	<b>530</b>

### 3.1.2 Artificial contamination of samples

Artificial contaminations were done by seeding or spiking protocols. The artificial contaminations are presented in **Appendix 3**.

288 samples were artificially contaminated, using 94 different strains. 239 gave a positive result.

The repartition of the positive samples per inoculation protocol and inoculation level is given in Table 4 for all categories tested.

**Table 4 - Repartition of the positive samples per inoculation protocol and inoculation level**

	Inoculation protocol				Naturally contaminated	Total
	Spiking		Seeding			
	≤ 5 CFU	5<x≤10	≤ 3 CFU	3<x≤10		
Number of positive samples	46	2	133	58	25	264
%	17,4%	0,8%	50,4%	22,0%	9,5%	100,0%

22 % of the samples contaminated using the seeding protocol were contaminated between 3 and 10 CFU but note that 27 samples were contaminated between 3 and 4 CFU.

**9.5 % of the samples were naturally contaminated but note that 8 categories were tested.**

### 3.1.3 Protocols applied during the validation

#### > Incubation time

The following incubation times were tested for the enrichment step during the validation study:

- Standard protocol: 18 h;
- Specific protocol ①: 8 h and 24 h
- Specific protocol ②: 10 h and 24 h.

The minimum incubation time (6 h) was tested for the subculture in SX2 for the positive samples and only the upper limit (24 h) for the negative samples (case of SP1 and SP2).

#### > Confirmations

During the validation study, the confirmations were run as described in Table 5.

**Table 5 - Confirmation protocols**

Selective agar plates	Direct streaking		SX2 - 6 h		SX2 - 24 h
	Without a purification step	With a purification step	For PCR positive results negative by direct streaking		For PCR negative results
	Microgen Latex test	API	Microgen Latex test	API	
chromID	X	X	/	/	/
XLD	/	X	/	X	X
ASAP	X	X	X	X	X

X: performed            /: not performed

Note that SALMA was not evaluated as an additional confirmation method with the protocols mentioned in this report (41.5°C) but was included in the general claim after several extensions at 37°C including this media.

Note that the *Salmonella* spp. latex (REF MGNF42) test used during the validation study is no more available and has been replaced by GSD F42. The OXOID *Salmonella* test kit (DR1108A) was used instead during extension studies at 37°C to confirm the typical colonies from ChromID™ *Salmonella* (SM2), ASAP and SALMA selective agar plates. It has been agreed that GSD F42 or OXOID latex test can be used in replacement of the MICROGENE latex for all categories and protocols.

➤ **Enrichment broth and lysates storage for 72 h at 5°C ± 3°C**

**Enrichment storage of the primary enrichment and the lysates for 72 h at 5°C ± 3°C was also evaluated in order to offer sufficient practicability to the users.**

This was done on the positive and discordant samples in the sensitivity study.

### 3.1.4 Test results

Raw data per category are given in **Appendix 4**. The results are given in Table 6 per confirmation protocol and with all the confirmatory tests combined.

**Table 6 – Interpretation of sample results between the reference and alternative method (based on the confirmed alternative method result using different confirmation protocols)**

Category	Confirmation protocol	PA	NA	PD	ND	PPNA	PPND	Total
1 Ready to eat and ready to reheat	DS chrom ID	21	30	6	4	0	2	63
	DS XLD	22	30	6	4	0	1	63
	DS ASAP	22	30	6	4	0	1	63
	All confirmatory tests	23	30	6	4	0	0	63
2 Meat products	DS chrom ID	9	37	4	9	2	7	68
	DS XLD	10	37	5	9	1	6	68
	DS ASAP	16	37	5	9	1	0	68
	All confirmatory tests	16	37	6	9	0	0	68
3 Milk and dairy products	DS chrom ID	21	34	3	6	0	2	66
	DS XLD	22	34	3	6	0	1	66
	DS ASAP	23	34	3	6	0	0	66
	All confirmatory tests	23	34	3	6	0	0	66
4 Vegetables, fruits and seafood	DS chrom ID	23	38	1	2	1	4	69
	DS XLD	22	38	1	2	1	5	69
	DS ASAP	25	38	1	2	1	2	69
	All confirmatory tests	27	38	2	2	0	0	69
5 Specific ingredients and foods	DS chrom ID	18	29	7	8	4	1	67
	DS XLD	18	29	7	8	4	1	67
	DS ASAP	18	29	7	8	4	1	67
	All confirmatory tests	19	29	7	8	4	0	67
8 Raw meats (except poultry) 8h 25g sample size	DS chrom ID	11	33	3	18	0	0	65
	DS XLD	17	33	3	12	0	0	65
	DS ASAP	20	31	5	9	0	0	65
	All confirmatory tests	23	30	6	6	0	0	65
8 Raw meats (except poultry) 24h 25g sample size	DS chrom ID	18	31	5	11	0	0	65
	DS XLD	19	31	5	10	0	0	65
	DS ASAP	20	31	5	9	0	0	65
	All confirmatory tests	23	30	6	6	0	0	65

Category		Confirmation protocol	PA	NA	PD	ND	PPNA	PPND	Total
9	Raw meats (except poultry) 10h 375g sample size	DS chrom ID	8	30	0	5	5	15	63
		DS XLD	13	30	1	5	4	10	63
		DS ASAP	20	30	5	6	0	2	63
		All confirmatory tests	23	30	5	5	0	0	63
9	Raw meats (except poultry) 24h 375g sample size	DS chrom ID	10	26	0	2	9	16	63
		DS XLD	18	26	3	2	6	8	63
		DS ASAP	23	26	8	2	1	3	63
		All confirmatory tests	26	26	9	2	0	0	63
7	Production environmental samples	DS chrom ID	15	38	2	8	3	3	69
		DS XLD	15	38	3	8	2	3	69
		DS ASAP	19	38	3	7	2	0	69
		All confirmatory tests	19	38	5	7	0	0	69
All samples (shorter incubation time for all categories)	DS chrom ID	126	269	26	60	15	34	530	
	DS XLD	139	269	29	54	12	27	530	
	DS ASAP	163	267	35	51	8	6	530	
	All confirmatory tests	173	266	40	47	4	0	530	
All samples (longer incubation time for raw meats (25 and 375g))	DS chrom ID	135	263	28	50	19	35	530	
	DS XLD	146	263	33	49	14	25	530	
	DS ASAP	166	263	38	47	9	7	530	
	All confirmatory tests	176	262	44	44	4	0	530	

DS: Direct Streaking  
PD: Positive Deviation (R-/A+)

PP: Positive Presumptive non confirmed samples  
ND: Negative Deviation (R+/A-)

### 3.1.5 Calculation of relative trueness (RT), sensitivity (SE) and false positive ratio (FPR)

The calculations were done taking into account all the confirmatory tests; they are presented in Table 7.

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

Category		Type	PA	NA	PD	ND	PPND	PPNA	SE <sub>alt</sub> %	SE <sub>ref</sub> %	RT %	FPR %
1	Ready to eat and ready to reheat	a	9	10	1	1	0	0	90,9	90,9	90,5	0
		b	8	10	1	2	0	0	81,8	90,9	85,7	0,0
		c	6	10	4	1	0	0	90,9	63,6	76,2	0,0
		Total	23	30	6	4	0	0	87,9	81,8	84,1	0,0
2	Meat products	a	8	7	3	2	0	0	84,6	76,9	75,0	0,0
		b	5	20	2	1	0	0	87,5	75,0	89,3	0,0
		c	3	10	1	6	0	0	40,0	90,0	65,0	0,0
		Total	16	37	6	9	0	0	71,0	80,6	77,9	0,0
3	Milk and dairy products (except raw milk-based products)	a	9	13	1	2	0	0	83,3	91,7	88,0	0,0
		b	5	10	1	4	0	0	60,0	90,0	75,0	0,0
		c	9	11	1	0	0	0	100,0	90,0	95,2	0,0
		Total	23	34	3	6	0	0	81,3	90,6	86,4	0,0
4	Vegetables, Fruits, Seafood	a	11	11	1	0	0	0	100,0	91,7	95,7	0,0
		b	6	14	1	2	0	0	77,8	88,9	87,0	0,0
		c	10	13	0	0	0	0	100,0	100,0	100,0	0,0
		Total	27	38	2	2	0	0	93,5	93,5	94,2	0,0
5	Specific Ingredients and Foods	a	3	12	4	3	0	1	70,0	60,0	69,6	8,3
		b	9	9	0	2	0	1	81,8	100,0	90,5	11,1
		c	7	8	3	3	0	2	76,9	76,9	73,9	25,0
		Total	19	29	7	8	0	4	76,5	79,4	77,6	12,1
8	Raw meat (except poultry)- Specific protocol ①- 8h	a	5	10	3	2	0	0	80,0	70,0	75,0	0
		b	11	9	2	2	0	0	86,7	86,7	83,3	0,0
		c	7	11	1	2	0	0	80,0	90,0	85,7	0,0
		Total	23	30	6	6	0	0	82,9	82,9	81,5	0,0
	Raw meat (except poultry)- Specific protocol ①-24h	a	5	10	3	2	0	0	80,0	70,0	75,0	0
		b	11	9	2	2	0	0	86,7	86,7	83,3	0,0
		c	7	11	1	2	0	0	80,0	90,0	85,7	0,0
		Total	23	30	6	6	0	0	82,9	82,9	81,5	0,0



Category		Type	PA	NA	PD	ND	PPND	PPNA	SE <sub>alt</sub> %	SE <sub>ref</sub> %	RT %	FPR %
9	Raw meat (except poultry)- Specific protocol ☉- 375g 10h	a	7	10	2	2	0	0	81,8	81,8	81,0	0
		b	8	10	2	2	0	0	83,3	83,3	81,8	0,0
		c	8	10	1	1	0	0	90,0	90,0	90,0	0,0
		Total	23	30	5	5	0	0	84,8	84,8	84,1	0,0
	Raw meat (except poultry)- Specific protocol ☉- 375g- 24h	a	8	8	4	1	0	0	92,3	69,2	76,2	0
		b	10	9	3	0	0	0	100,0	76,9	86,4	0,0
		c	8	9	2	1	0	0	90,9	81,8	85,0	0,0
Total		26	26	9	2	0	0	94,6	75,7	82,5	0,0	
7	Production environmental samples	a	6	10	2	2	0	0	80,0	80,0	80,0	0
		b	6	11	2	3	0	0	72,7	81,8	77,3	0,0
		c	7	17	1	2	0	0	80,0	90,0	88,9	0,0
		Total	19	38	5	7	0	0	77,4	83,9	82,6	0,0
<b>All categories shorter incubation time</b>			<b>173</b>	<b>266</b>	<b>40</b>	<b>47</b>	<b>0</b>	<b>4</b>	<b>81,9</b>	<b>84,6</b>	<b>83,6</b>	<b>1,5</b>
<b>All categories longer incubation time</b>			<b>176</b>	<b>262</b>	<b>44</b>	<b>44</b>	<b>0</b>	<b>4</b>	<b>83,3</b>	<b>83,3</b>	<b>83,4</b>	<b>1,5</b>

The following results are observed (See Table 8).

**Table 8 - Summary of results**

		All samples with shorter incubation time	All samples with longer incubation time
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + ND + PD)} \times 100\%$	81.9 %	83.3 %
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + ND)}{(PA + ND + PD)} \times 100\%$	84.6 %	83.3 %
Relative trueness	$RT = \frac{(PA + NA)}{N} \times 100\%$	83.6 %	83.4 %
False positive ratio for the alternative method* FP = PPNA + PPND	$FPR = \frac{(FP)}{NA} \times 100\%$	1.5 %	1.5 %

With  $ND = ND + PPND$   
 $NA = NA + PPNA$

### 3.1.6 Analysis of discordant results

The repartition of the negative and positive deviations per type of contamination is summarized in Table 9.

**Table 9**

		Negative deviations	Positive deviations
<b>Artificial</b>	Standard protocol	5	4
	Specific protocol ①	6	6
	Specific protocol ②	5	5
	<i>Total</i>	<b>16</b>	<b>15</b>
<b>Natural</b>	Standard protocol	2	1
	Specific protocol ①	0	0
	Specific protocol ②	0	0
	<i>Total</i>	<b>2</b>	<b>1</b>
<b>TOTAL</b>		<b>18</b>	<b>16</b>

The repartition of naturally and artificially contaminated samples is the same for the negative deviations and the positive deviations and is closed to 50 %.

The negative deviations are given in Table 10 and the positive deviations in Table 11.

**Table 10 - Negative deviations**

Standard protocol	Sample N°	Products	Strain inoculated	Inoculation level (CFU/sample)	PCR			Confirmation	Agreement	Category	Type
					CP	Tm	Result				
Initial validation study	7416	Egg cream	S.Enteritidis 657	2,8	0	0	-	-	ND	1	a
	7783	Pizza	S.London	1,6	0	0	-	-	ND	1	b
	7785	Ready to reheat food	S.Agona Ad2281	1,2	0/0/0	0/0/0	-/-/-	+	ND	1	b
	73	Smoked herrings	S.Wandworth Ad2335	1,8	0	0	-	-	ND	1	c
	7323	Raw lamb meat	S.Derby 17	2,8	0	0	-	-	ND	2	a
	7324	Ground beef	S.Enteritidis Ad2294	3,8	0	0	-	-	ND	2	a
	78	Low moisture ham	S.Typhimurium Ad1876	1,2	0	0	-	-	ND	2	c
	85	Low moisture sausage	S.Typhimurium 702	1	0	0	-	-	ND	2	c
	7717	Sausages	/	/	0	0	-/-/-	-	ND	2	c
	7719	Sausages	/	/	0	0	-	-( + after 72h storage)	ND	2	c
	7721	Sausages	/	/	0	0	-	-	ND	2	c
	745	Poultry meat	/	/	0	0	-	-	ND	2	b
747	Sausages	/	/	0/0/0	0/0/0	-/-/-	+	ND	2	c	
Extension study N°1	323	Ice cream	S.Montevideo 604	1,4	0	0	-	-	ND	3	a
	329	Milk powder	S.Duisburg Ad1812	5	0	0	-	-	ND	3	b
	330	Milk powder	S.Cerro Ad1173	2,3	0	0	-	-	ND	3	b
	930	Pasteurized milk	S.diarizonae Ad1851	0,8	0	0	-	-	ND	3	a
	4690	Skimmed milk powder	S.Anatum Ad298	<0,4	0	0	-	-	ND	3	b
	4692	Skimmed milk powder	S.Typhimurium 4	3,1	0	0	-	-	ND	3	b
	2978	Sprouts	S.Senftenberg 2	1,8	0	0	-	-	ND	4	b
	4247	Sprouts	S.Typhimurium Ad1249	3,2	0/0/0	0/0/0	-/-/-	+	ND	4	b
	5625	Infant formula with probiotics	S.Cerro Ad2153	3	0/0/0	0/0/0	-/-/-	+	ND	5	b
	5628	Infant formula with probiotics	S.Cerro Ad2153	4	0	0	-	-	ND	5	b
	3073	Paprika	S.Agona Ad1725	2,0	0	0	-	-	ND	5	a
	3074	Turmeric	S.Oranienburg Ad1724	<1,7	8,9	0	-	-	ND	5	a
	4270	Cocoa bean	S.Typhimurium Ad1682	0,8	0	0	-	-	ND	5	a
	4395	Whole egg powder	S.Havana Ad1728	<0,4	0	0	-	-	ND	5	c
	4401	Whole egg powder	S.Enteritidis 10	0,4	0	0	-	-	ND	5	c
4734	Pasteurized egg white	S.Infantis 14	1,4	0	0	-	-	ND	5	c	
Extension study n°4	7350	Process water (swine industry)	/	/	0	0	-	-	ND	7	b
	7364	Wipe (swine industry)	/	/	0	0	-	-	ND	7	c
	7575	Process water (fish industry)	S.Senftenberg Ad355	1,0	0	0	-	-	ND	7	b
	7576	Process water (fish industry)	S.Urbana Ad2334	2,6	0	0	-	-	ND	7	b
	7580	Residues (fish industry)	S.Saintpaul F31	2,0	0/0/0	0/0/0	-/-/-	+	ND	7	a
	7663	Wipe (vegetables industry)	S.Heidelberg A00E005	1,8	0	0	-	-	ND	7	c
	7670	Dust from dairy industry	S.Tennessee A00E006	1,6	0	0	-	-	ND	7	a

Specific protocol ⊖	Sample N°	Products	Strain inoculated	Inoculation level (CFU/sample)	PCR-8h			Confir- mation	Agree- ment	PCR-24h			Confir- mation	Agree- ment	Category	Type
					CP	Tm	Result			CP	Tm	Result				
Initial validation study	7331	Frozen lamb meat	S.Typhimurium 911	3,2	0	0	-	-	ND	0	0	-	-	ND	8	b
	7337	Frozen ground beef	S.Ohio Ad2224	1,8	0	0	-	-	ND	0	0	-	-	ND	8	b
	7882	Fresh seasoned ground beef	S.Bredeney 396	2,4	0	0	-	-	ND	0	0	-	-	ND	8	c
	7884	Fresh seasoned ground beef	S.Infantis 128	1,4	0/0/0	0/0/0	-/-	-	ND	0/36,15/12,1	0/67,67/0	-/+	+	ND	8	c
	552	Fresh ground beef	S.Give 436	1,4	0	0	-	-	ND	0	0	-	-	ND	8	a
	555	Fresh beef trim	S.Bredeney 975	3	0	0	-	-	ND	0	0	-	-	ND	8	a

Specific protocol ⊙	Sample N°	Products	Strain inoculated	Inoculation level (CFU/sample)	PCR-10h			Confir- mation	Agree- ment	PCR-24h			Confir- mation	Agree- ment	Category	Type
					CP	Tm	Result			CP	Tm	Result				
Extension study N°1	4359	Beef trim	S.Enteritidis Ad2295	4,6	0	0	-	-	ND	0	0	-	-	ND	9	a
	4364	Veal trim	S.Enteritidis Ad2295	4,6	0/35,92/0	0/65,98/0	-/+	+	ND	34,87	65,89	+	+	PA	9	a
	4371	Frozen ground beef	S.Give 436	1	0/35,66/0	0/66,22/0	-/+	+	ND	31,46	66,15	+	+	PA	9	b
	4373	Frozen ground veal	S.Panama 4255	2,8	0/38,14/0	0/66,49/0	-/+	+	ND	34,9	66,05	+	+	PA	9	b
	4406	Seasoned beef trim	S.Infantis 128	2	0	0	-	-	ND	0	0	-	-	ND	9	c

**Table 11 - Positive deviations**

Standard protocol	Sample N°	Products	Strain inoculated	Inoculation level (CFU/sample)	PCR			Confirmation	Agreement	Category	Type
					CP	Tm	Result				
Initial validation study	7415	Strawberries pie	S.Enteritidis 657	2,8	23,71	67,21	+	+	PD	1	a
	7425	Smoked salmon	S.Indiana Ad1409	1,4	23,21	67,01	+	+	PD	1	c
	7455	Smoked duck meat	S.Infantis 937	1,6	23,8	67,37	+	+	PD	1	c
	7456	Smoked trout	S.Saintpaul F31	2	22,99	67,21	+	+	PD	1	c
	72	Haddock	S.Wandworth Ad2335	1,8	21,23	67,41	+	+	PD	1	c
	735	Ready to reheat food	S.Enteritidis Ad477	2,8	23,92	67,52	+	+	PD	1	b
	7212	Raw ground poultry meat	/	/	24,79	67,4	+	+	PD	2	b
	7319	Raw veal meat	S.Enteritidis Ad926	3,2	26,41	67,15	+	+	PD	2	a
	7710	Raw lamb meat	/	/	25,82	67,05	+	+	PD	2	a
	7711	Frozen raw lamb meat	/	/	29,75	67,15	+	+	PD	2	a
	749	Sausages	/	/	27,97	67,03	+	+	PD	2	c
	950	Ground poultry meat	/	/	31,58	67,69	+	+	PD	2	b
	324	Ice cream	S.Montevideo 604	0-1-2-1-3 (1,4)	26,3	58,18	+	+	PD	3	a
	327	Milk powder	S.Cerro Ad1173	2,3	22,86	66,27	+	+	PD	3	b
4687	Milk proteins	S.Typhimurium 4	3,1	33,02	66,19	+	+	PD	3	c	
Extension study N°1	2977	Sprouts	S.Kottbus 3	4-4-7-8-6 (5,8)	36,35	67,76	+	+	PD	4	b
	4242	Fish fillet	S.Saint-Paul F31	2-2-3-4-0 (2,2)	28,71	66,14	+	+	PD	4	a
	4399	Whole egg powder	S.Havana Ad1728	<0,4	23,8	66,39	+	+	PD	5	c
	4695	Cocoa powder	S.Branderup Ad1661	3,3	0/0*/0**	0/0*/62,46**	i/i*/+**	+	PD	5	a
	4730	Pasteurized egg yolk	S.Infantis 14	3-1-1-0-2 (1,4)	30,08	65,65	+	+	PD	5	c
	4732	Pasteurized whole egg	S.Infantis 14	3-1-1-0-2 (1,4)	26,4	66,52	+	+	PD	5	c
	4984	Black chocolate tablets	S.Typhimurium Ad1682	5-3-5-2-0 (3,0)	24,56	66,28	+	+	PD	5	a
	4985	Black chocolate tablets	S.Typhimurium Ad2034	2-5-0-5-0 (2,4)	26,74	65,97	+	+	PD	5	a
5621	Cocoa powder	S.Typhimurium Ad2034	2-3-2-5-2 (2,8)	(34,83)**	(66,13)**	i/i*/+**	+	PD	5	a	
Extension study n°4	2405	Porcine environment	/	/	33,63	67,25	+	+	PD	7	b
	7581	Residues (fish industry)	S.Senftenberg Ad355	1,0	24,8	66,35	+	+	PD	7	a
	7664	Wipe (vegetables industry)	S.Tennessee A00E006	1,6	33,02	66,45	+	+	PD	7	c
	7773	Cleaning water (delicatessen industry)	S.Bredeney 464	3,2	25,62	66,42	+	+	PD	7	b
	7777	Residues (delicatessen industry)	S.Derby 374	2,0	30,47	66,15	+	+	PD	7	a

Specific protocol ⊖	Sample N°	Products	Strain inoculated	Inoculation level (CFU/sample)	PCR-8h			Confir- mation	Agree- ment	PCR-24h			Confir- mation	Agree- ment	Cate- gory	Type
					CP	Tm	Result			CP	Tm	Result				
Initial validation study	7328	Frozen veal trim	S.Enteritidis Ad926	3,2	29,46	67,15	+	+	PD	26,74	67,16	+	+	PD	8	b
	7339	Frozen beef trim	S.Dublin Ad529	3,2	33,19	67,16	+	+	PD	27,07	67,01	+	+	PD	8	b
	7346	Frozen seasoned beef trim	S.Ohio Ad2224	1,8	32,33	67,41	+	+	PD	30,8	67,21	+	+	PD	8	c
	547	Fresh veal trim	S.Give 436	1,4	33,35	67,94	+	+	PD	25,26	67,52	+	+	PD	8	a
	548	Fresh veal trim	S.Panama 4255	1,8	31,53	67,38	+	+	PD	25,97	67,14	+	+	PD	8	a
	550	Fresh lamb meat	S.Bredeney 4871	1,8	30,62	67,42	+	+	PD	23,76	67,81	+	+	PD	8	a

Specific protocol ⊙	Sample N°	Products	Strain inoculated	Inoculation level (CFU/sample)	PCR-10h			Confir- mation	Agree- ment	PCR-24h			Confir- mation	Agree- ment	Cate- gory	Type
					CP	Tm	Result			CP	Tm	Result				
Extension study N°1	4358	Ground beef	S.Bredeney 396	5-0-0-1-1 (1,4)	33,32	65,58	+	+	PD	31,82	65,8	+	+	PD	9	a
	4362	Lamb trim	S.Typhimurium Ad2226	1-3-2-0-2 (1,6)	34,16	66	+	+	PD	32,54	65,6	+	+	PD	9	a
	4363	Veal trim	S.Bredeney 396	5-0-0-1-1 (1,4)	0/0/35,16	0/0/66,09	-/+	+	NA	33,43	65,61	+	+	PD	9	a
	4366	Pork trim	S.Braenderup 178	1-4-1-3-2 (2,2)	0/37,41/ 35,64	0/66,22/ 66,04	-/+	+	NA	33,44	65,69	+	+	PD	9	a
	4374	Frozen Veal trim	S.Panama 4255	0-3-4-4-3 (2,8)	32,85	66,21	+	+	PD	32,62	66,09	+	+	PD	9	b
	4376	Frozen lamb trim	S.Derby 17	4-2-2-1-2 (2,2)	33,28	66,37	+	+	PD	32,47	66,12	+	+	PD	9	b
	5313	Frozen Veal trim	/	/	0	0	-	-	NA	35,9	65,3	+	+ (at 72h)	PD	9	b
	4410	Seasoned pork trim	S.Derby 539	2-1-5-3-2 (2,6)	33,2	66,08	+	+	PD	33,17	65,97	+	+	PD	9	c
	4412	Seasoned beef trim	S.Infantis 128	1-3-1-3-2 (2,0)	0	0	-	-	NA	34,8	65,9	+	+	PD	9	c

### > **Negative deviations**

For the overall categories, 47 negative deviations were obtained (all categories, lower incubation time); the presence of *Salmonella* spp. was detected in the enrichment broth for 9 samples (7785, 7719, 747, 4247, 7580, 7884 (24 h incubation time), 4364, 4371 and 4373).

For sample 7884, the PCR was repeated 2 times: one negative result with an atypical curve (CP values: 12.1 - See **Appendix 5**) and one positive result were observed.

For sample 7719, the confirmation was positive only after 72 h storage of the enrichment broth at 5°C ± 3°C.

For the specific protocol ② dedicated to raw meats (375 g sample size), 5 negative deviations were obtained for 10 h incubation time and 2 for the longer incubation (24 h). For 3 samples, the confirmatory tests concluded to the presence of *Salmonella* in the enrichment broth. For these samples, the lysates were tested again twice; positive PCR results were then obtained: samples No 4364 (+/-), 4371 (+/-) and 4373 (+/-). Positive PCR results were observed after 24 h incubation time for these samples.

Additionally, one sample in negative agreement was confirmed after subculture for 24 h in SX2 (sample 748: sausage).

### > **Positive deviations**

44 positive deviations were obtained for all categories (higher incubation time): 29 for the Standard protocol, 6 for the specific protocol ① and 9 for the specific protocol ②.

The number of observed deviations confirms the low level of contamination.

The analyses of discordant results according to the EN ISO 16140-2:2016 is the following (See Table 12).

**Table 12 - Analyses of discordant results**

Category		Type	PD	ND	PPND	N+	(ND+ PPND)-PD	AL
1	Ready to eat and ready to reheat	a Ready-To-Eat (RTE) foods	1	1	0	11	0	
		b Ready-To-Reheat (RTR) foods	1	2	0	11	1	
		c Cured and smoked products (no delicatessen)	4	1	0	11	-3	
		Total	6	4	0	33	-2	
2	Meat products	a Raw meat products (frozen or fresh)	3	2	0	13	-1	
		b Raw poultry (fresh or frozen)	2	1	0	8	-1	
		c Raw delicatessen	1	6	0	10	5	
		Total	6	9	0	31	3	
3	Milk and dairy products (except raw milk-based products)	a Pasteurized products	1	2	0	12	1	
		b Milk powders	1	4	0	10	3	
		c Ingredients, derivates and low moisture products	1	0	0	10	-1	
		Total	3	6	0	32	3	
4	Vegetables, Fruits, Seafood	a Fish and seafood	1	0	0	12	-1	
		b Sprouts and produces	1	2	0	9	1	
		c Fruits and vegetables	0	0	0	10	0	
		Total	2	2	0	31	0	
5	Specific Ingredients and Foods	a Raw ingredients	4	3	0	10	-1	
		b Infant formula and cereals with probiotics	0	2	0	11	2	
		c Pasteurized eggs and egg powders	3	3	0	13	0	
		Total	7	8	0	34	1	
8	Raw meat (except poultry)-Specific protocol ①- 8h	a Fresh meats	3	2	0	10	-1	
		b Frozen meats	2	2	0	15	0	
		c Seasoned meats	1	2	0	10	1	
		Total	6	6	0	35	0	
	Raw meat (except poultry)-Specific protocol ①-24h	a Fresh meats	3	2	0	10	-1	
		b Frozen meats	2	2	0	15	0	
		c Seasoned meats	1	2	0	10	1	
		Total	6	6	0	35	0	
9	Raw meat (except poultry)-Specific protocol ②- 375g 10h	a Fresh meats	2	2	0	11	0	
		b Frozen meats	2	2	0	12	0	
		c Seasoned meats	1	1	0	10	0	
		Total	5	5	0	33	0	
	Raw meat (except poultry)-Specific protocol ②- 375g- 24h	a Fresh meats	4	1	0	13	-3	
		b Frozen meats	3	0	0	13	-3	
		c Seasoned meats	2	1	0	11	-1	
		Total	9	2	0	37	-7	
7	Production environmental samples	a Dusts and Residues	2	2	0	10	0	
		b Cleaning and Process Waters	2	3	0	11	1	
		c Surface samples	1	2	0	10	1	
		Total	5	7	0	31	2	
<b>All categories shorter incubation time</b>			<b>40</b>	<b>47</b>	<b>0</b>	<b>260</b>	<b>7</b>	<b>7</b>
<b>All categories longer incubation time</b>			<b>44</b>	<b>44</b>	<b>0</b>	<b>264</b>	<b>0</b>	<b>7</b>

**The observed values for ND - PD for the individual categories and for all the categories meet the Acceptability Limits (observed values ≤ AL).**



### 3.1.7 Enrichment broth and lysate storage at 5 ± 3°C for 72 h

384 enrichment broths and 341 lysates (Category 5: specific ingredients and foods excluded) were tested again after storage for 72 h at 5°C ± 3°C; the following changes were observed (See Tables 13, 14, 15).

**Table 13 - Standard protocol**

Sample n°	Incubation time:18h			Category	Type
	18h	BPW 72h	Lysate 72h		
2977	PD	NA	NA	4	b
2985	PA	ND	PA	4	b
4244	NA	PD	NA	4	b
4247	ND	ND	PA	4	b
4386	PA	PPND	PPND	5	b
4387	PA	PPND	PPND	5	b
5621	PD	PD	NA	5	a
5625	ND	PA	ND	5	b
7580	ND	PA	PA	7	a

**Table 14 - Specific protocol ①**

Sample n°	Incubation time:8h			Incubation time:24h			Category	Type
	8h	BPW 72h	Lysate 72h	24h	BPW 72h	Lysate 72h		
7884	ND	ND	ND	ND	PA	PA	8	c

**Table 15 - Specific protocol ②**

Sample n°	Incubation time:10h			Incubation time:24h			Category	Type
	10h	BPW 72h	Lysate 72h	24h	BPW 72h	Lysate 72h		
4363	NA	PD	PD	PD	PD	PD	9	a
4365	PA	ND	PA	PA	PA	PA	9	a
4366	NA	NA	PD	PD	PD	PD	9	a
4370	PA	ND	PA	PA	ND	PA	9	b
4371	ND	PA	ND	PA	PA	PA	9	b
4373	ND	ND	PA	PA	PA	PA	9	b
4405	PA	PA	PA	PA	PPND	PPND	9	c
4412	NA	PD	NA	PD	PD	PD	9	c

The analyses of discordant become (See Table 16 for BPW storage and Table 17 for lysates storage).

**Table 16 - Analysis of discordant results after BWP storage for 72 h at 5 ± 3°C**

Category		Type	PD	ND	PPND	(ND+ PPND)-PD	AL
1	Ready to eat and ready to reheat	a Ready-To-Eat (RTE) foods	1	1	0	0	
		b Ready-To-Reheat (RTR) foods	1	2	0	1	
		c Cured and smoked products (no delicatessen)	4	1	0	-3	
		Total	6	4	0	-2	
2	Meat products	a Raw meat products (frozen or fresh)	3	2	0	-1	
		b Raw poultry (fresh or frozen)	2	1	0	-1	
		c Raw delicatessen	1	6	0	5	
		Total	6	9	0	3	
3	Milk and dairy products (excluding raw milk-based products)	a Pasteurized products	1	2	0	1	
		b Milk powders	1	4	0	3	
		c Ingredients, derivatives and low moisture products	1	0	0	-1	
		Total	3	6	0	3	
4	Vegetables, Fruits, Seafood	a Fish and seafood	1	0	0	-1	
		b Sprouts and produce	1	3	0	2	
		c Fruits and vegetables	0	0	0	0	
		Total	2	3	0	1	
5	Specific Ingredients and Foods	a Raw ingredients	4	3	0	-1	
		b Infant formula and cereals with probiotics	0	1	2	3	
		c Pasteurized eggs and egg powders	3	3	0	0	
		Total	7	7	2	2	
8	Raw meat (except poultry)- Specific protocol ①- 8h	a Fresh meats	3	2	0	-1	
		b Frozen meats	2	2	0	0	
		c Seasoned meats	1	2	0	1	
		Total	6	6	0	0	
	Raw meat (except poultry)- Specific protocol ①-24h	a Fresh meats	3	2	0	-1	
		b Frozen meats	2	2	0	0	
		c Seasoned meats	1	1	0	0	
		Total	6	5	0	-1	
9	Raw meat (except poultry)- Specific protocol ②- 375g 10h	a Fresh meats	3	3	0	0	
		b Frozen meats	2	2	0	0	
		c Seasoned meats	2	1	0	-1	
		Total	7	6	0	-1	
	Raw meat (except poultry)- Specific protocol ②- 375g- 24h	a Fresh meats	4	1	0	-3	
		b Frozen meats	3	1	0	-2	
		c Seasoned meats	2	1	1	0	
		Total	9	3	1	-5	
7	Production environmental samples	a Dusts and Residues	2	1	0	-1	
		b Cleaning and Process Waters	2	3	0	1	
		c Surface samples	1	2	0	1	
		Total	5	6	0	1	
<b>All categories Lower incubation time</b>			<b>42</b>	<b>47</b>	<b>2</b>	<b>7</b>	<b>7</b>
<b>All categories Higher incubation time</b>			<b>44</b>	<b>44</b>	<b>3</b>	<b>3</b>	<b>7</b>

**Table 17 - Analysis of discordant after lysate storage for 72 h at 5 ± 3°C**

Category		Type	PD	ND	PPND	(ND+ PPND)-PD	AL
1	Ready to eat and ready to reheat	a Ready-To-Eat (RTE) foods	1	1	0	0	
		b Ready-To-Reheat (RTR) foods	1	2	0	1	
		c Cured and smoked products (no delicatessen)	4	1	0	-3	
		Total	6	4	0	-2	
2	Meat products	a Raw meat products (frozen or fresh)	3	2	0	-1	
		b Raw poultry (fresh or frozen)	2	1	0	-1	
		c Raw delicatessen	1	6	0	5	
		Total	6	9	0	3	
3	Milk and dairy products (excluding raw milk-based products)	a Pasteurized products	1	2	0	1	
		b Milk powders	1	4	0	3	
		c Ingredients, derivates and low moisture products	1	0	0	-1	
		Total	3	6	0	3	
4	Vegetables, Fruits, Seafood	a Fish and seafood	1	0	0	-1	
		b Sprouts and produces	0	1	0	1	
		c Fruits and vegetables	0	0	0	0	
		Total	1	1	0	0	
8	Raw meat (except poultry)-Specific protocol ①- 8h	a Fresh meats	3	2	0	-1	
		b Frozen meats	2	2	0	0	
		c Seasoned meats	1	2	0	1	
		Total	6	6	0	0	
	Raw meat (except poultry)-Specific protocol ①-24h	a Fresh meats	3	2	0	-1	
		b Frozen meats	2	2	0	0	
		c Seasoned meats	1	1	0	0	
		Total	6	5	0	-1	
9	Raw meat (except poultry)-Specific protocol ②- 375g 10h	a Fresh meats	4	3	0	-1	
		b Frozen meats	2	1	0	-1	
		c Seasoned meats	1	1	0	0	
	Raw meat (except poultry)-Specific protocol ②- 375g- 24h	a Fresh meats	4	1	0	-3	
		b Frozen meats	3	0	0	-3	
		c Seasoned meats	2	1	1	0	
Total	9	2	1	-6	3		
7	Production environmental samples	a Dusts and Residues	2	1	0	-1	
		b Cleaning and Process Waters	2	3	0	1	
		c Surface samples	1	2	0	1	
		Total	5	6	0	1	
<b>All categories Lower incubation time</b>			<b>34</b>	<b>37</b>	<b>0</b>	<b>3</b>	<b>7</b>
<b>All categories Higher incubation time</b>			<b>36</b>	<b>34</b>	<b>1</b>	<b>-1</b>	<b>7</b>

The observed values for ND - PD for the individual categories and for all the categories meet the Acceptability Limits (observed values ≤ AL) when enrichment broths were stored for 72 h at 5°C ± 3°C.

The observed values for ND - PD for the individual categories (excluding specific ingredients and foods) and for all the categories meet the Acceptability Limits (observed values ≤ AL) when the lysates were stored for 72 h at 5°C ± 3°C.

### 3.1.8 Confirmation

A summary of the differences observed between the different confirmation procedures is given in Table 18.

**Table 18 - Differences observed between the different confirmation procedures**

Category	Confirmation protocol	PA	NA	PD	ND	PPNA	PPND	Total	PA +PD
All samples (shorter incubation time for all categories)	DS chrom ID	126	269	26	60	15	34	530	152
	DS XLD	139	269	29	54	12	27	530	168
	DS ASAP	163	267	35	51	8	6	530	198
	All confirmatory tests	173	266	40	47	4	0	530	213
All samples (longer incubation time for raw meats (25 and 375g))	DS chrom ID	135	263	28	50	19	35	530	163
	DS XLD	146	263	33	49	14	25	530	179
	DS ASAP	166	263	38	47	9	7	530	204
	All confirmatory tests	176	262	44	44	4	0	530	220

The higher number of confirmed samples was obtained using ASAP (198 and 204 samples depending on the protocols applied).

### 3.1.9 PCR inhibition

12 PCR inhibitions were observed for the category "Specific ingredients and foods"; they are listed in Table 19.

Table 19 - PCR inhibitions

Category	Type	Sample N°	Product	PCR		
				cp	Tm	Result
Specific ingredients and foods	a	3071	Dried basil	0/0/0/0	0/0/0/0	i/i*/i**/-***
	a	3072	Dried herbs	0/0/0/0	0/0/0/0	i/i*/i**/-***
	a	3076	Dried thyme	0/0/40	0/0/61.74	i/i*/+**
	a	4265	Cocoa powder	0/0/0	0/0/0	i/i*/-**
	a	4266	Cocoa powder	0/0/0	0/0/0	i/i*/-**
	a	4267	Cocoa powder	0/0/33.43	0/0/66.19	i/i*/+**
	a	4694	Cocoa powder	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/-***
	a	4695	Cocoa powder	0/0*/0**	0/0*/62.46**	i/i*/+**
	a	4696	Tarragon	0/0*/0**	0/0*/0**	i/-*/i**
	a	4697	Oregano	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/-***
	a	5620	Tarragon	0/0*/0**	0/0*/0**	i/-*/-**
	a	5621	Cocoa powder	(34.83)**	(66.13)**	i/i*/+**

\*=Lysate 1:3

\*\*=Enrichment 1:10

\*\*\*=Lysate 1:3 from enrichment 1:10

These inhibitions concern aromatic herbs and cocoa powder. For 4 samples, enrichment and lysate dilutions were required to obtain a result, for 8 samples, enrichment dilution allowed to remove the inhibition.

### 3.2 Relative level of detection

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

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

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

#### 3.2.1 Experimental design

One matrix was tested as a minimum per category. Three inoculation levels were used:

- A blank level, (no contamination), with 5 replicates;
- A low contamination level providing fractional recovery data, with 20 replicates;
- A higher contamination level, with 20 replicates.

A total plate count determination was performed on each matrix to estimate the total microbial load on the day of analysis.

Each matrix was first screened for the presence of *Salmonella* using the tested reference method(s) on 5 replicates.

Concentration levels were adjusted accordingly to achieve fractional recovery. A liquid inoculum was used when moistened matrices were tested and lyophilized strains were used low-moisture products were tested. *Salmonella* species frequently isolated from the matrix were inoculated.

*Salmonella* was added to the matrix and was allowed to equilibrate with the matrices prior to analysis.

Seven (matrix/strain) pairs were analyzed by the reference method and by the alternative method (See Table 20):

**Table 20 - Defined (matrix/strain) pairs for the RLOD determination**

	Categories	Matrices	Strains	Protocol	Storage conditions
Initial validation study	1 - Ready-To-Eat & Ready-To-Reheat Foods	Mayonnaise based deli-salad (Macedoine)	<i>Salmonella</i> Mbandaka Ad914	Standard protocol	2-8°C for 48 h
	2 - Meat Products	Ground beef	<i>Salmonella</i> Typhimurium A00C060	Standard protocol	
	8 - Raw meats	Ground veal	<i>Salmonella</i> Enteritidis Ad926	Specific protocol ①	
Extension study no 1	3 - Milk and dairy products (except raw milk-based products)	Milk powder	<i>Salmonella</i> Anatum Ad298 (lyophilized strain)	Standard protocol	2 weeks at ambient temperature
	4 - Vegetables, fruits and seafood	Spinach	<i>Salmonella</i> Virchow Ad1721	Standard protocol	
	5 - Specific ingredients and foods	Pasteurized whole egg	<i>Salmonella</i> Havana Ad1728	Standard protocol	
	9 - Raw meat (375 g)	Beef trim	<i>Salmonella</i> Bredeney 975	Specific protocol ②	
Extension study no 4	7 - Production environmental samples	Process water	<i>Salmonella</i> Livingstone A00E058 (origin: environment dairy industry)	Standard protocol	2-8°C for 48 h

### 3.2.2 Calculation and interpretation of the RLOD

The raw data are given in **Appendix 6**. The RLOD calculations were performed using the Excel spreadsheet available at <http://standards.iso.org/iso/16140> - RLOD (clause 5-1-4-2 Calculation and interpretation of RLOD) version 15.08.2015. The RLOD are given in Table 21.

**Table 21 – Presentation of RLOD before and after confirmation of the alternative method results**

Shorter incubation time								
Category	Name	RLOD	RLODL	RLODU	b=ln (RLOD)	sd(b)	z-Test statistic	p-value
1	Deli salad / S. Mbandaka Ad914	1,560	0,779	3,123	0,445	0,347	1,281	0,200
2	Ground beef / S. Typhimurium A00C060	1,070	0,604	1,897	0,068	0,286	0,237	0,813
8	Ground veal meat / S. Enteritidis Ad926 (8h incubation time)	0,783	0,428	1,432	-0,245	0,302	0,810	1,582
3	Milk powder / S. Anatum 298	0,713	0,401	1,269	-0,338	0,288	1,173	1,759
4	Fresh spinach / S. Virchow Ad1721	1,089	0,589	2,013	0,085	0,307	0,276	0,782
5	Pasteurized whole liquid egg / S. Havana Ad1728	0,640	0,342	1,197	-0,446	0,313	1,426	1,846
9	Beef trim (375g sample size) / S. Bredney 975 (10h incubation time)	1,002	0,549	1,828	0,002	0,301	0,007	0,994
7	Process water / S. Livingstone A00E058	1,296	0,643	2,613	0,259	0,351	0,740	0,460
<b>Combined</b>		<b>0,976</b>	<b>0,789</b>	<b>1,206</b>	<b>-0,025</b>	<b>0,106</b>	<b>0,232</b>	<b>1,183</b>

Longer incubation time								
Category	Name	RLOD	RLODL	RLODU	b=ln (RLOD)	sd(b)	z-Test statistic	p-value
1	Deli salad / S. Mbandaka Ad914	1,560	0,779	3,123	0,445	0,347	1,281	0,200
2	Ground beef / S. Typhimurium A00C060	1,070	0,604	1,897	0,068	0,286	0,237	0,813
8	Ground veal meat / S. Enteritidis Ad926 (24h incubation time)	0,551	0,304	1,000	-0,596	0,298	1,998	1,954
3	Milk powder / S. Anatum 298	0,713	0,401	1,269	-0,338	0,288	1,173	1,759
4	Fresh spinach / S. Virchow Ad1721	1,089	0,589	2,013	0,085	0,307	0,276	0,782
5	Pasteurized whole liquid egg / S. Havana Ad1728	0,640	0,342	1,197	-0,446	0,313	1,426	1,846
9	Beef trim (375g sample size) / S. Bredney 975 (24h incubation time)	1,002	0,549	1,828	0,002	0,301	0,007	0,994
7	Process water / S. Livingstone A00E058	1,296	0,643	2,613	0,259	0,351	0,740	0,460
<b>Combined</b>		<b>0,937</b>	<b>0,758</b>	<b>1,157</b>	<b>-0,066</b>	<b>0,106</b>	<b>0,621</b>	<b>1,465</b>

The LOD<sub>50%</sub> calculations according to Wilrich & Wilrich POD-LOD calculation program - version 11, 2022-10-12 test are given in Table 22.

Table 22 - LOD<sub>50</sub> results

Category	Matrix / Strain	Level of detection at 50 % (CFU / sample size) according to Wilrich & Wilrich <sup>1</sup>	
		Reference method	Alternative method
1	Deli salad / S. Mbandaka Ad914	0,646 [0,427;0,978]	0,928 [0,603;1,427]
2	Ground beef / S. Typhimurium A00C060	0,467 [0,309;0,706]	0,517 [0,341;0,783]
8	Groundveal meat / S. Enteritidis Ad926 (8 h)	1,283 [0,825;1,995]	0,990 [0,643;1,524]
	Groundveal meat / S. Enteritidis Ad926 (24 h)		0,580 [0,370;0,910]
3	Milk powder /S. Anatum 298	0,454 [0,296;0,697]	0,246 (0,569;1,618)
4	Fresh spinach / S. Virchow Ad1721	0,699 [0,455;1,076]	0,763 [0,494;1,179]
5	Pasteurized whole liquid egg / S. Havana Ad1728	1,065 [0,669;1,695]	0,675 [0,440; 1,036]
9	Beef trim (375 g) / S. Bredeney 975 (10 h)	0,752 [0,495;1,143]	0,767 [0,504;1,166]
	Beef trim (375 g) / S. Bredeney 975 (24 h)		
7	Process water / S. Livingstone A00E058	1,240 [0,764;2,013]	1,552 [0,923;2,609]
<b>Combined shorter incubation time</b>		<b>0,791 [0,677;0,923]</b>	<b>0,761 [0,652;0,888]</b>
<b>Combined longer incubation time</b>			<b>0,711 [0,610;0,828]</b>

The RLOD values (using the confirmed alternative method results) meet the Acceptability Limit, which is 2.5 for an unpaired study design for all the categories tested and for both incubation time tested (shorter and longer).

The LOD<sub>50</sub> varies from 0.5 to 1.3 CFU/sample size for the reference method and from 0.2 to 1.6 CFU/ sample size for the alternative method.

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



### 3.3 Inclusivity / exclusivity

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

#### > Protocols

*Salmonella* strains cultures were performed in BHI medium at 37°C. Dilutions were done in order to inoculate 10 to 100 cells/225 ml in pre-warmed BPW. The enrichment broth was incubated for 8 h at 41.5°C ± 1°C. The protocol of the alternative method was then run.

#### > Results

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

For the inclusivity study, 6 target strains gave positive PCR results only for 24 h incubation time when incubated in buffered peptone water. These strains gave positive PCR tests after 8 h incubation time when tested in presence of a food matrix (milk or ground beef).

Strains belonging to *Salmonella* Typhi (one strain) and Paratyphi (three strains) serotypes were tested using the complete protocol of the alternative method; they all gave positive results.

For the exclusivity study, no cross reaction was observed among the 30 non-target tested strains.

### 3.4 Practicability

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

<b>Storage conditions, shelf-life and modalities of utilisation after first use</b>	Enrichment broth: after incubation before the lysis step or confirmation, 2 - 8°C for 3 days.			
	Lysis reagent: - before use at 15 - 25 °C in the kit until expiration date of the kit - lysate (after addition of the sample and vortex step): 1 h at 15 - 25°C 3 days at 2 - 8°C (or - 20°C for longer storage)			
<b>Time to result</b>	Steps	Reference method	Alternative method	
			8 h	24 h
	<b>Negative samples</b>			
	Sampling / enrichment	Day 0	Day 0	Day 0
	Subculture RVS / MKTTn	Day 1	/	/
	Lysis and PCR	/	Day 0	Day 1
	Streaking RVS/MKTTn	Day 2	/	/
	Reading plates	Day 3	/	/
	<b>Presumptive positive or positive results</b>			
	Direct streaking	/	Day 0	Day 1
	Reading plates	Day 3	Day 1	Day 2
	Confirmatory tests	Day 4 - Day 5	Day 1	Day 2
	<b>Common step with the reference method</b>	No common step		

The negative results are available in one day and the positive results in one or two days depending on the protocol applied.

## 4 EXTENSION STUDY RESULTS FOR THE UNIT-DOSE KIT (2018)

An extension study was carried out in December 2018 for a new format of the kit. The different steps impacted by the modifications are indicated in Table 23.

**Table 23 - Summary of the changes**

	Current kit	New kit
	Multi-Dose	Unit-Dose
Reference of the kit	414150	423105
Production site of PCR reagents	Salt-Lake City	Grenoble
Preparation of PCR reagents	45 µl reconstitution buffer + Mix PCR 5µL / PCR tube	Lyophilized mix PCR in the tube
Volume of lysate used for PCR	5 µl	10 µl
Software version	2.0	3.0

The modifications concern:

- The preparation of PCR tubes: with the current kit, the mix is reconstituted by adding 45 µl of reconstitution buffer to one vial containing reagents for 8 PCR reactions. 5 µl of this solution are then added to each PCR tube. With the new kit format, the tubes will be already filled with lyophilized reagents necessary for PCR reaction.
- The volume of lysate used for PCR with the current kit is 5 µl; the volume to be used for the new kit is 10 µl.
- The Routine software used for the current kit is the V2.0; the version V3.0 is used with the new kit format.

Changes implemented in the new software version 3.0:

For both the assay and the internal control, the software evaluates if the melting peak is inside of a range of  $T_M$  values (50 - 70) and compares the relative height of the peaks to defined threshold values.

The interpretation of both software versions is described below:

	V2.0	V3.0
<b>Negative result</b>	<ul style="list-style-type: none"> <li>• No melt peak detected</li> <li>• Peak outside of a defined TM range (50°C - 70°C)</li> <li>• Height of the peak lower than the negative threshold</li> </ul>	<ul style="list-style-type: none"> <li>• No melt peak detected</li> <li>• Peak outside of a defined TM range (50°C - 70°C)</li> <li>• Height of the peak lower than the negative threshold</li> </ul>
<b>Positive result</b>	<ul style="list-style-type: none"> <li>• Melt peak inside the TM range values</li> <li>• Peak higher than the negative threshold</li> </ul>	<ul style="list-style-type: none"> <li>• Melt peak inside the TM range values</li> <li>• Peak higher than the negative threshold (increased for the internal control to better detect inhibitions)</li> <li>• Curve crosses a new positive threshold</li> <li>• Specific access to individual assays, which provides more flexibility</li> </ul>

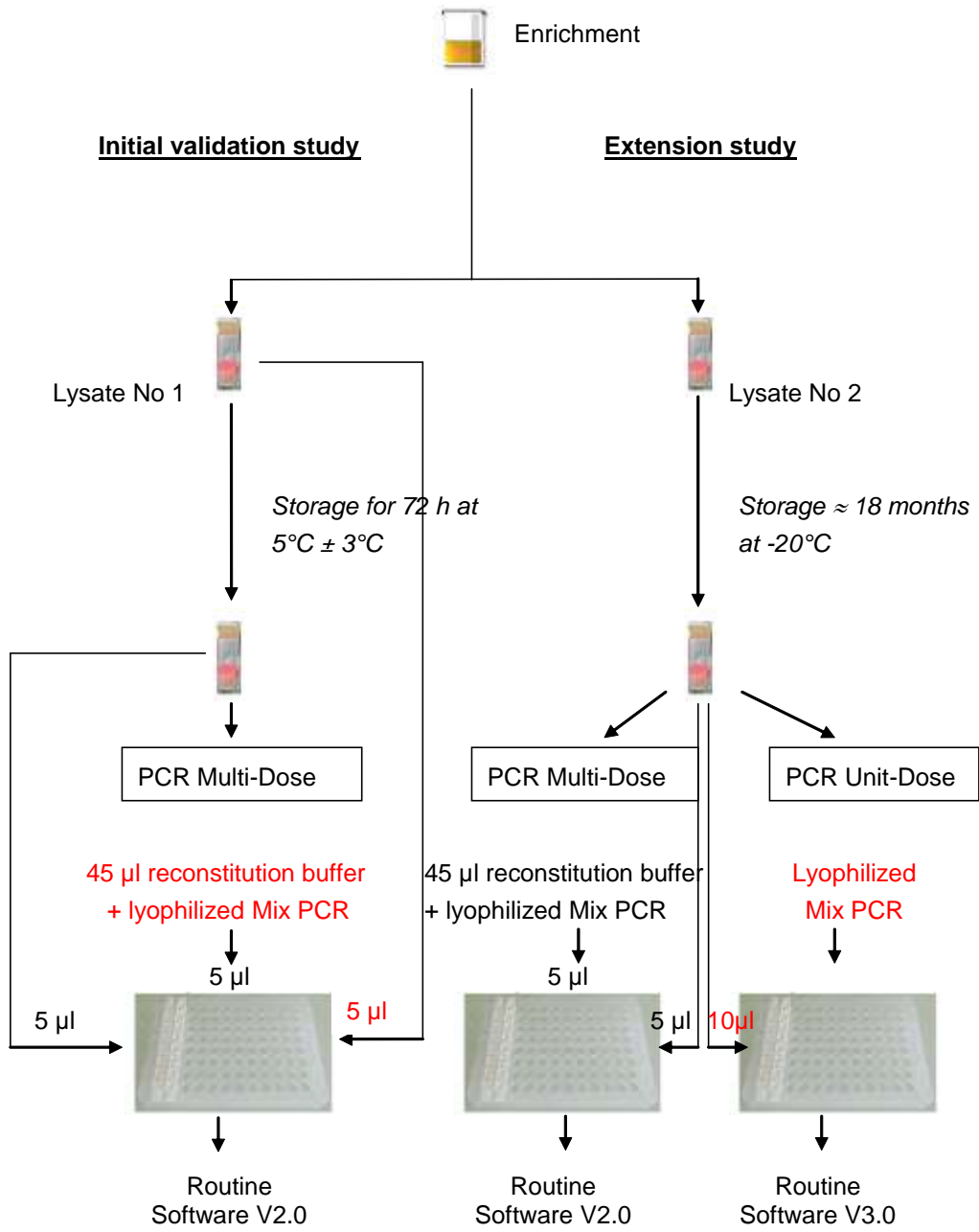
## 4.1 Analysis

In order to check that the modifications have no impact on the validation study results, it was proposed to test again the lysates obtained for the initial validation and extension studies.

Only the lysates prepared just after incubation time were tested again. Note that all the lysates were stored at -20°C. Note that the lysates stored for this comparison study are different from the lysates tested just after incubation as two lysates were produced, one for direct testing and storage for 72 hours at 2-8°C and the second for freezing. This, as well as the duration of the storage, may explain some difference between the initial result and the retesting.

The lysates were tested by both kits, Multi doses associated with the Routine software version 2.0 and the Unit doses associated with the Routine software version 3.0 (See Figure 1).

**Figure 1**



## 4.2 Results

### 4.2.1 Sensitivity study

The sensitivity (SE) is the ability of the method to detect the analyte by either the reference or alternative method.

#### 4.2.1.1 Number of DNA extracts tested

The raw data are provided in **Appendix 8**. 656 lysates were tested for the incubation protocols at 41.5°C.

#### 4.2.1.2 Interpretation

The interpretation was done by comparing the PCR results obtained with the unit dose format to those obtained with the multi-dose format without taking into account the results of confirmatory tests obtained for the initial validation study. A summary of the results is provided in Table 24.

**Table 24 - Summary of the results obtained with the Multi-dose and Unit-dose format**

Category	Protocol	PA	NA	ND	PD	Total
1 Ready to eat and ready to reheat	Standard	29	33	0	1	<b>63</b>
2 Meat products	Standard	23	43	0	2	<b>68</b>
3 Milk and dairy products (except raw milk-based products)	Standard	26	39	1	0	<b>66</b>
4 Vegetables, fruits, seafood	Standard	28	39	1	1	<b>69</b>
5 Specific ingredients and foods	Standard	30	32	2	3	<b>67</b>
7 Production environmental samples	Standard	24	45	0	0	<b>69</b>
8 Raw meat (except poultry)	① 8h	29	35	0	1	<b>65</b>
	① 24h	28	35	0	1	<b>64</b>
9 Raw meat (except poultry) (375 g)	② 10h	29	28	2	4	<b>63</b>
	② 24h	34	28	0	0	<b>62</b>
<b>All categories</b>		<b>280</b>	<b>357</b>	<b>6</b>	<b>13</b>	<b>656</b>

Taking into account all the categories, 6 negative deviations and 13 positive deviations were observed.

The discordant results are listed in Table 25.

Table 25 - Negative and positive deviations

Sample N°	Product	Reference method: ISO 6579*	Initial validation study						Extension study						Agreement Multi dose /Unit dose	Category	Type
			Multi dose			Multi dose			Unit dose								
			Cp	Tm	Result	Confirmation	Final result	Agreement Ref/Alt	Cp	Tm	Result	Cp	Tm	Result			
7785	Ready to reheat food	+	0/0/0	0/0/0	-/-	+	-	ND	0	0	-	36.05	66.01	+	PD	1	b
7214	Raw hen leg	-	0	0	-	-	-	NA	0/32,9/32,8	0/66,33/66,28	-/+	36,16/36,6/36,65	66,05/65,53/65,3	+	PD	2	b
747	Sausages	+	0/0/0	0/0/0	-/-	+	-	ND	0/0	0/0	-	35.6	65.49	+	PD	2	c
4247	Sprouts	+	0/0/0	0/0/0	-/-	+	-	ND	0	0	-	35.99	65.71	+	PD	4	b
3075	Curry	-	0	0	-	-	-	NA	0	0	-	0/(36,71/36,59/0)*	0/(66,02/66,56/0)*	i/(+/-)*	PD	5	a
4699	Chinese spices	-	0	0	-	-	-	NA	0	0	-	38,21/0/0	65,99/0/0	+/-	PD	5	a
5625	Infant formula with probiotics (7,1.10 <sup>3</sup> /g)	+	0/0/0	0/0/0	-/-	+	-	ND	0	0	-	36.01	65.4	+	PD	5	b
2084	Milk powder	-	0	0	-	-	-	NA	36,39/0/0	66,21/0/0	+/-	0	0	-	ND	3	b
2977	Sprouts	-	36,35	67,76	+	+	+	PD	35.89	67.08	+	0/0/0	0/0/0	-/-	ND	4	b
4697	Oregano	-	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/ -***	-	-	NA	0/0*/0**/ 38,82***	0/0*/0**/ 65,49***	i/i*/i**/+** *	0/0*/0**/0***/0°	0/0*/0**/0***/0°	i/i*/i**/ i***/-°	ND	5	a
5621	Cocoa powder	-	(34,83)**	(66,13)**	i/i*/+**	+	+	PD	0/0*/35,19**	0/0*/66,96**	i/i*/+**	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/-***	ND	5	a

Specific protocol ①

Sample N°	Product	Reference method: ISO 6579*	Initial validation study						Extension study						Agreement Multi dose /Unit dose	Category	Type													
			Multi dose-8h			Multi dose-8h			Unit dose-8h			Multi dose-24h						Multi dose-24h			Unit dose-24h									
			Cp	Tm	Result	Confirmation	Final result	Agreement Ref/Alt	Cp	Tm	Result	Cp	Tm	Result				Cp	Tm	Result	Confirmation	Final result	Agreement Ref/Alt	Cp	Tm	Result	Cp	Tm	Result	
7884	Fresh seasoned ground beef	+	0/0/0	0/0/0	-/-	-	-	ND	0	0	-	0	0	-	NA	0/36,15/ 12,1	0/67,67/0	-/+	+	-	ND	0	0	-	35.51	65.73	+	PD	8	c
7337	Frozen ground beef	+	0	0	-	-	-	ND	0	0	-	36.02/ 0/0	56.94/ 0/0	+/-	PD	0	0	-	-	-	ND	0	0	-	0	0	-	NA	8	b

Specific protocol ②

Sample N°	Product	Reference method: ISO 6579*	Initial validation study						Extension study						Agreement Multi dose /Unit dose	Category	Type													
			Multi dose-10h			Multi dose-10h			Unit dose-10h			Multi dose-24h						Multi dose-24h			Unit dose-24h									
			Cp	Tm	Result	Confirmation	Final result	Agreement Ref/Alt	Cp	Tm	Result	Cp	Tm	Result				Cp	Tm	Result	Confirmation	Final result	Agreement Ref/Alt	Cp	Tm	Result	Cp	Tm	Result	
5313	Frozen Veal trim	-	0	0	-	-	-	NA	35.28	66.63	+	0	0	-	ND	35,9	65,3	+	+	+	PD	35.82	66.72	+	0/36,46*	0/67,25*	i/+*	PA	9	b
5326	Frozen pork trim	-	0	0	-	-	-	NA	34.98/ 0/ 0	66.88/ 0/ 0	+/-	0	0	-	ND	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
4364	Veal trim	+	0/ 35,92/ 0	0/ 65,98/ 0	-/+	+	-	ND	0	0	-	35.11	65.92	+	PD	34,87	65,89	+	+	+	PA	34.06	66.5	+	35.05	65.94	+	PA	9	a
4366	Pork trim	-	0/ 37,41/ 35,64	0/ 66,22/ 66,04	-/+	+	-	NA	0	0	-	36.26	65.87	+	PD	33,44	65,69	+	+	+	PD	31.68	64.48	+	32.77	65.45	+	PA	9	a
4371	Frozen ground beef	+	0/ 35,66/ 0	0/ 66,22/ 0	-/+	+	-	ND	0	0	-	35.3	66.2	+	PD	PD	31.46	66.15	+	+	PA	29.91	66.35	+	28.56	66.72	+	PA	9	b
4373	Frozen ground veal	+	0/ 38,14/ 0	0/ 66,49/ 0	-/+	+	-	ND	0	0	-	35.82	66.04	+	PD	PD	34.9	66.05	+	+	PA	33.43	66.4	+	33.25	66.27	+	PA	9	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

For the **Standard protocol**, among the 7 positive deviations, 4 results are true positive as the confirmatory tests performed for the initial validation study concluded to the presence of *Salmonella* spp. in the enrichment broth.

For 3 samples (7214, 3075, 4699), the confirmatory tests were negative. For these samples, the PCR tests were repeated twice using both kit formats (sample 7214) and only with the unit dose kit for samples 3075 and 4699.

For sample 7214, all the replicates gave positive PCR results (multi-dose and unit dose).

For sample 3075, one positive and one negative PCR result were obtained (unit dose); for sample 4699, 2 negative results were observed (unit dose).

2 samples in negative deviations (2084 and 4697) were not confirmed initially; these samples correspond to true negative samples.

For 2 samples (2977 and 5621), the confirmations were positive; these results are thus false negative results.

For the **Specific protocol 1**, two positive deviations were obtained. Sample 7884 is a true positive result as the presence of *Salmonella* spp. was initially confirmed. Sample 7337 is a false positive result as it was not confirmed (8 h incubation time). The PCR was repeated twice using the unit dose kit for this sample and negative results were obtained.

For the **Specific protocol 2**, 6 disagreements were observed between both kit formats, two negative deviations corresponding to true negative samples (not confirmed after 10 h incubation time) and 4 positive deviations corresponding to true positive samples (initially confirmed)

A lot of lysates were tested for the extension study; it is possible that some errors or cross contaminations occurred during testing; this could explain the differences observed between the first assay and the 2 replicates done in a second time (+/-/- or -/+/+).

Finally taking into account the initial confirmation results, 9 positive deviations and 2 negative deviations were obtained in this extension study (See Table 26).



**Table 26 - Differences observed between Multi-Dose and Unit-Dose kits**

Sample N°	Product	Protocol	Reference method: ISO 6579♦	Initial validation study				Initial validation study				Category	Type
				Multi-Dose				Multi-Dose	Unit-Dose	Agreement Multi dose / Unit dose	Agreement Multi dose / Unit dose taking into account confirmation		
				Result	Confirmation	Final result	Agreement Ref/Alt	Result	Result				
7785	Ready to reheat food	Standard	+	-/-	+	-	ND	-	+	PD	PD	1	b
7214	Raw hen leg	Standard	-	-	-	-	NA	-/+	+	PD	NA	2	b
747	Sausages	Standard	+	-/-	+	-	ND	-/-	+	PD	PD	2	c
4247	Sprouts	Standard	+	-/-	+	-	ND	-	+	PD	PD	4	b
3075	Curry	Standard	-	-	-	-	NA	-	i/(+/-)*	PD	NA	5	a
4699	Chinese spices	Standard	-	-	-	-	NA	-	+/-	PD	NA	5	a
5625	Infant formula with probiotics (7,1.10 <sup>3</sup> CFU/g)	Standard	+	-/-	+	-	ND	-	+	PD	PD	5	b
2084	Milk powder	Standard	-	-	-	-	NA	+/-	-	ND	NA	3	b
2977	Sprouts	Standard	-	+	+	+	PD	+	-/-	ND	ND	4	b
4697	Oregano	Standard	-	i/i*/i**/-***	-	-	NA	i/i*/i**/+***	i/i*/i**/i***/-	ND	NA	5	a
5621	Cocoa powder	Standard	-	i/i*/+**	+	+	PD	i/i*/+**	i/i*/i**/-***	ND	ND	5	a
7884	Fresh seasoned ground beef	Specific ①	+	-/-	-	-	ND	-	+	NA	PD	8	c
7337	Frozen ground beef	Specific ①	+	-	-	-	ND	-	+/-	PD	NA	8	b
5313	Frozen Veal trim	Specific ②	-	-	-	-	NA	+	-	ND	NA	9	b
5326	Frozen pork trim	Specific ②	-	-	-	-	NA	+/-	-	ND	NA	9	b
4364	Veal trim	Specific ②	+	-/+	+	-	ND	-	+	PD	PD	9	a
4366	Pork trim	Specific ②	-	-/+	+	-	NA	-	+	PD	PD	9	a
4371	Frozen ground beef	Specific ②	+	-/+	+	-	ND	-	+	PD	PD	9	b
4373	Frozen ground veal	Specific ②	+	-/+	+	-	ND	-	+	PD	PD	9	b

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

**The results obtained by the unit dose kit format are satisfying regarding the sensitivity study whatever the tested protocol.**

#### *4.2.1.3 Inhibitions*

A summary of the samples with PCR inhibitions is given in Table 27.

**Table 27 - PCR inhibitions**

**Initial validation study**

Sample N°	Product	PCR		
		cp	Tm	Result
3071	Dried basil	0/0/0/0	0/0/0/0	i/i*/i**/-***
3072	Dried herbs	0/0/0/0	0/0/0/0	i/i*/i**/-***
3076	Dried thyme	0/0/40	0/0/61,74	i/i*/+**
4265	Cocoa powder	0/0/0	0/0/0	i/i*/-**
4266	Cocoa powder	0/0/0	0/0/0	i/i*/-**
4267	Cocoa powder	0/0/33,43	0/0/66,19	i/i*/+**
4694	Cocoa powder	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/-***
4695	Cocoa powder	0/0*/0**	0/0*/62,46**	i/i*/+**
4696	Tarragon	0/0*/0**	0/0*/0**	i/-*/i**
4697	Oregano	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/-***
5620	Tarragon	0/0*/0**	0/0*/0**	i/-*/-**
5621	Cocoa powder	(34,83)**	(66,13)**	i/i*/+**

Dilution applied	Number of PCR results obtained when applying the dilution
*=Lysate 1:3	2
**=Enrichment 1:10	6
***=Lysate 1:3 of enrichment 1:10	4
Total	12 (Percentage of inhibition: 1.8 %)

**Extension study**

Sample N°	Product	PCR Multi dose			PCR Unit dose		
		cp	Tm	Result	cp	Tm	Result
156	Ground chicken meat	0	0	-	0/0*	0/0*	i/-*
4988	Milk proteins	0	0	-	0/0/0*	0/0/0*	i/-L*
1922	Baby leaves	0	0	-	0/0/0*	0/0/0*	i/iL*
3071	Dried basil	0/0*/0**	0/0*/0**	i/i*/-**	0/0*/0**	0/0*/0**	i/i*/-**
3072	Dried herbs	0/0*/0**	0/0*/0**	i/i*/-**	0/0*/0**	0/0*/0**	i/i*/-**
3073	Paprika	0	0	-	0/0*	0/0*	i/-*
3075	Curry	0	0	-	0/(36,71/36,59/0)*	0/(66,02/66,56/0)*	i/(+/+/-)*
3076	Dried thyme	0/0*/29,46**	0/0*/66,31**	i/i*/+**	0/0*/31,67**	0/0*/66,33**	i/i*/+**
4265	Cocoa powder	0/0*/0**	0/0*/0**	i/i*/-**	0/0*/0**	0/0*/0**	i/i*/-**
4266	Cocoa powder	0/0*/0**	0/0*/0**	i/i*/-**	0/0*/0**	0/0*/0**	i/i*/-**
4267	Cocoa powder	0/0*/32,98**	0/0*/66,56**	i/i*/+**	0/0*/37,56**	0/0*/66,32**	i/i*/+**
4269	Dark chocolate tablet	0	0	-	0/0*	0/0*	i/-*
4270	Cocoa bean	0	0	-	0/0*	0/0*	i/-*
4694	Cocoa powder	0/0*/0**	0/0*/0**	i/i*/-**	0/0*/0**	0/0*/0**	i/i*/-**
4695	Cocoa powder	0/0*/33,52**	0/0*/64,34**	i/i*/+**	0/0*/0**/34,37***	0/0*/0**/65,28***	i/i*/+***
4696	Tarragon	0/0*/0**/35,96***	0/0*/0**/66,37***	i/i*/+***	0/0*/0**/35,93***	0/0*/0**/65,34***	i/i*/+***
4697	Oregano	0/0*/0**/38,82***	0/0*/0**/65,49***	i/i*/+***	0/0*/0**/0***/0°	0/0*/0**/0***/0°	i/i*/+***/-°
4984	Black chocolate tablets	26,09	65,76	+	0/0/23,76	0/0/66,32	i/i/+*
4985	Black chocolate tablets	33,21	65,4	+	0/0/25,47	0/0/66,74	i/i/+*
4986	Black chocolate tablets	28,98	65,81	+	0/0/23,59	0/0/66,71	i/i/+*
5213	Whole egg powder	0	0	-	0/0/0*	0/0/0*	i/i/-*
5620	Tarragon	0/0*/0**	0/0*/0**	i/-*/-**	0/0*/0**	0/0*/0**	i/i*/-**
5621	Cocoa powder	0/0*/35,19**	0/0*/66,96**	i/i*/+**	0/0*/0**/0***	0/0*/0**/0***	i/i*/+***
4357 24h	Ground beef	31,93	64,13	+	0/30,2*	0/66,51*	i/+*
5313 24h	Frozen Veal trim	35,82	66,72	+	0/36,46*	0/67,25*	i/+*
5321 24h	Seasoned beef trim	0	0	-	0/0*	0/0*	i/-*
4368 10h	Pork trim	33,92	66,25	+	0/0/35,81*	0/64,07/66,28*	i/+/*
5314 24h	Frozen Veal trim	0	0	-	0/0	0/0	i/-

Dilution applied	Number of PCR results obtained when applying the dilution	
	Multi Dose	Unit Dose
*=Lysate 1:3	1	14
**=Enrichment 1:10	9	8
***=Lysate 1:3 of enrichment 1:10	2	3
****=Lysate 1:5	0	0
°=Lysate 1:10	0	1
None	0	2
Total	12 (Percentage of inhibition: 1.8 %)	28 (Percentage of inhibition: 4.3 %)

For an incubation at 41.5°C, 12 inhibitions were initially observed (multi-dose kit), 12 were also observed for this extension study while 28 were observed using the unit dose kit.

**The number of PCR inhibitions is higher with the unit dose kit; this is linked to the modification of the software version (V3.0) (negative threshold on the height of the peak increased for the internal control) and to the largest sample volume (10 µL instead of 5 µL).**

#### 4.2.2 Specificity

Lysates from inclusivity study which gave atypical T<sub>m</sub> values were tested again using both PCR kits.

The results are given in **Appendix 9**.

This concerns 8 strains tested with an enrichment step in BPW for 8 h at 41.5°C. Similar results were observed with both PCR kits.

## 5 INTER-LABORATORY STUDY

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

### 5.1 Study organisation

Samples were sent to 14 laboratories. Ground beef (15 % fat) was contaminated by a *Salmonella* Typhimurium A00C060 strain isolated from ground beef. Samples were prepared and inoculated on Monday 23<sup>rd</sup> May 2016.

The targeted inoculation levels were the following:

- Level: 0 CFU/25 g,
- Level 1: 2 CFU/25 g, in order to provide as much fractional positive recovery data as possible,
- Level 2: 8 CFU/25 g.

Collaborative study laboratories and the expert laboratory carried out the analyses on Tuesday 24<sup>th</sup> May or Wednesday 25<sup>th</sup> May 2016 with the alternative and reference methods.

The kit multi doses format was used in this study.

## 5.2 Experimental parameters controls

### 5.2.1 Sample stability

#### > Contamination levels before inoculation

The contamination levels were the following (See table 28):

**Table 28 - Contamination levels**

Level	Samples	Theoretical target level	True level (CFU/25 g sample)	Low limit / CFU/25 g sample	High limit / CFU/25 g sample
Level 0	4-7-9-10-13-18-23-24	/	/	/	/
Low level	2-3-8-12-15-17-19-21	2	2.5	2.1	3.0
High level	1-5-6-11-14-16-20-22	8	11.4	9.5	13.7

#### > Strain stability during transport

In order to detect the presence of *Salmonella* spp., the reference method was carried out on five portions (25 g) before the inoculation. All the results were negative.

Three samples inoculated at a high level (100 CFU/g) were tested for enumeration after 24 h and 48 h storage. Three samples inoculated at a low level were tested for detection after 24 h and 48 h storage (See table 29).

**Table 29 – *Salmonella* spp. stability in the matrix**

Day of analysis	<i>Salmonella</i> spp. detection		Mesophilic aerobic flora (CFU/g)
	CFU/g	Detection/25 g	
Day 0	200	+	8.9 10 <sup>2</sup>
	150	+	
	130	+	
Day 1	180	-	1.6 10 <sup>3</sup>
	140	+	
	150	+	
Day 2	70	+	2.7 10 <sup>3</sup>
	150	+	
	110	+	

No evolution was observed during storage for 48 h at 5°C ± 3°C.

### 5.2.2 Logistic conditions

Temperature conditions are given in Table 30.

**Table 30 - Sample temperatures at receipt**

Laboratories	Temperature measured by the probe (°C)	Temperature measured at receipt (°C)	Receipt date and time	Analysis date
A	1.0	4.0	24/05/16 10h30	25/05/2016
B	1.0	6.5	24/05/16 10h30	24/08/2016
C	2.5	3.4	24/05/16 08h30	25/05/2016
D	1.5	6.3	24/05/16 08h30	24/05/2016
E	3.5	3.9	24/05/16 10h50	25/05/2016
F	2.5	5.5	24/05/16 08h30	24/05/2016
G	/	/	27/05/16 18h10	/
H	2.5	4.1	24/05/16 09h30	25/05/2016
I	1.0	1.3	24/05/16 09h50	25/05/2016
J	1.5	4.5	24/05/16 10h27	24/05/2016
K	4.5	<i>Not measured</i>	24/05/16 12h38	<i>Not precised</i>
L	4.5	6.5	24/05/16 10h00	25/05/2016
M	<i>Not received</i>	<i>Not measured</i>	24/05/16 12h58	25/05/2016
N	RAF	3.2	24/05/16 09h00	24/05/2016

All the samples were delivered on time and in appropriate conditions except for Lab G which received its samples on day 4. They did not carry out the analyses. Temperatures during shipment and at receipt were all correct.

### 5.3 Results analysis

#### 5.3.1 Expert laboratory results

The results obtained by the expert laboratory are given in Table 31.

**Table 31 – Results obtained by the expert Lab.**

Level	Reference method	Alternative method
L0	0/8	0/8
L1	7/8	8/8
L2	8/8	8/8

#### 5.3.2 Results observed by the collaborators

> **Aerobic mesophilic flora enumeration**

The enumeration of the mesophilic aerobic flora varies from  $9.1 \cdot 10^2$  to  $4.3 \cdot 10^6$  CFU/g.

> **Salmonella spp. detection**

13 collaborators participated to the study. The results obtained are provided in Table 32 (reference method) and Table 33 (alternative method).

**Table 32 - Positive results by the reference method  
(ALL the collaborators)**

Collaborators	Contamination level		
	L0	L1	L2
A	0	7	8
B	0	7	8
C	0	8	8
D	0	7	8
E	0	8	8
F	0	8	8
H	1	8	8
I	0	7	8
J	0	8	8
K	0	8	8
L	0	8	8
M	6	8	8
N	0	8	8
<b>Total</b>	<b>P<sub>0</sub> = 7</b>	<b>P<sub>1</sub> =100</b>	<b>P<sub>2</sub> =104</b>



**Table 33 - Positive results (before and after confirmation)  
by the alternative method (ALL the collaborators)**

Collaborators	Contamination level					
	L0		L1		L2	
	<i>before confirmation</i>	<i>after confirmation</i>	<i>before confirmation</i>	<i>after confirmation</i>	<i>before confirmation</i>	<i>after confirmation</i>
<b>A</b>	0	0	6	6	8	8
<b>B</b>	0	0	8	8	8	8
<b>C</b>	0	0	7	7	8	8
<b>D</b>	0	0	8	8	8	8
<b>E</b>	0	0	8	8	8	8
<b>F</b>	0	0	8	8	8	8
<b>H</b>	2	2	7	7	8	8
<b>I</b>	0	0	8	8	8	8
<b>J</b>	3	0	5	5	6	8
<b>K</b>	0	0	7	7	8	8
<b>L</b>	0	0	8	8	8	8
<b>M</b>	0	0	8	8	8	8
<b>N</b>	0	0	8	8	8	8
<b>Total</b>	<b>P<sub>0</sub>=5</b>	<b>CP<sub>0</sub>=2</b>	<b>P<sub>1</sub>=96</b>	<b>CP<sub>1</sub>=96</b>	<b>P<sub>2</sub>=102</b>	<b>CP<sub>2</sub>=104</b>

According to the AFNOR technical rules, it is possible to include the results from a collaborator with a maximum of one cross contamination per method at Level 0. For this study, this rule was applied and results from 3 labs were not kept: H, J and M.

Lab H obtained one positive result on control samples with the reference method and two positive results with the alternative method.

The technician from Lab J was disturbed<sup>2</sup> during the alternative method manipulations; this could explain the results observed for the first run. It was asked that this lab run twice again the PCR tests from lysates stored at -20°C for the following samples: J10, J13, J23, J15, J17, J20 and J22. The expected results were then observed.

Lab M obtained 6 positive samples with the reference method on control samples.

The results from 10 Labs were kept: A-B-C-D-E-F-I-K-L-M.

<sup>2</sup> Somebody spoke to him when he was filling the strip tubes

### 5.3.3 Results of the collaborators retained for interpretation

The results obtained with the 10 individual collaborators in the inter-laboratory study are summarised in Tables 34 and 35.

**Table 34 – Positive results by the reference method  
(without Labs H, J, & M)**

Collaborators	Contamination level		
	L0	L1	L2
A	0	7	8
B	0	7	8
C	0	8	8
D	0	7	8
E	0	8	8
F	0	8	8
I	0	7	8
K	0	8	8
L	0	8	8
N	0	8	8
<b>Total</b>	<b>P<sub>0</sub> =0</b>	<b>P<sub>1</sub> =76</b>	<b>P<sub>2</sub> =80</b>

**Table 35 – Positive results (before and after confirmation)  
by the alternative method (without Labs H, J & M)**

Collaborators	Contamination level					
	L0		L1		L2	
	<i>before confirmation</i>	<i>after confirmation</i>	<i>before confirmation</i>	<i>after confirmation</i>	<i>before confirmation</i>	<i>after confirmation</i>
A	0	0	6	6	8	8
B	0	0	8	8	8	8
C	0	0	7	7	8	8
D	0	0	8	8	8	8
E	0	0	8	8	8	8
F	0	0	8	8	8	8
I	0	0	8	8	8	8
K	0	0	7	7	8	8
L	0	0	8	8	8	8
N	0	0	8	8	8	8
<b>Total</b>	<b>P<sub>0</sub> =0</b>	<b>C P<sub>0</sub> =0</b>	<b>P<sub>1</sub> =76</b>	<b>CP<sub>1</sub> =76</b>	<b>P<sub>2</sub> =80</b>	<b>CP<sub>2</sub> =80</b>

## 5.4 Calculation and interpretation

### 5.4.1 Calculation of the specificity percentage (SP)

The percentage specificities (SP) of the reference method and of the alternative method, using the data after confirmation, based on the results of level L0 are the following (See Table 36).

**Table 36 - Percentage specificity**

Specificity for the reference method	$SP_{ref} = \left(1 - \left(\frac{P_0}{N_-}\right)\right) \times 100\% =$	100%
Specificity for the alternative method	$SP_{alt} = \left(1 - \left(\frac{CP_0}{N_-}\right)\right) \times 100\% =$	100%

N: number of all L0 tests

P<sub>0</sub> = total number of false-positive results obtained with the blank samples before confirmation

CP<sub>0</sub> = total number of false-positive results obtained with the blank samples

### 5.4.2 Calculation of the sensitivity (SE<sub>alt</sub>), the sensitivity for the reference method (SE<sub>ref</sub>), the relative trueness (RT) and the false positive ratio for the alternative method (FPR)

Fractional positive results were obtained for the low inoculation level (L1). This inoculation level was retained for calculation.

A summary of the results of the collaborators retained for interpretation, and obtained with the reference and the alternative methods for Level 1 is provided in Table 37.

**Table 37 – Summary of the obtained results with the reference method and the alternative method for Level 1**

Response	Reference method positive (R+)	Reference method negative (R-)
Alternative method positive (A+)	Positive agreement (A+/R+) <b>PA = 73</b>	Positive deviation (R-/A+) <b>PD = 3</b>
Alternative method negative (A-)	Negative deviation (A-/R+) <b>ND = 3</b>	Negative agreement (A-/R-) <b>NA = 1</b>

Based on the data summarised in Table 37, the sensitivity values of the alternative and reference methods, as well as the relative trueness and false positive ratio for the alternative method taking account of the confirmations, are the following (See Table 38):

**Table 38**

Sensitivity for the alternative method:	$SE_{alt} = \frac{(PA+PD)}{(PA+PD+ND)} \times 100\% =$	96.2%
Sensitivity for the reference method:	$SE_{ref} = \frac{(PA+ND)}{(PA+PD+ND)} \times 100\% =$	96.2%
Relative trueness	$RT = \frac{(PA+NA)}{N} \times 100\% =$	92.5%
False positive ratio for the alternative method	$FPR = \frac{FP}{NA} \times 100\% =$	0%

### 5.4.3 Interpretation of data

For Level 1, the negative deviations are listed in Table 39 and the positive deviations in Table 40.

**Table 39 – Negative deviations**

Lab	Sample N°
A	A2
C	C12
K	K2

The presence of *Salmonella* was not confirmed in these 3 samples.

**Table 40 – Positive deviations**

Lab	Sample N°
B	B2
D	D3
I	I17

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

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

where

$P_x$  = number of samples with a positive result obtained with the reference method at level  $L_1$  for all laboratories

$N_x$  = number of samples tested at level  $L_1$  with the reference method by all laboratories.

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

where

$CP_x$  = number of samples with a confirmed positive result obtained with the alternative method at level  $L_1$  for all laboratories;

$N_x$  = number of samples tested at level  $L_1$  with the alternative method by all laboratories.

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

where

$N_x$  = the total number of samples tested for level  $L_1$  by all laboratories.

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

The calculations are the following, according to the EN ISO 16140-2:2016 (See Table 41).

**Table 41 - Calculations**

$N_x$	80
$(p+)_{ref}$	1.0
$(p+)_{alt}$	1.0
AL = (ND - PD) max	4.77
ND - PD	0
Conclusion	ND-PD < AL

The EN ISO 16140-2:2016 requirements are fulfilled as (ND - PD) is lower than the AL.

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

#### 5.4.4 Evaluation of the LOD<sub>50%</sub>, LOD<sub>95%</sub> and RLOD between laboratories

The RLOD was calculated using the EN ISO 16140-2:2016 Excel spreadsheet available at [https://standards.iso.org/iso/16140/-5/ed-1/en/RLOD\\_inter-lab-study\\_16140-2\\_AnnexF\\_ver1\\_28-06-2017.xls](https://standards.iso.org/iso/16140/-5/ed-1/en/RLOD_inter-lab-study_16140-2_AnnexF_ver1_28-06-2017.xls). The results are used only for information (see Table 42).

**Table 42 - RLOD**

Method	LOD 50%	LOD 95%	RLOD
Reference	0,58	2,50	1.00
Alternative	0,58	2,50	

## 6 CONCLUSION

The **method comparison study conclusions** are:

- In the sensitivity study, 8 categories were tested: 7 food categories and the production environmental samples.
- The alternative method shows respectively 40 and 44 positive deviations (PD) for the shorter and the longer limits of incubation time, and 47 and 44 negative deviations (ND) for the eight categories tested, taking into account all the confirmatory tests applied.
- The observed values for ND - PD for the individual categories and for all the categories meet the Acceptability Limits (observed values  $\leq$  AL) when enrichment broths were stored for 72 h at 5°C  $\pm$  3°C
- The Relative Levels of Detection (RLOD) are below the AL fixed at 2.5 for an unpaired study design for all the matrices.
- For the inclusivity study, 6 target strains gave positive PCR results only for 24 h incubation time when incubated in buffered peptone water. These strains gave positive PCR tests after 8 h incubation time when tested in presence of a food matrix (milk or ground beef).
- For the exclusivity study, no cross reaction was observed among the 30 non-target tested strains.

- It is possible to store the primary enrichment broth for 72 h at 5°C ± 3°C for all the categories.
- It is possible to store the lysates for 72 h at 5°C ± 3°C for all the categories, except for the category “Specific ingredients and foods”.
- The negative results are available in one day and the positive results in one or two days depending on the protocol applied.
- The alternative method fulfils all the EN ISO 16140-2:2016 and AFNOR technical rules (Revision 6).

The **extension study conclusions** are:

- 1822 lysates were tested by both PCR kits (multi-dose and unit dose); 19 negative and 21 positive deviations were observed for all the categories and enrichment protocols combined.  
These results clearly showed that both kits gave similar results.
- The lysates for raw milk RLOD were tested again; better results were obtained with the unit dose kit.
- For inclusivity, the lysates from 8 strains were tested which gave atypical T<sub>m</sub> values for the initial validation study; same results were obtained by both kits.
- The unit dose kit gave reliable results compared to the multi-dose kit.

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

The data and interpretations comply with the EN ISO 16140-2:2016 requirements.  
**The GENE-UP® *Salmonella* method is considered equivalent to the ISO standard.**

Quimper, 25 June 2024

Astrid CARIOU

Manager

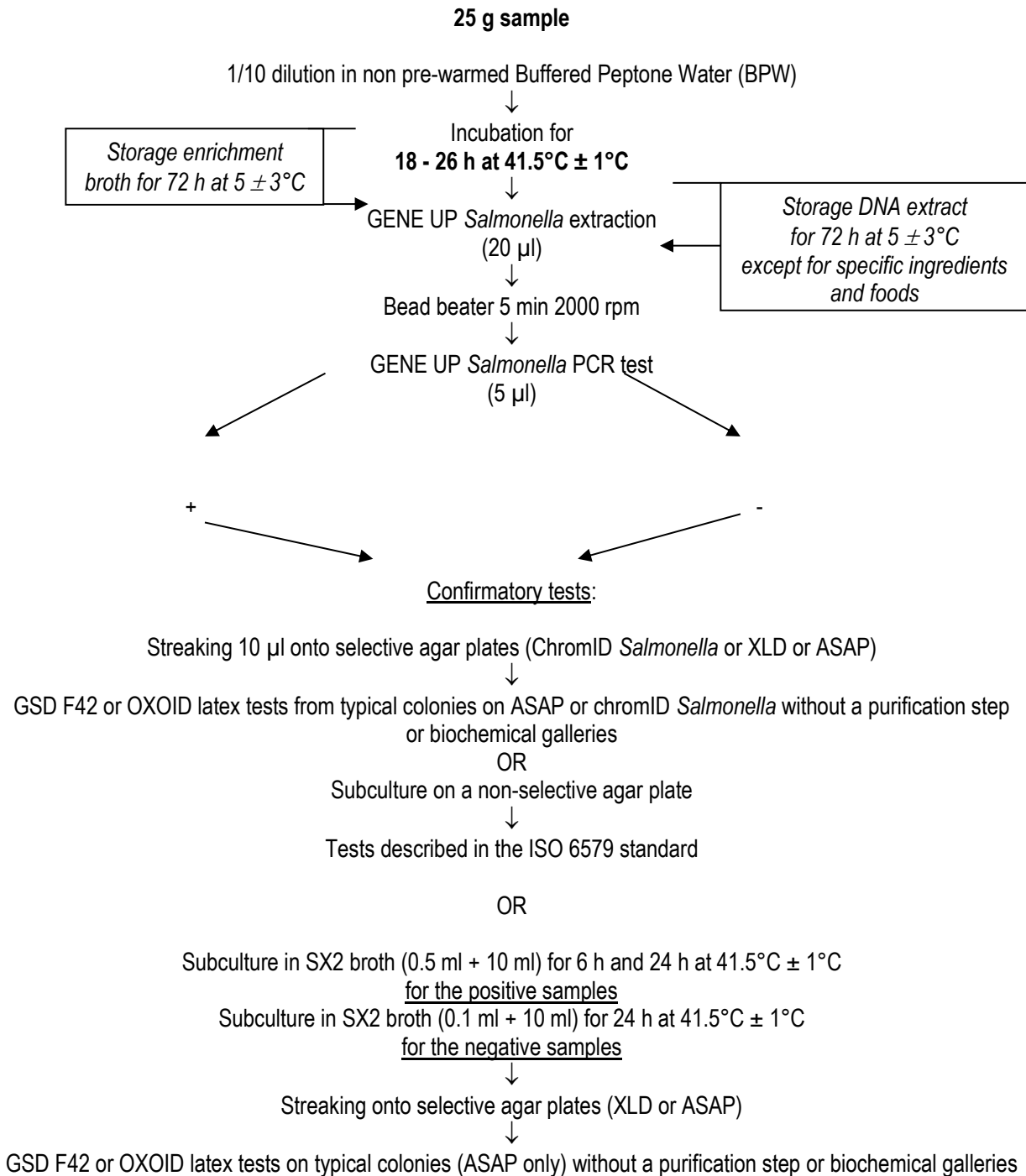
Validation of Alternative methods

*Food Safety & Quality*

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

**Appendix 1 – Flow diagrams of the alternative method:  
GENE-UP® *Salmonella***

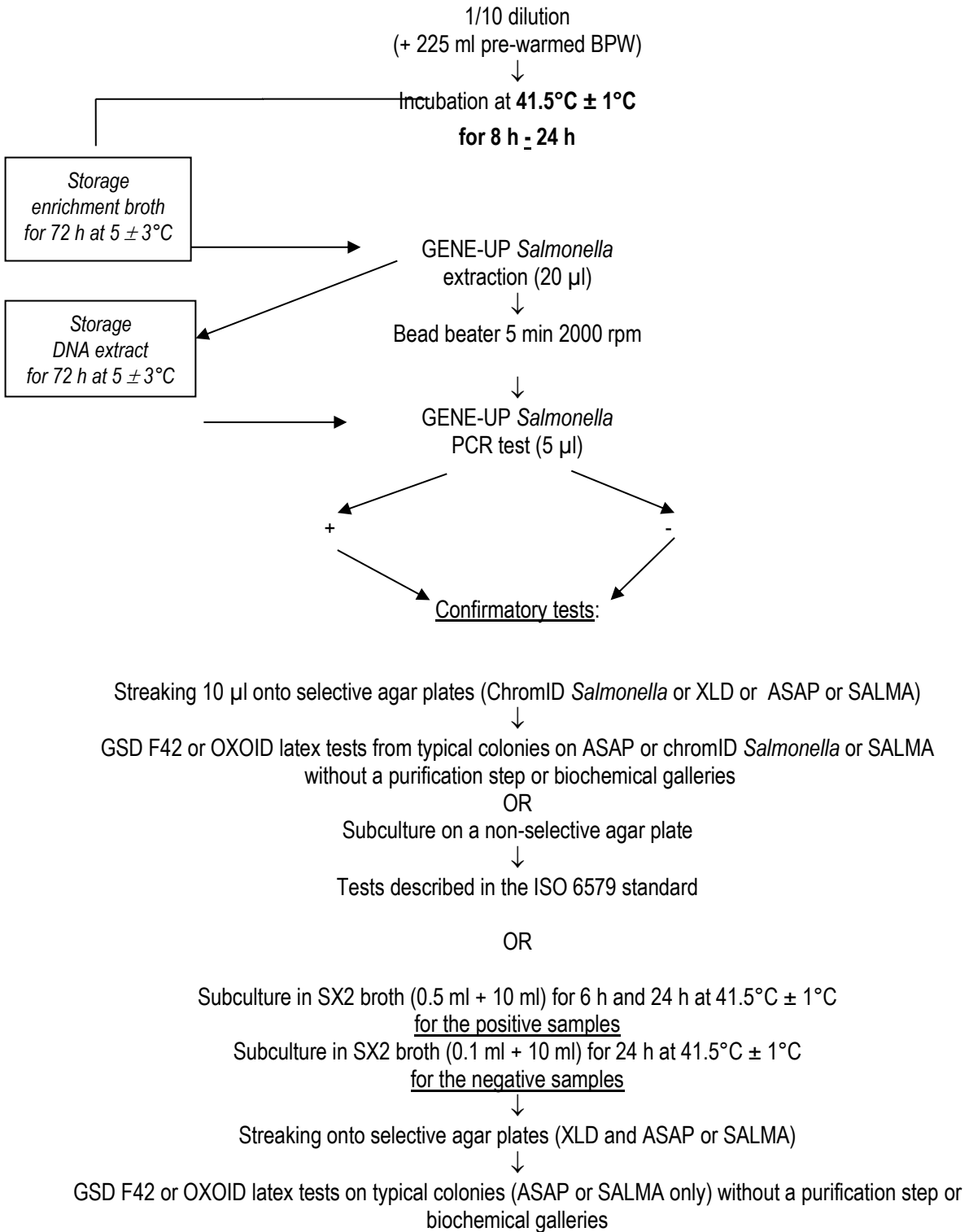
**Standard protocol - 41.5°C:**  
**Ready to eat and ready to reheat foods,**  
**Meat products**  
**Milk and dairy products (except raw milk-based products)**  
**Vegetables, fruits and seafood**  
**Specific ingredients and foods**  
**Production environmental samples**



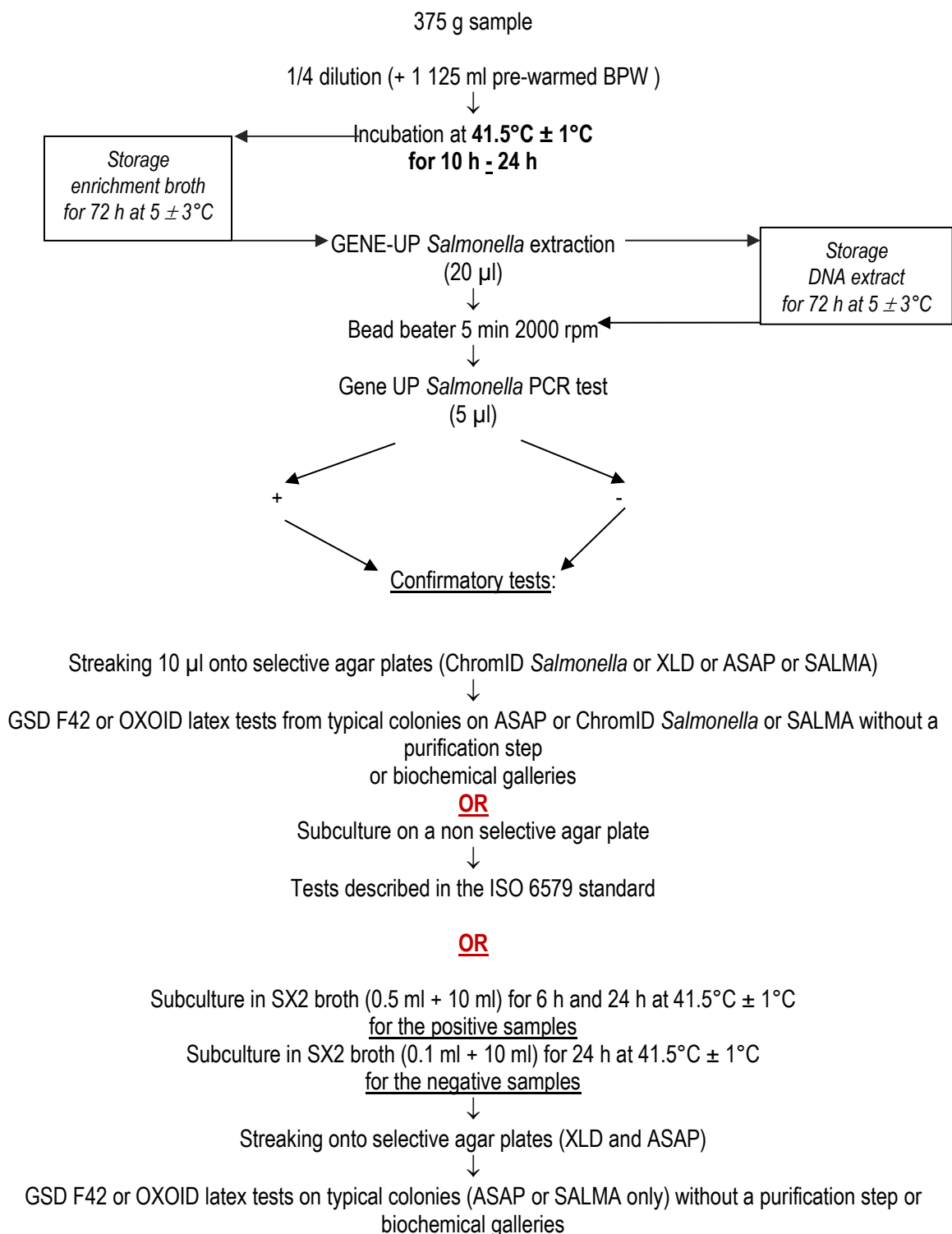


**Specific protocol ① :  
Raw meat products except poultry (25 g sample size)**

**Short protocol (except poultry)  
25 g sample**



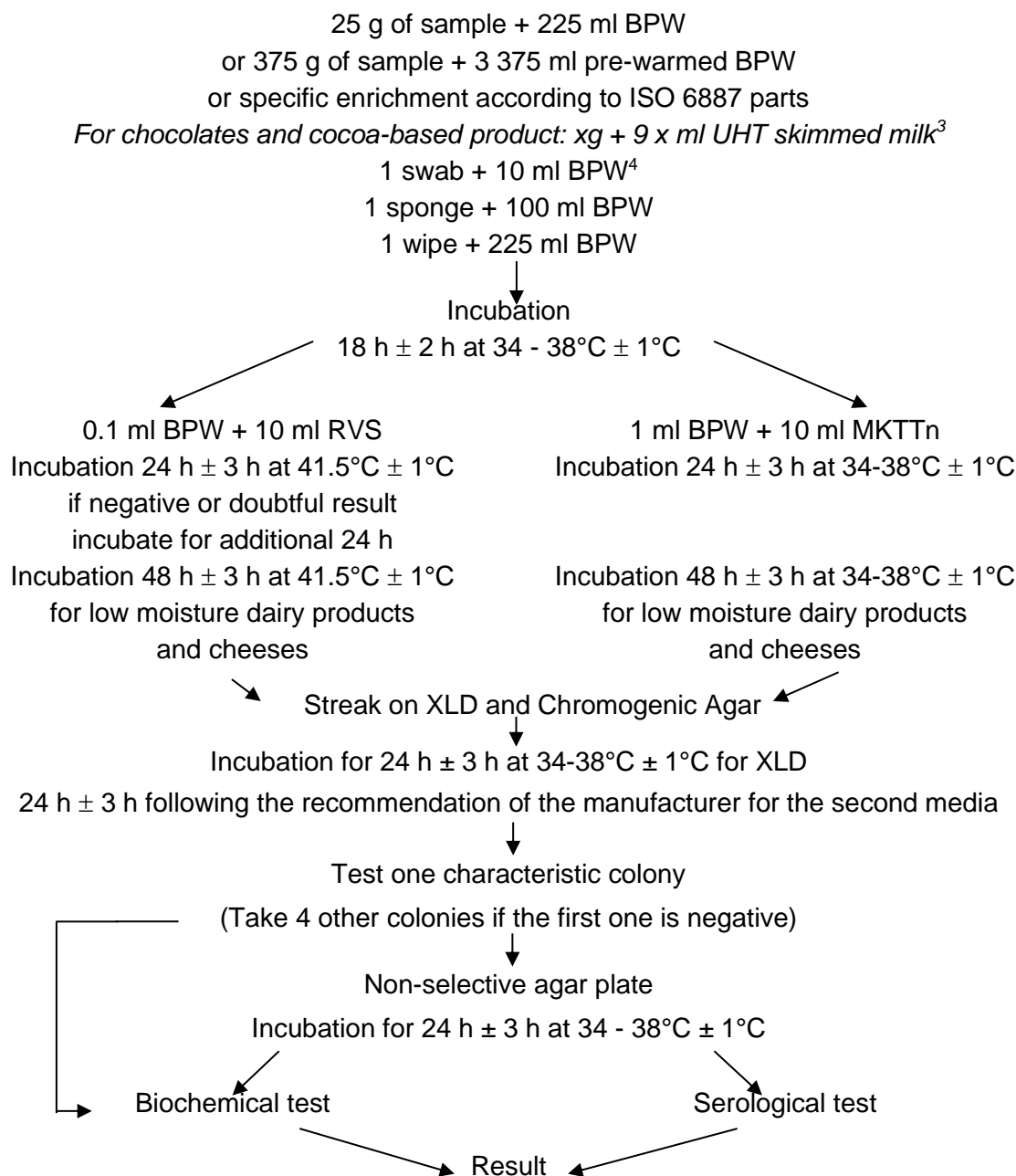
**Specific protocol ②**  
**Raw meats except poultry (375 g sample size)**



**Appendix 2 - Flow diagram of the reference method:**

**ISO 6579-1 (February 2017):** Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of *Salmonella* spp. - Part 1: detection of *Salmonella* spp.

**ISO 6579-1/A1 (March 2020):** Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of *Salmonella* spp. - Part 1: detection of *Salmonella* spp. Amendment 1: Broader range of incubation temperatures, amendment to the status of Annex D, and correction of the composition of MSR/V and SC



<sup>3</sup> For chocolates products containing > 20 % fat, unless the products already contain sufficient emulsifier, add Tween 80  
For products with high background microflora add Brilliant green (0.018g/L)

<sup>4</sup> For sampling after cleaning process premoisten  
 - 1 swab + 1 ml broth universal neutralizing (+ 9 ml BPW)  
 - 1 sponge + 10 ml broth universal neutralizing (+ 90 ml BPW)  
 - 1 wipe + BPW + 10 % neutralizing agent (+ 225 ml BPW)

**Appendix 3 – Artificial contamination of samples**

Initial validation
Extension No 1
Extension No 4

Sample No	Product (French name)	Product	Artificial contaminations						Global result	Category	Type
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample				
3073	Paprika doux	Paprika	S. Agona Ad1725	Vegetables	Seeding lyophilized room temperature 8 weeks	/	2,0	2,0	+	5	a
7785	Croissant au jambon	Ready to reheat food	S. Agona Ad2281	Ham	Spiking HT 10 min 56°C	0,80	1-1-2-1-1 (1,2)	1,2	+	1	b
70	Jambon blanc	Cooked ham	S. Agona Ad2281	Ham	Seeding 4°C 48h	/	2-2-3-4-1 (2,4)	2,4	+	1	a
2971	Terrine de Saint Jacques	Seafood terrine	S. Agona F118	Molds	Seeding 4°C 48h	/	3-6-0-5-1 (3,0)	3	+	4	a
2973	Miettes de crabe	Flaked crab	S. Agona F118	Molds	Seeding 4°C 48h	/	3-6-0-5-1 (3,0)	3	+	4	a
2974	Filet de julienne	Fish fillet	S. Agona F118	Molds	Seeding 4°C 48h	/	3-6-0-5-1 (3,0)	3	+	4	a
2980	Graines germées alfalfa/poireau/lentille	Sprouts	S. Amsterdam Ad1767	Environmental sample	Seeding 4°C 48h	/	6-7-8-6-3 (6,0)	6	+	4	b
2981	Jeunes pousses	Baby leaves	S. Amsterdam Ad1767	Environmental sample	Seeding 4°C 48h	/	6-7-8-6-3 (6,0)	6	+	4	b
2982	Mesclun	Baby leaves	S. Amsterdam Ad1767	Environmental sample	Seeding 4°C 48h	/	6-7-8-6-3 (6,0)	6	+	4	b
2989	Mâche et roquette	Mixed salad	S. Amsterdam Ad1767	Environmental sample	Seeding 4°C 48h	/	6-7-8-6-3 (6,0)	6	+	4	c
2990	Salade mélangée	Mixed salad	S. Amsterdam Ad1767	Environmental sample	Seeding 4°C 48h	/	6-7-8-6-3 (6,0)	6	+	4	c
7780	Bourguignon	Ready to reheat beef meat	S. Anatum 6140	Ready to eat beef meal	Spiking HT 10 min 56°C	0,42	3-1-4-3-4 (3,0)	3	+	1	b
7781	Sauté de boeuf	Ready to reheat beef meat	S. Anatum 6140	Ready to eat beef meal	Spiking HT 10 min 56°C	0,42	3-1-4-3-4 (3,0)	3	+	1	b

Sample No	Product (French name)	Product	Artificial contaminations						Global result	Category	Type
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample				
7499	Saumon à l'oseille	Ready to reheat salmon	S. Anatum Ad1451	Fish fillet	Spiking HT 10 min 56°C	0,64	4-7-6-7-5 (5,8)	5,8	+	1	b
7500	Haché au colin d'Alaska	Ready to reheat fish	S. Anatum Ad1451	Fish fillet	Spiking HT 10 min 56°C	0,64	4-7-6-7-5 (5,8)	5,8	+	1	b
4690	Lait écrémé en poudre	Skimmed milk powder	S. Anatum Ad298	Milk powder	Seeding lyophilized room temperature 16 days	/	<0,4	<0,4	+	3	b
4691	Lait écrémé en poudre	Skimmed milk powder	S. Anatum Ad298	Milk powder	Seeding lyophilized room temperature 16 days	/	<0,4	<0,4	+	3	b
5618	Camembert au lait pasteurisé	Pasteurized milk cheese	S. Anatum Ad298	Milk powder	Spiking HT 10 min 56°C	0,55	4-6-2-3-2 (3,4)	3,4	+	3	a
5619	Crottin de chèvre au lait pasteurisé	Pasteurized milk cheese	S. Anatum Ad298	Milk powder	Spiking HT 10 min 56°C	0,55	4-6-2-3-2 (3,4)	3,4	+	3	a
5622	Lait infantile avec probiotiques (Guigoz)	Infant formula with probiotics	S. Anatum Ad298	Milk powder	Spiking HT 10 min 56°C	0,55	4-6-2-3-2 (3,4)	3,4	+	5	b
4267	Poudre 100% cacao	Cocoa powder	S. Bareilly Ad1687	Environmental sample	Seeding lyophilized room temperature 12 weeks	/	2,9	2,9	+	5	a
7498	Coquille Saint Jacques	Scallops	S. Braenderup Ad351	Seafood cocktail	Spiking HT 10 min 56°C	0,58	0-2-0-3-3 (1,6)	1,6	+	1	b
4366	Poitrine de porc	Pork trim	S. Braenderup 178	Sausage	Seeding 4°C 48h	/	1-4-1-3-2 (2,2)	2,2	+	9	a
4367	Sauté de porc	Pork trim	S. Braenderup 178	Sausage	Seeding 4°C 48h	/	1-4-1-3-2 (2,2)	2,2	+	9	a
4368	Rôti de porc	Pork trim	S. Braenderup 178	Sausage	Seeding 4°C 48h	/	1-4-1-3-2 (2,2)	2,2	+	9	a
4695	Poudre de cacao (100%)	Cocoa powder	S. Branderup Ad1661	Environmental sample	Seeding lyophilized room temperature 16 days	/	3,3	3,3	+	5	a
4378	Côte de porc surgelée	Frozen pork trim	S. Bredeney 243	Sausage	Seeding -20°C 2 weeks	/	3-3-1-3-2 (2,4)	2,4	+	9	b
4379	Côte de porc surgelée	Frozen pork trim	S. Bredeney 243	Sausage	Seeding -20°C 2 weeks	/	3-3-1-3-2 (2,4)	2,4	+	9	b
4380	Filet mignon de porc surgelé	Frozen pork trim	S. Bredeney 243	Sausage	Seeding -20°C 2 weeks	/	3-3-1-3-2 (2,4)	2,4	+	9	b
7881	Pavé de rumsteak mariné aux 3 poivres	Fresh seasoned beef trim	S. Bredeney 396	Ground beef	Seeding 4°C 48h	/	4-2-1-2-3 (2,4)	2,4	+	8	c

Sample No	Product (French name)	Product	Artificial contaminations						Global result	Category	Type
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample				
7882	Haché de bœuf à la Bolognaise	Fresh seasoned ground beef	S. Bredeney 396	Ground beef	Seeding 4°C 48h	/	4-2-1-2-3 (2,4)	2,4	+	8	c
7883	Carpaccio de bœuf	Fresh seasoned beef meat	S. Bredeney 396	Ground beef	Seeding 4°C 48h	/	4-2-1-2-3 (2,4)	2,4	+	8	c
4357	Haché au bœuf	Ground beef	S. Bredeney 396	Ground beef	Seeding 4°C 48h	/	5-0-0-1-1 (1,4)	1,4	+	9	a
4358	Haché frais de bœuf	Ground beef	S. Bredeney 396	Ground beef	Seeding 4°C 48h	/	5-0-0-1-1 (1,4)	1,4	+	9	a
4363	Tendron de veau	Veal trim	S. Bredeney 396	Ground beef	Seeding 4°C 48h	/	5-0-0-1-1 (1,4)	1,4	+	9	a
550	Poitrine d'agneau	Fresh lamb meat	S. Bredeney 4871	Merguez	Seeding 4°C 48h	/	1-2-3-1-2 (1,8)	1,8	+	8	a
551	Gigot d'agneau	Fresh lamb meat	S. Bredeney 4871	Merguez	Seeding 4°C 48h	/	1-2-3-1-2 (1,8)	1,8	+	8	a
549	Côte de veau	Fresh veal trim	S. Bredeney 975	Ground beef	Seeding 4°C 48h	/	2-2-5-3-3 (3,0)	3	+	8	a
554	Steak haché boucher 5% matière grasse	Fresh ground beef	S. Bredeney 975	Ground beef	Seeding 4°C 48h	/	2-2-5-3-3 (3,0)	3	+	8	a
555	Viande à bourguignon	Fresh beef trim	S. Bredeney 975	Ground beef	Seeding 4°C 48h	/	2-2-5-3-3 (3,0)	3	+	8	a
4402	Haché bolognaise	Seasoned ground beef	S. Bredeney 975	Ground beef	Seeding 4°C 48h	/	3-3-4-2-3 (3,0)	3	+	9	c
4403	Haché bolognaise	Seasoned ground beef	S. Bredeney 975	Ground beef	Seeding 4°C 48h	/	3-3-4-2-3 (3,0)	3	+	9	c
4404	Carpaccio au basilic	Seasoned beef trim	S. Bredeney 975	Ground beef	Seeding 4°C 48h	/	3-3-4-2-3 (3,0)	3	+	9	c
327	Lait entier en poudre	Milk powder	S. Cerro Ad1173	Dairy product	Seeding lyophilized romm temperature 12 days	/	2,3	2,3	+	3	b
330	Lait demi-écrémé en poudre	Milk powder	S. Cerro Ad1173	Dairy product	Seeding lyophilized romm temperature 12 days	/	2,3	2,3	+	3	b
333	Maltodextrine	Maltodextrin	S. Cerro Ad1173	Dairy product	Seeding lyophilized romm temperature 12 days	/	2,3	2,3	+	3	c
338	Lactosérum	Lactosérum	S. Cerro Ad1173	Dairy product	Seeding lyophilized romm temperature 12 days	/	2,3	2,3	+	3	c

Sample No	Product (French name)	Product	Artificial contaminations						Global result	Category	Type
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample				
5626	Lait infantile avec probiotiques (Gallia)	Infant formula with probiotics	S. Cerro Ad2150	Lactoserum	Spiking HT 10 min 56°C	0,48	3-4-5-3-5 (4,0)	4	+	5	b
5627	Lait infantile avec probiotiques (Guigoz)	Infant formula with probiotics	S. Cerro Ad2150	Lactoserum	Spiking HT 10 min 56°C	0,48	3-4-5-3-5 (4,0)	4	+	5	b
5628	Lait infantile avec probiotiques (Modilac)	Infant formula with probiotics	S. Cerro Ad2150	Lactoserum	Spiking HT 10 min 56°C	0,48	3-4-5-3-5 (4,0)	4	+	5	b
5623	Lait infantile avec probiotiques (Milumel)	Infant formula with probiotics	S. Cerro Ad2153	Lactoserum	Spiking HT 10 min 56°C	0,40	3-4-3-3-2 (3,0)	3	+	5	b
5625	Lait infantile avec probiotiques (Modilac)	Infant formula with probiotics	S. Cerro Ad2153	Lactoserum	Spiking HT 10 min 56°C	0,40	3-4-3-3-2 (3,0)	3	+	5	b
7321	Carré d'agneau surgelé	Raw lamb meat	S. Derby 17	Merguez	Seeding -20°C 2 weeks	/	4-1-1-3-5 (2,8)	2,8	+	2	a
7323	Souris d'agneau surgelée	Raw lamb meat	S. Derby 17	Merguez	Seeding -20°C 2 weeks	/	4-1-1-3-5 (2,8)	2,8	+	2	a
7332	Souris d'agneau surgelée	Frozen lamb meat	S. Derby 17	Merguez	Seeding -20°C 2 weeks	/	4-1-1-3-5 (2,8)	2,8	+	8	b
4375	Sauté d'agneau surgelé	Frozen lamb trim	S. Derby 17	Merguez	Seeding -20°C 2 weeks	/	4-2-2-1-2 (2,2)	2,2	+	9	b
4376	Souris d'agneau surgelée	Frozen lamb trim	S. Derby 17	Merguez	Seeding -20°C 2 weeks	/	4-2-2-1-2 (2,2)	2,2	+	9	b
4377	Côte d'agneau surgelée	Frozen lamb trim	S. Derby 17	Merguez	Seeding -20°C 2 weeks	/	4-2-2-1-2 (2,2)	2,2	+	9	b
4410	Porc à la provençale	Seasoned pork trim	S. Derby 539	Merguez	Seeding 4°C 48h	/	2-1-5-3-2 (2,6)	2,6	+	9	c
4413	Filet mignon d'agneau au beurre et fines herbes	Seasoned lamb trim	S. Derby 539	Merguez	Seeding 4°C 48h	/	2-1-5-3-2 (2,6)	2,6	+	9	c
4239	Filet de tacaud	Fish fillet	S. Derby Ad1093	Fish fillet	Seeding 4°C 48h	/	2-3-2-2-3 (2,4)	2,4	+	4	a
4240	Filet de maquereau	Fish fillet	S. Derby Ad1093	Fish fillet	Seeding 4°C 48h	/	2-3-2-2-3 (2,4)	2,4	+	4	a
4241	Darne de saumon	Fish fillet	S. Derby Ad1093	Fish fillet	Seeding 4°C 48h	/	2-3-2-2-3 (2,4)	2,4	+	4	a

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929	Buche de chèvre (lait pasteurisé)	Pasteurized goat milk cheese	<i>S. diarizonae</i> Ad1851	Raw milk	Spiking HT 10 min 56°C	0,50	2-0-0-0-2 (0,8)	0,8	+	3	a
930	Lait pasteurisé 1/2 écrémé	Pasteurized milk	<i>S. diarizonae</i> Ad1851	Raw milk	Spiking HT 10 min 56°C	0,50	2-0-0-0-2 (0,8)	0,8	+	3	a
7339	Bavette d'ailoyau surgelée	Frozen beef trim	<i>S. Dublin</i> Ad529	Beef	Seeding -20°C 2 weeks	/	3-4-5-3-1 (3,2)	3,2	+	8	b
7340	Rumsteak surgelé	Frozen beef trim	<i>S. Dublin</i> Ad529	Beef	Seeding -20°C 2 weeks	/	3-4-5-3-1 (3,2)	3,2	+	8	b
7341	Viande bovine pour bourguignon surgelée	Frozen beef trim	<i>S. Dublin</i> Ad529	Beef	Seeding -20°C 2 weeks	/	3-4-5-3-1 (3,2)	3,2	+	8	b
7345	Pavé de bœuf aux 3 poivres surgelé	Frozen seasoned beef trim	<i>S. Dublin</i> Ad529	Beef	Seeding -20°C 2 weeks	/	3-4-5-3-1 (3,2)	3,2	+	8	c
329	Lait entier en poudre	Milk powder	<i>S. Duisburg</i> Ad1812	Sheep raw milk	Seeding lyophilized room temperature 12 days	/	5	5	+	3	b
332	Lait écrémé en poudre	Milk powder	<i>S. Duisburg</i> Ad1812	Sheep raw milk	Seeding lyophilized room temperature 12 days	/	5	5	+	3	b
335	Lactoserum	Lactoserum	<i>S. Duisburg</i> Ad1812	Sheep raw milk	Seeding lyophilized room temperature 12 days	/	5	5	+	3	c
339	Caséinates	Caseinate	<i>S. Duisburg</i> Ad1812	Sheep raw milk	Seeding lyophilized room temperature 12 days	/	5	5	+	3	c
4397	Poudre de blanc d'œuf	White egg powder	<i>S. Enteritidis</i> 10	White egg powder	Seeding lyophilized room temperature 18 days	/	0,4	0,4	+	5	c
4401	Poudre d'œuf pâtissier	Whole egg powder	<i>S. Enteritidis</i> 10	White egg powder	Seeding lyophilized room temperature 18 days	/	0,4	0,4	+	5	c
5630	Jaune d'œuf pasteurisé salé (10%)	Salted egg yolk pasteurized (10%)	<i>S. Enteritidis</i> 23	Whole egg	Spiking HT 10 min 56°C	0,37	3-1-3-6-1 (2,8)	2,8	+	5	c
7415	Tartelette fraise	Strawberries pie	<i>S. Enteritidis</i> 657	Liquid egg product	Seeding 4°C 48h	/	0-5-2-5-2 (2,8)	2,8	+	1	a
7416	Crème aux œufs	Egg cream	<i>S. Enteritidis</i> 657	Liquid egg product	Seeding 4°C 48h	/	0-5-2-5-2 (2,8)	2,8	+	1	a
7324	Steak haché bio surgelé	Ground beef	<i>S. Enteritidis</i> Ad2294	Beef	Seeding -20°C 2 weeks	/	2-7-1-4-5 (3,8)	3,8	+	2	a
7325	Steak haché façon bouchère surgelé	Ground beef	<i>S. Enteritidis</i> Ad2294	Beef	Seeding -20°C 2 weeks	/	2-7-1-4-5 (3,8)	3,8	+	2	a



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			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample				
7327	Sauté de veau surgelé	Frozen veal trim	S. Enteritidis Ad2294	Beef	Seeding -20°C 2 weeks	/	2-7-1-4-5 (3,8)	3,8	+	8	b
7333	Steak haché surgelé	Frozen ground beef	S. Enteritidis Ad2294	Beef	Seeding -20°C 2 weeks	/	2-7-1-4-5 (3,8)	3,8	+	8	b
7343	Haché Bolognaise surgelé	Frozen seasoned ground beef	S. Enteritidis Ad2294	Beef	Seeding -20°C 2 weeks	/	2-7-1-4-5 (3,8)	3,8	+	8	c
737	Carpaccio Bœuf et pistou	Ready to eat food	S. Enteritidis Ad2295	Beef meat	Seeding 4°C 48h	/	2-1-2-2-1 (1,6)	1,6	+	1	c
4359	Paleron	Beef trim	S. Enteritidis Ad2295	Beef meat	Seeding 4°C 48h	/	5-4-6-3-5 (4,6)	4,6	+	9	a
4364	Sauté de veau	Veal trim	S. Enteritidis Ad2295	Beef meat	Seeding 4°C 48h	/	5-4-6-3-5 (4,6)	4,6	+	9	a
4365	Escalope de veau	Veal trim	S. Enteritidis Ad2295	Beef meat	Seeding 4°C 48h	/	5-4-6-3-5 (4,6)	4,6	+	9	a
735	Pané de dinde à la normande	Ready to reheat food	S. Enteritidis Ad477	Poultry meat	Seeding 4°C 48h	/	3-2-3-1-5 (2,8)	2,8	+	1	b
738	Chicken wings indien	Ready to eat food	S. Enteritidis Ad477	Poultry meat	Seeding 4°C 48h	/	3-2-3-1-5 (2,8)	2,8	+	1	c
7319	Sauté de veau surgelé	Raw veal meat	S. Enteritidis Ad926	Veal meat	Seeding -20°C 2 weeks	/	4-2-3-4-3 (3,2)	3,2	+	2	a
7320	Paupiettes de veau surgelées	Raw veal meat	S. Enteritidis Ad926	Veal meat	Seeding -20°C 2 weeks	/	4-2-3-4-3 (3,2)	3,2	+	2	a
7328	Paupiette de veau surgelée	Frozen veal trim	S. Enteritidis Ad926	Veal meat	Seeding -20°C 2 weeks	/	4-2-3-4-3 (3,2)	3,2	+	8	b
7329	Escalope de veau surgelée	Frozen veal trim	S. Enteritidis Ad926	Veal meat	Seeding -20°C 2 weeks	/	4-2-3-4-3 (3,2)	3,2	+	8	b
547	Osso bucco de veau	Fresh veal trim	S. Give 436	Ground beef	Seeding 4°C 48h	/	2-1-3-1-0 (1,4)	1,4	+	8	a
552	Steak haché 5% matière grasse	Fresh ground beef	S. Give 436	Ground beef	Seeding 4°C 48h	/	2-1-3-1-0 (1,4)	1,4	+	8	a
556	Steak à griller	Fresh beef trim	S. Give 436	Ground beef	Seeding 4°C 48h	/	2-1-3-1-0 (1,4)	1,4	+	8	a
4369	Steak haché surgelé	Frozen ground beef	S. Give 436	Ground beef	Seeding -20°C 2 weeks	/	1-0-3-1-0 (1,0)	1	+	9	b

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			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample				
4370	Haché pur bœuf surgelé	Frozen ground beef	S. Give 436	Ground beef	Seeding -20°C 2 weeks	/	1-0-3-1-0 (1,0)	1	+	9	b
4371	Effeillé de charolais surgelé	Frozen ground beef	S. Give 436	Ground beef	Seeding -20°C 2 weeks	/	1-0-3-1-0 (1,0)	1	+	9	b
69	Eclair à la vanille	Pastry	S. Havana Ad1728	Liquid egg product	Seeding 4°C 48h	/	4-0-2-1-4 (2,2)	2,2	+	1	a
4395	Poudre d'œuf entier	Whole egg powder	S. Havana Ad1728	Egg product	Seeding lyophilized room temperature 18 days	/	<0,4	<0,4	+	5	c
4396	Poudre de blanc d'œuf	White egg powder	S. Havana Ad1728	Egg product	Seeding lyophilized room temperature 18 days	/	<0,4	<0,4	+	5	c
4399	Poudre d'œuf entier	Whole egg powder	S. Havana Ad1728	Egg product	Seeding lyophilized room temperature 18 days	/	<0,4	<0,4	+	5	c
4400	Poudre d'œuf pâtissier	Whole egg powder	S. Havana Ad1728	Egg product	Seeding lyophilized room temperature 18 days	/	<0,4	<0,4	+	5	c
2979	Graines germées alfalfa	Sprouts	S. Havana Ad930	Environmental sample	Seeding 4°C 48h	/	5-0-3-5-5 (3,6)	3,6	+	4	b
2985	Tendres pousses	Baby leaves	S. Havana Ad930	Environmental sample	Seeding 4°C 48h	/	5-0-3-5-5 (3,6)	3,6	+	4	b
2986	Mélange crudités (chou blanc/carotte/céleri)	White cabbage/carrot/celery	S. Havana Ad930	Environmental sample	Seeding 4°C 48h	/	5-0-3-5-5 (3,6)	3,6	+	4	c
2987	Chou rouge	Red cabbage	S. Havana Ad930	Environmental sample	Seeding 4°C 48h	/	5-0-3-5-5 (3,6)	3,6	+	4	c
2988	Carottes râpées	Grated carrots	S. Havana Ad930	Environmental sample	Seeding 4°C 48h	/	5-0-3-5-5 (3,6)	3,6	+	4	c
2970	Terrine de Saint Jacques	Seafood terrine	S. Indiana 2	Fishmeal	Seeding 4°C 48h	/	2-6-3-4-5 (4,0)	4	+	4	a
2972	Miettes de crabe	Flaked crab	S. Indiana 2	Fishmeal	Seeding 4°C 48h	/	2-6-3-4-5 (4,0)	4	+	4	a
2975	Filet de maquereau	Fish fillet	S. Indiana 2	Fishmeal	Seeding 4°C 48h	/	2-6-3-4-5 (4,0)	4	+	4	a
2976	Surimi	Surimi	S. Indiana 2	Fishmeal	Seeding 4°C 48h	/	2-6-3-4-5 (4,0)	4	+	4	a
7425	Emincé de saumon fumé aneth citron	Smoked salmon	S. Indiana Ad1409	Marinated fish	Seeding 4°C 48h	/	2-1-1-2-1 (1,4)	1,4	+	1	c

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			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample				
7427	Poitrine fumée	Bacon	S. Indiana Ad1409	Marinated fish	Seeding 4°C 48h	/	2-1-1-2-1 (1,4)	1,4	+	2	c
933	Panna cotta	Dairy dessert	S. Indiana Ad174	Dairy product	Spiking HT 10 min 56°C	0,60	1-2-0-2-2 (1,4)	1,4	+	3	a
934	Chantilly	Chantilly	S. Indiana Ad174	Dairy product	Spiking HT 10 min 56°C	0,60	1-2-0-2-2 (1,4)	1,4	+	3	a
7884	Tartare de boeuf	Fresh seasoned ground beef	S. Infantis 128	Ground beef	Seeding 4°C 48h	/	3-0-0-3-1 (1,4)	1,4	+	8	c
7885	Pavé de rumsteak mariné à l'échalote	Fresh seasoned beef trim	S. Infantis 128	Ground beef	Seeding 4°C 48h	/	3-0-0-3-1 (1,4)	1,4	+	8	c
4405	Haché à la tomate	Seasoned ground beef	S. Infantis 128	Ground beef	Seeding 4°C 48h	/	1-3-1-3-2 (2,0)	2	+	9	c
4406	Bifteck façon maître d'hôtel	Seasoned beef trim	S. Infantis 128	Ground beef	Seeding 4°C 48h	/	1-3-1-3-2 (2,0)	2	+	9	c
4412	Carpaccio au parmesan/huile d'olive	Seasoned beef trim	S. Infantis 128	Ground beef	Seeding 4°C 48h	/	1-3-1-3-2 (2,0)	2	+	9	c
4730	Jaune d'œuf pasteurisé	Pasteurized egg yolk	S. Infantis 14	Pasteurized whole egg	Spiking HT 10 min 56°C	0,41	3-1-1-0-2 (1,4)	1,4	+	5	c
4732	Œuf entier pasteurisé	Pasteurized whole egg	S. Infantis 14	Pasteurized whole egg	Spiking HT 10 min 56°C	0,41	3-1-1-0-2 (1,4)	1,4	+	5	c
4734	Blanc d'œuf pasteurisé	Pasteurized egg white	S. Infantis 14	Pasteurized whole egg	Spiking HT 10 min 56°C	0,41	3-1-1-0-2 (1,4)	1,4	+	5	c
7453	Magret de canard fumé	Smoked duck meat	S. Infantis 937	Poultry meat	Seeding 4°C 48h	/	2-1-3-2-0 (1,6)	1,6	+	1	c
7454	Magret de canard fumé	Smoked duck meat	S. Infantis 937	Poultry meat	Seeding 4°C 48h	/	2-1-3-2-0 (1,6)	1,6	+	1	c
7455	Magret de canard fumé	Smoked duck meat	S. Infantis 937	Poultry meat	Seeding 4°C 48h	/	2-1-3-2-0 (1,6)	1,6	+	1	c
2977	Graines germées roquette/alfalfa	Sprouts	S. Kottbus 3	Environmental sample	Seeding 4°C 48h	/	4-4-7-8-6 (5,8)	5,8	+	4	b
2983	Mélange de jeunes pousses	Baby leaves	S. Kottbus 3	Environmental sample	Seeding 4°C 48h	/	4-4-7-8-6 (5,8)	5,8	+	4	b
2991	Sucrine	Sucrine	S. Kottbus 3	Environmental sample	Seeding 4°C 48h	/	4-4-7-8-6 (5,8)	5,8	+	4	c

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2992	Assiette croquante (chou blanc/carotte/frisée/poivron rouge)	White cabbage/carrot/salad/red bell pepper	S. Kottbus 3	Environmental sample	Seeding 4°C 48h	/	4-4-7-8-6 (5,8)	5,8	+	4	c
2993	Carottes précuites	Pre-cooked carrots	S. Kottbus 3	Environmental sample	Seeding 4°C 48h	/	4-4-7-8-6 (5,8)	5,8	+	4	c
7783	Pizza jambon fromage	Pizza	S. London 326	Ham	Spiking HT 10 min 56°C	0,45	1-0-1-2-4 (1,6)	1,6	+	1	b
7784	Quiche lorraine aux lardons fumés	Quiche Lorraine	S. London 326	Ham	Spiking HT 10 min 56°C	0,45	1-0-1-2-4 (1,6)	1,6	+	1	b
4731	Jaune d'œuf pasteurisé	Pasteurized egg yolk	S. Mbandaka 81	Egg product	Spiking HT 10 min 56°C	0,42	3-0-5-2-2 (2,4)	2,4	+	5	c
4733	Œuf entier pasteurisé	Pasteurized whole egg	S. Mbandaka 81	Egg product	Spiking HT 10 min 56°C	0,42	3-0-5-2-2 (2,4)	2,4	+	5	c
336	Lactosérum	Lactosérum	S. Montevideo 510	Raw milk	Seeding lyophilized room temperature 12 days	/	5	5	+	3	c
337	Lactosérum	Lactosérum	S. Montevideo 510	Raw milk	Seeding lyophilized room temperature 12 days	/	5	5	+	3	c
340	Caséinates	Caseinate	S. Montevideo 510	Raw milk	Seeding lyophilized room temperature 12 days	/	5	5	+	3	c
4381	Céréales infantiles (à la vanille) avec probiotiques	Cereals with probiotics	S. Montevideo 510	Raw milk	Seeding lyophilized room temperature 18 days	/	<0,3	<0,3	+	5	b
4386	Céréales infantiles (au yaourt) avec probiotiques	Cereals with probiotics	S. Montevideo 510	Raw milk	Seeding lyophilized room temperature 18 days	/	<0,3	<0,3	+	5	b
323	Crème glacée café	Ice cream	S. Montevideo 604	Raw milk	Seeding 13days/-20°C	/	0-1-2-1-3 (1,4)	1,4	+	3	a
324	Crème glacée menthe/chocolat	Ice cream	S. Montevideo 604	Raw milk	Seeding 13days/-20°C	/	0-1-2-1-3 (1,4)	1,4	+	3	a
928	Bleu d'auvergne (lait pasteurisé)	Pasteurized cow milk cheese	S. Montevideo 606	Raw milk	Spiking HT 10 min 56°C	0,50	0-4-0-1-0 (1,0)	1	+	3	a
5615	Brie au lait pasteurisé	Pasteurized milk cheese	S. Montevideo 606	Raw milk	Spiking HT 10 min 56°C	0,62	4-1-4-2-4 (3,0)	3	+	3	a

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5616	Fourme d'Ambert au lait pasteurisé	Pasteurized milk cheese	S. Montevideo 606	Raw milk	Spiking HT 10 min 56°C	0,62	4-1-4-2-4 (3,0)	3	+	3	a
5617	Saint Nectaire au lait pasteurisé	Pasteurized milk cheese	S. Montevideo 606	Raw milk	Spiking HT 10 min 56°C	0,62	4-1-4-2-4 (3,0)	3	+	3	a
7318	Veau haché surgelé	Ground veal	S. Ohio Ad2224	Ground beef	Seeding -20°C 2 weeks	/	1-4-0-1-3 (1,8)	1,8	+	2	a
7337	Steak haché surgelé	Frozen ground beef	S. Ohio Ad2224	Ground beef	Seeding -20°C 2 weeks	/	1-4-0-1-3 (1,8)	1,8	+	8	b
7342	Faux filet de bœuf surgelé	Frozen beef trim	S. Ohio Ad2224	Ground beef	Seeding -20°C 2 weeks	/	1-4-0-1-3 (1,8)	1,8	+	8	b
7346	Pavé de bœuf aux 3 poivres surgelé	Frozen seasoned beef trim	S. Ohio Ad2224	Ground beef	Seeding -20°C 2 weeks	/	1-4-0-1-3 (1,8)	1,8	+	8	c
7347	Rumsteak mariné aux 3 poivres	Fresh seasoned beef trim	S. Ohio Ad2224	Ground beef	Seeding -20°C 2 weeks	/	1-4-0-1-3 (1,8)	1,8	+	8	c
3074	Curcuma	Turmeric	S. Oranienburg Ad1724	Vegetables	Seeding lyophilized room temperature 8 weeks	/	<1,7	<1,7	+	5	a
3076	Thym déshydraté	Dried thyme	S. Oranienburg Ad1724	Vegetables	Seeding lyophilized room temperature 8 weeks	/	<1,7	<1,7	+	5	a
548	Escalope de veau	Fresh veal trim	S. Panama 4255	Ground beef	Seeding 4°C 48h	/	0-2-2-1-4 (1,8)	1,8	+	8	a
553	Steak haché 15% matière grasse	Fresh ground beef	S. Panama 4255	Ground beef	Seeding 4°C 48h	/	0-2-2-1-4 (1,8)	1,8	+	8	a
4372	Délice de veau haché surgelé	Frozen ground veal	S. Panama 4255	Ground beef	Seeding -20°C 2 weeks	/	0-3-4-4-3 (2,8)	2,8	+	9	b
4373	Escalope de veau hachée et surgelée	Frozen ground veal	S. Panama 4255	Ground beef	Seeding -20°C 2 weeks	/	0-3-4-4-3 (2,8)	2,8	+	9	b
4374	Pavé de veau surgelé	Frozen Veal trim	S. Panama 4255	Ground beef	Seeding -20°C 2 weeks	/	0-3-4-4-3 (2,8)	2,8	+	9	b
736	Kebab de poulet et semoule orientale	Ready to reheat food	S. Saintpaul A00C002	Poultry	Seeding 4°C 48h	/	6-5-7-3-5 (5,2)	5,2	+	1	b
739	Chicken wings mexicain	Ready to eat food	S. Saintpaul A00C002	Poultry	Seeding 4°C 48h	/	6-5-7-3-5 (5,2)	5,2	+	1	c
7456	Truite fumée	Smoked trout	S. Saintpaul F31	Pilchard fillets	Seeding 4°C 48h	/	2-2-2-1-3 (2,0)	2	+	1	c

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4242	Filet de cabillaud	Fish fillet	S. Saintpaul F31	Fish fillet	Seeding 4°C 48h	/	2-2-3-4-0 (2,2)	2,2	+	4	a
4243	Filet de merlan	Fish fillet	S. Saintpaul F31	Fish fillet	Seeding 4°C 48h	/	2-2-3-4-0 (2,2)	2,2	+	4	a
2978	Graines germées alfalfa/fenouil	Sprouts	S. Senftenberg 2	Environmental sample	Seeding 4°C 48h	/	2-2-1-1-3 (1,8)	1,8	+	4	b
2994	Pommes de terre précuites	Pre-cooked potatoes	S. Senftenberg 2	Environmental sample	Seeding 4°C 48h	/	2-2-1-1-3 (1,8)	1,8	+	4	c
2995	Mélange crudités (chou chinois/frisée/tomate/maïs/courgette/radis/persil)	Chinese cabbage/salad/tomato/corn/zucchini/radish/parsley	S. Senftenberg 2	Environmental sample	Seeding 4°C 48h	/	2-2-1-1-3 (1,8)	1,8	+	4	c
4689	Lait écrémé en poudre	Skimmed milk powder	S. Stourbridge Ad2297	Raw milk cheese	Seeding lyophilized room temperature 16 days	/	3,0	3,0	+	3	b
4382	Céréales infantiles (à la vanille) avec probiotiques	Cereals with probiotics	S. Stourbridge Ad2297	Raw milk cheese	Seeding lyophilized room temperature 18 days	/	<0,3	<0,3	+	5	b
4383	Céréales infantiles (5 céréales) avec probiotiques	Cereals with probiotics	S. Stourbridge Ad2297	Raw milk cheese	Seeding lyophilized room temperature 18 days	/	<0,3	<0,3	+	5	b
4387	Céréales infantiles (cérélac) avec probiotiques	Cereals with probiotics	S. Stourbridge Ad2297	Raw milk cheese	Seeding lyophilized room temperature 18 days	/	<0,3	<0,3	+	5	b
328	Lait entier en poudre	Milk powder	S. Tennessee Ad1171	Dairy product	Seeding lyophilized room temperature 12 days	/	<2,4	<2,4	+	3	b
331	Lait écrémé en poudre	Milk powder	S. Tennessee Ad1171	Dairy product	Seeding lyophilized room temperature 12 days	/	<2,4	<2,4	+	3	b
334	Maltodextrine	Maltodextrin	S. Tennessee Ad1171	Dairy product	Seeding lyophilized room temperature 12 days	/	<2,4	<2,4	+	3	c
341	Caséinates	Caseinate	S. Tennessee Ad1171	Dairy product	Seeding lyophilized room temperature 12 days	/	<2,4	<2,4	+	3	c
4407	Echine de porc au barecue	Seasoned pork trim	S. Typhimurium 193	Sausage	Seeding 4°C 48h	/	1-1-6-4-0 (2,4)	2,4	+	9	c

Sample No	Product (French name)	Product	Artificial contaminations						Global result	Category	Type
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample				
4408	Bœuf au piment d'Espelette	Seasoned beef trim	S. Typhimurium 193	Sausage	Seeding 4°C 48h	/	1-1-6-4-0 (2,4)	2,4	+	9	c
4409	Porc à la provençale	Seasoned pork trim	S. Typhimurium 193	Sausage	Seeding 4°C 48h	/	1-1-6-4-0 (2,4)	2,4	+	9	c
4687	Protéines de lait	Milk proteins	S. Typhimurium 4	Milk powder	Seeding lyophilized room temperature 16 days	/	3,0	3,0	+	3	c
4692	Lait écrémé en poudre	Skimmed milk powder	S. Typhimurium 4	Milk powder	Seeding lyophilized room temperature 16 days	/	3,0	3,0	+	3	b
7423	Pâté de campagne	Pâté	S. Typhimurium 4874	Pâté	Seeding 4°C 48h	/	3-2-1-1-2 (1,8)	1,8	+	1	a
81	Bacon fumé	Bacon	S. Typhimurium 702	Low moisture sausage	Seeding 4°C 48h	/	2-0-0-1-2 (1,0)	1	+	2	c
85	Saucisson sec	Low moisture sausage	S. Typhimurium 702	Low moisture sausage	Seeding 4°C 48h	/	2-0-0-1-2 (1,0)	1	+	2	c
7322	Carré d'agneau surgelé surgelé	Raw lamb meat	S. Typhimurium 911	Merguez	Seeding -20°C 2 weeks	/	4-3-2-4-3 (3,2)	3,2	+	2	a
7330	Carré d'agneau surgelé	Frozen lamb meat	S. Typhimurium 911	Merguez	Seeding -20°C 2 weeks	/	4-3-2-4-3 (3,2)	3,2	+	8	b
7331	Souris d'agneau surgelé	Frozen lamb meat	S. Typhimurium 911	Merguez	Seeding -20°C 2 weeks	/	4-3-2-4-3 (3,2)	3,2	+	8	b
7326	Viande de boeuf à pot au feu	Beef trim	S. Typhimurium A00C060	Ground beef	Seeding -20°C 2 weeks	/	3-4-4-7-3 (4,2)	4,2	+	2	a
7334	Haché de bœuf surgelé	Frozen ground beef	S. Typhimurium A00C060	Ground beef	Seeding -20°C 2 weeks	/	3-4-4-7-3 (4,2)	4,2	+	8	b
7335	Steak haché surgelé	Frozen ground beef	S. Typhimurium A00C060	Ground beef	Seeding -20°C 2 weeks	/	3-4-4-7-3 (4,2)	4,2	+	8	b
7338	Viande de bœuf à pot au feu surgelé	Frozen beef trim	S. Typhimurium A00C060	Ground beef	Seeding -20°C 2 weeks	/	3-4-4-7-3 (4,2)	4,2	+	8	b
7344	Haché Bolognais surgelé	Frozen seasoned ground beef	S. Typhimurium A00C060	Ground beef	Seeding -20°C 2 weeks	/	3-4-4-7-3 (4,2)	4,2	+	8	c
4247	Alfalfa/radis/fenouil	Sprouts	S. Typhimurium Ad1249	Environmental sample	Seeding 4°C 48h	/	2-3-7-1-3 (3,2)	3,2	+	4	b
5629	Jaune d'œuf pasteurisé sucré (50%)	Sweet egg yolk pasteurized egg (50%)	S. Typhimurium Ad1484	Whole egg	Spiking HT 10 min 56°C	0,71	4-2-4-3-3 (3,2)	3,2	+	5	c

Sample No	Product (French name)	Product	Artificial contaminations						Global result	Category	Type
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample				
7417	Terrine de Saint Jacques	Scallops terrine	S. Typhimurium Ad1603	Salmon and vegetables terrine	Seeding 4°C 48h	/	7-4-3-1-6 (4,2)	4,2	+	1	a
7418	Terrine de saumon	Salmon terrine	S. Typhimurium Ad1603	Salmon and vegetables terrine	Seeding 4°C 48h	/	7-4-3-1-6 (4,2)	4,2	+	1	a
4270	Fèves de cacao	Cocoa bean	S. Typhimurium Ad1682	Chocolate	Seeding lyophilized room temperature 12 weeks	/	0,8	0,8	+	5	a
4984	Pépites de chocolat noir (50% cacao)	Black chocolate tablets	S. Typhimurium Ad1682	Chocolate	Spiking HT 10 min 56°C	0,46	5-3-5-2-0 (3,0)	3	+	5	a
78	Jambon sec	Low moisture ham	S. Typhimurium Ad1876	Low moisture sausage	Seeding 4°C 48h	/	2-0-1-3-0 (1,2)	1,2	+	2	c
4985	Billes de chocolat noir (65% de cacao)	Black chocolate tablets	S. Typhimurium Ad2034	Cocoa beans	Spiking HT 10 min 56°C	0,58	2-5-0-5-0 (2,4)	2,4	+	5	a
4986	Billes de chocolat noir (50% de cacao)	Black chocolate tablets	S. Typhimurium Ad2034	Cocoa beans	Spiking HT 10 min 56°C	0,58	2-5-0-5-0 (2,4)	2,4	+	5	a
5621	Poudre de cacao (100%)	Cocoa powder	S. Typhimurium Ad2034	Cocoa beans	Spiking HT 10 min 56°C	0,37	2-3-2-5-2 (2,8)	2,8	+	5	a
7782	Couscous au poulet, légumes, merguez	Couscous	S. Typhimurium Ad2226	Merguez	Spiking HT 10 min 56°C	0,89	3-1-5-1-1 (2,2)	2,2	+	1	b
4360	Côte d'agneau	Lamb trim	S. Typhimurium Ad2226	Merguez	Seeding 4°C 48h	/	1-3-2-0-2 (1,6)	1,6	+	9	a
4361	Gigot d'agneau	Lamb trim	S. Typhimurium Ad2226	Merguez	Seeding 4°C 48h	/	1-3-2-0-2 (1,6)	1,6	+	9	a
4362	Epaule d'agneau	Lamb trim	S. Typhimurium Ad2226	Merguez	Seeding 4°C 48h	/	1-3-2-0-2 (1,6)	1,6	+	9	a
7422	Sandwich poulet crudités	Sandwich (chicken, vegetables)	S. Virchow 647	Poultry meat	Seeding 4°C 48h	/	3-3-3-3-4 (3,2)	3,2	+	1	a
7419	Carottes râpées	Grated carrots	S. Virchow F276	Curry	Seeding 4°C 48h	/	4-3-1-3-4 (3,0)	3	+	1	a
7420	Concombre à la crème	Cucumber with cream	S. Virchow F276	Curry	Seeding 4°C 48h	/	4-3-1-3-4 (3,0)	3	+	1	a
7421	Taboulé	Tabbouleh	S. Virchow F276	Curry	Seeding 4°C 48h	/	4-3-1-3-4 (3,0)	3	+	1	a



Sample No	Product (French name)	Product	Artificial contaminations						Global result	Category	Type
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample				
71	Truite fumée	Smoked trout	S. Wandworth Ad2335	Fish fillet	Seeding 4°C 48h	/	0-4-1-1-3 (1,8)	1,8	+	1	c
72	Haddock	Haddock	S. Wandworth Ad2335	Fish fillet	Seeding 4°C 48h	/	0-4-1-1-3 (1,8)	1,8	+	1	c
73	Harengs fumés	Smoked herrings	S. Wandworth Ad2335	Fish fillet	Seeding 4°C 48h	/	0-4-1-1-3 (1,8)	1,8	+	1	c
7569	Eau de rinçage (industrie végétaux)	Cleaning water (vegetables industry)	S. Virchow Ad2569	Zucchini	Seeding 2-8°C 48h	/	5-1-2-4-1	2,6	+	7	b
7570	Eau de rinçage (industrie végétaux)	Cleaning water (vegetables industry)	S. Virchow Ad2569	Zucchini	Seeding 2-8°C 48h	/	5-1-2-4-1	2,6	+	7	b
7572	Déchets (industrie végétaux)	Residues (vegetables industry)	S. Virchow Ad2569	Zucchini	Seeding 2-8°C 48h	/	5-1-2-4-1	2,6	+	7	a
7573	Déchets (industrie végétaux)	Residues (vegetables industry)	S. Virchow Ad2569	Zucchini	Seeding 2-8°C 48h	/	5-1-2-4-1	2,6	+	7	a
7574	Eau de process (industrie poisson)	Process water (fish industry)	S. Saint-paul F31	Fish fillet	Seeding 2-8°C 48h	/	1-3-3-1-2	2	+	7	b
7575	Eau de process (industrie poisson)	Process water (fish industry)	S. Senftenberg Ad355	Seafood	Seeding 2-8°C 48h	/	1-0-3-1-0	1	+	7	b
7576	Eau de process (industrie poisson)	Process water (fish industry)	S. Urbana Ad2334	Fish fillet	Seeding 2-8°C 48h	/	0-0-3-8-2	2,6	+	7	b
7577	Eau de process (industrie poisson)	Process water (fish industry)	S. Urbana Ad2334	Fish fillet	Seeding 2-8°C 48h	/	0-0-3-8-2	2,6	+	7	b
7578	Déchets (industrie poisson)	Residues (fish industry)	S. Urbana Ad2334	Fish fillet	Seeding 2-8°C 48h	/	0-0-3-8-2	2,6	+	7	a
7579	Déchets (industrie poisson)	Residues (fish industry)	S. Saint-paul F31	Fish fillet	Seeding 2-8°C 48h	/	1-3-3-1-2	2	+	7	a
7580	Déchets (industrie poisson)	Residues (fish industry)	S. Saintpaul F31	Fish fillet	Seeding 2-8°C 48h	/	1-3-3-1-2	2	+	7	a
7581	Déchets (industrie poisson)	Residues (fish industry)	S. Senftenberg Ad355	Seafood	Seeding 2-8°C 48h	/	1-0-3-1-0	1	+	7	a
7661	Lingette ustensiles (industrie végétaux)	Wipe (vegetables industry)	S. Heidelberg A00E005	Environmental sample	Spiking HT 8 min 56°C	0,97	2-2-3-1-1	1,8	+	7	c
7662	Lingette plats pesés (industrie végétaux)	Wipe (vegetables industry)	S. Tennessee A00E006	Environmental sample	Spiking HT 8 min 56°C	1,56	2-2-3-0-1	1,6	+	7	c

Sample No	Product (French name)	Product	Artificial contaminations						Global result	Category	Type
			Strain	Origin	Injury protocol	Injury measurement	Inoculation level/sample				
7663	Lingette cutter (industrie végétaux)	Wipe (vegetables industry)	S. Heidelberg A00E005	Environmental sample	Spiking HT 8 min 56°C	0,97	2-2-3-1-1	1,8	+	7	c
7664	Lingette cutter (industrie végétaux)	Wipe (vegetables industry)	S. Tennessee A00E006	Environmental sample	Spiking HT 8 min 56°C	1,56	2-2-3-0-1	1,6	+	7	c
7665	Lingette ustensiles (industrie laitière)	Wipe (dairy industry)	S. Heidelberg A00E005	Environmental sample	Spiking HT 8 min 56°C	0,97	2-2-3-1-1	1,8	+	7	c
7666	Lingette table (industrie laitière)	Wipe (dairy industry)	S. Tennessee A00E006	Environmental sample	Spiking HT 8 min 56°C	1,56	2-2-3-0-1	1,6	+	7	c
7667	Poussières industrie laitière	Dust from dairy industry	S. Heidelberg A00E005	Environmental sample	Spiking HT 8 min 56°C	0,97	2-2-3-1-1	1,8	+	7	a
7669	Poussières industrie laitière	Dust from dairy industry	S. Tennessee A00E006	Environmental sample	Spiking HT 8 min 56°C	1,56	2-2-3-0-1	1,6	+	7	a
7670	Poussières industrie laitière	Dust from dairy industry	S. Tennessee A00E006	Environmental sample	Spiking HT 8 min 56°C	1,56	2-2-3-0-1	1,6	+	7	a
7773	Eau de rinçage (Charcuterie)	Cleaning water (delicatessen industry)	S. Bredeney 464	Pâté	Seeding 2-8°C 48h	/	2-1-1-5-7	3,2	+	7	b
7777	Déchets (Charcuterie)	Residues (delicatessen industry)	S. Derby 374	Sausage	Seeding 2-8°C 48h	/	2-1-2-3-2	2	+	7	a
7786	Lingette (charcuterie)	Wipe (delicatessen industry)	S. Brandenburg Ad2420	Sausage	Spiking pH4 10 days	0,42	0-2-4-3-1	2	+	7	c
7788	Lingette après désinfection (charcuterie)	Wipe after cleaning (delicatessen industry)	S. Brandenburg Ad2420	Sausage	Spiking pH4 10 days	0,42	0-2-4-3-1	2	+	7	c
7789	Lingette après désinfection (charcuterie)	Wipe after cleaning (delicatessen industry)	S. Kedougou Ad2227	Sausage	Spiking pH4 10 days	0,51	0-2-0-3-2	1,4	+	7	c

## Appendix 4 – Sensitivity study: raw data

Page 76: results taking into account all the confirmatory tests

Page 102: detailed results of the confirmatory tests

### **Bold typing : artificially inoculated samples**

#### **Results:**

m:	minority level of target analyte
M :	majority level of target analyte
P:	pure culture level of target analyte
1/2 :	50% level of target analyte
(x):	number of colonies in the plate
-:	no typical colonies but presence of background microflora
st:	plate without any colony
PA:	positive agreement
NA:	negative agreement
ND:	negative deviation
PD:	positive deviation
PPNA:	positive presumptive negative agreement
PPND :	positive presumptive negative deviation
NC:	non characteristic colony
w:	weak reaction
i:	inhibition
*:	lysate 1:3
**:	enrichment 1:10
****:	lysate 1:5

Results taking account all the confirmatory tests

READY TO EAT AND READY TO REHEAT FOODS

(Initial validation)

Sample N°	Product (French name)	Product	Reference method: ISO 6579 *					Alternative method: GENE-UP Salmonella														Category	Type					
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 18h at 41.5°C					BPW for 18h at 41.5°C + 72h at 5°C ± 3°C															
								PCR			Confirmation	Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation	Final result 72h BPW			Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate		
			Cp	Tm	Result	Confirmation final result	Cp	Tm	Result	Cp				Tm	Result	Confirmation final result												
XLD	ASAP	XLD	ASAP																									
7414	Mayonnaise	Mayonnaise	st	st	st	st	-	0	0	-	-	-	NA													1	a	
7415	Tartelette fraise	Strawberries pie	st	st	st	st	-	23.71	67.21	+	+	+	PD	23.02	67.19	+	23.06	67.01	+	+	+	+	+	+	PD	PD	1	a
7416	Crème aux œufs	Egg cream	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	-	ND	ND	1	a
7417	Terrine de Saint Jacques	Scallops' terrine	+p	+p	+p	+p	+	20.69	67.32	+	+	+	PA	19.92	67.09	+	20.19	67.04	+	+	+	+	+	+	PA	PA	1	a
7418	Terrine de saumon	Salmon terrine	+p	+p	+p	+p	+	20.27	67.4	+	+	+	PA	19.75	67.48	+	20.54	67.24	+	+	+	+	+	+	PA	PA	1	a
7419	Carottes râpées	Grated carrots	+M	+p	+M	+p	+	21.11	67.37	+	+	+	PA	20.45	66.99	+	20.53	67.16	+	+	+	+	+	+	PA	PA	1	a
7420	Concombre à la crème	Cucumber with cream	+M	+M	+M	+M	+	30.04	67.3	+	+	+	PA	28.38	67.16	+	28.87	66.95	+	+	+	+	+	+	PA	PA	1	a
7421	Taboulé	Tabbouleh	+M	+M	+M	+M	+	22.69	67.59	+	+	+	PA	22.78	67.01	+	21.64	67.12	+	+	+	+	+	+	PA	PA	1	a
7422	Sandwich poulet crudités	Sandwich (chicken, vegetables)	+M	+M	+M	+M	+	24.44	67.18	+	+	+	PA	24.93	67.24	+	23.72	67.2	+	+	+	+	+	+	PA	PA	1	a
7423	Pâté de campagne	Pâté	+p	+p	+p	+p	+	23.15	66.86	+	+	+	PA	23.42	67.33	+	23.64	67.03	+	+	+	+	+	+	PA	PA	1	a
68	Mayonnaise	Mayonnaise	st	st	st	st	-	0	0	-	-	-	NA														1	a
69	Eclair à la vanille	Pastry	+M	+M	+M	+M	+	21.09	67.23	+	+	+	PA	21.58	67.66	+	21.38	67.46	+	+	+	+	+	+	PA	PA	1	a
70	Jambon blanc	Cooked ham	+p	+p	+p	+p	+	26.22	67.43	+	+	+	PA	26.18	67.3	+	24.05	67.03	+	+	+	+	+	+	PA	PA	1	a
750	Sandwich poulet roti	Ready to eat food	st	st	st	st	-	0	0	-	-	-	NA														1	a
751	Tartelette pommes	Apple pie	st	st	st	st	-	0	0	-	-	-	NA														1	a
752	Pâté de campagne	Pâté	st	st	st	st	-	0	0	-	-	-	NA														1	a
753	Jambon blanc cuit dégraissé découenné	Ham	st	st	st	st	-	0	0	-	-	-	NA														1	a
784	Eclair à la vanille	Pastry	-	-	-	-	-	0	0	-	-	-	NA														1	a
935	Salade de fruits	Fruit salad	st	st	-	-	-	0	0	-	-	-	NA														1	a
941	Terrine de saumon/aneth	Ready to eat food	st	st	st	st	-	0	0	-	-	-	NA														1	a
943	Carottes râpées	Grated carrots	st	st	st	st	-	0	0	-	-	-	NA														1	a
7232	Cordon bleu	Ready to reheat meal	-	-	st	st	-	0	0	-	-	-	NA														1	b
7498	Coquille Saint Jacques	Scallops	+p	+p	+M	+p	+	30.05	67.44	+	+	+	PA	28.75	67.2	+	29.46	67.08	+	+	+	+	+	+	PA	PA	1	b
7499	Saumon à l'oseille	Ready to reheat salmon	+p	+p	+p	+p	+	21.78	67.26	+	+	+	PA	20.84	67.19	+	21.21	67.23	+	+	+	+	+	+	PA	PA	1	b
7500	Haché au colin d'Alaska	Ready to reheat fish	+p	+p	+p	+p	+	23.72	67.46	+	+	+	PA	22.52	67.09	+	21.55	66.99	+	+	+	+	+	+	PA	PA	1	b
7780	Bourguignon	Ready to reheat beef meat	+p	+p	+p	+p	+	21.89	67.36	+	+	+	PA	20.91	67.26	+	20.07	67.09	+	+	+	+	+	+	PA	PA	1	b
7781	Sauté de boeuf	Ready to reheat beef meat	+p	+p	+p	+p	+	22.16	67.4	+	+	+	PA	21.04	66.92	+	21.21	66.96	+	+	+	+	+	+	PA	PA	1	b
7782	Couscous au poulet, légumes, merguez	Couscous	+p	+p	+p	+p	+	20.22	67.28	+	+	+	PA	19.6	67.19	+	19.09	67.07	+	+	+	+	+	+	PA	PA	1	b
7783	Pizza jambon fromage	Pizza	+p	+p	+p	+p	+	0	0	-	-	-	ND	0/0	0/0	-/-	0	0	-	-	-	-	-	-	ND	ND	1	b
7784	Quiche lorraine aux lardons fumés	Quiche Lorraine	+p	+p	+p	+p	+	22.66	67.25	+	+	+	PA	21.62	67.17	+	21.3	67.08	+	+	+	+	+	+	PA	PA	1	b
7785	Croissant au jambon	Ready to reheat food	+p	+p	+p	+p	+	0/0/0	0/0/0	-/-	+	-	ND	0	0	-	0	0	-	+	-	-	-	-	ND	ND	1	b
735	Pané de dinde à la normande	Ready to reheat food	st	st	st	st	-	23.92	67.52	+	+	+	PD	22.95	67.57	+	21.58	67.07	+	+	+	+	+	+	PD	PD	1	b
736	Kebab de poulet et semoule orientale	Ready to reheat food	+p	+p	+p	+p	+	21.12	67.38	+	+	+	PA	21.46	67.32	+	20.04	67.35	+	+	+	+	+	+	PA	PA	1	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))







RAW MEATS (except poultry) - 8 h incubation time  
(Initial validation)

Sample N°	Product (French name)	Product	Reference method: ISO 6579 ♦					Alternative method: GENE-UP Salmonella																Category	Type		
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 8h at 41.5°C					BPW for 8h at 41.5°C + 72h at 5°C ± 3°C														
			XLD	ASAP	XLD	ASAP		PCR			Confirmation final result	Final result 8h	Agreement 8h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW			Agreement 72h Lysate	
								Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result								
547	Osso bucco de veau	Fresh veal trim	-	-	-	-	-	33.35	67.94	+	+	+	PD	32.53	67.54	+	32.27	67.11	+	+	+	+	PD	PD	8	a	
548	Escalope de veau	Fresh veal trim	-	-	-	-	-	31.53	67.38	+	+	+	PD	30.3	67.28	+	31.2	67.25	+	+	+	+	PD	PD	8	a	
549	Côte de veau	Fresh veal trim	+p	+p	+M	+p	+	29.96	67.51	+	+	+	PA	28.81	67.43	+	29.84	67.49	+	+	+	+	PA	PA	8	a	
550	Poitrine d'agneau	Fresh lamb meat	-	-	-	-	-	30.62	67.42	+	+	+	PD	29.76	67.43	+	30.31	67.38	+	+	+	+	PD	PD	8	a	
551	Gigot d'agneau	Fresh lamb meat	+p	+p	+p	+p	+	31.89	67.48	+	+	+	PA	31.58	67.52	+	31.79	67.55	+	+	+	+	PA	PA	8	a	
552	Steak haché 5% matière grasse	Fresh ground beef	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	8	a	
553	Steak haché 15% matière grasse	Fresh ground beef	+M	+M	+M	+M	+	31.73	67.33	+	+	+	PA	31.23	67.39	+	31.5	67.24	+	+	+	+	PA	PA	8	a	
554	Steak haché boucher 5% matière grasse	Fresh ground beef	+M	+M	+p	+p	+	31.29	67.66	+	+	+	PA	31.49	67.66	+	30.76	67.07	+	+	+	+	PA	PA	8	a	
555	Viande à bourguignon	Fresh beef trim	+M	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	8	a	
556	Steack à griller	Fresh beef trim	+M	+M	+p	+p	+	31.35	66.94	+	+	+	PA	30.74	67.14	+	31.69	67.08	+	+	+	+	PA	PA	8	a	
1162	Jarret de bœuf	Fresh beef trim	-	-	-	-	-	0	0	-	-	-	NA												8	a	
1163	Steak charolais	Fresh beef trim	-	-	-	-	-	0	0	-	-	-	NA													8	a
1164	Bavette	Fresh beef trim	st	st	-	-	-	0	0	-	-	-	NA													8	a
1165	Steak haché	Fresh ground	st	st	st	st	-	0	0	-	-	-	NA													8	a
1166	Boulettes de bœuf	Fresh ground	-	-	-	-	-	0	0	-	-	-	NA													8	a
1167	Onglet de veau	Fresh veal trim	-	-	-	-	-	0	0	-	-	-	NA													8	a
1168	Escalope de veau	Fresh veal trim	-	-	-	-	-	0	0	-	-	-	NA													8	a
1169	Côte de veau	Fresh veal trim	-	-	-	-	-	0	0	-	-	-	NA													8	a
1170	Côte d'agneau	Fresh lamb meat	-	-	-	-	-	0	0	-	-	-	NA													8	a
1171	Collier d'agneau	Fresh lamb meat	st	st	-	-	-	0	0	-	-	-	NA													8	a
7327	Sauté de veau surgelé	Frozen veal trim	+M	+M	+M	+p	+	31.84	67.62	+	+	+	PA	31.28	67.43	+	31.64	67.27	+	+	+	+	PA	PA	8	b	
7328	Paupiette de veau sugelée	Frozen veal trim	-	-	-	-	-	29.46	67.15	+	+	+	PD	29.3	67.35	+	29.09	67.07	+	+	+	+	PD	PD	8	b	
7329	Escalope de veau surgelée	Frozen veal trim	+M	+p	+M	+p	+	29.6	67.39	+	+	+	PA	29.43	67.63	+	27.73	66.91	+	+	+	+	PA	PA	8	b	
7330	Carré d'agneau surgelé	Frozen lamb meat	+M	+p	+M	+p	+	28.68	67.25	+	+	+	PA	28.84	67.2	+	27.77	66.83	+	+	+	+	PA	PA	8	b	
7331	Souris d'agneau surgelée	Frozen lamb meat	+M	+p	+M	+M	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	8	b	
7332	Souris d'agneau surgelée	Frozen lamb meat	+M	+M	+M	+p	+	27.95	67.25	+	+	+	PA	27.64	67.11	+	26.95	66.95	+	+	+	+	PA	PA	8	b	
7333	Steak haché surgelé	Frozen ground beef	+M	+p	+M	+p	+	31.1	67.22	+	+	+	PA	30.56	67.03	+	30.7	67.03	+	+	+	+	PA	PA	8	b	
7334	Haché de bœuf surgelé	Frozen ground beef	+M	+p	+M	+p	+	30.06	67.5	+	+	+	PA	27.97	67.17	+	29.53	67.23	+	+	+	+	PA	PA	8	b	
7335	Steak haché surgelé	Frozen ground beef	+M	+M	+M	+M	+	30.17	67.19	+	+	+	PA	29.09	67.15	+	28.53	67.24	+	+	+	+	PA	PA	8	b	

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



RAW MEATS (except poultry) - 8 h incubation time  
(Initial validation)

Sample N°	Product (French name)	Product	Reference method: ISO 6579 ♦					Alternative method: GENE-UP Salmonella																Category	Type					
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 8h at 41.5°C					BPW for 8h at 41.5°C + 72h at 5°C ± 3°C																	
								PCR			Confirmation	Final result 8h	Agreement 8h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW			Agreement 72h Lysate				
			Cp	Tm	Result	Confirmation final result	Cp	Tm	Result	Cp	Tm			Result	Confirmation final result															
XLD	ASAP	XLD	ASAP																											
7336	Steak haché surgelé	Frozen ground beef	-	-	-	-	-	0	0	-	-	-	NA																8	b
7337	Steak haché surgelé	Frozen ground beef	+M	+p	+M	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	-	ND	ND			8	b
7338	Viande de bœuf à pot au feu surgelé	Frozen beef trim	+M	+p	+M	+p	+	29.42	66.98	+	+	+	PA	28.56	67.26	+	28.1	67.06	+	+	+	+	PA	PA			8	b		
7339	Bavette d'ailoyau surgelée	Frozen beef trim	-	-	-	-	-	33.19	67.16	+	+	+	PD	32.11	67.38	+	30.8	67.1	+	+	+	+	PD	PD			8	b		
7340	Rumsteak surgelé	Frozen beef trim	+p	-	+M	-	+	31.75	67.15	+	+	+	PA	31.52	67.11	+	29.99	66.99	+	+	+	+	PA	PA			8	b		
7341	Viande bovine pour bourguignon surgelée	Frozen beef trim	+m	-	+m	-	+	33.33	66.96	+	+	+	PA	33.15	67.48	+	32.64	67.24	+	+	+	+	PA	PA			8	b		
7342	Faux filet de bœuf surgelée	Frozen beef trim	+M	+p	+M	+p	+	31.52	67.24	+	+	+	PA	29.7	67.25	+	30.17	66.86	+	+	+	+	PA	PA			8	b		
1154	Steak haché surgelé	Frozen ground beef	st	st	-	-	-	0	0	-	-	-	NA															8	b	
1155	Bavette d'ailoyau surgelée	Frozen beef trim	-	st	-	-	-	0	0	-	-	-	NA															8	b	
1156	Steak haché surgelé	Frozen ground beef	st	st	st	st	-	0	0	-	-	-	NA															8	b	
1157	Entrecôte surgelée	Frozen beef trim meat	-	-	-	-	-	0	0	-	-	-	NA															8	b	
1158	Haché de veau surgelé	Frozen ground veal	-	-	-	-	-	0	0	-	-	-	NA															8	b	
1159	Egréné de bœuf surgelé	Frozen ground beef	-	-	-	-	-	0	0	-	-	-	NA															8	b	
1160	Souris d'agneau surgelée	Frozen lamb meat	st	st	st	st	-	0	0	-	-	-	NA															8	b	
1161	Haché de veau surgelé	Frozen ground veal	st	st	-	-	-	0	0	-	-	-	NA															8	b	
7343	Haché Bolognaise surgelé	Frozen seasoned ground beef	+M	+p	+M	+p	+	31.52	67.44	+	+	+	PA	30.49	66.95	+	30.57	67.07	+	+	+	+	PA	PA			8	c		
7344	Haché Bolognaise surgelé	Frozen seasoned ground beef	+M	+p	+M	+p	+	30.69	67.01	+	+	+	PA	30.16	67.18	+	31.52	67.14	+	+	+	+	PA	PA			8	c		
7345	Pavé de bœuf aux 3 poivres surgelé	Frozen seasoned beef trim	+m	-	+M	-	+	31.89	67.2	+	+	+	PA	31.2	67.11	+	32.01	66.98	+	+	+	+	PA	PA			8	c		
7346	Pavé de bœuf aux 3 poivres surgelé	Frozen seasoned beef trim	-	-	-	-	-	32.33	67.41	+	+	+	PD	33.99	67.58	+	32.73	67.19	+	+	+	+	PD	PD			8	c		
7347	Rumsteak mariné aux 3 poivres	Fresh seasoned beef trim	+1/2	+M	+M	+M	+	31.59	67.18	+	+	+	PA	30.7	67.33	+	31.09	67.01	+	+	+	+	PA	PA			8	c		
7881	Pavé de rumsteak mariné aux 3 poivres	Fresh seasoned beef trim	+M	+p	+M	+M	+	30.13	67.16	+	+	+	PA	29.19	67.1	+	30.27	66.98	+	+	+	+	PA	PA			8	c		
7882	Haché de bœuf à la Bolognaise	Fresh seasoned ground beef	+M	+M	+M	+M	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND			8	c		
7883	Carpaccio de bœuf	Fresh seasoned beef meat	+p	+p	+p	+p	+	28.19	67.08	+	+	+	PA	26.41	67.17	+	26.09	67.13	+	+	+	+	PA	PA			8	c		
7884	Tartare de boeuf	Fresh seasoned ground beef	+M	+p	+p	+p	+	0/0/0	0/0/0	-/-	-	-	ND	0/0/0	0/0/0	-/-	0	0	-	-	-	-	ND	ND			8	c		
7885	Pavé de rumsteak mariné à l'échalote	Fresh seasoned beef trim	+m	+M	+m	+1/2	+	31.31	67.18	+	+	+	PA	30.58	67.21	+	32.1	67.29	+	+	+	+	PA	PA			8	c		

**RAW MEATS (except poultry) - 8 h incubation time**  
**(Initial validation)**

Sample N°	Product (French name)	Product	Reference method: ISO 6579 ♦					Alternative method: GENE-UP Salmonella																Category	Type	
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 8h at 41.5°C					BPW for 8h at 41.5°C + 72h at 5°C ± 3°C													
			XLD	ASAP	XLD	ASAP		PCR			Confirmation	Final result 8h	Agreement 8h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW			Agreement 72h Lysate
								Cp	Tm	Result				Confirmation final result	Cp	Tm	Result	Cp	Tm							
1172	Carpaccio de bœuf au pistou	Fresh seasoned beef meat	-	-	-	-	-	0	0	-	-	-	NA												8	c
1173	Carpaccio de bœuf aux noisettes	Fresh seasoned beef meat	-	-	-	-	-	0	0	-	-	-	NA												8	c
1174	Carpaccio de bœuf au parmesan	Fresh seasoned beef meat	st	st	st	-	-	0	0	-	-	-	NA												8	c
1175	Carpaccio de bœuf au basilic	Fresh seasoned beef meat	-	-	-	-	-	0	0	-	-	-	NA												8	c
1176	Pavé de rumsteak mariné à l'échalotte	Fresh seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA												8	c
1177	Pavé de rumsteak mariné au poivre	Fresh seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA												8	c
1178	Tartare de boeuf	Fresh seasoned ground beef	st	st	-	-	-	0	0	-	-	-	NA												8	c
1179	Pavé de bœuf mariné à l'échalote	Fresh seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA												8	c
1180	Steak haché façon bouchère	Fresh seasoned ground beef	-	-	-	-	-	0	0	-	-	-	NA												8	c
1181	Carpaccio de bœuf au basilic	Fresh seasoned beef	st	st	-	-	-	0	0	-	-	-	NA												8	c
1182	Rumsteak aux 3 poivres	Fresh seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA												8	c

RAW MEATS (except poultry) - 24 h incubation time  
(Initial validation)

Sample N°	Product (French name)	Product	Reference method: ISO 6579 *					Alternative method: GENE-UP Salmonella																	Category	Type	
			RVS broth		MKTn broth		ISO 6579 Result	BPW for 24h at 41.5°C					BPW for 24h at 41.5°C + 72h at 5°C ± 3°C														
			XLD	ASAP	XLD	ASAP		Cp	Tm	Result	Confirmation final result	Final result 24h	Agreement 24h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 24h/72h BPW	Agreement 24h/72h Lysate			
							Cp							Tm	Result	Cp	Tm	Result									
547	Ossobucco de veau	Fresh veal trim	-	-	-	-	-	25.26	67.52	+	+	+	PD	24	67.22	+	24.64	67.49	+	+	+	+	PD	PD	8	a	
548	Escalope de veau	Fresh veal trim	-	-	-	-	-	25.97	67.14	+	+	+	PD	26.68	67.28	+	26	67.4	+	+	+	+	PD	PD	8	a	
549	Côte de veau	Fresh veal trim	+p	+p	+M	+p	+	24.6	67.91	+	+	+	PA	24.78	67.88	+	24.92	67.52	+	+	+	+	PA	PA	8	a	
550	Poitrine d'agneau	Fresh lamb meat	-	-	-	-	-	23.76	67.81	+	+	+	PD	26.56	67.69	+	23.25	67.87	+	+	+	+	PD	PD	8	a	
551	Gigot d'agneau	Fresh lamb meat	+p	+p	+p	+p	+	24.15	67.25	+	+	+	PA	24.35	67.38	+	24.14	67.41	+	+	+	+	PA	PA	8	a	
552	Steak haché 5% matière grasse	Fresh ground beef	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	ND	ND	8	a
553	Steak haché 15% matière grasse	Fresh ground beef	+M	+M	+M	+M	+	28.98	67.14	+	+	+	PA	28.24	67.15	+	29.61	67.46	+	+	+	+	PA	PA	8	a	
554	Steak haché boucher 5% matière grasse	Fresh ground beef	+M	+M	+p	+p	+	25.69	67.6	+	+	+	PA	25.27	67.51	+	26.22	67.78	+	+	+	+	PA	PA	8	a	
555	Viande à bourguignon	Fresh beef trim	+M	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	ND	ND	8	a
556	Steack à griller	Fresh beef trim	+M	+M	+p	+p	+	23.9	67.21	+	+	+	PA	24.26	67.31	+	23.08	67.48	+	+	+	+	PA	PA	8	a	
1162	Jarret de bœuf	Fresh beef trim	-	-	-	-	-	0	0	-	-	-	NA												8	a	
1163	Steak charolais	Fresh beef trim	-	-	-	-	-	0	0	-	-	-	NA												8	a	
1164	Bavette	Fresh beef trim	st	st	-	-	-	0	0	-	-	-	NA												8	a	
1165	Steak haché	Fresh ground	st	st	st	st	-	0	0	-	-	-	NA												8	a	
1166	Boulettes de bœuf	Fresh ground	-	-	-	-	-	0	0	-	-	-	NA												8	a	
1167	Onglet de veau	Fresh veal trim	-	-	-	-	-	0	0	-	-	-	NA												8	a	
1168	Escalope de veau	Fresh veal trim	-	-	-	-	-	0	0	-	-	-	NA												8	a	
1169	Côte de veau	Fresh veal trim	-	-	-	-	-	0	0	-	-	-	NA												8	a	
1170	Côte d'agneau	Fresh lamb meat	-	-	-	-	-	0	0	-	-	-	NA												8	a	
1171	Collier d'agneau	Fresh lamb meat	st	st	-	-	-	0	0	-	-	-	NA												8	a	
7327	Sauté de veau surgelé	Frozen veal trim	+M	+M	+M	+p	+	26.12	67.42	+	+	+	PA	27.02	67.22	+	25.28	67.16	+	+	+	+	PA	PA	8	b	
7328	Paupiette de veau surgelée	Frozen veal trim	-	-	-	-	-	26.74	67.16	+	+	+	PD	26.78	67.31	+	25.6	67.24	+	+	+	+	PD	PD	8	b	
7329	Escalope de veau surgelée	Frozen veal trim	+M	+p	+M	+p	+	24.49	67.29	+	+	+	PA	25.04	67.57	+	23.16	67.2	+	+	+	+	PA	PA	8	b	
7330	Carré d'agneau surgelé	Frozen lamb meat	+M	+p	+M	+p	+	23.57	67.31	+	+	+	PA	22.61	67.55	+	22.05	67.07	+	+	+	+	PA	PA	8	b	
7331	Souris d'agneau surgelée	Frozen lamb meat	+M	+p	+M	+M	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	ND	ND	8	b
7332	Souris d'agneau surgelée	Frozen lamb meat	+M	+M	+M	+p	+	22.84	67.45	+	+	+	PA	23.49	67.61	+	22.6	67.13	+	+	+	+	PA	PA	8	b	
7333	Steak haché surgelé	Frozen ground beef	+M	+p	+M	+p	+	29	67.19	+	+	+	PA	29.7	67.46	+	28	67.22	+	+	+	+	PA	PA	8	b	
7334	Haché de bœuf surgelé	Frozen ground beef	+M	+p	+M	+p	+	28.63	67.61	+	+	+	PA	29.22	67.85	+	26.14	67.34	+	+	+	+	PA	PA	8	b	
7335	Steak haché surgelé	Frozen ground beef	+M	+M	+M	+M	+	27.1	67.1	+	+	+	PA	26.83	67.3	+	25.59	67.29	+	+	+	+	PA	PA	8	b	
7336	Steak haché surgelé	Frozen ground beef	-	-	-	-	-	0	0	-	-	-	NA												8	b	
7337	Steak haché surgelé	Frozen ground beef	+M	+p	+M	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	ND	ND	8	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

RAW MEATS (except poultry) - 24 h incubation time  
(Initial validation)

Sample N°	Product (French name)	Product	Reference method: ISO 6579 *					Alternative method: GENE-UP Salmonella																Category	Type	
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 24h at 41.5°C					BPW for 24h at 41.5°C + 72h at 5°C ± 3°C													
								PCR			Confirmation	Final result 24h	Agreement 24h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation	Final result 72h BPW	Final result 72h Lysate	Agreement 24h/72h BPW			Agreement 24h/72h Lysate
			Cp	Tm	Result	Confirmation final result	Cp	Tm	Result	Cp	Tm			Result	Confirmation final result											
7338	Viande de bœuf à pot au feu surgelé	Frozen beef trim	+M	+p	+M	+p	+	22.6	67	+	+	+	PA	22.62	67.19	+	22.66	67.15	+	+	+	+	PA	PA	8	b
7339	Bavette d'ailoyau surgelée	Frozen beef trim	-	-	-	-	-	27.07	67.01	+	+	+	PD	27.81	67.14	+	27.72	67.1	+	+	+	+	PD	PD	8	b
7340	Rumsteak surgelé	Frozen beef trim	+p	-	+M	-	+	23.75	67.38	+	+	+	PA	22.42	67.2	+	25.46	67.2	+	+	+	+	PA	PA	8	b
7341	Viande bovine pour bourguignon surgelée	Frozen beef trim	+m	-	+m	-	+	30.03	67.01	+	+	+	PA	28.09	67.2	+	30.06	66.84	+	+	+	+	PA	PA	8	b
7342	Faux filet de bœuf surgelée	Frozen beef trim	+M	+p	+M	+p	+	27.41	67.25	+	+	+	PA	25.61	67.06	+	25.72	66.85	+	+	+	+	PA	PA	8	b
1154	Steak haché surgelé	Frozen ground beef	st	st	-	-	-	0	0	-	-	-	NA												8	b
1155	Bavette d'ailoyau surgelée	Frozen beef trim	-	st	-	-	-	0	0	-	-	-	NA												8	b
1156	Steak haché surgelé	Frozen ground beef	st	st	st	st	-	0	0	-	-	-	NA												8	b
1157	Entrecôte surgelée	Frozen beef trim meat	-	-	-	-	-	0	0	-	-	-	NA												8	b
1158	Haché de veau surgelé	Frozen ground veal	-	-	-	-	-	0	0	-	-	-	NA												8	b
1159	Egréné de bœuf surgelé	Frozen ground beef	-	-	-	-	-	0	0	-	-	-	NA												8	b
1160	Souris d'agneau surgelée	Frozen lamb meat	st	st	st	st	-	0	0	-	-	-	NA												8	b
1161	Haché de veau surgelé	Frozen ground veal	st	st	-	-	-	0	0	-	-	-	NA												8	b
7343	Haché Bolognaise surgelé	Frozen seasoned ground beef	+M	+p	+M	+p	+	26.08	67.25	+	+	+	PA	25.52	67.22	+	25.43	67.28	+	+	+	+	PA	PA	8	c
7344	Haché Bolognaise surgelé	Frozen seasoned ground beef	+M	+p	+M	+p	+	25.2	67.01	+	+	+	PA	26.08	67.54	+	25.52	67.11	+	+	+	+	PA	PA	8	c
7345	Pavé de bœuf aux 3 poivres surgelé	Frozen seasoned beef trim	+m	-	+M	-	+	28.99	67.17	+	+	+	PA	29.03	67.27	+	29.44	67.09	+	+	+	+	PA	PA	8	c
7346	Pavé de bœuf aux 3 poivres surgelé	Frozen seasoned beef trim	-	-	-	-	-	30.8	67.21	+	+	+	PD	30.9	67.4	+	31.2	67.15	+	+	+	+	PD	PD	8	c
7347	Rumsteak mariné aux 3 poivres	Fresh seasoned beef trim	+1/2	+M	+M	+M	+	28.84	66.97	+	+	+	PA	28.83	67.31	+	27.75	67.1	+	+	+	+	PA	PA	8	c
7881	Pavé de rumsteak mariné aux 3 poivres	Fresh seasoned beef trim	+M	+p	+M	+M	+	28.27	67.01	+	+	+	PA	27.68	66.59	+	29.48	67.29	+	+	+	+	PA	PA	8	c
7882	Haché de bœuf à la Bolognaise	Fresh seasoned ground beef	+M	+M	+M	+M	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	8	c
7883	Carpaccio de bœuf	Fresh seasoned beef meat	+p	+p	+p	+p	+	21.98	67.14	+	+	+	PA	21.14	67.24	+	20.6	66.93	+	+	+	+	PA	PA	8	c
7884	Tartare de boeuf	Fresh seasoned ground beef	+M	+p	+p	+p	+	0/36.15/12.1	0/67.67/0	-/+/-	+	-	ND	36.72/0/34.46	67.74/0/67.43	+/-/+	35.13	67.49	+	+	+	+	PA	PA	8	c
7885	Pavé de rumsteak mariné à l'échalotte	Fresh seasoned beef trim	+m	+M	+m	+1/2	+	30.62	67.07	+	+	+	PA	30.96	67.43	+	30.75	67.2	+	+	+	+	PA	PA	8	c
1172	Carpaccio de bœuf au pistou	Fresh seasoned beef meat	-	-	-	-	-	0	0	-	-	-	NA												8	c
1173	Carpaccio de bœuf aux noisettes	Fresh seasoned beef meat	-	-	-	-	-	0	0	-	-	-	NA												8	c

RAW MEATS (except poultry) - 24 h incubation time  
(Initial validation)

Sample N°	Product (French name)	Product	Reference method: ISO 6579 *					Alternative method: GENE-UP Salmonella														Category	Type			
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 24h at 41.5°C					BPW for 24h at 41.5°C + 72h at 5°C ± 3°C													
			XLD	ASAP	XLD	ASAP		PCR			Confirmation	Final result 24h	Agreement 24h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation	Final result 72h BPW			Final result 72h Lysate	Agreement 24h/72h BPW	Agreement 24h/72h Lysate
								Cp	Tm	Result				Confirmation final result	Cp	Tm	Result	Cp	Tm							
1174	Carpaccio de bœuf au parmesan	Fresh seasoned beef meat	st	st	st	-	-	0	0	-	-	-	NA												8	c
1175	Carpaccio de bœuf au basilic	Fresh seasoned beef meat	-	-	-	-	-	0	0	-	-	-	NA												8	c
1176	Pavé de rumsteak mariné à l'échalotte	Fresh seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA												8	c
1177	Pavé de rumsteak mariné au poivre	Fresh seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA												8	c
1178	Tartare de boeuf	Fresh seasoned ground beef	st	st	-	-	-	0	0	-	-	-	NA												8	c
1179	Pavé de bœuf mariné à l'échalotte	Fresh seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA												8	c
1180	Steak haché façon bouchère	Fresh seasoned ground beef	-	-	-	-	-	0	0	-	-	-	NA												8	c
1181	Carpaccio de bœuf au basilic	Fresh seasoned beef	st	st	-	-	-	0	0	-	-	-	NA												8	c
1182	Rumsteak aux 3 poivres	Fresh seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA												8	c

MILK AND DAIRY PRODUCTS (Except raw milk-based products) (Extension study No 1)																											
Sample N°	Product (french name)	Product	Reference method : ISO 6579 *					Alternative method: GENE-UP Salmonella																		Category	Type
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 18h at 41.5°C						BPW for 18h at 41.5°C +72h at 2-8°C													
			Cp	Tm	Result	Confir- mation final result		Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h			Confir- mation final result	Final result 72h BPW	Final result 72h Lysate	Agree- ment 72h BPW	Agree- ment 72h Lysate							
										Cp	Tm	Result	Cp	Tm	Result												
XLD	ASAP	XLD	ASAP																								
322	Crème glacée vanille	Ice cream	st	st	st	st	-	0	0	-	-	-	NA													3	a
323	Crème glacée café	Ice cream	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND		3	a
324	Crème glacée menthe/chocolat	Ice cream	-	-	st	st	-	26.3	58.18	+	+	+	PD	26.93	57.92	+	25.97	58.11	+	+	+	+	PD	PD		3	a
325	Crème glacée noix de coco	Ice cream	-	-	st	st	-	0	0	-	-	-	NA													3	a
326	Crème glacée Rhum/raisin	Ice cream	-	-	-	-	-	0	0	-	-	-	NA													3	a
927	Camembert (lait pasteurisé)	Pasteurized cow milk cheese	-	-	-	-	-	0	0	-	-	-	NA													3	a
928	Bleu d'auvergne (lait pasteurisé)	Pasteurized cow milk cheese	+p	+p	+m	+1/2	+	25.63	58.03	+	+	+	PA	23.42	57.81	+	25.52	57.7	+	+	+	+	PA	PA		3	a
929	Buche de chèvre (lait pasteurisé)	Pasteurized goat milk cheese	st	st	+	+	+	33.15	59.41	+	+	+	PA	31.91	58.73	+	32.93	58.91	+	+	+	+	PA	PA		3	a
930	Lait pasteurisé 1/2 écrémé	Pasteurized milk	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND		3	a
931	Lait fermenté	Fermented milk	st	st	st	st	-	0	0	-	-	-	NA													3	a
932	Lait fermenté	Fermented milk	st	st	st	st	-	0	0	-	-	-	NA													3	a
933	Panna cotta	Dairy dessert	+p	+p	+p	+p	+	21.2	67.61	+	+	+	PA	19.78	67.88	+	18.92	67.79	+	+	+	+	PA	PA		3	a
934	Chantilly	Chantilly	+p	+p	+p	+p	+	25.98	67.92	+	+	+	PA	23.76	57.94	+	22.78	67.61	+	+	+	+	PA	PA		3	a
1666	Fromage de chèvre	Pasteurized goat milk cheese	-	-	-	-	-	0	0	-	-	-	NA													3	a
1667	Camembert (lait pasteurisé)	Pasteurized cow milk cheese	-	-	-	-	-	0	0	-	-	-	NA													3	a
1668	Tomme noire	Pasteurized cow milk cheese	st	st	st	st	-	0	0	-	-	-	NA													3	a
1669	Bûche de chèvre	Pasteurized goat milk cheese	-	st	-	-	-	0	0	-	-	-	NA													3	a
1670	Gros lait fermenté	Fermented milk	st	st	st	st	-	0	0	-	-	-	NA													3	a
1671	Lait fermenté	Fermented milk	st	st	st	st	-	0	0	-	-	-	NA													3	a
1672	Lait ribot	Fermented milk	st	st	st	st	-	0	0	-	-	-	NA													3	a
5615	Brie au lait pasteurisé	Pasteurized milk cheese	+p	+p	+p	+p	+	30.73	56.33	+	+	+	PA	28.41	56.37	+	32.69	56.26	+	+	+	+	PA	PA		3	a
5616	Fourme d'Ambert au lait pasteurisé	Pasteurized milk cheese	+p	+p	+M	+M	+	29.5	56.26	+	+	+	PA	29.85	56.1	+	29.06	56.46	+	+	+	+	PA	PA		3	a
5617	Saint Nectaire au lait pasteurisé	Pasteurized milk cheese	+p	+p	+M	+M	+	34.58	56.32	+	+	+	PA	32.6	56.01	+	33.95	56.27	+	+	+	+	PA	PA		3	a
5618	Camembert au lait pasteurisé	Pasteurized milk cheese	+p	+p	+M	+p	+	32.7	66.25	+	+	+	PA	28.01	66.34	+	31.73	66.4;	+	+	+	+	PA	PA		3	a
5619	Crottin de chèvre au lait pasteurisé	Pasteurized milk cheese	+p	+p	+p	+p	+	25.89	66.71	+	+	+	PA	24.61	66.52	+	25.32	66.58	+	+	+	+	PA	PA		3	a
327	Lait entier en poudre	Milk powder	st	st	st	st	-	22.86	66.27	+	+	+	PD	21.75	67.66	+	22.88	67.45	+	+	+	+	PD	PD		3	b
328	Lait entier en poudre	Milk powder	+p	+p	+p	+p	+	22.9	67.37	+	+	+	PA	21.6	67.8	+	22.68	67.45	+	+	+	+	PA	PA		3	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

**MILK AND DAIRY PRODUCTS (Except raw milk-based products)**  
(Extension study No 1)

Sample N°	Product (french name)	Product	Reference method : ISO 6579 *					Alternative method: GENE-UP Salmonella																	Category	Type	
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 18h at 41.5°C					BPW for 18h at 41.5°C +72h at 2-8°C														
								PCR			Confirmation final result	Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h				Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW			Agreement 72h Lysate
								Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result								
XLD	ASAP	XLD	ASAP																								
329	Lait entier en poudre	Milk powder	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	3	b	
330	Lait demi-écrémé en poudre	Milk powder	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	3	b	
331	Lait écrémé en poudre	Milk powder	+p	+p	+p	+p	+	23.78	67.18	+	+	+	PA	24.82	67.63	+	24.66	67.61	+	+	+	+	PA	PA	3	b	
332	Lait écrémé en poudre	Milk powder	+p	+p	+p	+p	+	23.79	67.26	+	+	+	PA	25.32	67.48	+	22.69	67.34	+	+	+	+	PA	PA	3	b	
1673	Lait en poudre écrémé	Milk powder	st	st	st	st	-	0	0	-	-	-	NA												3	b	
1674	Lait en poudre	Milk powder	st	st	st	st	-	0	0	-	-	-	NA												3	b	
2084	Lait en poudre	Milk powder	-	-	-	-	-	0	0	-	-	-	NA												3	b	
4264	Lait écrémé en poudre	Skimmed milk powder	st	st	st	st	-	0	0	-	-	-	NA												3	b	
4689	Lait écrémé en poudre	Skimmed milk powder	+p	+p	+p	+p	+	29.21	65.65	+	+	+	PA	27.78	65.56	+	30.03	65.35	+	+	+	+	PA	PA	3	b	
4690	Lait écrémé en poudre	Skimmed milk powder	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	3	b	
4691	Lait écrémé en poudre	Skimmed milk powder	+p	+p	+p	+p	+	34.91	65.74	+	+	+	PA	35.53	65.72	+	40	65.23	+	+	+	+	PA	PA	3	b	
4692	Lait écrémé en poudre	Skimmed milk powder	+p	+p	st	st	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	3	b	
4693	Lait écrémé en poudre	Skimmed milk powder	st	st	st	st	-	0	0	-	-	-	NA												3	b	
5216	Lait écrémé en poudre	Skimmed milk powder	st	st	st	st	-	0	0	-	-	-	NA												3	b	
5217	Lait demi-écrémé en poudre	Semi-skimmed milk powder	st	st	st	st	-	0	0	-	-	-	NA												3	b	
5218	Lait écrémé en poudre	Skimmed milk powder	st	st	st	st	-	0	0	-	-	-	NA												3	b	
5219	Lait entier en poudre	Milk powder	st	st	st	st	-	0	0	-	-	-	NA												3	b	
5220	Lait demi-écrémé en poudre	Semi-skimmed milk powder	st	st	st	st	-	0	0	-	-	-	NA												3	b	
333	Maltodextrine	Maltodextrin	+p	+p	+p	+p	+	19.7	67.28	+	+	+	PA	20.58	67.89	+	20.12	67.47	+	+	+	+	PA	PA	3	c	
334	Maltodextrine	Maltodextrin	+p	+p	+p	+p	+	20.57	67.23	+	+	+	PA	20.87	67.71	+	20.86	67.38	+	+	+	+	PA	PA	3	c	
335	Lactosérum	Lactosérum	+p	+p	+p	+p	+	22.83	67.29	+	+	+	PA	22.91	67.57	+	22.9	67.66	+	+	+	+	PA	PA	3	c	
336	Lactosérum	Lactosérum	+p	+p	+p	+p	+	25.09	67.06	+	+	+	PA	25.27	66.91	+	25.23	67.61	+	+	+	+	PA	PA	3	c	
337	Lactosérum	Lactosérum	+p	+p	+p	+p	+	25.24	67.46	+	+	+	PA	24.21	67.53	+	24.25	67.43	+	+	+	+	PA	PA	3	c	
338	Lactosérum	Lactosérum	+p	+p	+p	+p	+	25.53	67.57	+	+	+	PA	24.5	67.6	+	24.73	67.64	+	+	+	+	PA	PA	3	c	
339	Caséinates	Caseinate	+p	+p	+p	+p	+	22.58	66.38	+	+	+	PA	21.45	67.13	+	22.69	67.63	+	+	+	+	PA	PA	3	c	
340	Caséinates	Caseinate	+p	+p	+p	+p	+	24.89	66.18	+	+	+	PA	23.04	67.4	+	22.98	67.36	+	+	+	+	PA	PA	3	c	
341	Caséinates	Caseinate	+p	+p	+p	+p	+	31.5	66.24	+	+	+	PA	24.93	67.43	+	22.1	67.74	+	+	+	+	PA	PA	3	c	
1675	Lactosérum	Lactosérum	st	st	st	st	-	0	0	-	-	-	NA												3	c	
1676	Caséinate	Caseinate	st	st	st	st	-	0	0	-	-	-	NA												3	c	
1677	Maltodextrine	Maltodextrin	st	st	st	st	-	0	0	-	-	-	NA												3	c	
2083	Caséinate	Caseinate	st	st	st	st	-	0	0	-	-	-	NA												3	c	

MILK AND DAIRY PRODUCTS (Except raw milk-based products) (Extension study No 1)																											
Sample N°	Product (french name)	Product	Reference method : ISO 6579 *					Alternative method: GENE-UP Salmonella																		Category	Type
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 18h at 41.5°C						BPW for 18h at 41.5°C +72h at 2-8°C													
			PCR			Confirmation final result		Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate							
			Cp	Tm	Result					Cp	Tm	Result	Cp	Tm	Result												
XLD	ASAP	XLD	ASAP	Cp	Tm	Result	Cp	Tm	Result	Cp	Tm	Result	Cp	Tm	Result	Cp	Tm	Result									
4261	Caséinate	Caseinate	st	st	st	st	-	0	0	-	-	-	NA												3	c	
4262	Caséinate	Caseinate	st	st	st	st	-	0	0	-	-	-	NA	0	0	-	0	0	-	-	-	-	NA	NA	3	c	
4263	Maltodextrine	Maltodextrin	st	st	st	st	-	0	0	-	-	-	NA												3	c	
<b>4687</b>	<b>Protéines de lait</b>	<b>Milk proteins</b>	st	st	st	st	-	32.65	66.15	+	+	+	PD	33.02	66.19	+	32.61	66.02	+	+	+	+	PD	PD	3	c	
4987	Maltodextrine	Maltodextrin	st	st	st	st	-	0	0	-	-	-	NA												3	c	
4988	Protéines de lait	Milk proteins	st	st	st	st	-	0	0	-	-	-	NA												3	c	
4989	Caséinate	Caseinate	st	st	st	st	-	0	0	-	-	-	NA												3	c	
4990	Lactosérum	Lactoserum	st	st	st	st	-	0	0	-	-	-	NA												3	c	



**VEGETABLES, FRUITS AND SEAFOOD**  
(Extension study No 1)

Sample N°	Product (french name)	Product	Reference method : ISO 6579 *					Alternative method: GENE-UP Salmonella																		Category	Type	
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 18h at 41.5°C					BPW for 18h at 41.5°C +72h at 2-8°C															
								PCR			Confirmation final result	Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate				
			Cp	Tm	Result	Cp	Tm	Result	Cp	Tm				Result														
XLD	ASAP	XLD	ASAP																									
1925	Fruits de mer	Seafood	-	-	-	-	-	0	0	-	-	-	NA												4	a		
1935	Terrine de saumon	Salmon terrine	st	st	st	st	-	0	0	-	-	-	NA													4	a	
2068	Filet de colin d'Alaska surgelé	Frozen fish fillet	st	st	st	st	-	0	0	-	-	-	NA													4	a	
2069	Filet de Saumon surgelé	Frozen fish fillet	-	-	-	-	-	0	0	-	-	-	NA														4	a
2070	Colin d'Alaska surgelé	Frozen fish fillet	-	-	-	-	-	0	0	-	-	-	NA														4	a
2071	Surimi	Surimi	st	st	st	st	-	0	0	-	-	-	NA														4	a
2072	Surimi	Surimi	st	st	st	st	-	0	0	-	-	-	NA														4	a
2073	Crevettes	Shrimp	st	st	st	st	-	0	0	-	-	-	NA														4	a
2074	Crevettes	Shrimp	st	st	-	-	-	0	0	-	-	-	NA														4	a
2075	Mélange de fruits de mer	Seafood	-	-	-	-	-	0	0	-	-	-	NA														4	a
2076	Terrine de St Jacques	Seafood terrine	st	st	st	st	-	0	0	-	-	-	NA														4	a
2970	Terrine de Saint Jacques	Seafood terrine	+p	+p	+p	+p	+	27.26	67.58	+	+	+	PA	28.03	67.55	+	23.78	67.41	+	+	+	+	PA	PA	4	a		
2971	Terrine de Saint Jacques	Seafood terrine	+p	+p	+p	+p	+	24.15	67.34	+	+	+	PA	25.5	67.41	+	22.99	67.18	+	+	+	+	PA	PA	4	a		
2972	Miettes de crabe	Flaked crab	+p	+p	+p	+p	+	24.79	67.64	+	+	+	PA	24.84	67.59	+	22.66	67.2	+	+	+	+	PA	PA	4	a		
2973	Miettes de crabe	Flaked crab	+p	+p	+p	+p	+	25.51	67.45	+	+	+	PA	25.93	67.46	+	24.01	67.2	+	+	+	+	PA	PA	4	a		
2974	Filet de julienne	Fish fillet	+p	+p	+p	+p	+	31.92	67.5	+	+	+	PA	32.43	67.45	+	30.62	67.12	+	+	+	+	PA	PA	4	a		
2975	Filet de maquereau	Fish fillet	+p	+p	+M	+M	+	28.78	67.53	+	+	+	PA	29.02	67.54	+	26.92	67.06	+	+	+	+	PA	PA	4	a		
2976	Surimi	Surimi	+p	+p	+p	+p	+	24.1	67.45	+	+	+	PA	24.26	67.4	+	21.95	67.06	+	+	+	+	PA	PA	4	a		
4239	Filet de tacaud	Fish fillet	+p	+p	+M	+p	+	27.2	65.85	+	+	+	PA	27.25	66.05	+	26.86	65.87	+	+	+	+	PA	PA	4	a		
4240	Filet de maquereau	Fish fillet	+p	+p	+M	+M	+	27.76	65.87	+	+	+	PA	27.58	66.16	+	28	66.11	+	+	+	+	PA	PA	4	a		
4241	Darne de saumon	Fish fillet	+p	+p	+M	+M	+	26.2	65.81	+	+	+	PA	26.56	66.03	+	25.49	65.83	+	+	+	+	PA	PA	4	a		
4242	Filet de cabillaud	Fish fillet	-	st	+md/-	+m/-	-	28.71	66.14	+	+	+	PD	27.71	65.79	+	27.39	65.69	+	+	+	+	PD	PD	4	a		
4243	Filet de merlan	Fish fillet	+p	+p	+p	+p	+	25.87	65.94	+	+	+	PA	25.63	65.86	+	25.42	65.66	+	+	+	+	PA	PA	4	a		
7595	Fines pousses ALALFA radis, fenouil	Sprouts	-	-	-	+md (Ox +)	-	0	0	-	-	-	NA	0	0	-	0	0	-	-	-	-	NA	NA	4	b		
7598	Persil	Parsley	-	-	-	-	-	0	0	-	-	-	NA													4	b	
7599	Ciboulette	Chives	-	-	-	-	-	0	0	-	-	-	NA													4	b	
7600	Ciboulette	Chives	-	-	-	-	-	0	0	-	-	-	NA													4	b	
7601	Mesclun vrac	Baby leaves	-	-	-	-	-	0	0	-	-	-	NA													4	b	
245	Fines pousses de radis roses	Sprouts	-	-	+d/+ (Citrobacter youngae)	-	-	0	0	-	-	-	NA	0	0	-	0	0	-	-	-	-	NA	NA	4	b		
1922	Tendres pousses	Baby leaves	-	-	-	-	-	0	0	-	-	-	NA													4	b	
2062	Fines pousses Alfalfa	Sprouts	-	-	-	-	-	0	0	-	-	-	NA													4	b	

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

VEGETABLES, FRUITS AND SEAFOOD  
(Extension study No 1)

Sample N°	Product (french name)	Product	Reference method : ISO 6579 *					Alternative method: GENE-UP Salmonella																Category	Type	
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 18h at 41.5°C					BPW for 18h at 41.5°C +72h at 2-8°C													
								PCR			Confirmation final result	Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW			Agreement 72h Lysate
								Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result							
XLD	ASAP	XLD	ASAP																							
2063	Fines pousses roquette	Sprouts	-	-	-	-	-	0	0	-	-	-	NA												4	b
2066	Mesclun	Baby leaves	-	-	st	st	-	0	0	-	-	-	NA												4	b
2067	Jeunes pousses	Baby leaves	-	st	-	-	-	0	0	-	-	-	NA												4	b
2977	Graines germées roquette/alfalfa	Sprouts	-	-	-	+m/-	-	36.35	67.76	+	+	+	PD	0/35.89/36.44	0/66.33/66.26	-/+	0/36.84/0	0/66.59/0	-/+	-	-	-	NA	NA	4	b
2978	Graines germées alfalfa/fenouil	Sprouts	-	+md	+md	-	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	ND	ND	4	b	
2979	Graines germées alfalfa	Sprouts	+M	+M	-	-	+	33.47	67.25	+	+	+	PA	32.72	67.03	+	32.74	67.22	+	+	+	PA	PA	4	b	
2980	Graines germées alfalfa/poireau/lentille	Sprouts	+M	+M	+M	+M	+	35.64	67.29	+	+	+	PA	35.46	67.23	+	34.96	67.15	+	+	+	PA	PA	4	b	
2981	Jeunes pousses	Baby leaves	+M	+M	+M	+M	+	32.88	67.1	+	+	+	PA	34.14	67.13	+	33.15	67.29	+	+	+	PA	PA	4	b	
2982	Mesclun	Baby leaves	+M	+M	+M	+M	+	30.17	67.23	+	+	+	PA	31.56	67.2	+	29.94	67.12	+	+	+	PA	PA	4	b	
2983	Mélange de jeunes pousses	Baby leaves	+p	+p	+M	+M	+	33.66	67.3	+	+	+	PA	36.09	67.2	+	33.65	67.3	+	+	+	PA	PA	4	b	
2985	Tendres pousses	Baby leaves	+M	+M	+M	+M	+	29.06	67.26	+	+	+	PA	0/0/0	0/0/0	-/-	29.71	67.09	+	+	-	ND	PA	4	b	
4244	Mélange jeunes pousses	Baby leaves	+Md/-	-	+md/-	-	-	0	0	-	-	-	NA	39.08	65.93	+	0/0/36.87	0/0/65.78	-/+	+(MSRV)	+	-	PD	NA	4	b
4245	Tendres pousses	Baby leaves	-	-	+Md/-	+1/2/-	-	0/0/0	0/0/0	-/-	+	-	NA	0	0	-	0	0	-	-	-	NA	NA	4	b	
4246	Alfalfa/roquette	Sprouts	-	-	+1/2/-	+m/-	-	0	0	-	-	-	NA	0	0	-	0	0	-	-	-	NA	NA	4	b	
4247	Alfalfa/radis/fenouil	Sprouts	+1/2	+M	+m	+m	+	0/0/0	0/0/0	-/-	+	-	ND	0/0/36.69	0/0/65.77	-/+	35.06/0/0	65.69/0/0	+/-	+	-	+	ND	PA	4	b
7222	Julienne de courgettes	Sliced zucchini	-	-	-	-	-	0	0	-	-	-	NA												4	c
7223	Courgettes	Zucchini	-	-	-	-	-	0	0	-	-	-	NA	0	0	-	0	0	-	-	-	NA	NA	4	c	
7224	Macédoine de légumes	Vegetables mix	-	-	+md (Citrobacter braaki)	-	-	0	0	-	-	-	NA	0	0	-	0	0	-	-	-	NA	NA	4	c	
7226	Pommes de terre précuites	Cooked vegetables	-	-	-	-	-	0	0	-	-	-	NA												4	c
1919	Mâche	Mâche	st	st	-	-	-	0	0	-	-	-	NA												4	c
1921	Cresson	Cress	-	-	+md/-	-	-	0	0	-	-	-	NA												4	c
2060	Sucrines	Sucrines	st	st	st	st	-	0	0	-	-	-	NA												4	c
2061	Carottes râpées	Grated carrots	st	st	-	-	-	0	0	-	-	-	NA												4	c
2064	Mélange fruits rouges surgelés	Frozen fruit mix	st	st	-	-	-	0	0	-	-	-	NA												4	c
2065	Fraises entières surgelées	Frozen strawberry	st	st	st	st	-	0	0	-	-	-	NA												4	c
2085	Carottes en rondelles surgelées	Frozen carrots	st	st	-	-	-	0	0	-	-	-	NA												4	c
2086	Mélange de légumes surgelés	Frozen mixed vegetables	-	-	-	-	-	0	0	-	-	-	NA												4	c

**VEGETABLES, FRUITS AND SEAFOOD**  
(Extension study No 1)

Sample N°	Product (french name)	Product	Reference method : ISO 6579 *					Alternative method: GENE-UP Salmonella															Category	Type		
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 18h at 41.5°C					BPW for 18h at 41.5°C +72h at 2-8°C													
			XLD	ASAP	XLD	ASAP		PCR			Confirmation final result	Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate			Agreement 72h BPW	Agreement 72h Lysate
								Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result							
2344	Carottes râpées	Grated carrots	-	-	-	-	-	0	0	-	-	-	NA	0	0	-	0	0	-	-	-	-	NA	NA	4	c
2986	Mélange crudités (chou blanc/carotte/céleri)	White cabbage/ carrot/celery	+p	+p	+M	+p	+	27.93	67.58	+	+	+	PA	30.47	67.31	+	26.69	67.31	+	+	+	+	PA	PA	4	c
2987	Chou rouge	Red cabbage	+M	+M	+M	+M	+	23.57	67.29	+	+	+	PA	23.59	67.27	+	23.46	67.19	+	+	+	+	PA	PA	4	c
2988	Carottes râpées	Grated carrots	+p	+p	+M	+p	+	30.58	67.46	+	+	+	PA	30.78	67.41	+	30.09	67.32	+	+	+	+	PA	PA	4	c
2989	Mâche et roquette	Mixed salad	+p	+M	+M	+M	+	26.64	67.24	+	+	+	PA	26.06	67.29	+	26.62	67.26	+	+	+	+	PA	PA	4	c
2990	Salade mélangée	Mixed salad	+M	+M	+M	+M	+	25.05	67.22	+	+	+	PA	26.21	67.13	+	25.1	67.21	+	+	+	+	PA	PA	4	c
2991	Sucrine	Sucrine	+M	+M	+M	+M	+	25.6	67.31	+	+	+	PA	25.28	67.18	+	25.05	67.27	+	+	+	+	PA	PA	4	c
2992	Assiette croquante (chou blanc/carotte/frisée/poivron rouge)	White cabbage/ carrot/salad/red bell pepper	+p	+p	+M	+p	+	24.49	67.27	+	+	+	PA	24.22	67.18	+	23.97	67.06	+	+	+	+	PA	PA	4	c
2993	Carottes précuites	Pre-cooked carrots	+p	+p	+M	+M	+	22.95	67.53	+	+	+	PA	22.04	67.54	+	22.22	67.29	+	+	+	+	PA	PA	4	c
2994	Pommes de terre précuites	Pre-cooked potatoes	+M	+p	+M	+p	+	23.04	67.52	+	+	+	PA	23.03	67.38	+	21.76	67.31	+	+	+	+	PA	PA	4	c
2995	Mélange crudités (chou chinois/ frisée/tomate/maïs/ courgette/radis/per sil)	Chinese cabbage/ salad/tomatoes/corn/ zucchini/radish/ parsley	+M	+M	+m/-	+m/-	+	32.88	67.28	+	+	+	PA	32.94	67.14	+	32.58	67.09	+	+	+	+	PA	PA	4	c

**SPECIFIC INGREDIENTS AND FOODS**  
(Extension study No 1)

Sample N°	Product (french name)	Product	Reference method : ISO 6579 *					Alternative method: GENE-UP Salmonella																Category	Type			
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 18h at 41.5°C					BPW for 18h at 41.5°C +72h at 2-8°C															
			XLD	ASAP	XLD	ASAP		PCR			Confirmation final result	Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW			Agreement 72h Lysate		
								Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result									
3071	Feuilles de basilic déshydratées	Dried basil	st	st	st	st	-	0/0/0/0	0/0/0/0	i/i*/i**/ -***	-	-	NA														5	a
3072	Herbes de Provence déshydratées	Dried herbs	st	st	st	st	-	0/0/0/0	0/0/0/0	i/i*/i**/ -***	-	-	NA														5	a
3073	Paprika doux	Paprika	+p	+p	+M	+M	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	-	ND	ND	5	a
3074	Curcuma	Turmeric	+1/2	+M	+m	+m	+	8,9	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	-	ND	ND	5	a
3075	Curry	Curry	st	-	-	-	-	0	0	-	-	-	NA														5	a
3076	Thym déshydraté	Dried thyme	+p	+p	+p	+p	+	0/0/40	0/0/61.74	i/i*/+**	+	+	PA	(34.35)**	(65.95)**	i/i*/+**	(30.38)****	(66.38)****	i/i*/+****	+	+	+	PA	PA			5	a
4265	Poudre 100% cacao	Cocoa powder	st	st	st	st	-	0/0/0	0/0/0	i/i*/-**	-	-	NA														5	a
4266	Poudre 100% cacao	Cocoa powder	st	st	st	st	-	0/0/0	0/0/0	i/i*/-**	-	-	NA														5	a
4267	Poudre 100% cacao	Cocoa powder	+M	+p	+p	+p	+	0/0/33.43	0/0/66.19	i/i*/+**	+	+	PA	(30.28)**	(66.01)**	i/i*/+**	(33.47)°	(66.17)°	i/i*/-****/+°	+	+	+	PA	PA			5	a
4268	Pastilles chocolat au lait	Milk chocolate tablet	st	st	st	st	-	0	0	-	-	-	NA	0	0	-	0/0	0/0	i/-*	-	-	-	NA	NA			5	a
4269	Pastilles chocolat noir	Dark chocolate tablet	st	st	st	st	-	0	0	-	-	-	NA														5	a
4270	Fèves de cacao	Cocoa bean	+1/2	+1/2	+M	+1/2	+	0	0	-	-	-	ND	0	0	-	0/0	0/0	i/-*	-	-	-	ND	ND			5	a
4694	Poudre de cacao (100%)	Cocoa powder	st	st	st	st	-	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/ -***	-	-	NA	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/ -***	0/0*/0****	0/0*/0****	i/i*/-****	-	-	-	NA	NA			5	a
4695	Poudre de cacao (100%)	Cocoa powder	st	st	st	st	-	0/0*/0**	0/0*/62.46**	i/i*/+**	+	+	PD	0	69.8	+i*/-**	(34.89)****	(66.34)****	i/i*/+****	+	+	+	PD	PD			5	a
4696	Estragon	Tarragon	st	st	st	st	-	0/0*/0**	0/0*/0**	i/-*/i**	-	-	NA	0/0/0	0/0/0	i/-*/-**	0/0	0/0	i/-*	-	-	-	NA	0			5	a
4697	Origan	Oregano	st	st	st	st	-	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/ -***	-	-	NA														5	a
4698	Epices Salsa	Salsa spices	st	st	st	st	-	34.78/33.8/33.68	65.89/65.94/66.1	+/+/*	- (MSRV -)	-	PPNA	34.43/0/33.52	65.85/68.88/65.62	+/*/*	34.23/33.6/33.36	65.87/65.56/65.98	+/*/*	- (MSRV -)	-	-	PPNA	PPNA			5	a
4699	Epices chinoises	Chinese spices	st	st	st	st	-	0	0	-	-	-	NA														5	a
4984	Pépites de chocolat noir (50% cacao)	Black chocolate tablets	st	st	st	st	-	24.56	66.28	+	+	+	PD	26.56	65.52	+	25.01	65.9	+	+	+	+	PD	PD			5	a
4985	Billes de chocolat noir (65% de cacao)	Black chocolate tablets	st	st	st	st	-	26.74	65.97	+	+	+	PD	30.14	65.41	+	27.92	65.64	+	+	+	+	PD	PD			5	a
4986	Billes de chocolat noir (50% de cacao)	Black chocolate tablets	+p	+p	+p	+p	+	25.78	66.28	+	+	+	PA	32.2	65.37	+	27.27	65.73	+	+	+	+	PA	PA			5	a
5620	Estragon	Tarragon	st	st	st	st	-	0/0*/0**	0/0*/0**	i/-*/-**	-	-	NA														5	a
5621	Poudre de cacao (100%)	Cocoa powder	st	st	st	st	-	(34.83)**	(66.13)**	i/i*/+**	+	+	PD	0/40*/29.56**	0/61.73*/66.15**	i/+*/+**	0/0*/0****/0°	0/0*/0****/0°	i/i*/i****/-°	+	+	-	PD	NA			5	a
4381	Céréales infantiles (à la vanille) avec probiotiques	Cereals with probiotics (1.8 10 <sup>6</sup> CFU/g)	+p	+p	+p	+p	+	22.62	66.52	+	+	+	PA	23.63	66.47	+	21.79	66.48	+	+	+	+	PA	PA			5	b
4382	Céréales infantiles (à la vanille) avec probiotiques	Cereals with probiotics (2.1 10 <sup>6</sup> CFU/g)	+p	+p	+p	+p	+	26.55	66.31	+	+	+	PA	24.59	66.52	+	25.99	65.76	+	+	+	+	PA	PA			5	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

**SPECIFIC INGREDIENTS AND FOODS**  
(Extension study No 1)

Sample N°	Product (french name)	Product	Reference method : ISO 6579 *					Alternative method: GENE-UP Salmonella																Category	Type	
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 18h at 41.5°C					BPW for 18h at 41.5°C +72h at 2-8°C													
			XLD	ASAP	XLD	ASAP		PCR			Confirmation final result	Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW			Agreement 72h Lysate
								Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result							
4383	Céréales infantiles (5 céréales) avec probiotiques	Cereals with probiotics (10 <sup>2</sup> CFU/g)	+p	+p	+p	+p	+	23.5	66.08	+	+	+	PA	22.71	66.66	+	22.74	66.56	+	+	+	+	PA	PA	5	b
4384	Céréales infantiles (5 céréales) avec probiotiques	Cereals with probiotics (3.0 10 <sup>2</sup> CFU/g)	st	st	st	st	-	0/0/31.98	66.44/0/66.32	+/-/+	-(MSRV -)	-	PPNA	0/31.98/0	0/66.32/0	-/+/-	32.84/31.67/0	65.82/66.37/0	+/-/-	-(MSRV -)	-	-	PPNA	PPNA	5	b
4385	Céréales infantiles (8 céréales) avec probiotiques	Cereals with probiotics (8.7 10 <sup>3</sup> CFU/g)	st	st	st	st	-	0	0	-	-	-	NA	0	0	-	0	0	-	-	-	-	NA	NA	5	b
4386	Céréales infantiles (au yaourt) avec probiotiques	Cereals with probiotics (6.0 10 <sup>3</sup> CFU/g)	+p	+p	+p	+p	+	32.51	66.24	+	+	+	PA	0/0/32.2	0/0/66.13	-/+/+	0	66.3	+	-(MSRV -)	-	-	PPND	PPND	5	b
4387	Céréales infantiles (cérélac) avec probiotiques	Cereals with probiotics (2.0 10 <sup>4</sup> CFU/g)	+p	+p	+p	+p	+	33.07	65.98	+	+	+	PA	32.79	66.22	+	33.66	66.12	+	-(MSRV -)	-	-	PPND	PPND	5	b
4388	Lait infantile avec probiotiques (Guigoz)	Infant formula with probiotics (4.7 10 <sup>5</sup> CFU/g)	st	st	st	st	-	0	0	-	-	-	NA												5	b
4389	Lait infantile avec probiotiques (Blédilait)	Infant formula with probiotics (< 10 CFU/g)	st	st	st	st	-	0	0	-	-	-	NA												5	b
4390	Lait infantile avec probiotiques (Guigoz)	Infant formula with probiotics (<10 <sup>2</sup> CFU/g)	st	st	st	st	-	0	0	-	-	-	NA												5	b
4391	Lait infantile avec probiotiques (Guigoz)	Infant formula with probiotics (1.8 10 <sup>5</sup> CFU/g)	st	st	st	st	-	0	0	-	-	-	NA												5	b
4392	Lait infantile avec probiotiques (Nutriben)	Infant formula with probiotics (4.8 10 <sup>3</sup> CFU/g)	st	st	st	st	-	0	0	-	-	-	NA												5	b
4393	Lait infantile avec probiotiques (Milumel)	Infant formula with probiotics (2.3 10 <sup>4</sup> CFU/g)	st	st	st	st	-	0	0	-	-	-	NA												5	b
4394	Lait infantile avec probiotiques (Gallia)	Infant formula with probiotics (<10 <sup>2</sup> CFU/g)	st	st	st	st	-	0	0	-	-	-	NA												5	b
5622	Lait infantile avec probiotiques (Guigoz)	Infant formula with probiotics (9.0 10 <sup>4</sup> CFU/g)	+p	+p	+p	+p	+	27.42	66.83	+	+	+	PA	27.15	66.44	+	26.49	66.26	+	+	+	+	PA	PA	5	b
5623	Lait infantile avec probiotiques (Milumel)	Infant formula with probiotics (10 <sup>2</sup> CFU/g)	+p	+p	+p	+p	+	26.06	66.58	+	+	+	PA	25.73	66.55	+	25.92	66.53	+	+	+	+	PA	PA	5	b
5624	Lait infantile avec probiotiques (Blédilait)	Infant formula with probiotics (10 <sup>2</sup> CFU/g)	st	st	st	st	-	0	0	-	-	-	NA												5	b
5625	Lait infantile avec probiotiques (Modilac)	Infant formula with probiotics (7.1 10 <sup>3</sup> CFU/g)	+p	+p	+p	+p	+	0/0/0	0/0/0	-/-/-	+	-	ND	33.74	65.95	+	0/0/0	0/0/0	-/-/-	+	+	-	PA	ND	5	b

**SPECIFIC INGREDIENTS AND FOODS**  
 (Extension study No 1)

Sample N°	Product (french name)	Product	Reference method : ISO 6579 *					Alternative method: GENE-UP Salmonella																		Category	Type
			RVS broth		MKTTn broth		ISO 6579 Result	BPW for 18h at 41.5°C					BPW for 18h at 41.5°C +72h at 2-8°C														
								PCR			Confirmation final result	Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate			
			Cp	Tm	Result	Cp	Tm	Result	Cp	Tm				Result													
XLD	ASAP	XLD	ASAP																								
5626	Lait infantile avec probiotiques (Gallia)	Infant formula with probiotics (5.9 10 <sup>3</sup> CFU/g)	+p	+p	+p	+p	+	25.54	66.08	+	+	+	PA	22.53	66.28	+	24.93	66.33	+	+	+	+	PA	PA	5	b	
5627	Lait infantile avec probiotiques (Guigoz)	Infant formula with probiotics (3.5 10 <sup>6</sup> CFU/g)	+p	+p	+p	+p	+	25.02	66.3	+	+	+	PA	21.46	66.38	+	24.69	66.49	+	+	+	+	PA	PA	5	b	
5628	Lait infantile avec probiotiques (Modilac)	Infant formula with probiotics (1.2 10 <sup>6</sup> CFU/g)	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	5	b	
4395	Poudre d'œuf entier	Whole egg powder	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	5	c	
4396	Poudre de blanc d'œuf	White egg powder	+p	+p	+p	+p	+	25.63	66.58	+	+	+	PA	24.73	66.1	+	24.89	66.04	+	+	+	+	PA	PA	5	c	
4397	Poudre de blanc d'œuf	White egg powder	+p	+p	+p	+p	+	34.59	66.05	+	+	+	PA	33.18	65.85	+	34.44	66	+	+	+	+	PA	PA	5	c	
4398	Poudre d'œuf entier	Whole egg powder	st	st	st	st	-	0	0	-	-	-	NA												5	c	
4399	Poudre d'œuf entier	Whole egg powder	st	st	st	st	-	23.8	66.39	+	+	+	PD	23.87	66.3	+	23.12	66.42	+	+	+	+	PD	PD	5	c	
4400	Poudre d'œuf pâtissier	Whole egg powder	+p	+p	+p	+p	+	24	66.08	+	+	+	PA	23.69	66.16	+	23.05	66.12	+	+	+	+	PA	PA	5	c	
4401	Poudre d'œuf pâtissier	Whole egg powder	+p	+p	+p	+p	+	0		-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	5	c	
4730	Jaune d'œuf pasteurisé	Pasteurized egg yolk	st	st	st	st	-	30.08	65.65	+	+	+	PD	30.43	65.72	+	30.76	65.84	+	+	+	+	PD	PD	5	c	
4731	Jaune d'œuf pasteurisé	Pasteurized egg yolk	+p	+p	+p	+p	+	29.88	65.56	+	+	+	PA	29.58	65.67	+	29.19	65.79	+	+	+	+	PA	PA	5	c	
4732	Œuf entier pasteurisé	Pasteurized whole egg	st	st	st	st	-	26.4	66.52	+	+	+	PD	24.93	66.17	+	24.5	66.25	+	+	+	+	PD	PD	5	c	
4733	Œuf entier pasteurisé	Pasteurized whole egg	+p	+p	+p	+p	+	23.29	66.45	+	+	+	PA	24.61	66.3	+	20.87	66.24	+	+	+	+	PA	PA	5	c	
4734	Blanc d'œuf pasteurisé	Pasteurized egg white	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	5	c	
5212	Poudre d'œuf entier	Whole egg powder	st	st	st	st	-	35.83	65.84	+	- (MSRV-)	-	PPNA	0	0	-	0	0	-	-	-	-	NA	NA	5	c	
5213	Poudre d'œuf entier	Whole egg powder	st	st	st	st	-	0	0	-	-	-	NA												5	c	
5214	Poudre de jaune d'œuf	Egg yolk powder	st	st	st	st	-	0	0	-	-	-	NA												5	c	
5215	Poudre de blanc d'œuf	White egg powder	st	st	st	st	-	0	0	-	-	-	NA												5	c	
5221	Jaune d'œuf pasteurisé	Pasteurized egg yolk	st	st	st	st	-	0	69.64	+	- (MSRV-)	-	PPNA	0	0	-	0	0	-	-	-	-	NA	NA	5	c	
5222	Œuf entier pasteurisé	Pasteurized whole egg	st	st	st	st	-	0	0	-	-	-	NA												5	c	
5223	Œuf entier pasteurisé	Pasteurized whole egg	st	st	st	st	-	0	0	-	-	-	NA												5	c	
5629	Jaune d'œuf pasteurisé sucré (50%)	Pasteurized sweet egg yolk egg (50%)	+p	+p	+p	+p	+	30.55	65.6	+	+	+	PA	27.77	65.74	+	29.17	65.85	+	+	+	+	PA	PA	5	c	
5630	Jaune d'œuf pasteurisé sale (10%)	Pasteurised salted egg yolk (10%)	+p	+p	+p	+p	+	28.88	66.6	+	+	+	PA	27.6	66.46	+	25.49	66.66	+	+	+	+	PA	PA	5	c	
5631	Jaune d'œuf pasteurisé sucré (50%)	Pasteurised sweet egg yolk egg (50%)	st	st	st	st	-	0	0	-	-	-	NA												5	c	
5632	Jaune d'œuf pasteurisé salé (10%)	Pasteurised salted egg yolk (10%)	st	st	st	st	-	0	0	-	-	-	NA												5	c	

RAW MEATS (except poultry) - 375 g sample size - 10 h incubation time  
(Extension study No 1)

Sample N°	Product (french name)	Product	Reference method: ISO 6579 *					GENE-UP Salmonella																		Category	Type
			RVS broth		MKTTn broth		ISO6579 Result	BPW for 10h at 41,5°C					BPW for 10h at 41,5°C + 72h at 2-8°C														
			Cp	Tm	Result	Confirmation final result		Final result 10h	Agreement 10h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate							
										Cp	Tm	Result	Cp	Tm	Result												
4357	Haché au bœuf	Ground beef	+M	+M	+M	+M	+	31.1	65.95	+	+	+	PA	30.79	66.27	+	30.6	66.07	+	+	+	+	PA	PA	9	a	
4358	Haché frais de bœuf	Ground beef	-	-	-	-	-	33.32	65.58	+	+	+	PD	32.84	65.99	+	33.12	65.87	+	+	+	+	PD	PD	9	a	
4359	Paleron	Beef trim	+1/2	+1/2	+m	+m	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	9	a	
4360	Côte d'agneau	Lamb trim	+M	+M	+M	+M	+	33.25	65.85	+	+	+	PA	33.96	66.13	+	32.88	65.87	+	+	+	+	PA	PA	9	a	
4361	Gigot d'agneau	Lamb trim	+M	+M	+M	+M	+	33.5	65.8	+	+	+	PA	34.34	66.14	+	33.28	65.94	+	+	+	+	PA	PA	9	a	
4362	Epaule d'agneau	Lamb trim	-	-	-	-	-	34.16	66	+	+	+	PD	34.12	66.23	+	33.68	66.09	+	+	+	+	PD	PD	9	a	
4363	Tendron de veau	Veal trim	-	-	-	-	-	0/0/35.16	0/0/66.09	-/+	+	-	NA	35.18	66.37	+	35.83	66.12	+	+	+	+	PD	PD	9	a	
4364	Sauté de veau	Veal trim	-	+m/	-	+m	+	0/35.92/0	0/65.98/0	-/+	+	-	ND	0/35.6/0	0/66.1/0	-/+	0/0/0	0/0/0	-/+	+	-	-	ND	ND	9	a	
4365	Escalope de veau	Veal trim	+m	+M	+m	+1/2	+	34.48	66.25	+	+	+	PA	0/0/34.87	0/0/66.19	-/+	35.33	65.99	+	+	-	+	ND	PA	9	a	
4366	Poitrine de porc	Pork trim	-	-	-	-	-	0/37.41/35.64	0/66.22/66.04	-/+	+	-	NA	0/0/0	0/0/0	-/+	37.73	66.09	+	+	-	+	NA	PD	9	a	
4367	Sauté de porc	Pork trim	+M	+p	+M	+M	+	32.89	65.56	+	+	+	PA	33.88	65.74	+	32.75	65.84	+	+	+	+	PA	PA	9	a	
4368	Rôti de porc	Pork trim	+M	+M	+M	+M	+	34.91	65.42	+	+	+	PA	37	65.91	+	34.5	65.9	+	+	+	+	PA	PA	9	a	
5304	Macreuse à braiser	Beef trim	-	-	-	-	-	0	0	-	-	-	NA												9	a	
5305	Haché pur bœuf	Ground beef	-	-	-	-	-	0	0	-	-	-	NA												9	a	
5306	Basse côte	Beef trim	-	-	-	-	-	0	0	-	-	-	NA												9	a	
5307	Sauté de porc	Pork trim	+1/2	+m	+M	+M	+	34.2	66.3	+	+	+	PA	34.18	66.14	+	0/33.85/33.25	0/66.13/66.06	-/+	+	+	-	PA	ND	9	a	
5308	Rouelle de porc	Pork trim	-	-	-	-	-	0	0	-	-	-	NA												9	a	
5309	Côte d'agneau	Lamb trim	-	-	-	-	-	0	0	-	-	-	NA												9	a	
5310	Epaule d'agneau	Lamb trim	-	-	-	-	-	0	0	-	-	-	NA												9	a	
5311	Sauté de veau	Veal trim	-	-	-	-	-	0	0	-	-	-	NA												9	a	
5854	Steak haché	Ground beef	-	-	-	-	-	0	0	-	-	-	NA												9	a	
4369	Steak haché surgelé	Frozen ground beef	+1/2	+M	+1/2	+M	+	34.37	66.42	+	+	+	PA	35.16	66.15	+	34.1	66.23	+	+	+	+	PA	PA	9	b	
4370	Haché pur bœuf surgelé	Frozen ground beef	+M	+p	+1/2	+M	+	35.15	66.06	+	+	+	PA	0/34.56/35.11	0/66.37/66.71	-/+	36.79	66.34	+	+	-	+	ND	PA	9	b	
4371	Effeillé de charolais surgelé	Frozen ground beef	+M	+p	+1/2	+M	+	0/35.66/0	0/66.22/0	-/+	+	-	ND	37.16	66.17	+	0/33.83/33.77	0/66.26/66.1	-/+	+	+	-	PA	ND	9	b	
4372	Délice de veau haché surgelé	Frozen ground veal	+M	+M	+M	+M	+	34.79	66.1	+	+	+	PA	35.22	66.06	+	34.63	66.13	+	+	+	+	PA	PA	9	b	
4373	Escalope de veau hachée et surgelée	Frozen ground veal	+M	+p	+M	+M	+	0/38.14/0	0/66.49/0	-/+	+	-	ND	0/0/0	0/0/0	-/+	34.7	66.13	+	+	-	+	ND	PA	9	b	
4374	Pavé de veau surgelé	Frozen Veal trim	-	-	-	-	-	32.85	66.21	+	+	+	PD	32.65	66.03	+	32.31	65.93	+	+	+	+	PD	PD	9	b	
4375	Sauté d'agneau surgelé	Frozen lamb trim	+M	+M	+M	+M	+	33.2	66.07	+	+	+	PA	32.79	65.77	+	31.83	65.86	+	+	+	+	PA	PA	9	b	
4376	Souris d'agneau surgelée	Frozen lamb trim	-	-	-	-	-	33.28	66.37	+	+	+	PD	32.86	66.02	+	32.71	66.15	+	+	+	+	PD	PD	9	b	
4377	Côte d'agneau surgelée	Frozen lamb trim	+M	+M	+1/2	+M	+	31.9	66.09	+	+	+	PA	30.69	65.93	+	31.73	66.11	+	+	+	+	PA	PA	9	b	
4378	Côte de porc surgelée	Frozen pork trim	+M	+M	+1/2	+M	+	32.63	65.88	+	+	+	PA	31.49	65.72	+	32.92	65.88	+	+	+	+	PA	PA	9	b	
4379	Côte de porc surgelée	Frozen pork trim	+M	+M	+M	+M	+	32.09	65.95	+	+	+	PA	30.68	65.66	+	32.09	66	+	+	+	+	PA	PA	9	b	
4380	Filet mignon de porc surgelé	Frozen pork trim	+1/2	+1/2	+M	+M	+	33.68	65.93	+	+	+	PA	33.24	65.81	+	33	66.02	+	+	+	+	PA	PA	9	b	

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

**RAW MEATS (except poultry) - 375 g sample size - 10 h incubation time**  
**(Extension study No 1)**

Sample N°	Product (french name)	Product	Reference method: ISO 6579 ♦					GENE-UP Salmonella																	Category	Type	
			RVS broth		MKTTn broth		ISO6579 Result	BPW for 10h at 41,5°C					BPW for 10h at 41,5°C + 72h at 2-8°C														
			Cp	Tm	Result	Confirmation final result		Final result 10h	Agreement 10h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate							
							Cp			Tm	Result	Cp	Tm	Result													
XLD	ASAP	XLD	ASAP																								
5312	Filet mignon de porc surgelé	Frozen pork trim	-	-	-	-	-	0	0	-	-	-	NA												9	b	
5313	Haché de veau surgelé	Frozen Veal trim	-	-	-	-	-	0	0	-	-	-	NA	0	0	-	0	0	-	-	-	-	-	NA	NA	9	b
5314	Haché de veau surgelé	Frozen Veal trim	-	-	-	-	-	0	0	-	-	-	NA												9	b	
5315	Haché pur bœuf surgelé	Frozen ground beef	-	-	-	-	-	0	0	-	-	-	NA												9	b	
5316	Steak haché surgelé	Frozen ground beef	-	-	-	-	-	0	0	-	-	-	NA												9	b	
5325	Bœuf haché surgelé	Frozen ground beef	-	-	-	-	-	0	0	-	-	-	NA												9	b	
5326	Côte de porc surgelée	Frozen pork trim	-	-	-	-	-	0	0	-	-	-	NA												9	b	
5327	Côte de porc surgelée	Frozen pork trim	-	-	-	-	-	0	0	-	-	-	NA												9	b	
5328	Sauté d'agneau surgelé	Frozen lamb trim	-	-	-	-	-	0	0	-	-	-	NA												9	b	
5329	Côte d'agneau surgelée	Frozen lamb trim	-	-	-	-	-	0	0	-	-	-	NA												9	b	
4402	Haché bolognaise	Seasoned ground beef	+M	+p	+M	+M	+	32.12	66.03	+	+	+	PA	31.84	65.91	+	30.94	64.86	+	+	+	+	PA	PA	9	c	
4403	Haché bolognaise	Seasoned ground beef	+M	+p	+M	+M	+	32.27	65.75	+	+	+	PA	32.27	65.72	+	31.84	65.82	+	+	+	+	PA	PA	9	c	
4404	Carpaccio au basilic	Seasoned beef trim	+p	+p	+p	+p	+	31.44	65.88	+	+	+	PA	29.77	65.88	+	30.17	65.86	+	+	+	+	PA	PA	9	c	
4405	Haché à la tomate	Seasoned ground beef	+M	+M	+M	+M	+	34.33	65.9	+	+	+	PA	34.52	65.84	+	33.97	65.77	+	+	+	+	PA	PA	9	c	
4406	Bifteck façon maître d'hôtel	Seasoned beef trim	+p	+p	+m	+1/2	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	9	c	
4407	Echine de porc au barecue	Seasoned pork trim	+M	+p	+1/2	+M	+	34.21	66.09	+	+	+	PA	33.58	65.98	+	33.95	65.8	+	+	+	+	PA	PA	9	c	
4408	Bœuf au piment d'espelette	Seasoned beef trim	+M	+M	+md/	+m/	+	34.63	65.85	+	+	+	PA	33.99	65.77	+	32.32	65.15	+	+	+	+	PA	PA	9	c	
4409	Porc à la provençale	Seasoned pork trim	+M	+M	+md/	-	+	33.76	66.03	+	+	+	PA	33.59	66.11	+	33.65	65.68	+	+	+	+	PA	PA	9	c	
4410	Porc à la provençale	Seasoned pork trim	-	-	-	-	-	33.2	66.08	+	+	+	PD	33.41	66.01	+	33.26	65.66	+	+	+	+	PD	PD	9	c	
4411	Poitrine de porc mexicaine	Seasoned pork trim	-	-	-	-	-	0	0	-	-	-	NA												9	c	
4412	Carpaccio au parmesan/huile d'olive	Seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA	34.62	65.6	+	0/0/0	0/0/0	-/-	+	+	-	PD	NA	9	c	
4413	Filet mignon d'agneau au beurre et fines herbes	Seasoned lamb trim	+p	+p	+M	+M	+	34.14	65.83	+	+	+	PA	33.68	65.84	+	33.62	66.06	+	+	+	+	PA	PA	9	c	
5317	Grillades de porc à la mexicaine	Seasoned pork trim	-	-	-	-	-	0	0	-	-	-	NA												9	c	
5318	Côte de porc à la provençale	Seasoned pork trim	-	-	-	-	-	0	0	-	-	-	NA												9	c	
5319	Côte de porc à la mexicaine	Seasoned pork trim	-	-	-	-	-	0	0	-	-	-	NA												9	c	
5320	Côte de porc au thym	Seasoned pork trim	-	-	-	-	-	0	0	-	-	-	NA												9	c	
5321	Carpaccio parmesan	Seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA												9	c	
5322	Carpaccio basilic	Seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA												9	c	
5323	Haché bolognaise	Seasoned ground beef	-	-	-	-	-	0	0	-	-	-	NA												9	c	
5324	Rumsteck aux poivres	Seasoned beef trim	-	-	-	-	-	0	0	-	-	-	NA												9	c	



RAW MEATS (except poultry) - 375 g sample size - 24 h incubation time (Extension study No 1)																						
Sample N°	Product	ISO 6579 method* Result	Alternative method: GENE-UP Salmonella																		Category	Type
			BPW for 24h at 41,5°C						BPW 24h 41,5°C +72h 2-8°C													
			PCR			Confirmation final result	Final result 24h	Agreement 24h	PCR- BPW 72h			PCR- Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 24h/72h BPW	Agreement 24h/72h Lysate			
			Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result								
4357	Ground beef	+	30.44	65.88	+	+	+	PA	31.99	65.59	+	30.19	65.67	+	+	+	+	PA	PA	9	a	
4358	Ground beef	-	31.82	65.8	+	+	+	PD	32.04	65.83	+	31.99	65.74	+	+	+	+	PD	PD	9	a	
4359	Beef trim	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	9	a	
4360	Lamb trim	+	31.49	65.67	+	+	+	PA	31.45	65.89	+	31	65.69	+	+	+	+	PA	PA	9	a	
4361	Lamb trim	+	32.75	65.6	+	+	+	PA	32.84	65.97	+	32.49	65.75	+	+	+	+	PA	PA	9	a	
4362	Lamb trim	-	32.54	65.6	+	+	+	PD	32.91	65.87	+	32.5	65.79	+	+	+	+	PD	PD	9	a	
4363	Veal trim	-	33.43	65.61	+	+	+	PD	33.63	66.08	+	32.88	65.75	+	+	+	+	PD	PD	9	a	
4364	Veal trim	+	34.87	65.89	+	+	+	PA	35.2	65.98	+	34.19	65.91	+	+	+	+	PA	PA	9	a	
4365	Veal trim	+	33.32	65.85	+	+	+	PA	34.83	65.87	+	33.43	66.02	+	+	+	+	PA	PA	9	a	
4366	Pork trim	-	33.44	65.69	+	+	+	PD	33.52	65.87	+	32.6	65.78	+	+	+	+	PD	PD	9	a	
4367	Pork trim	+	32.63	65.74	+	+	+	PA	33.49	65.84	+	32.15	65.96	+	+	+	+	PA	PA	9	a	
4368	Pork trim	+	32.98	65.6	+	+	+	PA	33.75	66.06	+	32.48	65.8	+	+	+	+	PA	PA	9	a	
5304	Beef trim	-	0	0	-	-	-	NA												9	a	
5305	Ground beef	-	0	0	-	-	-	NA												9	a	
5306	Beef trim	-	0	0	-	-	-	NA												9	a	
5307	Pork trim	+	34.82	66.14	+	+	+	PA	34.14	65.99	+	34.2	65.74	+	+	+	+	PA	PA	9	a	
5308	Pork trim	-	0	0	-	-	-	NA												9	a	
5309	Lamb trim	-	0	0	-	-	-	NA												9	a	
5310	Lamb trim	-	0	0	-	-	-	NA												9	a	
5311	Veal trim	-	0	0	-	-	-	NA												9	a	
5854	Ground beef	-	0	0	-	-	-	NA												9	a	
4369	Frozen ground beef	+	33.15	66.39	+	+	+	PA	33.09	66.25	+	33.05	66.21	+	+	+	+	PA	PA	9	b	
4370	Frozen ground beef	+	34.76	65.84	+	+	+	PA	0/32.82/33.02	0/65.91/65.89	-/+	33.13	65.91	+	+	-	+	ND	PA	9	b	
4371	Frozen ground beef	+	31.46	66.15	+	+	+	PA	30.95	66.01	+	31.19	66.01	+	+	+	+	PA	PA	9	b	
4372	Frozen ground veal	+	33.63	66.07	+	+	+	PA	32.65	66.01	+	33.24	66.05	+	+	+	+	PA	PA	9	b	
4373	Frozen ground veal	+	34.9	66.05	+	+	+	PA	33.68	66.03	+	34.13	66.08	+	+	+	+	PA	PA	9	b	
4374	Frozen Veal trim	-	32.62	66.09	+	+	+	PD	32.05	66.06	+	31.94	66.03	+	+	+	+	PD	PD	9	b	
4375	Frozen lamb trim	+	29.81	65.96	+	+	+	PA	29.32	65.94	+	29.25	65.91	+	+	+	+	PA	PA	9	b	
4376	Frozen lamb trim	-	32.47	66.12	+	+	+	PD	32.94	66.23	+	32.96	66.15	+	+	+	+	PD	PD	9	b	
4377	Frozen lamb trim	+	28.03	66.08	+	+	+	PA	27.55	65.97	+	27.56	66.16	+	+	+	+	PA	PA	9	b	
4378	Frozen pork trim	+	31.96	66.05	+	+	+	PA	30.08	65.82	+	30.82	65.99	+	+	+	+	PA	PA	9	b	
4379	Frozen pork trim	+	30.67	66.04	+	+	+	PA	27.76	65.94	+	30.12	66.06	+	+	+	+	PA	PA	9	b	
4380	Frozen pork trim	+	33.65	65.97	+	+	+	PA	32.66	65.82	+	33.04	66.08	+	+	+	+	PA	PA	9	b	
5312	Frozen pork trim	-	0	0	-	-	-	NA												9	b	
5313	Frozen Veal trim	-	35.9	65.3	+	+	+	PD	36.57	65.82	+	35.97	65.92	+	+	+	+	PD	PD	9	b	
5314	Frozen Veal trim	-	0	0	-	-	-	NA												9	b	
5315	Frozen ground beef	-	0	0	-	-	-	NA												9	b	
5316	Frozen ground beef	-	0	0	-	-	-	NA												9	b	
5325	Frozen ground beef	-	0	0	-	-	-	NA												9	b	
5326	Frozen pork trim	-	0	0	-	-	-	NA												9	b	
5327	Frozen pork trim	-	0	0	-	-	-	NA												9	b	
5328	Frozen lamb trim	-	0	0	-	-	-	NA												9	b	
5329	Frozen lamb trim	-	0	0	-	-	-	NA												9	b	

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

RAW MEATS (except poultry) - 375 g sample size - 24 h incubation time (Extension study No 1)																					
Sample N°	Product	ISO 6579 method* Result	Alternative method: GENE-UP Salmonella																	Category	Type
			BPW for 24h at 41,5°C						BPW 24h 41,5°C +72h 2-8°C												
			PCR			Confirmation final result	Final result 24h	Agreement 24h	PCR- BPW 72h			PCR- Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 24h/72h BPW	Agreement 24h/72h Lysate		
			Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result							
4402	Seasoned ground beef	+	29.92	66.05	+	+	+	PA	29.86	65.65	+	29.55	65.72	+	+	+	+	PA	PA	9	c
4403	Seasoned ground beef	+	32.21	65.88	+	+	+	PA	31.9	65.72	+	31.95	65.74	+	+	+	+	PA	PA	9	c
4404	Seasoned beef trim	+	26.55	66.52	+	+	+	PA	25.26	66.22	+	23.6	66.24	+	+	+	+	PA	PA	9	c
4405	Seasoned ground beef	+	37.2	66.02	+	+	+	PA	35.91	65.76	+	35.8	65.93	+	-(MSRV -)	-	-	PPND	PPND	9	c
4406	Seasoned beef trim	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	9	c
4407	Seasoned pork trim	+	30.98	65.92	+	+	+	PA	30.67	66.05	+	30.73	65.61	+	+	+	+	PA	PA	9	c
4408	Seasoned beef trim	+	30.97	65.83	+	+	+	PA	29.16	65.69	+	30.46	65.95	+	+	+	+	PA	PA	9	c
4409	Seasoned pork trim	+	32.47	66.06	+	+	+	PA	31.9	65.85	+	32.24	65.9	+	+	+	+	PA	PA	9	c
4410	Seasoned pork trim	-	33.17	65.97	+	+	+	PD	32.56	65.62	+	32.53	65.76	+	+	+	+	PD	PD	9	c
4411	Seasoned pork trim	-	0	0	-	-	-	NA												9	c
4412	Seasoned beef trim	-	34.8	65.9	+	+	+	PD	34.12	65.85	+	34.64	65.86	+	+	+	+	PD	PD	9	c
4413	Seasoned lamb trim	+	32.88	65.78	+	+	+	PA	33.46	65.76	+	32.93	65.78	+	+	+	+	PA	PA	9	c
5317	Seasoned pork trim	-	0	0	-	-	-	NA												9	c
5318	Seasoned pork trim	-	0	0	-	-	-	NA												9	c
5319	Seasoned pork trim	-	0	0	-	-	-	NA												9	c
5320	Seasoned pork trim	-	0	0	-	-	-	NA												9	c
5321	Seasoned beef trim	-	0/0/0*	0/0/0*	i/-/-*	-	-	NA												9	c
5322	Seasoned beef trim	-	0	0	-	-	-	NA												9	c
5323	Seasoned ground beef	-	0	0	-	-	-	NA												9	c
5324	Seasoned beef trim	-	0	0	-	-	-	NA												9	c

PRODUCTION ENVIRONMENTAL SAMPLES (Extension No 4)																											
Sample N°	Product (french name)	Product	ISO 6579 method*					Alternative method: GENE - UP <i>Salmonella</i>																	Category	Type	
			RVS broth		MKTTn broth		ISO6579 Result	BPW for 18h at 41,5°C						BPW for 18h at 41,5°C + 72h at 5°C ± 3°C													
			XLD	ASAP	XLD	ASAP		PCR			Confirmation final result	Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h				Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW			Agreement 72h Lysate
								Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result								
7349	Déchets (industrie porcine)	Residues (swine industry)	st	st	st	st	-	0	0	-	-	-	NA												7	a	
7572	Déchets (industrie végétaux)	Residues (vegetables industry)	+M	+M	+M	+p	+	25,86	66,36	+	+	+	PA	24,63	66,49	+	24,43	66,11	+	+	+	+	PA	PA	7	a	
7573	Déchets (industrie végétaux)	Residues (vegetables industry)	+M	+p	+M	+p	+	26,09	66,29	+	+	+	PA	25,42	66,57	+	24,68	66,5	+	+	+	+	PA	PA	7	a	
7578	Déchets (industrie poisson)	Residues (fish industry)	+M	+M	+M	+M	+	34,59	66,11	+	+	+	PA	34,77	64,26	+	34,12	66,28	+	+	+	+	PA	PA	7	a	
7579	Déchets (industrie poisson)	Residues (fish industry)	+p	+p	+p	+p	+	25,74	66,29	+	+	+	PA	24,53	66,14	+	24,52	66,11	+	+	+	+	PA	PA	7	a	
7580	Déchets (industrie poisson)	Residues (fish industry)	+p	+p	+M	+M	+	0/0/0	0/0/0	-/-	+	-	ND	35,73	66,2	+	0	0	-	+	+	+	PA	PA	7	a	
7581	Déchets (industrie poisson)	Residues (fish industry)	-	-	-	-	-	24,8	66,35	+	+	+	PD	23,28	66,61	+	22,71	66,22	+	+	+	+	PD	PD	7	a	
7667	Poussières industrie laitière	Dust from dairy industry	+p	+p	+p	+p	+	36,13	66,25	+	+	+	PA	34,86	65,48	+	36,58	65,45	+	+	+	+	PA	PA	7	a	
7669	Poussières industrie laitière	Dust from dairy industry	+p	+p	+p	+p	+	33,14	65,59	+	+	+	PA	32,55	65,39	+	33,77	64,86	+	+	+	+	PA	PA	7	a	
7670	Poussières industrie laitière	Dust from dairy industry	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	7	a	
7777	Déchets (Charcuterie)	Residues (delicatessen industry)	-	-	-	-	-	30,47	66,15	+	+	+	PD	31,02	66,06	+	30,44	65,91	+	+	+	+	PD	PD	7	a	
7963	Déchets (industrie végétaux)	Residues (vegetables industry)	-	-	-	-	-	0	0	-	-	-	NA												7	a	
7964	Déchets (Charcuterie)	Residues (delicatessen industry)	-	-	-	-	-	0	0	-	-	-	NA													7	a
7965	Déchets (Charcuterie)	Residues (delicatessen industry)	st	st	st	st	-	0	0	-	-	-	NA													7	a
7966	Déchets (Charcuterie)	Residues (delicatessen industry)	-	-	-	-	-	0	0	-	-	-	NA													7	a
7967	Déchets (viande de bœuf)	Residues (Beef meat)	-	-	-	-	-	0	0	-	-	-	NA													7	a
7968	Déchets (viande de bœuf)	Residues (Beef meat)	st	st	st	st	-	0	0	-	-	-	NA													7	a
7969	Déchets (poussières industrie laitières)	Residues (dusts from dairy industry)	st	st	st	st	-	0	0	-	-	-	NA													7	a
7970	Déchets (poussières industrie laitières)	Residues (dusts from dairy industry)	st	st	st	st	-	0	0	-	-	-	NA													7	a
7971	Déchets (poussières industrie laitières)	Residues (dusts from dairy industry)	st	st	st	st	-	0	0	-	-	-	NA													7	a
2404	Eau flageleuse	Porcine environment	+M	+M	+M	+M	+	28,66	67,47	+	+	+	PA	28,09	67,71	+	27,89	67,07	+	+	+	+	PA	PA	7	b	
2405	Eau épéuse	Porcine environment	-	-	+md/(E.coli)	+m/-	-	33,63	67,25	+	+	+	PD	33,01	67,48	+	33,66	67,41	+	+	+	+	PD	PD	7	b	
2406	Eau échaudage	Porcine environment	-	st	-	st	-	0	0	-	-	-	NA													7	b
2407	Eau rinçage carcasse avant flambage	Porcine environment	-	-	-	-	-	0	0	-	-	-	NA													7	b
2408	Eau flageleuse	Porcine environment	-	-	-	-	-	0	0	-	-	-	NA													7	b
2409	Eau pédiluve	Porcine environment	st	st	st	st	-	0	0	-	-	-	NA													7	b
7350	Eau de process (industrie porcine)	Process water (swine industry)	-	-	+m	+m/+	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	ND	ND	7	b	
7351	Eau de process (industrie porcine)	Process water (swine industry)	st	st	st	st	-	0	0	-	-	-	NA													7	b
7352	Eau de process (industrie porcine)	Process water (swine industry)	st	st	st	st	-	0	0	-	-	-	NA													7	b
7353	Eau de process (industrie porcine)	Process water (swine industry)	st	st	st	st	-	0	0	-	-	-	NA													7	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

PRODUCTION ENVIRONMENTAL SAMPLES (Extension No 4)																											
Sample N°	Product (french name)	Product	ISO 6579 method*					Alternative method: GENE - UP <i>Salmonella</i>																Category	Type		
			RVS broth		MKTTn broth		ISO6579 Result	BPW for 18h at 41,5°C						BPW for 18h at 41,5°C + 72h at 5°C ± 3°C													
			XLD	ASAP	XLD	ASAP		PCR			Confirmation final result	Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW			Agreement 72h Lysate	
								Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result								
7354	Eau de process (industrie porcine)	Process water (swine industry)	+M	+M	+M	+M	+	33,71	66,32	+	+	+	PA	33,49	65,6	+	32,71	66,31	+	+	+	+	+	PA	PA	7	b
7355	Eau de process (industrie porcine)	Process water (swine industry)	st	st	st	st	-	0	0	-	-	-	NA													7	b
7569	Eau de rinçage (industrie végétaux)	Cleaning water (vegetables industry)	+M	+p	+M	+M	+	27,53	66,27	+	+	+	PA	26,49	66,71	+	26,61	66,3	+	+	+	+	+	PA	PA	7	b
7570	Eau de rinçage (industrie végétaux)	Cleaning water (vegetables industry)	+p	+p	+p	+M	+	26,48	66,15	+	+	+	PA	24,35	66,32	+	25,15	66,14	+	+	+	+	+	PA	PA	7	b
7571	Eau de process (industrie porcine)	Process water (vegetables industry)	-	st	-	st	-	0	0	-	-	-	NA													7	b
7574	Eau de process (industrie poisson)	Process water (fish industry)	+p	+p	+p	+p	+	23,56	66,33	+	+	+	PA	22,69	66,45	+	22,64	66,56	+	+	+	+	+	PA	PA	7	b
7575	Eau de process (industrie poisson)	Process water (fish industry)	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	ND	ND	7	b
7576	Eau de process (industrie poisson)	Process water (fish industry)	+p	+p	+p	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	ND	ND	7	b
7577	Eau de process (industrie poisson)	Process water (fish industry)	+p	+M	+M	+M	+	26,68	66,29	+	+	+	PA	26,73	66,71	+	26,17	66,2	+	+	+	+	+	PA	PA	7	b
7671	Eau pasteurisateur (industrie ovoproduits)	Water from pasteurizer (ovoproduct industry)	st	st	st	st	-	0	0	-	-	-	NA													7	b
7672	Eau pasteurisateur (industrie ovoproduits)	Water from pasteurizer (ovoproduct industry)	st	st	st	st	-	0	0	-	-	-	NA													7	b
7773	Eau de rinçage (Charcuterie)	Cleaning water (delicatessen industry)	-	st	-	-	-	25,62	66,42	+	+	+	PD	24,79	66,7	+	25,74	66,21	+	+	+	+	+	PD	PD	7	b
2410	Lingette trocard	Porcine environment	st	st	st	st	-	0	0	-	-	-	NA													7	c
2411	Lingette podium rosette	Porcine environment	-	-	-	-	-	0	0	-	-	-	NA													7	c
2412	Lingette lanière frigo	Porcine environment	-	-	-	-	-	0	0	-	-	-	NA													7	c
2413	Lingette cisaille tête	Porcine environment	st	st	st	st	-	0	0	-	-	-	NA													7	c
2414	Lingette chariot têtes	Porcine environment	-	-	-	-	-	0	0	-	-	-	NA													7	c
2415	Lingette rebord podium abats	Porcine environment	-	-	-	-	-	0	0	-	-	-	NA													7	c
7356	Lingette (industrie porcine)	Wipe (swine industry)	st	st	st	st	-	0	0	-	-	-	NA													7	c
7357	Lingette (industrie porcine)	Wipe (swine industry)	-	-	-	-	-	0	0	-	-	-	NA													7	c
7358	Lingette (industrie porcine)	Wipe (swine industry)	-	-	-	-	-	0	0	-	-	-	NA													7	c
7360	Lingette (industrie porcine)	Wipe (swine industry)	-	-	-	-	-	0	0	-	-	-	NA													7	c
7361	Lingette (industrie porcine)	Wipe (swine industry)	-	-	-	-	-	0	0	-	-	-	NA													7	c
7362	Lingette (industrie porcine)	Wipe (swine industry)	-	-	-	-	-	0	0	-	-	-	NA													7	c
7363	Lingette (industrie porcine)	Wipe (swine industry)	-	-	-	-	-	0	0	-	-	-	NA													7	c
7364	Lingette (industrie porcine)	Wipe (swine industry)	+M	+M	+M	+M	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	ND	ND	7	c
7365	Lingette (industrie porcine)	Wipe (swine industry)	-	-	-	-	-	0	0	-	-	-	NA													7	c
7366	Lingette (industrie porcine)	Wipe (swine industry)	-	-	-	-	-	0	0	-	-	-	NA													7	c
7367	Lingette (industrie porcine)	Wipe (swine industry)	-	-	-	-	-	0	0	-	-	-	NA													7	c
7661	Lingette ustensiles (industrie végétaux)	Wipe (vegetables industry)	+p	+p	+p	+p	+	24,28	66,07	+	+	+	PA	23,8	66,15	+	22,78	66,53	+	+	+	+	+	PA	PA	7	c
7662	Lingette plats pesés (industrie végétaux)	Wipe (vegetables industry)	+p	+p	+M	+p	+	30,09	66,27	+	+	+	PA	29,69	65,9	+	29,78	65,86	+	+	+	+	+	PA	PA	7	c
7663	Lingette cutter (industrie végétaux)	Wipe (vegetables industry)	-	-	+M	+p	+	0	0	-	-	-	ND	0	0	-	0	0	-	-	-	-	-	ND	ND	7	c
7664	Lingette cutter (industrie végétaux)	Wipe (vegetables industry)	-	-	-	-	-	33,02	66,45	+	+	+	PD	32,42	66,52	+	34	66,22	+	+	+	+	+	PD	PD	7	c
7665	Lingette ustensiles (industrie laitière)	Wipe (dairy industry)	+p	+p	+p	+p	+	27,65	66,5	+	+	+	PA	26,24	66,24	+	27,6	65,98	+	+	+	+	+	PA	PA	7	c
7666	Lingette table (industrie laitière)	Wipe (dairy industry)	+p	+p	+p	+p	+	23,87	66,42	+	+	+	PA	23,06	66,37	+	23,51	66,1	+	+	+	+	+	PA	PA	7	c

PRODUCTION ENVIRONMENTAL SAMPLES (Extension No 4)																											
Sample N°	Product (french name)	Product	ISO 6579 method*					Alternative method: GENE - UP <i>Salmonella</i>																		Category	Type
			RVS broth		MKTTn broth		ISO6579 Result	BPW for 18h at 41,5°C						BPW for 18h at 41,5°C + 72h at 5°C ± 3°C													
			XLD	ASAP	XLD	ASAP		PCR			Confirmation final result	Final result 18h	Agreement 18h	PCR-BPW 72h			PCR-Lysate 72h			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate			
								Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result								
7786	Lingette (charcuterie)	Wipe (delicatessen industry)	+M	+p	+M	+p	+	24,64	66,41	+	+	+	PA	24,74	61,2	+	25,17	66,49	+	+	+	+	+	PA	PA	7	c
7787	Lingette (charcuterie)	Wipe (delicatessen industry)	-	-	-	-	-	0	0	-	-	-	NA													7	c
7788	Lingette après désinfection (charcuterie)	Wipe after cleaning (delicatessen industry)	+p	+p	+M	+p	+	21,82	66,43	+	+	+	PA	21,81	66,47	+	22,62	66,35	+	+	+	+	+	PA	PA	7	c
7789	Lingette après désinfection (charcuterie)	Wipe after cleaning (delicatessen industry)	+M	+p	+M	+p	+	29,6	65,75	+	+	+	PA	28,52	65,97	+	29,66	65,83	+	+	+	+	+	PA	PA	7	c

Confirmatory tests: detailed results - After incubation time

READY-TO-EAT AND READY-TO-REHEAT FOODS (initial validation)																															
Alternative method: GENE-UP Salmonella																															
BPW for 18h at 41.5°C																															
Sample N°	Product	ISO 6579 method*	PCR Result	Confirmation																								Confirmation final result	Final result 18h	Agreement 18h	Type
				Direct streaking												Subculture SX2															
				ChromID Salmonella				XLD				ASAP				6h at 41.5°C ± 1.0°C				24h at 41.5°C ± 1.0°C											
				Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif	After purif	Final result	Agreement	Typical colonies	Before purif	After purif	Final result	Agreement	Typical colonies	Before purif	After purif	Final result	Agreement	Typical colonies				
	Latex	Api			Latex	Api			Latex	Api	Agg			Latex	Api	Latex	Api		Latex	Api	Latex	Api		Latex	Api	Latex	Api				
7414	Mayonnaise	-	-	st			NA	st			NA	st							st			st									
7415	Strawberries pie	-	+	+p	+	+	PD	+p	+	+	PD	+p	+	+	+	+	+	+	PD	+p	+	+									
7416	Egg cream	+	-	st			ND	st			ND	st							st			st									
7417	Scallops terrine	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
7418	Salmon terrine	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
7419	Grated carrots	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
7420	Cucumber with cream	+	+	-			ND	+md/-			ND	-							ND	+md/-			+md/-								
7421	Tabbouleh	+	+	+1/2	+	+	PA	+M	+	+	PA	+1/2	+	+	+	+	+	+	PA	+M	+	+									
7422	Sandwich (chicken, vegetables)	+	+	+m	+	+	PA	+1/2	+	+	PA	+1/2	+	+	+	+	+	+	PA	+M	+	+									
7423	Pâté	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
68	Mayonnaise	-	-	st			NA	st			NA	st							st			st									
69	Pastry	+	+	+1/2	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	+	PA	+M	+	+									
70	Cooked ham	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
750	Ready to eat food	-	-	st			NA	st			NA	st							st			st									
751	Apple pie	-	-	st			NA	st			NA	st							st			st									
752	Pâté	-	-	st			NA	st			NA	st							st			st									
753	Ham	-	-	st			NA	-			NA	st							st			st									
784	Pastry	-	-	st			NA	st			NA	st							st			st									
935	Fruit salad	-	-	-			NA	-			NA	-							-			-									
941	Ready to eat food	-	-	st			NA	st			NA	st							st			st									
943	Grated carrots	-	-	st			NA	st			NA	st							st			st									
7232	Ready to reheat meal	-	-	-			NA	-			NA	-							-			-									
7498	Scallops	+	+	+m/+	+	+	PA	+m	+	+	PA	+p	+	+	+	+	+	+	PA	+m	+	+									
7499	Ready to reheat salmon	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
7500	Ready to reheat fish	+	+	+p	+	+	PA	+p	+	+	PA	+m	+	+	+	+	+	+	PA	+p	+	+									
7780	Ready to reheat beef meat	+	+	+M	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
7781	Ready to reheat beef meat	+	+	+M	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
7782	Couscous	+	+	+M	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
7783	Pizza	+	-	st			ND	st			ND	st							st			st									
7784	Quiche Lorraine	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
7785	Ready to reheat food	+	-/-	-			ND	-			ND	-							ND	-		+d/+	+	+	+m	+	+M	+	+		
735	Ready to reheat food	-	+	+p	+	+	PD	+p	+	+	PD	+p	+	+	+	+	+	+	PD	+p	+	+									
736	Ready to reheat food	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
938	Ready to reheat food	-	-	st			NA	st			NA	st							st			st									
939	Ready to reheat food	-	-	-			NA	-			NA	-							st			st									
940	Ready to reheat food	-	-	-			NA	-			NA	-							st			st									
942	Ready to reheat food	-	-	-			NA	-			NA	-							st			st									
944	Ready to reheat food	-	-	st			NA	st			NA	st							st			st									
945	Ready to reheat food	-	-	st			NA	st			NA	st							st			st									
946	Ready to reheat food	-	-	st			NA	st			NA	st							st			st									
947	Ready to reheat food	-	-	st			NA	st			NA	st							st			st									
948	Ready to reheat food	-	-	st			NA	st			NA	st							st			st									
7424	Smoked herrings	-	-	-			NA	-			NA	-							-			-									
7425	Smoked salmon	-	+	+M	+	+	PD	+M	+	+	PD	+M	+	+	+	+	+	+	PD	+M	+	+									
7428	Smoked duck meat	-	-	st			NA	st			NA	st							st			st									
7453	Smoked duck meat	+	+	+M	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
7454	Smoked duck meat	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									
7455	Smoked duck meat	-	+	+M	+	+	PD	+p	+	+	PD	+M	+	+	+	+	+	+	PD	+p	+	+									
7456	Smoked trout	-	+	+p	+	+	PD	+p	+	+	PD	+p	+	+	+	+	+	+	PD	+p	+	+									
7457	Smoked salmon	-	-	st			NA	st			NA	st							st			st									
71	Smoked trout	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p	+	+									

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

READY-TO-EAT AND READY-TO-REHEAT FOODS (initial validation)																															
Alternative method: GENE-UP Salmonella																															
BPW for 18h at 41.5°C																															
Sample N°	Product	ISO 6579 method* Result	Confirmation																									Final result 18h	Agreement 18h	Type	
			PCR	Direct streaking														Subculture SX2													
				6h at 41.5°C ± 1.0°C														24h at 41.5°C±1.0°C													
				ChromID Salmonella				XLD				ASAP						XLD		ASAP				XLD		ASAP					
Typical colonies	Before purif		Final result	Agreement	Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif		After purif		Final result	Agreement	Typical colonies	Before purif	Typical colonies	Before purif		After purif		Typical colonies	Before purif	Typical colonies	Before purif		After purif			
	Latex	Api				Api				Latex	Api	Latex	Api	Agg			Api		Latex	Api	Latex	Api	Api	Latex	Api	Latex	Api	Latex	Api		
72	Haddock	-	+	+p	+	+	+	PD	+p	+	+	PD	+p	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	c
73	Smoked herrings	+	-	-	-	-	-	ND	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	c
74	Smoked duck meat	-	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	c
75	Smoked duck meat	-	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	c
737	Ready to eat food	+	+	-	-	-	-	ND	+m/+	+	+	PA	+1/2	+w	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	c
738	Ready to eat food	+	+	+M	+	+	+	PA	+p	+	+	PA	+p	+w	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	c
739	Ready to eat food	+	+	+M	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	c
754	Ready to eat food	-	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	c
755	Ready to eat food	-	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	c
756	Ready to eat food	-	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	c
936	Ready to eat food	-	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	c
937	Ready to eat food	-	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	c

MEAT PRODUCTS (Initial validation)																															
Alternative method: GENE-UP Salmonella BPW for 18h at 41.5°C																															
Sample N°	Product	ISO 6579 method ♦ Result	Confirmation																										Final result 18h	Agreement 18h	Type
			PCR Result	Direct streaking												Subculture SX2												Confirmation final result			
				ChromID Salmonella				XLD				ASAP				6h at 41.5°C ± 1.0°C				24h at 41.5°C ± 1.0°C											
				Typical colonies	Before purif		Final result	Agreement	Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif	After purif		Final result	Agreement	Typical colonies	Before purif	After purif		Typical colonies	Before purif	After purif		Typical colonies				
	Latex	Api				Api				Latex	Api	Agg				Latex	Api	Latex	Api		Latex	Api	Latex	Api	Latex	Api					
7227	Raw pork meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	a
7228	Raw pork meat	+	+	-	-	-	ND	+1/2d	Proteus	-	ND	+md/+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	a
7229	Raw pork meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	a
7230	Raw pork meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	a
7231	Raw pork meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	a
7233	Raw pork meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	a
7318	Ground veal	+	+	+m	+	+	+	PA	+1/2	+	+	PA	+M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	a
7319	Raw veal meat	-	+	+m	+	+	+	PD	+M	+	+	PD	+M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PD	a
7320	Raw veal meat	+	+	+M	+	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	a
7321	Raw lamb meat	+	+	+1/2	+	+	+	PA	+M	+	+	PA	+p	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	a
7322	Raw lamb meat	+	+	+M	+	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	a
7323	Raw lamb meat	+	-	-	-	-	ND	-	-	ND	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	a
7324	Ground beef	+	-	-	-	-	ND	-	-	ND	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	a
7325	Ground beef	+	+	-	-	-	ND	-	-	ND	+1/2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	a
7326	Beef trim	+	+	+m	+	+	+	PA	+1/2	+	+	PA	+1/2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	a
7708	Raw beef meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	a
7709	Ground beef	+	+	+(1)	+	+	+	PA	+m	+	+	PA	+m/+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	a
7710	Raw lamb meat	-	+	+m	+	+	+	PD	+1/2	+	+	PD	+1/2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PD	a
7711	Frozen raw lamb meat	-	+	-	-	-	NA	+m/+	+	+	PD	+m/+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PD	a
7712	Raw pork meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	a
7212	Raw ground poultry meat	-	+	+m	+	+	+	PD	+m	+	+	PD	+M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PD	b
7213	Raw duck meat	+	+	-	-	-	ND	-	-	ND	+md	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	b
7214	Raw hen leg	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
7215	Chicken wings	-	-	-	-	-	NA	+md	Proteus	-	NA	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
7216	Raw turkey meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
7217	Raw turkey meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
7218	Raw turkey meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
7219	Deboned chicken leg	+	+	+(1)	+	+	+	PA	+(2)	+	+	PA	+m	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	b
7220	Raw duck neck meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
7221	Raw duck neck meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
154	Ground duck meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
155	Poultry meat	+	+	-	-	-	ND	+(2)	-(E.coli)	-	ND	+(1)/+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	b
156	Ground chicken meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
157	Poultry meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
158	Ground duck neck meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
159	Guinea pool meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
160	Chicken meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
161	Chicken wings	-	-	-	-	-	NA	+d(3)	-(Proteus mirabilis)	-	NA	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
740	Duck	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
741	Poultry meat	+	+	-	-	-	ND	-	-	ND	+md	+	+	-	+	PA	+1/2	+	+	+	+	+	+	+	+	+	+	+	+	PA	b
742	Poultry meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
743	Poultry meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
744	Poultry meat	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
745	Poultry meat	+	-	-	-	-	ND	1+d/+d	-(Proteus penneri)	-	ND	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	b
949	Poultry meat	+	+	-	-	-	ND	+md/+d	-	-	ND	+md/+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	b
950	Ground poultry meat	-	+	-	-	+	PD	-	-	NA	-	-	-	-	NA	+m	+	+	+	+	+	+	+	+	+	+	+	+	+	PD	b
2077	Carcass rinse	-	-	-	-	-	NA	+md/-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
2078	Carcass rinse	-	-	-	-	-	NA	+md/-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	b
7427	Bacon	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	c
7713	Coppa	-	-	-	-	-	NA	-	-	NA	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	c

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MEAT PRODUCTS (Initial validation)																																		
Alternative method: GENE-UP Salmonella BPW for 18h at 41.5°C																																		
Sample N°	Product	ISO 6579 method ♦ Result	Confirmation																															
			PCR Result	Direct streaking														Subculture SX2										Confirmation final result	Final result 18h	Agreement 18h	Type			
				ChromID Salmonella				XLD				ASAP						6h at 41.5°C ± 1.0°C		24h at 41.5°C ± 1.0°C														
				Typical colonies	Before purif		Final result	Agreement	Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif		After purif		Final result	Agreement	Typical colonies	Before purif	6h at 41.5°C ± 1.0°C		24h at 41.5°C ± 1.0°C		XLD						ASAP		
	Latex	Api				Api				Latex	Api	Latex	Api	Agg				Api	Latex	Api	Latex	Api	Latex	Api	Latex	Api	Latex	Api						
7714	Merguez	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	c
7715	Sausages	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	c
7716	Sausages	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	c
7717	Sausages	+	-/-	-	-	-	ND	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	c
7718	Sausages	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	c
7719	Sausages	+	-	-	-	-	ND	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	c
7720	Sausages	-	-	-	-	-	NA	+d(1)/+	-(Proteus mirabilis)	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	+md/+	-(Proteus mirabilis)	-	-	-	-	-	-	NA	c
7721	Sausages	+	-	-	-	-	ND	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	c
78	Low moisture ham	+	-	-	-	-	ND	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	c
79	Low moisture ham	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	c
81	Bacon	+	+	+M	+	+	PA	+M	+	+	PA	+M	+	+	+	+	PA	+M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	c
83	Salami	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	c
85	Low moisture sausage	+	-	-	-	-	ND	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	c
746	Sausages	+	+	-	-	-	ND	+md/+	+	+	PA	+m/+	+	+	+	+	PA	+1/2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PA	c
747	Sausages	+	-/-	-	-	-	ND	-	-	-	ND	-	-	-	-	-	ND	+1/2	+	+1/2	+	+	+	+	+	+	+	+	+	+	+	+	ND	c
748	Sausages	-	-/-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	c
749	Sausages	-	+	+m/+	+	+	PD	+m	+	+	PD	+1/2/+	+	+	+	+	PD	+M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	PD	c
1665	Bacon	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	c









**MILK AND DAIRY PRODUCTS**  
(Extension study No 1)

Alternative method: GENE-UP Salmonella																																							
BPW for 18h at 41.5°C																																							
Sample N°	Product	ISO 6579 method + Result	PCR Result	Confirmation																								Confirmation final result	Final result 18h	Agreement 18h	Category	Type							
				Direct streaking												subculture SX2																							
				ChromID Salmonella				XLD				ASAP				6h at 41,5°C±1,0°C				24h at 41,5°C±1,0°C																			
				Typical colonies	Before purif		Final result	Agreement	Typical colonies	Before purif		Final result	Agreement	Typical colonies	Before purif		After purif		Final result	Agreement	Typical colonies	Before purif		After purif		Typical colonies	Before purif						After purif						
Latex	Api	Latex	Api		Latex	Api				Latex	Api				Latex	Api	Latex	Api				Latex	Api	Latex	Api														
322	Ice cream	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a						
323	Ice cream	+	-	st	-	-	ND	st	-	-	ND	st	-	-	-	-	ND	st	st	-	-	-	-	-	-	-	-	-	-	-	ND	3	a						
324	Ice cream	-	+	+m	+	+	PD	+m	+	+	PD	+1/2	+	+	+	+	PD	+M	+p	+	-	-	-	-	-	-	-	-	-	+	+	PD	3	a					
325	Ice cream	-	-	st	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	st	st	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a					
326	Ice cream	-	-	st	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	st	st	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a					
927	Pasteurized cow milk cheese	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a					
928	Pasteurized cow milk cheese	+	+	+1/2	+	+	PA	+M	+	+	PA	+1/2	+	+	+	+	PA	+p	+M	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	a				
929	Pasteurized goat milk cheese	+	+	+md	+	+	PA	+md/+	+	+	PA	+md/+	+	+	+	+	PA	+M	+M	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	a				
930	Pasteurized milk	+	-	st	-	-	ND	st	-	-	ND	st	-	-	-	-	ND	st	st	-	-	-	-	-	-	-	-	-	-	-	-	ND	3	a					
931	Fermented milk	-	-	st	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	st	st	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a				
932	Fermented milk	-	-	st	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	st	st	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a			
933	Dairy dessert	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	+p	+p	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	a				
934	Chantilly	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	+p	+p	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	a				
1666	Pasteurized goat milk cheese	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a			
1667	Pasteurized cow milk cheese	-	-	-	-	-	NA	-	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a		
1668	Pasteurized cow milk cheese	-	-	st	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	st	st	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a		
1669	Pasteurized goat milk cheese	-	-	st	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	st	st	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a		
1670	Fermented milk	-	-	st	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	st	st	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a		
1671	Fermented milk	-	-	st	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	st	st	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a	
1672	Fermented milk	-	-	st	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	st	st	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	a	
5615	Pasteurized milk cheese	+	+	+m/+	+	+	PA	+m/+	+	+	PA	+m/+	+	+	+	+	PA	+m/+	+m/+	-	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	a			
5616	Pasteurized milk cheese	+	+	+m/+	+	+	PA	+m(1)	+	+	PA	+m/+	+	+	+	+	PA	+m	+1/2	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	a		
5617	Pasteurized milk cheese	+	+	-	-	-	PPND	-	-	-	PPND	+m/+	+	+	+	+	PA	+m	+M	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	a		
5618	Pasteurized milk cheese	+	+	-	-	-	PPND	+md/+	+	+	PA	+m/+	+	+	+	+	PA	+m	+m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	a	
5619	Pasteurized milk cheese	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	+p	+p	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	a		
327	Milk powder	-	+	+p	+	+	PD	+p	+	+	PD	+p	+	+	+	+	PD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	PD	3	b		
328	Milk powder	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	b	
329	Milk powder	+	-	st	-	-	ND	st	-	-	ND	st	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	3	b		
330	Milk powder	+	-	st	-	-	ND	st	-	-	ND	st	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	3	b		
331	Milk powder	+	+	+M	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	b		
332	Milk powder	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	b	
1673	Milk powder	-	-	-	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	b	
1674	Milk powder	-	-	-	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	b
2084	Milk powder	-	-	-	-	-	NA	st	-	-	NA	-	-	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	b
4264	Skimmed milk powder	-	-	st	-	-	NA	st	-	-	NA	st	-	-	-	-	NA	st	st	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	3	b
4689	Skimmed milk powder	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	+p	+p	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	PA	3	b	

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

MILK AND DAIRY PRODUCTS  
(Extension study No 1)

Alternative method: GENE-UP Salmonella																																						
BPW for 18h at 41.5°C																																						
Sample N°	Product	ISO 6579 method + Result	PCR Result	Confirmation																								Confirmation final result	Final result 18h	Agreement 18h	Category	Type						
				Direct streaking												subculture SX2																						
				ChromID Salmonella						XLD			ASAP			6h at 41,5°C±1,0°C						24h at 41,5°C±1,0°C																
				Typical colonies	Before purif		Final result	Agreement	Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif	After purif			Final result	Agreement	Typical colonies	Before purif	After purif		Typical colonies	Before purif	After purif												
Latex	Api	Latex	Api		Agg	Latex									Api	Latex	Api					Latex	Api															
4690	Skimmed milk powder	+	-	st			-	ND	st			-	ND	st						-	ND																	
4691	Skimmed milk powder	+	+	+p	+	+	+	PA	+p	+	+	PA	+M	+	+	+	+	+	+	PA	+p																	
4692	Skimmed milk powder	+	-	st			-	ND	st			-	ND	st						-	ND																	
4693	Skimmed milk powder	-	-	st			-	NA	st			-	NA	st						-	NA																	
5216	Skimmed milk powder	-	-	st			-	NA	st			-	NA	st						-	NA																	
5217	Semi-skimmed milk powder	-	-	st			-	NA	st			-	NA	st						-	NA																	
5218	Skimmed milk powder	-	-	st			-	NA	st			-	NA	st						-	NA																	
5219	Milk powder	-	-	st			-	NA	st			-	NA	st						-	NA																	
5220	Semi-skimmed milk powder	-	-	st			-	NA	st			-	NA	st						-	NA																	
333	Maltodextrin	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA																		
334	Maltodextrin	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA																		
335	Lactoserum	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA																		
336	Lactoserum	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA																		
337	Lactoserum	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA																		
338	Lactoserum	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA																		
339	Caseinate	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA																		
340	Caseinate	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA																		
341	Caseinate	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA																		
1675	Lactoserum	-	-	st			-	NA	st			-	NA	st						-	NA																	
1676	Caseinate	-	-	st			-	NA	st			-	NA	st						-	NA																	
1677	Maltodextrin	-	-	st			-	NA	st			-	NA	st						-	NA																	
2083	Caseinate	-	-	-			-	NA	-			-	NA	-						-	NA																	
4261	Caseinate	-	-	st			-	NA	st			-	NA	st						-	NA	st																
4262	Caseinate	-	-	-			-	NA	st			-	NA	st						-	NA	st	st															
4263	Maltodextrin	-	-	st			-	NA	st			-	NA	st						-	NA	st	st															
4687	Milk proteins	-	+	+p	+	+	+	PD	+p	+	+	PD	+p	+	+	+	+	+	+	PD	+p(2)																	
4987	Maltodextrin	-	-	st			-	NA	st			-	NA	st						-	NA																	
4988	Milk proteins	-	-	st			-	NA	st			-	NA	st						-	NA																	
4989	Caseinate	-	-	st			-	NA	st			-	NA	st						-	NA																	
4990	Lactoserum	-	-	st			-	NA	st			-	NA	st						-	NA																	

VEGETABLES, FRUITS AND SEAFOOD  
(Extension study No 1)

Alternative method: GENE-UP Salmonella																																	
BPW for 18h at 41.5°C																																	
Sample N°	Product	ISO 6579 method * Result	PCR Result	Confirmation																								Confirmation final result	Final result 18h	Agreement 18h	Category	Type	
				Direct streaking												subculture SX2																	
				ChromID Salmonella						XLD			ASAP			6h at 41,5°C±1,0°C			24h at 41,5°C±1,0°C														
				Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif	After purif	Final result	Agreement	Typical colonies	Before purif	Typical colonies	Before purif	After purif	Typical colonies	Before purif	Typical colonies	Before purif	After purif	Typical colonies						Before purif
	Latex	Api			Api			Latex	Api	Agg			Typical colonies	Before purif	Latex	Api	Latex	Api	Typical colonies	Before purif	Latex	Api	Latex	Api									
1925	Seafood	-	-	-		-	NA	-		-	NA	-							-	NA	-							-	-	NA	4	a	
1935	Salmon terrine	-	-	st		-	NA	st		-	NA	st							-	NA	st							-	-	NA	4	a	
2068	Frozen fish fillet	-	-	st		-	NA	st		-	NA	st							-	NA								-	-	NA	4	a	
2069	Frozen fish fillet	-	-	-		-	NA	-		-	NA	-							-	NA								-	-	NA	4	a	
2070	Frozen fish fillet	-	-	-		-	NA	-		-	NA	-							-	NA								-	-	NA	4	a	
2071	Surimi	-	-	st		-	NA	st		-	NA	st							-	NA								-	-	NA	4	a	
2072	Surimi	-	-	st		-	NA	st		-	NA	st							-	NA								-	-	NA	4	a	
2073	Shrimp	-	-	-		-	NA	-		-	NA	st							-	NA								-	-	NA	4	a	
2074	Shrimp	-	-	-		-	NA	-		-	NA	-							-	NA								-	-	NA	4	a	
2075	Seafood	-	-	-		-	NA	-		-	NA	-							-	NA								-	-	NA	4	a	
2076	Seafood terrine	-	-	st		-	NA	st		-	NA	st							-	NA								-	-	NA	4	a	
2970	Seafood terrine	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p		+p						+	+	PA	4	a	
2971	Seafood terrine	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p		+p						+	+	PA	4	a	
2972	Flaked crab	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p		+p						+	+	PA	4	a	
2973	Flaked crab	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p		+p						+	+	PA	4	a	
2974	Fish fillet	+	+	+m	+	+	PA	+m	+	+	PA	+1/2	+	+	+	+	+	+	PA	+p		+p						+	+	PA	4	a	
2975	Fish fillet	+	+	+1/2	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	+	PA	+M		+p						+	+	PA	4	a	
2976	Surimi	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	+	PA	+p		+p						+	+	PA	4	a	
4239	Fish fillet	+	+	+m	+	+	PA	+m	+	+	PA	+m	+	+	+	+	+	+	PA	+M		+M						+	+	PA	4	a	
4240	Fish fillet	+	+	+1/2	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	+	PA	+M		+p						+	+	PA	4	a	
4241	Fish fillet	+	+	+M	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	+	PA	+M		+M						+	+	PA	4	a	
4242	Fish fillet	-	+	(+1)	+	+	PD	+1/2	+	+	PD	+1/2	+	+	+	+	+	+	PD	+M		+M						+	+	PD	4	a	
4243	Fish fillet	+	+	+1/2	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	+	PA	+M		+p						+	+	PA	4	a	
7595	Sprouts	-	-	-		-	NA	-		-	NA	+md/-							-	NA	-							-	-	NA	4	b	
7598	Parsley	-	-	-		-	NA	-		-	NA	-							-	NA	-							-	-	NA	4	b	
7599	Chives	-	-	-		-	NA	-		-	NA	-							-	NA	-							-	-	NA	4	b	
7600	Chives	-	-	-		-	NA	-		-	NA	-							-	NA	-							-	-	NA	4	b	
7601	Baby leaves	-	-	-		-	NA	+md/-		-	NA	+md/-							-	NA	-							-	-	NA	4	b	
245	Sprouts	-	-	+1/2+	+w	(-Acine tobacter baumannii)	-	NA	+d/-		-	NA	+d/-						-	NA	+/-							-	-	NA	4	b	
1922	Baby leaves	-	-	-		-	NA	-		-	NA	-							-	NA	-							-	-	NA	4	b	
2062	Sprouts	-	-	-		-	NA	+md/-		-	NA	-							-	NA	-							-	-	NA	4	b	
2063	Sprouts	-	-	-		-	NA	+md/-		-	NA	-							-	NA	-							-	-	NA	4	b	
2066	Baby leaves	-	-	-		-	NA	-		-	NA	-							-	NA	-							-	-	NA	4	b	
2067	Baby leaves	-	-	-		-	NA	-		-	NA	-							-	NA	-							-	-	NA	4	b	
2977	Sprouts	-	+	+m	-(auto)	(Shigella/ Acineto-bacter)	-	PPNA	+m	-(Citro-bacter)	-	PPNA	+md/-						-	PPNA	+md/-							+	+	PD	4	b	
2978	Sprouts	+	-	+m	-(auto)	(Shigella/ Acineto-bacter)	-	ND	+1/2/-		-	ND	+md/-						-	ND	+md/-							-	-	ND	4	b	
2979	Sprouts	+	+	+m	-(auto)	(Shigella/	-	PPND	+m/-		-	PPND	+md/+	+	+	+	+	+	+	PA	+m/+	+	+m						+	+	PA	4	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))



VEGETABLES, FRUITS AND SEAFOOD  
(Extension study No 1)

Alternative method: GENE-UP Salmonella																																											
BPW for 18h at 41.5°C																																											
Sample N°	Product	ISO 6579 method + Result	PCR Result	Confirmation																								Confirmation final result	Final result 18h	Agreement 18h	Category	Tye											
				Direct streaking												subculture SX2																											
				ChromID Salmonella						XLD			ASAP			6h at 41,5°C±1,0°C						24h at 41,5°C±1,0°C																					
				Typical colonies	Before purif		Final result	Agreement	Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif	After purif	Final result	Agreement	Typical colonies	Before purif	Typical colonies	Before purif		After purif		Typical colonies	Before purif	Typical colonies						Before purif		After purif								
	Latex	Api				Api			Latex	Api	Agg			Latex	Api	Latex	Api	Latex	Api	Latex	Api	Latex	Api	Latex	Api	Latex	Api																
2980	Sprouts	+	+	+m	-(auto)	(Shigella/ Acinetobacter)	-	PPND	+m/-				PPND	+md/+d	+	(V. fuvialis)	+	-	/	-	PPND	+md/-		+md/+	+	+		+1/2	+	+m				+	+	PA	4	b					
2981	Baby leaves	+	+	+m	-(auto)	(Shigella/ Acinetobacter)	-	PPND	+m/-				PPND	+md/+	+	+	+	+	+	+	PA	+m		+m			+1/2	+	+m	+	+				+	+	PA	4	b				
2982	Baby leaves	+	+	+m	+	+	+	PA	+M	+	+	+	PA	+1/2	+	+	+	+	+	+	PA	+M		+M											+	+	PA	4	b				
2983	Baby leaves	+	+	+m	+	+	+	PA	+m/-				PPND	+m	+	+	+	+	+	+	PA	+m		+m											+	+	PA	4	b				
2985	Baby leaves	+	+	+M	+	+	+	PA	+M	+	+	+	PA	+M	+	+	+	+	+	+	PA	+M		+M											+	+	PA	4	b				
4244	Baby leaves	-	-	-				NA	-				NA	-							NA	-		-											-	-	NA	4	b				
4245	Baby leaves	-	-	-				NA	+m	+	-		NA	-							NA	+1/2	+	-		+m	+	-							+	-	NA	4	b				
4246	Sprouts	-	-	-				NA	+1/2d/-				NA	-							NA	+1/2d/-		st		+md/-		-								-	-	NA	4	b			
4247	Sprouts	+	-	-				ND	+md/-				ND	-							ND	-			+md/+	+	+md	+						+	-	ND	4	b					
7222	Sliced zucchini	-	-	+md/-				NA	-				NA	-							NA			-												-	-	NA	4	c			
7223	Zucchini	-	-	+md/-				NA	-				NA	+md/-							NA			+md/-													-	-	NA	4	c		
7224	Vegetables mix	-	-	-				NA	-				NA	-							NA			-													-	-	NA	4	c		
7226	Cooked vegetables	-	-	-				NA	-				NA	+md/-							NA			-													-	-	NA	4	c		
1919	Mâche	-	-	st				NA	st				NA	st							NA	st		st		st		st									-	-	NA	4	c		
1921	Cress	-	-	+m/+				NA	-				NA	+M/+	-	-	-	-	-	-	NA	+md	-	+md/-													-	-	NA	4	c		
2060	Sucrine	-	-	st				NA	st				NA	st							NA	st		st		st		st									-	-	NA	4	c		
2061	Grated carrots	-	-	-				NA	-				NA	-							NA			-														-	-	NA	4	c	
2064	Frozen fruit mix	-	-	-				NA	st				NA	st							NA			-														-	-	NA	4	c	
2065	Frozen strawberry	-	-	-				NA	-				NA	-							NA			st		st		st											-	-	NA	4	c
2085	Frozen carrots	-	-	-				NA	st				NA	st							NA			st		st		st											-	-	NA	4	c
2086	Frozen mixed vegetables	-	-	-				NA	-				NA	st							NA			st		st		st											-	-	NA	4	c
2344	Grated carrots	-	-	-				NA	-				NA	-							NA	-		-															-	-	NA	4	c
2986	White cabbage/ carrot/celery	+	+	+M	+	+	+	PA	+M	+	+	+	PA	+M	+	+	+	+	+	+	PA	+M		+M													+	+	PA	4	c		
2987	Red cabbage	+	+	+m	+	+	+	PA	+m	+	+	+	PA	+m	+	+	+	+	+	+	PA	+M		+M													+	+	PA	4	c		
2988	Grated carrots	+	+	+1/2	+	+	+	PA	+1/2	+	+	+	PA	+m	+	+	+	+	+	+	PA	+M		+M													+	+	PA	4	c		
2989	Mixed salad	+	+	+1/2	+	+	+	PA	+M	+	+	+	PA	+m	+	+	+	+	+	+	PA	+M		+M													+	+	PA	4	c		
2990	Mixed salad	+	+	+M	+	+	+	PA	+M	+	+	+	PA	+M	+	+	+	+	+	+	PA	+M		+M													+	+	PA	4	c		
2991	Sucrine	+	+	+p	+	+	+	PA	+p	+	+	+	PA	+p	+	+	+	+	+	+	PA	+p		+p													+	+	PA	4	c		
2992	White cabbage/carrot/salad/red bell pepper	+	+	+M	+	+	+	PA	+M	+	+	+	PA	+M	+	+	+	+	+	+	PA	+p		+p													+	+	PA	4	c		
2993	Pre-cooked carrots	+	+	+M	+	+	+	PA	+M	+	+	+	PA	+M	+	+	+	+	+	+	PA	+M		+M													+	+	PA	4	c		
2994	Pre-cooked potatoes	+	+	+pd	+	+	+	PA	+Md	+	+	+	PA	+md/+	+	+	+	+	+	+	PA	+Md		+1/2d/+			+Md		+p								+	+	PA	4	c		
2995	Chinese cabbage/ salad/ tomatoes/ corn/ zucchini/ radish/ parsley	+	+	-				PPND	+md/-				PPND	-							PPND	-		-												+	+	PA	4	c			

**SPECIFIC INGREDIENTS AND FOODS**  
(Extension study No 1)

Alternative method: GENE-UP Salmonella

BPW for 18h at 41.5°C

Confirmation

Direct streaking

subculture SX2

6h at 41,5°C±1,0°C

24h at 41,5°C±1,0°C

Confirmation final result

Final result 18h

Agreement 18h

Category

Type

Sample N°	Product	ISO 6579 method* Result	PCR Result	Confirmation																								Confirmation final result	Final result 18h	Agreement 18h	Category	Type								
				ChromID Salmonella												XLD						ASAP											XLD			ASAP				
				Typical colonies		Before purif		Final result	Agreement	Typical colonies		Before purif	Final result	Agreement	Typical colonies		Before purif	After purif		Final result	Agreement	Typical colonies		Before purif	After purif		Typical colonies						Before purif	After purif						
				Latex	Api	Latex	Api			Latex	Api				Latex	Api		Latex	Api			Latex	Api		Latex	Api								Latex	Api	Latex	Api			
3071	Dried basil	-	i/i**/ -_***	st		-	NA	st		-	NA	st					-	NA	st		st							-	-	NA	5	a								
3072	Dried herbs	-	i/i**/ -_***	st		-	NA	st		-	NA	st					-	NA	st		st							-	-	NA	5	a								
3073	Paprika	+	-	-		-	ND	-		-	ND	-					-	ND	-		-							-	-	ND	5	a								
3074	Turmeric	+	-	-		-	ND	-		-	ND	-					-	ND	-		-							-	-	ND	5	a								
3075	Curry	-	-	-		-	NA	-		-	NA	-					-	NA	-		-							-	-	NA	5	a								
3076	Dried thyme	+	i/i*/+**	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	+p	+	+							+	+	PA	5	a								
4265	Cocoa powder	-	i/i*/-**	st		-	NA	st		-	NA	-					-	NA	st		st							-	-	NA	5	a								
4266	Cocoa powder	-	i/i*/-**	st		-	NA	st		-	NA	-					-	NA	st		st							-	-	NA	5	a								
4267	Cocoa powder	+	i/i*/+**	+1/2d	+	+	+	PA	+p	+	+	PA	+1/2	+	+	+	+	PA	+p	+	+							+	+	PA	5	a								
4268	Milk chocolate tablet	-	-	st		-	NA	st		-	NA	st					-	NA	st		st							-	-	NA	5	a								
4269	Dark chocolate tablet	-	-	-		-	NA	-		-	NA	-					-	NA	-		-							-	-	NA	5	a								
4270	Cocoa bean	+	-	-		-	ND	-		-	ND	+md/-					-	ND	-		-							-	-	ND	5	a								
4694	Cocoa powder	-	i/i**/ -_***	-		-	NA	-		-	NA	-					-	NA	st		st							-	-	NA	5	a								
4695	Cocoa powder	-	i/i*/+**	+p	+	+	+	PD	+p	+	+	PD	+p	+	+	+	+	PD	+p	+	+							+	+	PD	5	a								
4696	Tarragon	-	i/i*/-**	st		-	NA	st		-	NA	st					-	NA	st		st							-	-	NA	5	a								
4697	Oregano	-	i/i**/ -_***	st		-	NA	st		-	NA	st					-	NA	st		st							-	-	NA	5	a								
4698	Salsa spices	-	+/-/+	st		-	PPNA	st		-	PPNA	st					-	PPNA	st		st							-(MSRV -)	-	PPNA	5	a								
4699	Chinese spices	-	-	-		-	NA	st		-	NA	st					-	NA			st							-	-	NA	5	a								
4984	Black chocolate tablets	-	+	+p	+	+	+	PD	+p	+	+	PD	+p	+	+	+	+	PD	+p	+	+							+	+	PD	5	a								
4985	Black chocolate tablets	-	+	+p	+	+	+	PD	+p	+	+	PD	+p	+	+	+	+	PD	+p	+	+							+	+	PD	5	a								
4986	Black chocolate tablets	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	+p	+	+							+	+	PA	5	a								
5620	Tarragon	-	i/i*/-**	st		-	NA	st		-	NA	st					-	NA	st		st							-	-	NA	5	a								
5621	Cocoa powder	-	i/i*/+**	+p	+	+	+	PD	+p	+	+	PD	+p	+	+	+	+	PD	+p	+	+							+	+	PD	5	a								
4381	Cereals with probiotics	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	+p	+	+							+	+	PA	5	b								
4382	Cereals with probiotics	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	+p	+	+							+	+	PA	5	b								
4383	Cereals with probiotics	+	+	+p	+	+	+	PA	+p	+	+	PA	+p	+	+	+	+	PA	+p	+	+							+	+	PA	5	b								
4384	Cereals with probiotics	-	+/-/+	st		-	PPNA	st		-	PPNA	st					-	PPNA	st		st							-(MSRV -)	-	PPNA	5	b								
4385	Cereals with probiotics	-	-	st		-	NA	st		-	NA	st					-	NA	st		st							-	-	NA	5	b								
4386	Cereals with probiotics	+	+	+p (1)	+	+	+	PA	+p (3)	+	+	PA	+p (4)	+	+	+	+	PA	+p	+	+							+	+	PA	5	b								
4387	Cereals with probiotics	+	+	st		-	PPND	st		-	PPND	st					-	PPND	+p	+	+p	+	+	+	+			+	+	PA	5	b								
4388	Infant formula with probiotics	-	-	st		-	NA	st		-	NA	st					-	NA	st		st							-	-	NA	5	b								
4389	Infant formula with probiotics	-	-	st		-	NA	st		-	NA	st						-	NA	st		st						-	-	NA	5	b								
4390	Infant formula with probiotics	-	-	st		-	NA	st		-	NA	st						-	NA	st		st						-	-	NA	5	b								
4391	Infant formula with probiotics	-	-	st		-	NA	st		-	NA	st						-	NA	st		st						-	-	NA	5	b								
4392	Infant formula with probiotics	-	-	st		-	NA	st		-	NA	st						-	NA	st		st						-	-	NA	5	b								
4393	Infant formula with probiotics	-	-	st		-	NA	st		-	NA	st						-	NA	st		st						-	-	NA	5	b								

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

**SPECIFIC INGREDIENTS AND FOODS**  
(Extension study No 1)

Alternative method: GENE-UP Salmonella																																	
BPW for 18h at 41.5°C																																	
Sample N°	Product	ISO 6579 method* Result	PCR Result	Confirmation																										Final result 18h	Agreement 18h	Category	Type
				Direct streaking														subculture SX2															
				ChromID Salmonella				XLD				ASAP						6h at 41,5°C±1,0°C				24h at 41,5°C±1,0°C											
				Typical colonies	Before purif		Final result	Agreement	Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif			Final result	Agreement	Typical colonies	Before purif	After purif		Typical colonies	Before purif	After purif		Typical colonies	Before purif	After purif				
Latex	Api	Latex	Api		Agg	Latex								Api	Latex	Api					Latex	Api			Latex	Api							
4394	Infant formula with probiotics	-	-	st		-	NA	st		-	NA	st					-	NA	st		st							-	-	NA	5	b	
5622	Infant formula with probiotics	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	PA	+p		+p							+	+	PA	5	b	
5623	Infant formula with probiotics	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	PA	+p		+p							+	+	PA	5	b	
5624	Infant formula with probiotics	-	-	st		-	NA	st		-	NA	st					-	NA	st		st						-	-	NA	5	b		
5625	Infant formula with probiotics	+	-/-	st		-	ND	st		-	ND	st					-	ND	+p	+	+p	+	+	+	+	+p		+	-	ND	5	b	
5626	Infant formula with probiotics	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	PA	+p		+p							+	+	PA	5	b	
5627	Infant formula with probiotics	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	PA	+p		+p							+	+	PA	5	b	
5628	Infant formula with probiotics	+	-	st		-	ND	st		-	ND	st					-	ND	st		st						-	-	ND	5	b		
4395	Whole egg powder	+	-	st		-	ND	st		-	ND	st					-	ND	st		st						-	-	ND	5	c		
4396	White egg powder	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	PA	+p		+p							+	+	PA	5	c	
4397	White egg powder	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	PA	+p		+p							+	+	PA	5	c	
4398	Whole egg powder	-	-	st		-	NA	st		-	NA	st						NA	st		st						-	-	NA	5	c		
4399	Whole egg powder	-	+	+p	+	+	PD	+p	+	+	PD	+p	+	+	+	+	+	PD	+p		+p							+	+	PD	5	c	
4400	Whole egg powder	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	PA	+p		+p							+	+	PA	5	c	
4401	Whole egg powder	+	-	st		-	ND	st		-	ND	st					-	ND	st		st						-	-	ND	5	c		
4730	Pasteurized egg yolk	-	+	+p	+	+	PD	+p	+	+	PD	+p	+	+	+	+	+	PD	+p		+p							+	+	PD	5	c	
4731	Pasteurized egg yolk	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	PA	+p		+p							+	+	PA	5	c	
4732	Pasteurized whole egg	-	+	+p	+	+	PD	+p	+	+	PD	+p	+	+	+	+	+	PD	+p		+p							+	+	PD	5	c	
4733	Pasteurized whole egg	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	PA	+p		+p							+	+	PA	5	c	
4734	Pasteurized egg white	+	-	st		-	ND	st		-	ND	st					-	ND	st		st						-	-	ND	5	c		
5212	Whole egg powder	-	+	st		-	PPNA	st		-	PPNA	st					-	PPNA	st		st						-(MSRV -)	-	PPNA	5	c		
5213	Whole egg powder	-	-	st		-	NA	st		-	NA	st						NA	st		st						-	-	NA	5	c		
5214	Egg yolk powder	-	-	st		-	NA	st		-	NA	st						NA	st		st						-	-	NA	5	c		
5215	White egg powder	-	-	st		-	NA	st		-	NA	st						NA	st		st						-	-	NA	5	c		
5221	Pasteurized egg yolk	-	+	st		-	PPNA	st		-	PPNA	st					-	PPNA	st		st						-(MSRV -)	-	PPNA	5	c		
5222	Pasteurized whole egg	-	-	st		-	NA	st		-	NA	st						NA	st		st						-	-	NA	5	c		
5223	Pasteurized whole egg	-	-	st		-	NA	st		-	NA	st						NA	st		st						-	-	NA	5	c		
5629	Sweet egg yolk pasteurized egg (50%)	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	PA	+p		+p							+	+	PA	5	c	
5630	Salted egg yolk pasteurized (10%)	+	+	+p	+	+	PA	+p	+	+	PA	+p	+	+	+	+	+	PA	+p		+p							+	+	PA	5	c	
5631	Sweet egg yolk pasteurized egg (50%)	-	-	st		-	NA	st		-	NA	st						NA	st		st						-	-	NA	5	c		
5632	Salted egg yolk pasteurized (10%)	-	-	st		-	NA	st		-	NA	st						NA	st		st						-	-	NA	5	c		



**RAW MEATS (except poultry) - 375 g sample size - 10 h incubation time  
(Extension study No 1)**

Sample N°	Product	ISO 6579 method* Result	Alternative method : GENE-UP Salmonella																								PCR Result	Confirmation	Final result 10h	Agreement 10h	Category	Type						
			BPW for 10h at 41,5°C																																			
			Direct streaking												Subculture SX2																							
			ChromID Salmonella						XLD						ASAP						6h at 41,5°C±1,0°C												24h at 41,5°C± 1,0°C					
			Typical colonies	Before purif		Final result	Agreement	Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif	After purif			Final result	Agreement	Typical colonies	Before purif	Typical colonies		Before purif	Typical colonies	Before purif	After purif							Confirmation final result					
Latex	Api	Latex		Api	Agg									Latex	Api	Latex					Api	Latex				Api	Latex	Api										
4412	Seasoned beef trim	-	-	-	-	-	NA	-	-	NA	+md/+d	-	-	-	-	-	NA	+1/2		+M					-	-	NA	9	c									
4413	Seasoned lamb trim	+	+	+md	-	-	PPND	-	-	PPND	+md/+d	+	+	+	+	+	PA								+	+	PA	9	c									
5317	Seasoned pork trim	-	-	-	-	-	NA	+md/-	-	NA	-	-	-	-	-	-	NA								-	-	NA	9	c									
5318	Seasoned pork trim	-	-	-	-	-	NA	-	-	NA	-	-	-	-	-	-	NA								-	-	NA	9	c									
5319	Seasoned pork trim	-	-	+md	-	-	NA	-	-	NA	+md	-	-	-	-	-	NA								-	-	NA	9	c									
5320	Seasoned pork trim	-	-	-	-	-	NA	-	-	NA	+md/-	-	-	-	-	-	NA								-	-	NA	9	c									
5321	Seasoned beef trim	-	-	-	-	-	NA	-	-	NA	-	-	-	-	-	-	NA								-	-	NA	9	c									
5322	Seasoned beef trim	-	-	-	-	-	NA	-	-	NA	-	-	-	-	-	-	NA								-	-	NA	9	c									
5323	Seasoned ground beef	-	-	-	-	-	NA	-	-	NA	-	-	-	-	-	-	NA								-	-	NA	9	c									
5324	Seasoned beef trim	-	-	-	-	-	NA	-	-	NA	-	-	-	-	-	-	NA								-	-	NA	9	c									

**RAW MEATS (except poultry) - 375 g sample size - 24 h incubation time  
(Extension study No 1)**

Sample N°	Product	ISO 6579 method*	Alternative method: GENE-UP Salmonella																												Confirmation final result	Final result 24h	Agreement 24h	Category	Type				
			BPW for 24h at 41,5°C																																				
			PCR Result	Confirmation																	subculture SX2																		
				Direct streaking										6h at 41,5°C±1,0°C							24h at 41,5°C±1,0°C																		
				ChromID Salmonella				XLD			ASAP						XLD		ASAP					XLD		ASAP													
Typical colonies	Before purif			Final result	Agreement	Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif	After purif			Final result	Agreement	Typical colonies	Before purif	Typical colonies	Before purif		After purif			Typical colonies	Before purif	Typical colonies	Before purif		After purif									
	Latex	Api	Latex									Api	Latex	Api						Agg	Latex	Api	Latex	Api				Latex	Api	Latex	Api	Latex	Api	Latex	Api	Latex	Api	Latex	Api
4357	Ground beef	+	+	-			-	PPND	+md(1)	+	+	PA	+1/2	+	+	+	+	+	+	PA	+m		+M					+m		+M					+	+	PA	9	a
4358	Ground beef	-	+	-			-	PPNA	-		-	PPNA	+md/+	+	+	+	+	+	+	PD	+m		+M					+M		+M					+	+	PD	9	a
4359	Beef trim	+	-	-			-	ND	-		-	ND	-						-	ND	-		-				-	-	-					-	-	ND	9	a	
4360	Lamb trim	+	+	-			-	PPND	+m(2)	+	+	PA	+M/+	+	+	+	+	+	+	PA	+m/+		+M				+1/2		+M					+	+	PA	9	a	
4361	Lamb trim	+	+	-			-	PPND	-		-	PPND	+md/+	+	+	+	+	+	+	PA	+M		+M				+M		+M					+	+	PA	9	a	
4362	Lamb trim	-	+	-			-	PPNA	-		-	PPNA	+m/+	+	+	+	+	+	+	PD	+m		+M				+1/2		+M					+	+	PD	9	a	
4363	Veal trim	-	+	-			-	PPNA	+m(1)	+	+	PD	+1/2	+	+	+	+	+	+	PD	+1/2/+		+M				+M		+M					+	+	PD	9	a	
4364	Veal trim	+	+	-			-	PPND	-		-	PPND	-						-	PPND	-		+m/-				+m	+	+1/2	+	+			+	+	PA	9	a	
4365	Veal trim	+	+	-			-	PPND	-		-	PPND	+m/+	+	+	+	+	+	+	PA	+md		+M				+1/2		+M					+	+	PA	9	a	
4366	Pork trim	-	+	+md/-			-	PPNA	-		-	PPNA	+m/+	+	+	+	+	+	+	PD	+M		+M				+M		+M					+	+	PD	9	a	
4367	Pork trim	+	+	-			-	PPND	+m/+	+	+	PA	+m	+	+	+	+	+	+	PA	+M		+M				+M		+M					+	+	PA	9	a	
4368	Pork trim	+	+	-			-	PPND	+m/+	+	+	PA	+m	+	+	+	+	+	+	PA	+M		+M				+M		+M					+	+	PA	9	a	
5304	Beef trim	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	a		
5305	Ground beef	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	a		
5306	Beef trim	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	a		
5307	Pork trim	+	+	-			-	PPND	-		-	PPND	-						-	PPND	-					+M	+	+1/2	+	+			+	+	PA	9	a		
5308	Pork trim	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	a		
5309	Lamb trim	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	a		
5310	Lamb trim	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	a		
5311	Veal trim	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	a		
5854	Ground beef	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	a		
4369	Frozen ground beef	+	+	-			-	PPND	-		-	PPND	+m/+	+	+	+	+	+	+	PA													+	+	PA	9	b		
4370	Frozen ground beef	+	+	-			-	PPND	-		-	PPND	+1/2	+	+	+	+	+	+	PA													+	+	PA	9	b		
4371	Frozen ground beef	+	+	+m(4)	+	+	+	PA	+m/+	+	+	PA	+M	+	+	+	+	+	+	PA												+	+	PA	9	b			
4372	Frozen ground veal	+	+	-			-	PPND	+m	+	+	PA	+m/+	+	+	+	+	+	+	PA												+	+	PA	9	b			
4373	Frozen ground veal	+	+	+md/-			-	PPND	-		-	PPND	+m	+	+	+	+	+	+	PA												+	+	PA	9	b			
4374	Frozen Veal trim	-	+	-			-	PPNA	+m/+	+	+	PD	+m	+	+	+	+	+	+	PD												+	+	PD	9	b			
4375	Frozen lamb trim	+	+	+m(2)	+	+	+	PA	+m/+	+	+	PA	+1/2	+	+	+	+	+	+	PA											+	+	PA	9	b				
4376	Frozen lamb trim	-	+	-			-	PPNA	+m/+	+	+	PD	+m/+	+	+	+	+	+	+	PD											+	+	PD	9	b				
4377	Frozen lamb trim	+	+	+m	+	+	+	PA	+m	+	+	PA	+M	+	+	+	+	+	+	PA											+	+	PA	9	b				
4378	Frozen pork trim	+	+	+m	+	+	+	PA	+m	+	+	PA	+m/+	+	+	+	+	+	+	PA											+	+	PA	9	b				
4379	Frozen pork trim	+	+	+m	+	+	+	PA	+m	+	+	PA	+1/2	+	+	+	+	+	+	PA										+	+	PA	9	b					
4380	Frozen pork trim	+	+	+md/-			-	PPND	+md/+	+	+	PA	+m/+	+	+	+	+	+	+	PA											+	+	PA	9	b				
5312	Frozen pork trim	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	b		
5313	Frozen Veal trim	-	+	-			-	PPNA	-		-	PPNA	-						-	PPNA											+	(at 72h)	+	PD	9	b			
5314	Frozen Veal trim	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	b		
5315	Frozen ground beef	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	b		
5316	Frozen ground beef	-	-	-			-	NA	-		-	NA	-						-	NA						-	-	-					-	-	NA	9	b		

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))







PRODUCTION ENVIRONMENTAL SAMPLES (Extension study No 4)																																							
Sample N	Product	ISO 6579 method* Result	Alternative method: GENE-UP Salmonella																																				
			BPW for 18h at 41,5°C																																				
			PCR Result	Confirmation																								Confirmation final result	Final result 18h	Agreement 18h	Category	Type							
				Direct streaking												Subculture SX2																							
				ChromID Salmonella				XLD				ASAP				6h at 41,5°C±1,0°C						24h at 41,5°C±1,0°C																	
Typical colonies	Before purif			Final result	Agreement	Typical colonies	Before purif	Final result	Agreement	Typical colonies	Before purif			After purif			Final result	Agreement	Typical colonies	Before purif	Typical colonies	Before purif		After purif		Typical colonies	Before purif						Typical colonies	Before purif		After purif			
	Latex	Api	Latex								Api	Agg	Latex	Api	Latex	Api						Latex	Api	Latex	Api			Latex	Api	Latex	Api								
7570	Cleaning water (vegetables industry)	+	+	+M	+	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	PA	+M		+p												+	+	PA	7	b	
7571	Process water (vegetables industry)	-	-	st			-	NA	st		-	NA	st					-	NA							st		st						-	-	NA	7	b	
7574	Process water (fish industry)	+	+	+p	+	+	+	PA	+M	+	+	PA	+p	+	+	+	+	+	PA	+p		+p												+	+	PA	7	b	
7575	Process water (fish industry)	+	-	-			-	ND	st		-	ND	-					-	ND							st		st						-	-	ND	7	b	
7576	Process water (fish industry)	+	-	-			-	ND	-		-	ND	-					-	ND							-		-						-	-	ND	7	b	
7577	Process water (fish industry)	+	+	+M	+	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	PA	+M		+p												+	+	PA	7	b	
7671	Water from pasteurizer (ovoproduct industry)	-	-	st			-	NA	st		-	NA	st					-	NA							st		st						-	-	NA	7	b	
7672	Water from pasteurizer (ovoproduct industry)	-	-	st			-	NA	st		-	NA	st					-	NA							st		st						-	-	NA	7	b	
7773	Cleaning water (delicatessen industry)	-	+	+m	+	+	+	PD	+M	+	+	PD	+M	+	+	+	+	+	PD	+M		+M												+	+	PD	7	b	
2410	Porcine environment	-	-	st			-	NA	st		-	NA	st					-	NA	st		st				st		st						-	-	NA	7	c	
2411	Porcine environment	-	-	-			-	NA	+md/-		-	NA	-					-	NA	-						-		-						-	-	NA	7	c	
2412	Porcine environment	-	-	-			-	NA	-		-	NA	-					-	NA	-						-		-						-	-	NA	7	c	
2413	Porcine environment	-	-	st			-	NA	st		-	NA	st					-	NA	st		st				st		st						-	-	NA	7	c	
2414	Porcine environment	-	-	-			-	NA	+md/+d	- (Citrobacter freundii)	-	NA	-					-	NA	-					+md/+	- (Citrobacter freundii)	-							-	-	NA	7	c	
2415	Porcine environment	-	-	-			-	NA	-		-	NA	-					-	NA	-					-		-							-	-	NA	7	c	
7356	Wipe (swine industry)	-	-	st			-	NA	st		-	NA	st					-	NA						st		st							-	-	NA	7	c	
7357	Wipe (swine industry)	-	-	-			-	NA	-		-	NA	-					-	NA	-					-		-							-	-	NA	7	c	
7358	Wipe (swine industry)	-	-	-			-	NA	-		-	NA	-					-	NA	-					-		-							-	-	NA	7	c	
7360	Wipe (swine industry)	-	-	-			-	NA	-		-	NA	-					-	NA	-					-		-							-	-	NA	7	c	
7361	Wipe (swine industry)	-	-	-			-	NA	-		-	NA	-					-	NA	-					-		-							-	-	NA	7	c	
7362	Wipe (swine industry)	-	-	-			-	NA	-		-	NA	-					-	NA	-					-		-							-	-	NA	7	c	
7363	Wipe (swine industry)	-	-	-			-	NA	-		-	NA	-					-	NA	-					-		-							-	-	NA	7	c	
7364	Wipe (swine industry)	+	-	-			-	ND	-		-	ND	-					-	ND	-					-		-							-	-	ND	7	c	
7365	Wipe (swine industry)	-	-	-			-	NA	-		-	NA	-					-	NA	-					-		-							-	-	NA	7	c	
7366	Wipe (swine industry)	-	-	-			-	NA	-		-	NA	-					-	NA	-					-		-								-	-	NA	7	c
7367	Wipe (swine industry)	-	-	-			-	NA	-		-	NA	-					-	NA	-					-		-								-	-	NA	7	c
7661	Wipe (vegetables industry)	+	+	+p	+	+	+	PA	+M	+	+	PA	+p	+	+	+	+	+	PA	+p		+p												+	+	PA	7	c	
7662	Wipe (vegetables industry)	+	+	-			-	PPND	+m/+	+	+	PA	+m/+	+	+	+	+	+	PA	+M		+M												+	+	PA	7	c	
7663	Wipe (vegetables industry)	+	-	-			-	ND	-		-	ND	-					-	ND	-						-		-						-	-	ND	7	c	
7664	Wipe (vegetables industry)	-	+	-			-	PPNA	-		-	PPNA	+m/+	+	+	+	+	+	PD	+m		+m												+	+	PD	7	c	
7665	Wipe (dairy industry)	+	+	+M	+	+	+	PA	+1/2	+	+	PA	+M	+	+	+	+	+	PA	+p		+p												+	+	PA	7	c	
7666	Wipe (dairy industry)	+	+	+p	+	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	PA	+p		+M												+	+	PA	7	c	
7786	Wipe (delicatessen industry)	+	+	+1/2	+	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	PA	+M		+M												+	+	PA	7	c	
7787	Wipe (delicatessen industry)	-	-	-			-	NA	-		-	NA	-					-	NA	-						-		-						-	-	NA	7	c	
7788	Wipe after cleaning (delicatessen industry)	+	+	+M	+	+	+	PA	+M	+	+	PA	+M	+	+	+	+	+	PA	-		-												+	+	PA	7	c	
7789	Wipe after cleaning (delicatessen industry)	+	+	-			-	PPND	-		-	PPND	+md/+	+	+	+	+	+	PA	+m/+		+m/+												+	+	PA	7	c	

**READY TO EAT AND READY TO FOODS - After storage for 72 h at 5°C ± 3°C**  
(Initial validation)

Sample N°	Product	ISO 6579 method* Result	Alternative method: GENE-UP Salmonella BPW for 18h at 41.5°C + 72h at 5°C ± 3 °C																Category	Type
			PCR-BPW 72h Result	PCR-Lysate 72h Result	Confirmation										Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate		
					Direct streaking				Subculture SX2 6h at 41,5°C±1,0°C											
			XLD		ASAP		XLD		ASAP											
			Typical colonies	Before purif Api	Typical colonies	Before purif Latex Api	Typical colonies	Before purif Api	Typical colonies	Before purif Latex	Before purif Api									
7415	Strawberries pie	-	+	+	+p		+p	+						+	+	+	PD	PD	1	a
7416	Egg cream	+	-	-	st		st							-	-	-	ND	ND	1	a
7417	Scallops terrine	+	+	+	+p		+p	+						+	+	+	PA	PA	1	a
7418	Salmon terrine	+	+	+	+p		+p	+						+	+	+	PA	PA	1	a
7419	Grated carrots	+	+	+	+p		+p	+						+	+	+	PA	PA	1	a
7420	Cucumber with cream	+	+	+	+md/+		+md/+	+w		-(24h:+m)		-(24h:+m)	+w (24h)	+	+	+	PA	PA	1	a
7421	Tabbouleh	+	+	+	+1/2		+m	+						+	+	+	PA	PA	1	a
7422	Sandwich (chicken, vegetables)	+	+	+	+m		+m	+						+	+	+	PA	PA	1	a
7423	Pâté	+	+	+	+p		+p	+						+	+	+	PA	PA	1	a
69	Pastry	+	+	+	+M		+M	+						+	+	+	PA	PA	1	a
70	Cooked ham	+	+	+	+p		+p	+						+	+	+	PA	PA	1	a
7498	Scallops	+	+	+	+m	+	+1/2	+						+	+	+	PA	PA	1	b
7499	Ready to reheat salmon	+	+	+	+p	+	+p	+						+	+	+	PA	PA	1	b
7500	Ready to reheat fish	+	+	+	+p	+	+p	+						+	+	+	PA	PA	1	b
7780	Ready to reheat beef meat	+	+	+	+p		+p	+		+p		+p		+	+	+	PA	PA	1	b
7781	Ready to reheat beef meat	+	+	+	+p		+p	+		+p		+p		+	+	+	PA	PA	1	b
7782	Couscous	+	+	+	+p		+p	+		+p		+p		+	+	+	PA	PA	1	b
7783	Pizza	+	-/-	-	st		st			st		st		-	-	-	ND	ND	1	b
7784	Quiche Lorraine	+	+	+	+p		+p	+		+p	+	+p	+	+	+	+	PA	PA	1	b
7785	Ready to reheat food	+	-	-	-		-			-		+m/+	+	+	-	-	ND	ND	1	b
735	Ready to reheat food	-	+	+	+p		+p	+						+	+	+	PD	PD	1	b
736	Ready to reheat food	+	+	+	+p		+p	+						+	+	+	PA	PA	1	b
7425	Smoked salmon	-	+	+	+p		+M	+						+	+	+	PD	PD	1	c
7428	Smoked duck meat	-																	1	c
7453	Smoked duck meat	+	+	+	+p		+p	+						+	+	+	PA	PA	1	c
7454	Smoked duck meat	+	+	+	+M		+p	+						+	+	+	PA	PA	1	c
7455	Smoked duck meat	-	+	+	+p		+p	+						+	+	+	PD	PD	1	c
7456	Smoked trout	-	+	+	+M		+p	+						+	+	+	PD	PD	1	c
71	Smoked trout	+	+	+	+p		+p	+						+	+	+	PA	PA	1	c
72	Haddock	-	+	+	+p		+p	+						+	+	+	PD	PD	1	c
73	Smoked herrings	+	-	-	-		-							-	-	-	ND	ND	1	c
737	Ready to eat food	+	+	+	+m		+M	+						+	+	+	PA	PA	1	c
738	Ready to eat food	+	+	+	+p		+p	+						+	+	+	PA	PA	1	c
739	Ready to eat food	+	+	+	+p		+p	+						+	+	+	PA	PA	1	c

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

MEAT PRODUCTS - After storage for 72 h at 5°C ± 3°C																					
(Initial validation)																					
Sample N°	Product	ISO 6579 method* Result	Alternative method: GENE-UP Salmonella BPW for 18h at 41.5°C + 72h at 5°C ± 3°C																Category	Type	
			PCR-BPW 72h Result	PCR-Lysate 72h Result	Confirmation										Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW			Agreement 72h Lysate
					Direct streaking				Subculture SX2 6h at 41,5°C±1,0°C												
					XLD		ASAP		XLD		ASAP										
Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif										
		Api		Latex		Api				Latex		Api									
7228	Raw pork meat	+	+	+	+m		+m/+	+		+m		+m	+m		+	+	+	PA	PA	2	a
7318	Ground veal	+		+	+1/2		+M	+	+	+M		+p			+	+	+	PA	PA	2	a
7319	Raw veal meat	-		+	+m		+M	+	+	+M		+p			+	+	+	PD	PD	2	a
7320	Raw veal meat	+		+	+1/2		+M	+	+	+M		+M			+	+	+	PA	PA	2	a
7321	Raw lamb meat	+		+	+M		+M	+	+	+M		+p			+	+	+	PA	PA	2	a
7322	Raw lamb meat	+		+	+1/2		+M	+	+	+M		+M			+	+	+	PA	PA	2	a
7323	Raw lamb meat	+		-	-		-			-		-			-	-	-	ND	ND	2	a
7324	Ground beef	+		-	-		-			-		-			-	-	-	ND	ND	2	a
7325	Ground beef	+		+	+md/+		+m	+		+(1)		+M			+	+	+	PA	PA	2	a
7326	Beef trim	+		+	+m		+M	+	+	+M		+M			+	+	+	PA	PA	2	a
7709	Ground beef	+		+	+md/+		+m	+		+m		+M			+	+	+	PA	PA	2	a
7710	Raw lamb meat	-		+	+1/2		+M	+		+M		+M			+	+	+	PD	PD	2	a
7711	Frozen raw lamb meat	-		+	+m		+1/2	+		+M		+M			+	+	+	PD	PD	2	a
7212	Raw ground poultry meat	-		+	+m		+M	+		+M		+M	+M		+	+	+	PD	PD	2	b
7213	Raw duck meat	+		+	-		+md/+	+		+m/+		+m	+m		+	+	+	PA	PA	2	b
7219	Deboned chicken leg	+		+	+3d		+1/2	+		+M		+M	+M		+	+	+	PA	PA	2	b
155	Poultry meat	+		+	+(1)		+md	+		+m		+m			+	+	+	PA	PA	2	b
161	Chicken wings	-		-	+md/+	-	+md/-								-	-	-	NA	NA	2	b
741	Poultry meat	+		+	+md/+		+m/+	+							+	+	+	PA	PA	2	b
745	Poultry meat	+		-	-		-								-	-	-	ND	ND	2	b
949	Poultry meat	+		+	+m/+		+m	+							+	+	+	PA	PA	2	b
950	Ground poultry meat	-		+	+m/+		+m/+	+							+	+	+	PD	PD	2	b
7427	Bacon	+		+	+p		+p	+							+	+	+	PA	PA	2	c
7717	Sausages	+		-/-	-		-			-		-			-	-	-	ND	ND	2	c
7719	Sausages	+		-	+md/+	+	-			-		-			+	-	-	ND	ND	2	c
7720	Sausages	-		-	-		-			-		-			-	-	-	NA	NA	2	c
7721	Sausages	+		-	-		-			-		-			-	-	-	ND	ND	2	c
78	Low moisture ham	+		-	-		-			-		-			-	-	-	ND	ND	2	c
81	Bacon	+		+	+M		+M	+							+	+	+	PA	PA	2	c
85	Low moisture sausage	+		-	-		-			-		-			-	-	-	ND	ND	2	c
746	Sausages	+		+	+md/-		+md/+	+		+m		+M	+		+	+	+	PA	PA	2	c
747	Sausages	+		-/-+	-		-			+1/2 (24h)	+	+1/2 (24h)	+	+	+	-	-	ND	ND	2	c
748	Sausages	-		-/-	-		-			+m (24h)	+	+1/2 (24h)	+	+	+	-	-	NA	NA	2	c
749	Sausages	-		+	+m		+m	+							+	+	+	PD	PD	2	c

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

RAW MEATS (except poultry) - 8 h incubation time - After storage for 72 h at 5°C ± 3°C  
(Initial validation)

Sample N°	Product (French name)	Product	ISO 6579 method* Result	Alternative method: GeneUP Salmonella BPW for 8h at 41.5°C +72h at 5°C ± 3 °C																Type	
				PCR-BPW 72h Result	PCR-Lysate 72h Result	Confirmation										Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW		Agreement 72h Lysate
						Direct streaking					subculture SX2 6h at 41,5°C±1,0°C										
				XLD		ASAP			XLD		ASAP			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate			
				Typical colonies	Before purif Api	Typical colonies	Before purif Latex	Before purif Api	Typical colonies	Before purif Api	Typical colonies	Before purif Latex	Before purif Api								
547	Ossobucco de veau	Fresh veal trim	-	+	+	+d/+		+d/+	+					+	+	+	PD	PD	a		
548	Escalope de veau	Fresh veal trim	-	+	+	+d/+		+d/+	+					+	+	+	PD	PD	a		
549	Côte de veau	Fresh veal trim	+	+	+	+d/+		+d/+	+					+	+	+	PA	PA	a		
550	Poitrine d'agneau	Fresh lamb meat	-	+	+	+d/+		+d/+	+					+	+	+	PD	PD	a		
551	Gigot d'agneau	Fresh lamb meat	+	+	+	-		+d/+	+					+	+	+	PA	PA	a		
552	Steak haché 5% matière grasse	Fresh ground beef	+	-	-	-		-						-	-	-	ND	ND	a		
553	Steak haché 15% matière grasse	Fresh ground beef	+	+	+	-		+d/+	+					+	+	+	PA	PA	a		
554	Steak haché boucher 5% matière grasse	Fresh ground beef	+	+	+	+d/+		+d/+	+					+	+	+	PA	PA	a		
555	Viande à bourguignon	Fresh beef trim	+	-	-	-		-						-	-	-	ND	ND	a		
556	Steack à griller	Fresh beef trim	+	+	+	+d/+		+d/+	+					+	+	+	PA	PA	a		
7327	Sauté de veau surgelé	Frozen veal trim	+	+	+	-		+m/+	+		+M		+p	+	+	+	PA	PA	b		
7328	Paupiette de veau surgelée	Frozen veal trim	-	+	+	+		+1/2	+w					+	+	+	PD	PD	b		
7329	Escalope de veau surgelée	Frozen veal trim	+	+	+	+M		+M	+					+	+	+	PA	PA	b		
7330	Carré d'agneau surgelé	Frozen lamb meat	+	+	+	+1/2		+1/2	+					+	+	+	PA	PA	b		
7331	Souris d'agneau surgelée	Frozen lamb meat	+	-	-	-		-						-	-	-	ND	ND	b		
7332	Souris d'agneau surgelée	Frozen lamb meat	+	+	+	+M		+M	+					+	+	+	PA	PA	b		
7333	Steak haché surgelé	Frozen ground beef	+	+	+	+m		+m	+		+1/2		+p	+	+	+	PA	PA	b		
7334	Haché de bœuf surgelé	Frozen ground beef	+	+	+	-		+d/+	+		+1/2		+M	+	+	+	PA	PA	b		
7335	Steak haché surgelé	Frozen ground beef	+	+	+	+m/+		+m/+	+		+m		+m	+	+	+	PA	PA	b		
7337	Steak haché surgelé	Frozen ground beef	+	-	-	-		-						-	-	-	ND	ND	b		
7338	Viande de bœuf à pot au feu surgelé	Frozen beef trim	+	+	+	+		+m/+	+					+	+	+	PA	PA	b		
7339	Bavette d'aloyau surgelée	Frozen beef trim	-	+	+	+(3)		-			-		-(+ 24h)	+w	+	+	PD	PD	b		
7340	Rumsteak surgelé	Frozen beef trim	+	+	+	+d(4)/+		-(+ RAPID' Salmonella)	+		-		-		+	+	PA	PA	b		
7341	Viande bovine pour bourguignon surgelée	Frozen beef trim	+	+	+	-		-			-		-(+24h)	+w	+	+	PA	PA	b		
7342	Faux filet de bœuf surgelée	Frozen beef trim	+	+	+	-		+	+		+M		+M	+	+	+	PA	PA	b		
7343	Haché Bolognaise surgelé	Frozen seasoned ground beef	+	+	+	+m		+m	+					+	+	+	PA	PA	c		
7344	Haché Bolognaise surgelé	Frozen seasoned ground beef	+	+	+	+m		+m	+					+	+	+	PA	PA	c		
7345	Pavé de bœuf aux 3 poivres surgelé	Frozen seasoned beef trim	+	+	+	-		-			+d/+		-		+	+	PA	PA	c		
7346	Pavé de bœuf aux 3 poivres surgelé	Frozen seasoned beef trim	-	+	+	+d/+		+d/+	+		-		+	+	+	+	PD	PD	c		
7347	Rumsteak mariné aux 3 poivres	Fresh seasoned beef trim	+	+	+	-		-			+m		+m	+	+	+	PA	PA	c		
7881	Pavé de rumsteak mariné aux 3 poivres	Fresh seasoned beef trim	+	+	+	+d/+		+m	+		+m		+M	+	+	+	PA	PA	c		
7882	Haché de bœuf à la Bolognaise	Fresh seasoned ground beef	+	-	-	-		-						-	-	-	ND	ND	c		
7883	Carpaccio de bœuf	Fresh seasoned beef meat	+	+	+	+d/+		+1/2/+	+					+	+	+	PA	PA	c		
7884	Tartare de boeuf	Fresh seasoned ground beef	+	-/-	-	-		-						-	-	-	ND	ND	c		
7885	Pavé de rumsteak mariné à l'échalotte	Fresh seasoned beef trim	+	+	+	+d/-		+d/+	+w		+d/-		+d/+	+	+	+	PA	PA	c		

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

**RAW MEATS (except poultry) - 24 h incubation time - After storage for 72 h at 5°C ± 3°C**  
(Initial validation)

Sample N°	Product	ISO 6579* Result	Alternative method: GENE-UP Salmonella																Type	
			BPW for 24h at 41.5°C +72 h at 5°C ± 3 °C																	
			PCR-BPW 72h Result	PCR-Lysate 72h Result	Confirmation										Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 24h/72h BPW		Agreement 24h/72h Lysate
					Direct streaking					Subculture SX2 6h at 41.5°C ± 1.0°C										
			XLD		ASAP			XLD		ASAP			Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 24h/72h BPW	Agreement 24h/72h Lysate			
Typical colonies	Before purif Api	Typical colonies	Before purif Latex	Before purif Api	Typical colonies	Before purif Api	Typical colonies	Before purif Latex	Before purif Api											
547	Fresh veal trim	-	+	+	+1/2		+1/2	+						+	+	+	PD	PD	a	
548	Fresh veal trim	-	+	+	+m		+1/2	+						+	+	+	PD	PD	a	
549	Fresh veal trim	+	+	+	+m		+1/2	+						+	+	+	PA	PA	a	
550	Fresh lamb meat	-	+	+	+M		+M	+						+	+	+	PD	PD	a	
551	Fresh lamb meat	+	+	+	+1/2		+M	+						+	+	+	PA	PA	a	
552	Fresh ground beef	+	-	-	-		-							-	-	-	ND	ND	a	
553	Fresh ground beef	+	+	+	-		+M	+						+	+	+	PA	PA	a	
554	Fresh ground beef	+	+	+	+1/2		+1/2	+						+	+	+	PA	PA	a	
555	Fresh beef trim	+	-	-	-		-							-	-	-	ND	ND	a	
556	Fresh beef trim	+	+	+	+1/2		+1/2	+						+	+	+	PA	PA	a	
7327	Frozen veal trim	+	+	+	+ +m		+1/2	+w						+	+	+	PA	PA	b	
7328	Frozen veal trim	-	+	+	+m		+1/2	+w						+	+	+	PD	PD	b	
7329	Frozen veal trim	+	+	+	+M		+M	+w						+	+	+	PA	PA	b	
7330	Frozen lamb meat	+	+	+	+M		+M	+						+	+	+	PA	PA	b	
7331	Frozen lamb meat	+	-	-	-		-							-	-	-	ND	ND	b	
7332	Frozen lamb meat	+	+	+	+M		+M	+						+	+	+	PA	PA	b	
7333	Frozen ground beef	+	+	+	+m		+1/2	+						+	+	+	PA	PA	b	
7334	Frozen ground beef	+	+	+	-		+1/2	+	+m		+M			+	+	+	PA	PA	b	
7335	Frozen ground beef	+	+	+	+m		+1/2	+						+	+	+	PA	PA	b	
7337	Frozen ground beef	+	-	-	-		-							-	-	-	ND	ND	b	
7338	Frozen beef trim	+	+	+	+M		+M	+						+	+	+	PA	PA	b	
7339	Frozen beef trim	-	+	+	+md		- (+RAPID Salmonella)	-						+	+	+	PD	PD	b	
7340	Frozen beef trim	+	+	+	+m		- (+RAPID Salmonella)	-	+md		-			+	+	+	PA	PA	b	
7341	Frozen beef trim	+	+	+	-		- (+RAPID Salmonella)							+	+	+	PA	PA	b	
7342	Frozen beef trim	+	+	+	+m		+1/2	+						+	+	+	PA	PA	b	
7343	Frozen seasoned ground beef	+	+	+	+M		+M	+						+	+	+	PA	PA	c	
7344	Frozen seasoned ground beef	+	+	+	+M		+M	+						+	+	+	PA	PA	c	
7345	Frozen seasoned beef trim	+	+	+	-		-							+	+	+	PA	PA	c	
7346	Frozen seasoned beef trim	-	+	+	-		+m/+	+						+	+	+	PD	PD	c	
7347	Fresh seasoned beef trim	+	+	+	-		+m	+	+d(1)		+M			+	+	+	PA	PA	c	
7881	Fresh seasoned beef trim	+	+	+	+md/+		+m	+	+m		+1/2			+	+	+	PA	PA	c	
7882	Fresh seasoned ground beef	+	-	-	+md/+		- (E.coli)	-						-	-	-	ND	ND	c	
7883	Fresh seasoned beef meat	+	+	+	+M		+M	+						+	+	+	PA	PA	c	
7884	Fresh seasoned ground beef	+	+/-+	+	-		-							+	+	+	PA	PA	c	
7885	Fresh seasoned beef trim	+	+	+	+md/		+m/+	+w	+md/+		+m	+w		+	+	+	PA	PA	c	

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

**MILK AND DAIRY PRODUCTS (Except raw milk based products) - After storage for 72 h at 5°C ± 3°C**  
**(Extension study No 1)**

Sample N°	Product	ISO 6579* Result	PCR-BPW 72h Result	PCR-Lysate 72h Result	Alternative method : GENE-UP Salmonella										Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate	Category	Type	
					BPW for 18h at 41,5°C + 72h at 5°C ± 3 °C																
					Confirmation					Confirmation final result											
					Direct streaking						Subculture SX2										
					6h at 41,5°C±1,0°C																
XLD		ASAP			XLD		ASAP														
Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif												
	Api	Latex	Api	Latex	Api																
323	Ice cream	+	-	-	st		st						-	-	-	ND	ND	3	a		
324	Ice cream	-	+	+	+1/2		+M	+					+	+	+	PD	PD	3	a		
928	Pasteurized cow milk cheese	+	+	+	+M		+M	+					+	+	+	PA	PA	3	a		
929	Pasteurized goat milk cheese	+	+	+	+m/+		+m	+					+	+	+	PA	PA	3	a		
930	Pasteurized milk	+	-	-	st		st						-	-	-	ND	ND	3	a		
933	Dairy dessert	+	+	+	+p		+p	+					+	+	+	PA	PA	3	a		
934	Chantilly	+	+	+	+p		+p	+					+	+	+	PA	PA	3	a		
5615	Pasteurized milk cheese	+	+	+	+m		+m/+	+					+	+	+	PA	PA	3	a		
5616	Pasteurized milk cheese	+	+	+	+m(1)/+		+m	+					+	+	+	PA	PA	3	a		
5617	Pasteurized milk cheese	+	+	+	-		+m(1)/+	+					+	+	+	PA	PA	3	a		
5618	Pasteurized milk cheese	+	+	+	+m/+		+md/+	+					+	+	+	PA	PA	3	a		
5619	Pasteurized milk cheese	+	+	+	+p		+p	+					+	+	+	PA	PA	3	a		
327	Milk powder	-	+	+	+p		+p	+					+	+	+	PD	PD	3	b		
328	Milk powder	+	+	+	+p		+p	+					+	+	+	PA	PA	3	b		
329	Milk powder	+	-	-	st		st						-	-	-	ND	ND	3	b		
330	Milk powder	+	-	-	st		st						-	-	-	ND	ND	3	b		
331	Milk powder	+	+	+	+p		+p	+					+	+	+	PA	PA	3	b		
332	Milk powder	+	+	+	+p		+p	+					+	+	+	PA	PA	3	b		
4689	Skimmed milk powder	+	+	+	+p		+p	+					+	+	+	PA	PA	3	b		
4690	Skimmed milk powder	+	-	-	st		st						-	-	-	ND	ND	3	b		
4691	Skimmed milk powder	+	+	+	+p		+p	+					+	+	+	PA	PA	3	b		
4692	Skimmed milk powder	+	-	-	st		st						-	-	-	ND	ND	3	b		
333	Maltodextrin	+	+	+	+p		+p	+					+	+	+	PA	PA	3	c		
334	Maltodextrin	+	+	+	+p		+p	+					+	+	+	PA	PA	3	c		
335	Lactoserum	+	+	+	+p		+p	+					+	+	+	PA	PA	3	c		
336	Lactoserum	+	+	+	+p		+p	+					+	+	+	PA	PA	3	c		
337	Lactoserum	+	+	+	+p		+p	+					+	+	+	PA	PA	3	c		
338	Lactoserum	+	+	+	+p		+p	+					+	+	+	PA	PA	3	c		
339	Caseinate	+	+	+	+p		+p	+					+	+	+	PA	PA	3	c		
340	Caseinate	+	+	+	+p		+p	+					+	+	+	PA	PA	3	c		
341	Caseinate	+	+	+	+p		+p	+					+	+	+	PA	PA	3	c		
4262	Caseinate	-	-	-	st		st						-	-	-	NA	NA	3	c		
4687	Milk proteins	-	+	+	+p		+p	+					+	+	+	PD	PD	3	c		

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

**VEGETABLES, FRUITS, SEAFOOD - After storage for 72 h at 5°C ± 3°C**  
**(Extension study No 1)**

Sample N°	Product	ISO 6579* Result	Alternative method : GENE-UP Salmonella																Category	Type	
			BPW for 18h at 41,5°C + 72h at 5°C ± 3°C																		
			PCR-BPW 72h Result	PCR-Lysate 72h Result	Confirmation										Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate			
					Direct streaking					Subculture SX2											Confirmation final result
					6h at 41,5°C±1,0°C					XLD	ASAP	XLD	ASAP								
XLD		ASAP			XLD		ASAP														
Typical colonies	Before purif Api	Typical colonies	Before purif Latex	Before purif Api	Typical colonies	Before purif Api	Typical colonies	Before purif Latex	Before purif Api												
2970	Seafood terrine	+	+	+	+p		+p	+						+	+	+	PA	PA	4	a	
2971	Seafood terrine	+	+	+	+p		+p	+						+	+	+	PA	PA	4	a	
2972	Flaked crab	+	+	+	+p		+p	+						+	+	+	PA	PA	4	a	
2973	Flaked crab	+	+	+	+p		+p	+						+	+	+	PA	PA	4	a	
2974	Fish fillet	+	+	+	+M		+M	+						+	+	+	PA	PA	4	a	
2975	Fish fillet	+	+	+	+M		+M	+						+	+	+	PA	PA	4	a	
2976	Surimi	+	+	+	+p		+p	+						+	+	+	PA	PA	4	a	
4239	Fish fillet	+	+	+	+1/2		+M	+						+	+	+	PA	PA	4	a	
4240	Fish fillet	+	+	+	+M		+M	+						+	+	+	PA	PA	4	a	
4241	Fish fillet	+	+	+	+M		+M	+						+	+	+	PA	PA	4	a	
4242	Fish fillet	-	+	+	+Md		+md/+d	+						+	+	+	PD	PD	4	a	
4243	Fish fillet	+	+	+	+M		+M	+						+	+	+	PA	PA	4	a	
7595	Sprouts	-	-	-	-		-							-	-	-	NA	NA	4	b	
245	Sprouts	-	-	-	+d/-		-							-	-	-	NA	NA	4	b	
2977	Sprouts	-	-/+	-/+	+d/-		-		+d/-		-			-	-	-	NA	NA	4	b	
2978	Sprouts	+	-	-	+d/-		-		d/-		-			-	-	-	ND	ND	4	b	
2979	Sprouts	+	+	+	+d/+		+d/+	+	+d/-		+d/-			+	+	+	PA	PA	4	b	
2980	Sprouts	+	+	+	+d/-		-		+d/+		+d/+		+	+	+	+	PA	PA	4	b	
2981	Baby leaves	+	+	+	+d/+		+d/+	+	+d/-		+d/-			+	+	+	PA	PA	4	b	
2982	Baby leaves	+	+	+	+M		+1/2	+	+M		+1/2			+	+	+	PA	PA	4	b	
2983	Baby leaves	+	+	+	+1/2		+m	+						+	+	+	PA	PA	4	b	
2985	Baby leaves	+	-/-	+	+M		+M	+						+	-	+	ND	PA	4	b	
4244	Baby leaves	-	+	-/+	+md/-		-		- (24h)		- (24h)			+ (MSRV)	+	-	PD	NA	4	b	
4245	Baby leaves	-	-	-	-		-							-	-	-	NA	NA	4	b	
4246	Sprouts	-	-	-	-		-							-	-	-	NA	NA	4	b	
4247	Sprouts	+	-/+	+/-	+md/-		-		- (+MSRV)		+		- (+MSRV)	+	+	+	ND	PA	4	b	
7223	Zucchini	-	-	-	-		-							-	-	-	NA	NA	4	c	
7224	Vegetables mix	-	-	-	-		-							-	-	-	NA	NA	4	c	
2344	Grated carrots	-	-	-	-		-		-(24h)		-(24h)			-	-	-	NA	NA	4	c	
2986	White cabbage/carrot/celery	+	+	+	+M		+M	+						+	+	+	PA	PA	4	c	
2987	Red cabbage	+	+	+	+1/2		+m	+						+	+	+	PA	PA	4	c	
2988	Grated carrots	+	+	+	+m		+m	+						+	+	+	PA	PA	4	c	
2989	Mixed salad	+	+	+	+m		+1/2	+						+	+	+	PA	PA	4	c	
2990	Mixed salad	+	+	+	+1/2		+1/2	+						+	+	+	PA	PA	4	c	
2991	Sucrine	+	+	+	+M		+p	+						+	+	+	PA	PA	4	c	
2992	White cabbage/carrot/salad/red bell pepper	+	+	+	+M		+M	+						+	+	+	PA	PA	4	c	
2993	Pre-cooked carrots	+	+	+	+1/2		+M	+						+	+	+	PA	PA	4	c	
2994	Pre-cooked potatoes	+	+	+	+p		+p	+		+p		+p		+	+	+	PA	PA	4	c	
2995	Chinese cabbage / salad / tomatoes / corn / zucchini / radish / parsley	+	+	+	+d/-		-		+d/-		-			+ (MSRV)	+	+	PA	PA	4	c	

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

**SPECIFIC INGREDIENTS AND FOODS - After storage for 72 h at 5°C ± 3°C**  
(Extension study No 1)

Sample N°	Product	ISO 6579* Result	Alternative method : GENE-UP Salmonella																Category	Type
			BPW for 18h at 41,5°C + 72h at 5°C ± 3°C																	
			PCR-BPW 72h Result	PCR-Lysate 72h Result	Confirmation								Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate			
					Direct streaking				Subculture SX2											
					6h at 41,5°C±1,0°C															
XLD		ASAP			XLD		ASAP													
Typical colonies	Before purif Api	Typical colonies	Before purif Latex Api	Typical colonies	Before purif Api	Typical colonies	Before purif Latex Api													
3073	Paprika	+	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	5	a	
3074	Turmeric	+	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	5	a	
3076	Dried thyme	+	i/i*/+**	i/i*/+****	+p	+p	+							+	+	+	PA	PA	5	a
4267	Cocoa powder	+	i/i*/+**	i/i*/-****/+°	+p	+p	+							+	+	+	PA	PA	5	a
4268	Milk chocolate tablet	-	-	i/-*	st	st								-	-	-	NA	NA	5	a
4270	Cocoa bean	+	-	i/-*	-	+md/-								-	-	-	ND	ND	5	a
4694	Cocoa powder	-	i/i*/i**/-***	i/i*/-****	st	st								-	-	-	NA	NA	5	a
4695	Cocoa powder	-	+i*/-**	i/i*/+****	+p	+p	+							+	+	+	PD	PD	5	a
4696	Tarragon	-	i/-*/-**	i/-*	st	st								-	-	-	NA	0	5	a
4698	Salsa spices	-	+/+/+	+/+/+	st	st			st (24h)		st (24h)			- (MSRV -)	-	-	PPNA	PPNA	5	a
4984	Black chocolate tablets	-	+	+	+p	+p	+							+	+	+	PD	PD	5	a
4985	Black chocolate tablets	-	+	+	+p	+p	+							+	+	+	PD	PD	5	a
4986	Black chocolate tablets	+	+	+	+p	+p	+							+	+	+	PA	PA	5	a
5621	Cocoa powder	-	i/+*/+**	i/i*/i****/-°	+M	+M	+							+	+	-	PD	NA	5	a
4381	Cereals with probiotics	+	+	+	+p	+p	+							+	+	+	PA	PA	5	b
4382	Cereals with probiotics	+	+	+	+p	+p	+							+	+	+	PA	PA	5	b
4383	Cereals with probiotics	+	+	+	+p	+p	+							+	+	+	PA	PA	5	b
4384	Cereals with probiotics	-	-/+/-	+/+/-	st	st			st (24h)		st (24h)			- (MSRV -)	-	-	PPNA	PPNA	5	b
4385	Cereals with probiotics	-	-	-	st	st			st (24h)		st (24h)			-	-	-	NA	NA	5	b
4386	Cereals with probiotics	+	-/+/+	+	st	st			st (24h)		st (24h)			- (MSRV -)	-	-	PPND	PPND	5	b
4387	Cereals with probiotics	+	+	+	st	st			st (24h)		st (24h)			- (MSRV -)	-	-	PPND	PPND	5	b
5622	Infant formula with probiotics	+	+	+	+p	+p	+							+	+	+	PA	PA	5	b
5623	Infant formula with probiotics	+	+	+	+p	+p	+							+	+	+	PA	PA	5	b
5625	Infant formula with probiotics	+	+	-/-/-	+p	+p	+							+	+	-	PA	ND	5	b
5626	Infant formula with probiotics	+	+	+	+p	+p	+							+	+	+	PA	PA	5	b
5627	Infant formula with probiotics	+	+	+	st	st			+p		+p	+		+	+	+	PA	PA	5	b
5628	Infant formula with probiotics	+	-	-	st	st								-	-	-	ND	ND	5	b
4395	Whole egg powder	+	-	-	st	st								-	-	-	ND	ND	5	c
4396	White egg powder	+	+	+	+p	+p	+							+	+	+	PA	PA	5	c
4397	White egg powder	+	+	+	+p	+p	+							+	+	+	PA	PA	5	c
4399	Whole egg powder	-	+	+	+p	+p	+							+	+	+	PD	PD	5	c
4400	Whole egg powder	+	+	+	+p	+p	+							+	+	+	PA	PA	5	c
4401	Whole egg powder	+	-	-	st	st			st (24h)		st (24h)			-	-	-	ND	ND	5	c
4730	Pasteurized egg yolk	-	+	+	+p	+p	+							+	+	+	PD	PD	5	c
4731	Pasteurized egg yolk	+	+	+	+p	+p	+							+	+	+	PA	PA	5	c

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))



**SPECIFIC INGREDIENTS AND FOODS - After storage for 72 h at 5°C ± 3°C**  
**(Extension study No 1)**

Sample N°	Product	ISO 6579* Result	Alternative method : GENE-UP Salmonella																Category	Type
			BPW for 18h at 41,5°C + 72h at 5°C ± 3°C																	
			PCR-BPW 72h	PCR-Lysate 72h	Confirmation								Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate			
					Direct streaking				Subculture SX2											
			Result	Result	6h at 41,5°C±1,0°C				Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate							
XLD		ASAP			XLD		ASAP													
Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif					
	Api		Latex	Api		Latex	Api		Latex	Api		Latex	Api		Latex	Api				
4732	Pasteurized whole egg	-	+	+	+p		+p	+						+	+	+	PD	PD	5	c
4733	Pasteurized whole egg	+	+	+	+p		+p	+						+	+	+	PA	PA	5	c
4734	Pasteurized egg white	+	-	-	st		st			st		st		-	-	-	ND	ND	5	c
5212	Whole egg powder	-	-	-	st		st							-	-	-	NA	NA	5	c
5221	Pasteurized egg yolk	-	-	-	st		st							-	-	-	NA	NA	5	c
5629	Sweet egg yolk pasteurized egg (50%)	+	+	+	+p		+p	+						+	+	+	PA	PA	5	c
5630	Salted egg yolk pasteurized (10%)	+	+	+	+p		+p	+						+	+	+	PA	PA	5	c

RAW MEATS (except poultry) - 375 g sample size (10 h incubation time) - After storage for 72 h at 5°C ± 3°C																				
Sample N°	Product	ISO 6579+ Result	Alternative method : GENE- UP Salmonella BPW for 10h at 41,5°C + 72 h at 5°C ± 3°C															Category	Type	
			PCR- BPW 72h Result	PCR- Lysate 72h Result	Confirmation										Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW			Agreement 72h Lysate
					Direct streaking					Subculture SX2 6h at 41,5°C±1,0°C										
			XLD		ASAP			XLD		ASAP			Confirmation final result							
Typical colonies	Before purif Api	Typical colonies	Before purif Latex	Api	Typical colonies	Before purif Api	Typical colonies	Before purif Latex	Api											
4357	Ground beef	+	+	+	+m		+1/2	+						+	+	+	PA	PA	9	a
4358	Ground beef	-	+	+	-		+m/+	+						+	+	+	PD	PD	9	a
4359	Beef trim	+	-	-	+m/-		-							-	-	-	ND	ND	9	a
4360	Lamb trim	+	+	+	+m		+m/+	+						+	+	+	PA	PA	9	a
4361	Lamb trim	+	+	+	-		+m/+	+						+	+	+	PA	PA	9	a
4362	Lamb trim	-	+	+	-		+m/+	+						+	+	+	PD	PD	9	a
4363	Veal trim	-	+	+	+m/+		+m	+						+	+	+	PD	PD	9	a
4364	Veal trim	+	-/+	-/-	+m/-		-			+m/+		+m	+	+	-	-	ND	ND	9	a
4365	Veal trim	+	-/+	+	+m/-		-			+m		+M	+	+	-	+	ND	PA	9	a
4366	Pork trim	-	-/-	+	-		+m	+						+	-	+	NA	PD	9	a
4367	Pork trim	+	+	+	-		+m	+						+	+	+	PA	PA	9	a
4368	Pork trim	+	+	+	-		+1/2	+						+	+	+	PA	PA	9	a
5307	Pork trim	+	+	-/+	-		-			+m (24h)		+m (24h)	+	+	+	-	PA	ND	9	a
4369	Frozen ground beef	+	+	+	+m/-		+md/+	+						+	+	+	PA	PA	9	b
4370	Frozen ground beef	+	-/+	+	-		-			+m		+1/2	+	+	-	+	ND	PA	9	b
4371	Frozen ground beef	+	+	-/-	-		-			+1/2 (24h)		+1/2 (24h)	+	+	-	-	PA	ND	9	b
4372	Frozen ground veal	+	+	+	+m/-		+m/+	+						+	+	+	PA	PA	9	b
4373	Frozen ground veal	+	-/-	+	+md/-		-			-		+m(1)	+	+	-	+	ND	PA	9	b
4374	Frozen Veal trim	-	+	+	+md/+		+m	+						+	+	+	PD	PD	9	b
4375	Frozen lamb trim	+	+	+	+m		+M	+						+	+	+	PA	PA	9	b
4376	Frozen lamb trim	-	+	+	+md/+		+1/2	+						+	+	+	PD	PD	9	b
4377	Frozen lamb trim	+	+	+	+m		+M	+						+	+	+	PA	PA	9	b
4378	Frozen pork trim	+	+	+	+m		+1/2	+						+	+	+	PA	PA	9	b
4379	Frozen pork trim	+	+	+	+m		+1/	+						+	+	+	PA	PA	9	b
4380	Frozen pork trim	+	+	+	-		+m/+	+						+	+	+	PA	PA	9	b
5313	Frozen Veal trim	-	-	-	-		-			-(24h)		-(24h)		-	-	-	NA	NA	9	b
4402	Seasoned ground beef	+	+	+	+m/+		+m	+						+	+	+	PA	PA	9	c
4403	Seasoned ground beef	+	+	+	+m(1)		+m	+						+	+	+	PA	PA	9	c
4404	Seasoned beef trim	+	+	+	+m		+m	+						+	+	+	PA	PA	9	c
4405	Seasoned ground beef	+	+	+	+md/-		+md/+	+						+	+	+	PA	PA	9	c
4406	Seasoned beef trim	+	-	-	+md/-		-							-	-	-	ND	ND	9	c
4407	Seasoned pork trim	+	+	+	-		+m/+	+						+	+	+	PA	PA	9	c
4408	Seasoned beef trim	+	+	+	+md/+		+m	+						+	+	+	PA	PA	9	c
4409	Seasoned pork trim	+	+	+	+md/+		+m/+	+						+	+	+	PA	PA	9	c
4410	Seasoned pork trim	-	+	+	-		+m/+	+						+	+	+	PD	PD	9	c
4412	Seasoned beef trim	-	+	-/-	-		-			+m/+ (24h)	+	+m/+ (24h)	+	+	+	-	PD	NA	9	c
4413	Seasoned lamb trim	+	+	+	-		+md/+	+						+	+	+	PA	PA	9	c

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

RAW MEATS (except poultry) - 375 g sample size (24 h incubation time) - After storage for 72 h at 5°C ± 3°C																				
Sample N°	Product	ISO 6579♦ Result	GeneUP Salmonella																Category	Type
			BPW for 24h at 41,5°C +7 2h at 5°C ± 3°C																	
			PCR-BPW 72h Result	PCR-Lysate 72h Result	Confirmation								Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 24h/72h BPW	Agreement 24h/72h Lysate			
					Direct streaking				Subculture SX2											
					6h at 41,5°C±1,0°C															
		XLD		ASAP		XLD		ASAP												
		Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif									
		Api		Latex		Api		Latex		Api										
4357	Ground beef	+	+	+	+m/+		+m/+	+					+	+	+	PA	PA	9	a	
4358	Ground beef	-	+	+	-		+m/+	+					+	+	+	PD	PD	9	a	
4359	Beef trim	+	-	-	-		-						-	-	-	ND	ND	9	a	
4360	Lamb trim	+	+	+	+m		+1/2	+					+	+	+	PA	PA	9	a	
4361	Lamb trim	+	+	+	+m/+		+m/+	+					+	+	+	PA	PA	9	a	
4362	Lamb trim	-	+	+	+m/+		+m/+	+					+	+	+	PD	PD	9	a	
4363	Veal trim	-	+	+	+m/+		+m/+	+					+	+	+	PD	PD	9	a	
4364	Veal trim	+	+	+	-		+m/+	+					+	+	+	PA	PA	9	a	
4365	Veal trim	+	+	+	+m/+		+m/+	+					+	+	+	PA	PA	9	a	
4366	Pork trim	-	+	+	+m/+		+m	+					+	+	+	PD	PD	9	a	
4367	Pork trim	+	+	+	+m/+		+m	+					+	+	+	PA	PA	9	a	
4368	Pork trim	+	+	+	+m/+		+m	+					+	+	+	PA	PA	9	a	
5307	Pork trim	+	+	+	+md/+	+	+md/+	+		+m (24h)		+m (24h)	+	+	+	PA	PA	9	a	
4369	Frozen ground beef	+	+	+	+md/-		+m/+	+					+	+	+	PA	PA	9	b	
4370	Frozen ground beef	+	-/+	+	+md/+		+m	+		+m		+1/2	+	+	+	ND	PA	9	b	
4371	Frozen ground beef	+	+	+	+m		+M	+					+	+	+	PA	PA	9	b	
4372	Frozen ground veal	+	+	+	+m		+m	+					+	+	+	PA	PA	9	b	
4373	Frozen ground veal	+	+	+	-		+m/-			-		+M	+	+	+	PA	PA	9	b	
4374	Frozen Veal trim	-	+	+	+m		+1/2	+					+	+	+	PD	PD	9	b	
4375	Frozen lamb trim	+	+	+	+m/+		+1/2	+					+	+	+	PA	PA	9	b	
4376	Frozen lamb trim	-	+	+	+m		+1/2	+					+	+	+	PD	PD	9	b	
4377	Frozen lamb trim	+	+	+	+1/2		+M	+					+	+	+	PA	PA	9	b	
4378	Frozen pork trim	+	+	+	+1/2		+m	+					+	+	+	PA	PA	9	b	
4379	Frozen pork trim	+	+	+	+m		+1/2	+					+	+	+	PA	PA	9	b	
4380	Frozen pork trim	+	+	+	-		+m	+					+	+	+	PA	PA	9	b	
5313	Frozen Veal trim	-	+	+	-		-			-(24h)		-(24h)		+(MSRV +)	+	+	PD	PD	9	b
4402	Seasoned ground beef	+	+	+	+md/+		+M	+					+	+	+	PA	PA	9	c	
4403	Seasoned ground beef	+	+	+	+md/+		+M	+					+	+	+	PA	PA	9	c	
4404	Seasoned beef trim	+	+	+	+M		+p	+					+	+	+	PA	PA	9	c	
4405	Seasoned ground beef	+	+	+	-		-			-(24h)		-(24h)		-(MSRV -)	-	-	PPND	PPND	9	c
4406	Seasoned beef trim	+	-	-	+md/-		-						-	-	-	ND	ND	9	c	
4407	Seasoned pork trim	+	+	+	+md/-		+m/+	+					+	+	+	PA	PA	9	c	
4408	Seasoned beef trim	+	+	+	+m		+m	+					+	+	+	PA	PA	9	c	
4409	Seasoned pork trim	+	+	+	+md(1)		+m/+	+					+	+	+	PA	PA	9	c	
4410	Seasoned pork trim	-	+	+	-		+m/+	+					+	+	+	PD	PD	9	c	
4412	Seasoned beef trim	-	+	+	-		-			-(24h)		+m/+	+	+	+	PD	PD	9	c	
4413	Seasoned lamb trim	+	+	+	+md/+		+m	+					+	+	+	PA	PA	9	c	

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

PRODUCTION ENVIRONMENTAL SAMPLES - After storage for 72 h at 5°C ± 3°C																					
(Extension No 4)																					
Sample N°	Product	ISO6579 Result	Alternative method : GENE-UP Salmonella																Category	Type	
			BPW for 18h at 41,5°C + 72h at 5°C ± 3°C																		
			PCR-BPW 72h Result	PCR-Lysate 72h Result	Direct streaking				Subculture SX2				Confirmation final result	Final result 72h BPW	Final result 72h Lysate	Agreement 72h BPW	Agreement 72h Lysate				
					XLD		ASAP		6h at 41,5°C±1,0°C		ASAP										
					Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif	Typical colonies	Before purif									
Api		Latex		Api		Latex		Api													
7572	Residues (vegetables industry)	+	+	+	+p		+p	+							+	+	+	PA	PA	7	a
7573	Residues (vegetables industry)	+	+	+	+M		+M	+							+	+	+	PA	PA	7	a
7578	Residues (fish industry)	+	+	+	-		+m/+	+							+	+	+	PA	PA	7	a
7579	Residues (fish industry)	+	+	+	+p		+p	+							+	+	+	PA	PA	7	a
7580	Residues (fish industry)	+	+	-	-		-		+m(24h)		+1/2	+			+	+	+	PA	PA	7	a
7581	Residues (fish industry)	-	+	+	+M		+p	+							+	+	+	PD	PD	7	a
7667	Dust from dairy industry	+	+	+	+m		+m	+							+	+	+	PA	PA	7	a
7669	Dust from dairy industry	+	+	+	+p		+1/2	+							+	+	+	PA	PA	7	a
7670	Dust from dairy industry	+	-	-	st		st								-	-	-	ND	ND	7	a
7777	Residues (delicatessen industry)	-	+	+	+md		+md	+w							+	+	+	PD	PD	7	a
2404	Porcine environment	+	+	+	+m		+m	+	+m		+m				+	+	+	PA	PA	7	b
2405	Porcine environment	-	+	+	+m		+m/+	+	+m		+m				+	+	+	PD	PD	7	b
7350	Process water (swine industry)	+	-	-	-		-								-	-	-	ND	ND	7	b
7354	Process water (swine industry)	+	+	+	-		+m/+	+							+	+	+	PA	PA	7	b
7569	Cleaning water (vegetables industry)	+	+	+	+p		+p	+							+	+	+	PA	PA	7	b
7570	Cleaning water (vegetables industry)	+	+	+	+M		+M	+							+	+	+	PA	PA	7	b
7574	Process water (fish industry)	+	+	+	+M		+p	+							+	+	+	PA	PA	7	b
7575	Process water (fish industry)	+	-	-	st		-								-	-	-	ND	ND	7	b
7576	Process water (fish industry)	+	-	-	-		-								-	-	-	ND	ND	7	b
7577	Process water (fish industry)	+	+	+	+m		+M	+							+	+	+	PA	PA	7	b
7773	Cleaning water (delicatessen industry)	-	+	+	+M		+M	+							+	+	+	PD	PD	7	b
7364	Wipe (swine industry)	+	-	-	-		-								-	-	-	ND	ND	7	c
7661	Wipe (vegetables industry)	+	+	+	+M		+p	+							+	+	+	PA	PA	7	c
7662	Wipe (vegetables industry)	+	+	+	+1/2		+1/2	+							+	+	+	PA	PA	7	c
7663	Wipe (vegetables industry)	+	-	-	-		-								-	-	-	ND	ND	7	c
7664	Wipe (vegetables industry)	-	+	+	+m		+m/+	+							+	+	+	PD	PD	7	c
7665	Wipe (dairy industry)	+	+	+	+M		+M	+							+	+	+	PA	PA	7	c
7666	Wipe (dairy industry)	+	+	+	+p		+p	+							+	+	+	PA	PA	7	c
7786	Wipe (delicatessen industry)	+	+	+	+1/2		+M	+							+	+	+	PA	PA	7	c
7788	Wipe after cleaning (delicatessen industry)	+	+	+	+M		+p	+							+	+	+	PA	PA	7	c
7789	Wipe after cleaning (delicatessen industry)	+	+	+	+m(1)/+		+md/+	+							+	+	+	PA	PA	7	c

Appendix 5 - Atypical curve for sample 7884 (Initial validation)



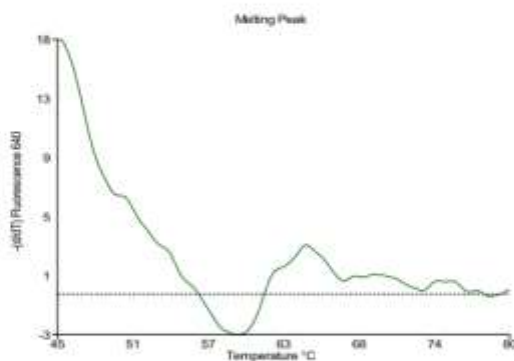
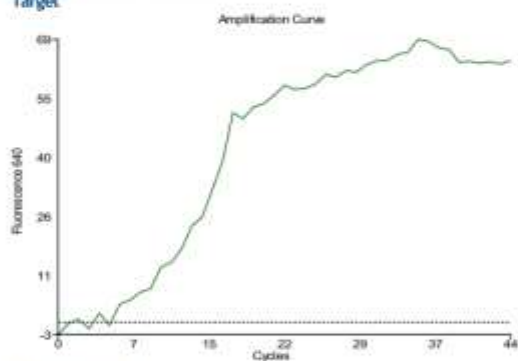
**ADRIA Developpement**

Creach Gwen  
29000 QUMPER  
02-98-10-18-18

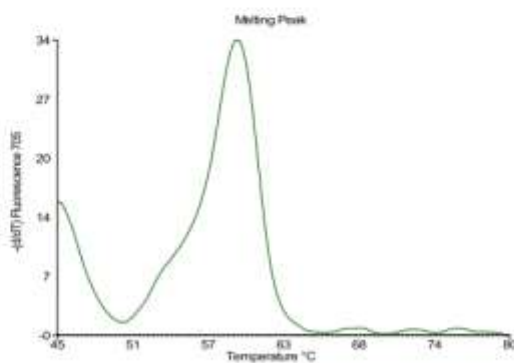
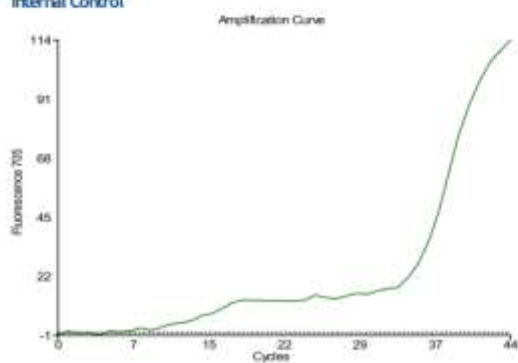
Results Report : 7884 A24.3

Property	Value
Assay	SLM
Sample ID	7884 A24.3
Result	<span style="color: green;">✔</span>
CP	12.10
TM (°C)	
Internal Control	Success
Target Coil	Negative
Status	<span style="color: green;">✔✔</span>
Matrix	
Retest	No
Comment	
Well	D6
Lysis Lot Number	402115
Lysis Expiration Date	5/23/2016
Assay Lot Number	484415
Assay Expiration Date	4/13/2016

Target



Internal Control



**Appendix 6 – Relative level of detection study: raw data**

**Matrix : Macédoine**  
**Strain : Salmonella Mbandaka Ad914**

Aerobic mesophilic flora : 4,4.10<sup>5</sup> CFU/g

Initial validation study

N° sample	Level	Contamination level- (cfu/sample)	ISO 6579 method*					Number positive samples/Total	GENE UP Salmonella								Number positive samples/Total	
			RVS broth		MKTn broth		Final result		PCR			Direct streaking			SX2-24h	Final result		
			XLD	ASAP	XLD	ASAP			CP	TM	Result	ChromID Salmonella	XLD	ASAP				Result
8194	0	/	-	st	-	-	-	0/5	0	0	-	-	+md/-	-	-	-	-	
8195			-	-	-	-	-		0	0	-	-	+md/-	-	-	-	-	
8196			st	st	-	-	-		0	0	-	-	+md/-	-	-	-	-	
8197			st	st	-	-	-		0	0	-	-	-	-	-	-	-	
8198			-	st	-	-	-		0	0	-	-	-	+md/-	-	-	-	-
8199	Low	0,8	-	-	-	-	-	9/20	0	0	-	-	-	-	-	-	-	
8200			-	-	-	-	-		0	0	-	-	-	-	-	-	-	
8201			-	-	-	-	-		0	0	-	-	+md/-	-	-	-	-	
8202			-	st	-	-	-		0	0	-	-	+md/-	-	-	-	-	
8203			-	-	-	-	-		20.41	67.6	+	+M	+M	+p	+	/	+	+
8204			+p	+p	+1/2	+p	+		0	0	-	-	-	-	-	-	-	-
8205			+p	+p	+M	+p	+		0	0	-	-	-	-	-	-	-	-
8206			-	-	-	-	-		0	0	-	-	-	-	-	-	-	-
8207			+p	+p	+1/2	+p	+		22.11	67.25	+	+M	+M	+p	+	/	+	+
8208			+p	+p	+M	+p	+		0	0	-	-	-	-	-	-	-	-
8209			+p	+p	+1/2	+p	+		0	0	-	-	-	-	-	-	-	-
8210			-	st	-	-	-		0	0	-	-	-	-	-	-	-	-
8211			-	st	-	-	-		0	0	-	-	-	-	-	-	-	-
8212			+p	+p	+1/2	+p	+		20.86	67.3	+	+M	+M	+p	+	/	+	+
8213			-	-	-	-	-		21.42	67.24	+	+M	+M	+p	+	/	+	+
8214			+p	+p	+M	+p	+		0	0	-	-	-	-	-	-	-	-
8215			+p	+p	+1/2	+p	+		22.82	67.07	+	+M	+M	+p	+	/	+	+
8216			-	-	-	-	-		0	0	-	-	-	-	-	-	-	-
8217			+p	+p	+1/2	+p	+		0	0	-	-	-	-	-	-	-	-
8218			-	-	-	-	-		0	0	-	-	-	-	-	-	-	-
8219	High	1,9	+p	+p	+1/2	+p	+	19/20	18.43	67.44	+	+M	+M	+p	+	/	+	
8220			+p	+p	+1/2	+p	+		20.41	67.45	+	+M	+M	+p	+	/	+	+
8221			+p	+p	+1/2	+p	+		20.11	67.41	+	+M	+M	+p	+	/	+	+
8222			+p	+p	+1/2	+p	+		19.98	67.38	+	+M	+M	+p	+	/	+	+
8223			+p	+p	+1/2	+p	+		0	0	-	-	-	-	-	-	-	-
8224			+p	+p	+M	+p	+		22.13	67.29	+	+M	+M	+p	+	/	+	+
8225			+p	+p	+1/2	+p	+		20.74	67.61	+	+M	+M	+p	+	/	+	+
8226			+p	+p	+1/2	+p	+		20.79	67.35	+	+M	+M	+p	+	/	+	+
8227			+p	+p	+1/2	+p	+		20.82	67.3	+	+M	+M	+p	+	/	+	+
8228			+p	+p	+1/2	+p	+		20.55	67.33	+	+M	+M	+p	+	/	+	+
8229			+p	+p	+M	+p	+		20.05	67.27	+	+M	+M	+p	+	/	+	+
8230			+p	+p	+1/2	+p	+		22.58	67.26	+	+M	+M	+p	+	/	+	+
8231			+p	+p	+1/2	+p	+		20.48	67.3	+	+M	+M	+p	+	/	+	+
8232			+p	+p	+M	+p	+		22.16	67.15	+	+M	+M	+p	+	/	+	+
8233			+p	+p	+1/2	+p	+		0	0	-	-	-	-	-	-	-	-
8234			+p	+p	+1/2	+p	+		21.57	67.46	+	+M	+M	+p	+	/	+	+
8235			+p	+p	+1/2	+p	+		20.72	67.19	+	+M	+M	+p	+	/	+	+
8236			-	-	-	-	-		20.09	67.31	+	+M	+M	+p	+	/	+	+
8237			+p	+p	+1/2	+p	+		20.25	67.31	+	+M	+M	+p	+	/	+	+
8238			+p	+p	+M	+p	+		20.15	67.26	+	+M	+M	+p	+	/	+	+

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

**Matrix : Ground beef**  
**Strain : Salmonella Typhimurium A00C060**

**Standard protocol**  
 Aerobic mesophilic flora : 7,0.10<sup>2</sup> CFU/g

**Initial validation study**

N° sample	Level	Contamination level- (cfu/sample)	ISO 6579 method*					Number positive samples/Total	GENE UP Salmonella							Number positive samples/Total		
			RVS broth		MKTTn broth		Final result		PCR			Direct streaking			SX2-24h		Final result	
			XLD	ASAP	XLD	ASAP			CP	TM	Result	ChromID Salmonella	XLD	ASAP				Result
8115	0	/	st	st	st	st	-	0/5	0	0	-	st	-	st	-	-	-	0/5
8116			st	st	st	st	-		0	0	-	st	-	st	-	-	-	
8117			st	st	st	st	-		0	0	-	-	-	-	-	-	-	
8118			st	st	st	st	-		0	0	-	-	-	-	-	-	-	
8119			st	st	st	st	-		0	0	-	-	-	-	-	-	-	
8120	Low	0,6	st	st	st	st	-	11/20	0	0	-	-	-	-	-	-	-	14/20
8121			st	st	st	st	-		23.1	67.28	+	+p	+M	+M	+	/	+	
8122			st	st	st	st	-		0	0	-	st	-	st	-	-	-	
8123			st	st	st	st	-		22.74	67.32	+	+1/2	+M	+M	+	/	+	
8124			+p	+p	+p	+p	+		21.78	66.99	+	+M	+M	+M	+	/	+	
8125			+p	+p	+p	+p	+		0	0	-	st	st	st	-	-	-	
8126			st	st	st	st	-		21.99	67.09	+	+M	+M	+M	+	/	+	
8127			+p	+p	+p	+p	+		21.39	67.12	+	+M	+M	+M	+	/	+	
8128			+p	+p	+p	+p	+		22.43	67.19	+	+M	+M	+M	+	/	+	
8129			st	st	st	st	-		22.58	67.01	+	+M	+M	+M	+	/	+	
8130			st	st	st	st	-		22.81	67.22	+	+M	+M	+p	+	/	+	
8131			+p	+p	+p	+p	+		22.05	67.4	+	+M	+M	+M	+	/	+	
8132			st	st	st	st	-		0	0	-	-	-	-	-	-	-	
8133			+p	+p	+p	+p	+		22.83	67.42	+	+M	+M	+M	+	/	+	
8134			+p	+p	+p	+p	+		21.85	67.36	+	+M	+M	+M	+	/	+	
8135			+p	+p	+p	+p	+		0	0	-	st	-	st	-	-	-	
8136			+p	+p	+p	+p	+		22.1	67.29	+	+M	+M	+M	+	/	+	
8137			+p	+p	+p	+p	+		0	0	-	st	st	st	-	-	-	
8138			+p	+p	+p	+p	+		22.18	67.45	+	+p	+M	+M	+	/	+	
8139			st	st	st	st	-		23.29	67.22	+	+p	+M	+M	+	/	+	
8140	High	1,4	+p	+p	+p	+p	+	18/20	21.65	67.15	+	+p	+M	+M	+	/	+	15/20
8141			+p	+p	+p	+p	+		21.86	67.26	+	+p	+M	+M	+	/	+	
8142			+p	+p	+p	+p	+		21.87	67.28	+	+p	+M	+M	+	/	+	
8143			+p	+p	+p	+p	+		22.51	67.25	+	+p	+M	+M	+	/	+	
8144			+p	+p	+p	+p	+		0	0	-	st	-	st	-	-	-	
8145			+p	+p	+p	+p	+		20.64	67.04	+	+M	+M	+M	+	/	+	
8146			+p	+p	+p	+p	+		22.52	67.33	+	+p	+M	+M	+	/	+	
8147			+p	+p	+p	+p	+		22.48	67.38	+	+M	+M	+M	+	/	+	
8148			+p	+p	+p	+p	+		21.76	67.27	+	+M	+M	+M	+	/	+	
8149			+p	+p	+p	+p	+		0	0	-	-	-	-	-	-	-	
8150			+p	+p	+p	+p	+		0	0	-	st	-	st	-	-	-	
8151			+p	+p	+p	+p	+		22.09	67.22	+	+M	+M	+M	+	/	+	
8152			st	st	st	st	-		21.74	67.12	+	+p	+M	+M	+	/	+	
8153			+p	+p	+p	+p	+		21.34	67.09	+	+M	+M	+M	+	/	+	
8154			+p	+p	+p	+p	+		22.11	67.32	+	+M	+M	+M	+	/	+	
8155			+p	+p	+p	+p	+		22.44	67.19	+	+M	+M	+M	+	/	+	
8156			+p	+p	+p	+p	+		0	0	-	st	-	st	-	-	-	
8157			+p	+p	+p	+p	+		22.42	67.17	+	+M	+M	+M	+	/	+	
8158			st	st	st	st	-		22.09	67.2	+	+M	+M	+M	+	/	+	
8159			+p	+p	+p	+p	+		0	0	-	st	st	st	-	-	-	

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

Matrix : Ground Veal meat  
 Strain : *Salmonella* Enteritidis Ad926  
 Aerobic mesophilic flora : 2,3.10<sup>6</sup>CFU/g

N° sample	Level	Contami- nation level- (cfu/sample)	ISO 6579 method*					Number positive samples/ Total	Gene UP <i>Salmonella</i>													Number positive samples/ Total 24h					
			RVS broth		MKTTn broth		Final result		BPW 8h 41.5°C							Number positive samples/ Total 8h	BPW 24h 41.5°C										
			XLD	ASAP	XLD	ASAP			PCR			Direct streaking			SX2-24h		Final result 8h based on the second extraction	PCR			Direct streaking			SX2-24h	Final result 24h		
									CP	TM	Re- sult	ChromID Salmonella	XLD	ASAP				Re- sult	CP	TM	Re sult		ChromID Salmonella			XLD	ASAP
1261	0	/	-	-	-	-	-	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	0/5	
1262			-	-	-	-	-	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-		
1263			-	-	-	-	-	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-		
1264			-	-	-	-	-	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-		
1265			-	-	-	-	-	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-		
1266	Low	0.9	+M	+p	+m	+M	+	0	0	-	-	-	+md/+	+	+	-	30.17	67.65	+	-	+	(1)	+m/+	+	+	+	14/20
1267			-	-	-	-	-	35.28	67.75	+	-	-	+md/+	+	+	+	31.69	67.52	+	-	-		+m/+	+	+	+	
1268			-	-	-	-	-	34.11	67.45	+	-	-	+md/+	+	+	+	31.72	67.83	+	-	-		+m/+	+	+	+	
1269			-	-	-	-	-	33.66	67.55	+	-	-	+md/+	+	+	+	31.47	67.21	+	-	-		+m/+	+	+	+	
1270			+M	+P	+M	+M	+	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	
1271			+1/2	+P	+M	+p	+	0	67.5	+	-	-	+md/+	+	+	+	31.9	67.44	+	-	-		+m/+	+	+	+	
1272			+M	+p	+1/2	+M	+	0	0	-	-	-	+md/+	+	+	-	30.67	67.23	+	1+d/+	-		+m/+	+	+	+	
1273			-	-	-	-	-	32.51	67.3	+	-	-	+md/+	+	+	+	29.62	67.39	+	+md/+	-		+md/+	+	+	+	
1274			+M	+M	+M	+M	+	0	0	-	-	-	+m/+	+	+	-	30.23	67.44	+	-	-		+m/+	+	+	+	
1275			+M	+p	+M	+M	+	33.65	67.31	+	-	-	+md/+	+	+	+	29.53	67.19	+	-	-		+m/+	+	+	+	
1276			-	-	-	-	-	0	0	-	-	-	+m/+	+	+	-	29.86	67.59	+	-	-		+m/+	+	+	+	
1277			-	-	-	-	-	33.23	67.64	+	-	-	+m/+	+	+	+	28.64	67.63	+	+md/+	-		+m/+	+	+	+	
1278			-	-	-	-	-	0	67.72	+	-	-	+md/+	+	+	+	30.59	67.4	+	-	-		+m/+	+	+	+	
1279			-	-	-	-	-	0	67.68	+	-	-	+md/+	+	+	+	28.67	67.44	+	-	-		+m	+	+	+	
1280			-	-	-	-	-	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	
1281			+m	+p	+1/2	+M	+	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	
1282			+m	+p	+m	+M	+	32.71	67.47	+	-	-	+m/+	+	+	+	29.81	67.34	+	-	-		+m/+	+	+	+	
1283			-	-	-	-	-	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	
1284			+m	+M	+m	+M	+	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	
1285			-	-	-	-	-	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	
1286	-	-	-	-	-	0	0	-	-	-	+m/+	+	+	-	28.75	67.17	+	-	1+/-		+m	+	+	+			
1287	+M	+M	+M	+M	+	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-			
1288	+m	+1/2	+M	+M	+	32.61	67.48	+	-	-	+md/+	+	+	+	28.78	67.38	+	-	-		+m/+	+	+	+			
1289	-	-	-	-	-	32.57	67.58	+	-	-	+m/+	+	+	+	30.14	67.32	+	-	-		+m/+	+	+	+			
1290	+M	+M	+m	+M	+	32.55	67.67	+	-	-	+m/+	+	+	+	28.11	67.42	+	1+d/+	-		+m	+	+	+			
1291	-	-	-	-	-	32.09	67.38	+	-	-	+m/+	+	+	+	26.61	67.24	+	+md/+	-		+m	+	+	+			
1292	+M	+p	+m	+M	+	32.7	67.1	+	-	-	+m/+	+	+	+	27.16	67.34	+	+md/+	-	1/2		+	+	+			
1293	+M	+p	+M	+M	+	0	0	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-			
1294	-	-	-	-	-	0	67.67	+	-	-	+m/+	+	+	+	29.49	67.36	+	-	-		+m	+	+	+			
1295	+M	+p	+M	+M	+	35	67.59	+	-	-	+m/+	+	+	+	28.7	67.38	+	-	-		+m	+	+	+			
1296	+M	+p	+M	+M	+	32.47	67.37	+	-	-	+m/+	+	+	+	28.16	67.34	+	-	+m/+		+m/+	+	+	+			
1297	+M	+p	+M	+M	+	33.14	67.53	+	-	-	+md/+	+	+	+	30.07	67.36	+	-	-		+m/+	+	+	+			
1298	+M	+M	+1/2	+M	+	32.59	67.45	+	-	-	+md/+	+	+	+	29.63	67.39	+	-	-		+m/+	+	+	+			
1299	+1/2	+M	+M	+M	+	31.69	67.24	+	-	-	+m/+	+	+	+	27.54	67.07	+	-	-		+m/+	+	+	+			
1300	+M	+p	+M	+M	+	32.45	67.47	+	-	-	+m/+	+	+	+	30.63	67.43	+	-	-		+m/+	+	+	+			
1301	+M	+p	+M	+M	+	32.13	67.62	+	-	-	+m/+	+	+	+	29.87	67.31	+	-	-		+m/+	+	+	+			
1302	+M	+p	+M	+M	+	32.4	67.36	+	-	-	+m/+	+	+	+	30.01	67.32	+	-	-		+m/+	+	+	+			
1303	+M	+p	+M	+M	+	30.88	67.44	+	-	-	+m/+	+	+	+	27.67	67.49	+	-	-		+m/+	+	+	+			
1304	-	-	-	-	-	32.29	67.43	+	-	-	+m/+	+	+	+	30.16	67.44	+	-	-		+m/+	+	+	+			
1305	+M	+M	+M	+M	+	32.11	67.29	+	-	-	+m/+	+	+	+	27.17	67.35	+	-	-		+m	+	+	+			

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))



**Matrix : Fresh Spinach**  
 Strain : Salmonella Virchow Ad1721

**Extension study No 1**

N° sample	Level	Contamination level- (cfu/sample)	ISO 6579 method*				Number positive samples/Total	Gene UP Salmonella							Number positive samples/Total		
			RVS broth		MKTTn broth			PCR			Direct streaking			SX2-24h		Final result	
			XLD	ASAP	XLD	ASAP		Final result	CP	TM	Result	ChromID Salmonella	XLD				ASAP
2176	0	/	-	-	-	-	-	0	0	-	-	-	-	-	-	-	0/5
2177			st	st	-	-	-	0	0	-	-	-	-	-	-	-	
2178			st	-	-	-	-	0	0	-	-	-	-	-	-	-	
2179			-	-	-	-	-	0	0	-	-	-	-	-	-	-	
2180			st	st	-	-	-	0	0	-	-	-	-	-	-	-	
2201	Low	0,6	-	st	+m (Api=Citrobacter youngae)	-	-	23.74	67.28	+	+M	+M	+M	+	/	+	7/20
2202			-	-	-	-	-	0	0	-	-	-	-	-	-	-	
2203			+M	+M	+M	+M	+	0	0	-	-	-	-	-	-	-	
2204			+M	+p	+M	+M	+	0	0	-	-	-	-	-	-	-	
2205			+p	+p	+M	+M	+	24.45	67.41	+	+M	+M	+M	+	/	+	
2206			+p	+p	+M	+M	+	0	0	-	-	-	-	-	-	-	
2207			-	st	-	st	-	0	0	-	-	-	-	-	-	-	
2208			+p	+p	+M	+M	+	0	0	-	-	-	-	-	-	-	
2209			+p	+p	+M	+M	+	25.66	67.25	+	+M	+M	+M	+	/	+	
2210			-	st	-	-	-	23.21	67.28	+	+M	+M	+M	+	/	+	
2211			+p	+p	+M	+M	+	0	0	-	-	-	-	-	-	-	
2212			+M	+p	+M	+M	+	22.88	67.26	+	+M	+M	+M	+	/	+	
2213			-	st	-	-	-	23.77	67.25	+	+M	+M	+M	+	/	+	
2214			-	-	-	-	-	0	0	-	-	-	-	-	-	-	
2215			-	-	-	-	-	0	0	-	-	-	-	-	-	-	
2216			-	st	-	-	-	0	0	-	-	-	-	-	-	-	
2217			-	-	-	-	-	0	0	-	-	-	-	-	-	-	
2218			+M	+M	+M	+M	+	0	0	-	-	-	-	-	-	-	
2219			+M	+p	+M	+M	+	0	0	-	-	-	-	-	-	-	
2220			-	-	-	-	-	22.98	67.34	+	+M	+M	+M	+	/	+	
2181	High	1,8	+M	+p	+M	+M	+	24.87	67.65	+	+M	+M	+M	+	/	+	17/20
2182			st	st	-	-	-	25.17	67.58	+	+M	+M	+M	+	/	+	
2183			-	-	-	-	-	26.05	67.75	+	+M	+M	+M	+	/	+	
2184			+M	+M	+M	+M	+	24.53	67.56	+	+M	+M	+M	+	/	+	
2185			-	-	-	-	-	22.45	67.22	+	+M	+M	+M	+	/	+	
2186			+p	+p	+M	+M	+	0	0	-	-	-	-	-	-	-	
2187			+M	+M	+M	+M	+	23.79	67.31	+	+m	+m	+m	+	/	+	
2188			+M	+p	+M	+M	+	23.66	67.35	+	+M	+M	+M	+	/	+	
2189			+M	+p	+M	+M	+	0	0	-	-	-	-	-	-	-	
2190			-	-	-	-	-	24.72	67.25	+	+M	+M	+M	+	/	+	
2191			+p	+p	+m	+M	+	23.92	67.5	+	+1/2	+M	+M	+	/	+	
2192			+p	+p	+M	+M	+	0	0	-	-	-	-	-	-	-	
2193			+p	+p	+M	+M	+	23.79	67.23	+	+M	+M	+M	+	/	+	
2194			+M	+p	+M	+M	+	24.01	67.51	+	+M	+M	+M	+	/	+	
2195			+M	+M	+M	+M	+	36.05	67.45	+	-	-	-	-	+	+	
2196			+M	+p	+M	+M	+	25.46	67.33	+	+M	+M	+M	+	/	+	
2197			+M	+M	+M	+M	+	22.9	67.4	+	+M	+M	+M	+	/	+	
2198			+M	+M	+M	+M	+	23.65	67.2	+	+M	+M	+M	+	/	+	
2199			+p	+p	+M	+M	+	24.25	67.47	+	+M	+M	+M	+	/	+	
2200			+p	+p	+M	+M	+	25.11	67.53	+	+M	+M	+M	+	/	+	

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

Matrix : Milk powder  
Strain : Salmonella Anatum 298

Aerobic mesophilic flora : 4,4.10<sup>2</sup> CFU/g

**Extension study No 1**

N° sample	Level	Contamination level- (cfu/sample)	ISO 6579 method*					Number positive samples/Total	GENE UP Salmonella 18h at 41,5°C								Number positive samples/Total	
			RVS broth		MKT In broth		Final result		PCR			Direct streaking			SX2-24h	Final result		
			XLD	ASAP	XLD	ASAP			CP	TM	Result	ChromID Salmonella	XLD	ASAP				Result
4574	0	/	st	st	st	st	-	0/5	0	0	-	st	st	st	-	st	-	0/5
4575			st	st	st	st	-		0	0	-	st	st	st	-	st	-	
4576			st	st	st	st	-		0	0	-	st	st	st	-	st	-	
4577			st	st	st	st	-		0	0	-	st	st	st	-	st	-	
4578			st	st	st	st	-		0	0	-	st	st	st	-	st	-	
5547	Low	0,4	+p	+p	+p	+p	+	13/20	33.04	66	+	+p	+p	+p	+	/	+	18/20
5548			st	st	st	st	-		31.31	65.44	+	+p	+p	+M	+	/	+	
5549			+p	+p	+p	+p	+		26.68	65.85	+	+p	+p	+p	+	/	+	
5550			+p	+p	+p	+p	+		33.55	65.33	+	+p	+p	+p	+	/	+	
5551			+p	+p	+p	+p	+		30.84	65.46	+	+p	+p	+p	+	/	+	
5552			st	st	st	st	-		0	0	-	st	st	st	-	st	-	
5553			+p	+p	+p	+p	+		26.75	65.76	+	+p	+p	+p	+	/	+	
5554			+p	+p	+p	+p	+		27.89	65.75	+	+p	+p	+p	+	/	+	
5555			st	st	st	st	-		0	0	-	st	st	st	-	st	-	
5556			st	st	st	st	-		32.06	65.26	+	-	+md/+	+m/+	+	/	+	
5557			+p	+p	+p	+p	+		33.65	65.29	+	+p	+p	+p	+	/	+	
5558			st	st	st	st	-		23.52	65.92	+	+p	+p	+p	+	/	+	
5559			+p	+p	+p	+p	+		27.66	65.83	+	+p	+p	+p	+	/	+	
5560			st	st	st	st	-		31.32	65.41	+	+m	+1/2	+1/2	+	/	+	
5561			+p	+p	+p	+p	+		31.98	65.33	+	+p	+p	+M	+	/	+	
5562			+p	+p	+p	+p	+		31.07	65.6	+	+p	+p	+p	+	/	+	
5563			+p	+p	+p	+p	+		28.61	65.5	+	+p	+p	+p	+	/	+	
5564			st	st	st	st	-		28.44	65.72	+	+p	+p	+p	+	/	+	
5565			+p	+p	+p	+p	+		29.59	65.49	+	+p	+p	+p	+	/	+	
5566			+p	+p	+p	+p	+		24.64	65.82	+	+p	+p	+p	+	/	+	
4599	High	1,0	st	st	st	st	-	13/20	32.19	65.23	+	+p	+p	+p	+	/	+	12/20
4600			+p	+p	+p	+p	+		31.5	65.27	+	+p	+p	+p	+	/	+	
4601			st	st	st	st	-		30.17	65.75	+	+p	+p	+p	+	/	+	
4602			+p	+p	+p	+p	+		31.51	65.29	+	+p	+p	+p	+	/	+	
4603			st	st	st	st	-		0	0	-	st	st	st	-	st	-	
4604			st	st	st	st	-		29.21	65.73	+	+p	+p	+p	+	/	+	
4605			+p	+p	+p	+p	+		28.52	65.97	+	+p	+p	+p	+	/	+	
4606			st	st	st	st	-		0	0	-	st	st	st	-	st	-	
4607			+p	+p	+p	+p	+		0	0	-	st	st	st	-	st	-	
4608			+p	+p	+p	+p	+		0	0	-	st	st	st	-	st	-	
4609			+p	+p	+p	+p	+		0	0	-	st	st	st	-	st	-	
4610			+p	+p	+p	+p	+		0	0	-	st	st	st	-	st	-	
4611			+p	+p	+p	+p	+		0	0	-	st	st	st	-	st	-	
4612			st	st	st	st	-		29.8	65.72	+	+p	+p	+p	+	/	+	
4613			st	st	st	st	-		32.23	65.58	+	+p	+p	+p	+	/	+	
4614			+p	+p	+p	+p	+		31.14	65.46	+	+p	+p	+p	+	/	+	
4615			+p	+p	+p	+p	+		26.87	65.82	+	+p	+p	+p	+	/	+	
4616			+p	+p	+p	+p	+		30.43	65.41	+	+p	+p	+p	+	/	+	
4617			+p	+p	+p	+p	+		29.97	65.82	+	+p	+p	+p	+	/	+	
4618			+p	+p	+p	+p	+		0	0	-	st	st	st	-	-	-	

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

Matrix : Pasteurized whole egg  
Strain : Salmonella Havana Ad1728

Aerobic mesophilic flora : <2,0.102 CFU/g

N° sample	Level	Contamination level- (cfu/sample)	ISO 6579 method*					Number positive samples/Total	GENE UP Salmonella 18h at 41,5°C										Number positive samples/Total
			RVS broth		MKTn broth		Final result		PCR			Direct streaking				SX2-24h	Final result		
			XLD	ASAP	XLD	ASAP			CP	TM	Result	ChromID	Salmonella	XLD	ASAP			Result	
4809	0	/	st	st	st	st	-	0/5			-	st	st	st	-	st	-	0/5	
4810			st	st	st	st	-				-	st	st	st	-	st	-		
4811			st	st	st	st	-				-	st	st	st	-	st	-		
4812			st	st	st	st	-				-	st	st	st	-	st	-		
4813			st	st	st	st	-				-	st	st	st	-	st	-		
4814	Low	0,6	st	st	st	st	-	7/20	25.22	65.87	+	+p	+p	+	/	+	10/20		
4815			+p	+p	+p	+p	+				-	st	st	st	-	st		-	
4816			+p	+p	+p	+p	+		24.76	65.82	+	+p	+p	+	/	+			
4817			st	st	st	st	-				-	st	st	st	-	st		-	
4818			st	st	st	st	-				-	st	st	st	-	st		-	
4819			st	st	st	st	-		25.67	65.86	+	+p	+p	+	/	+			
4820			st	st	st	st	-				-	st	st	st	-	st		-	
4821			+p	+p	+p	+p	+		26.17	65.82	+	+p	+p	+	/	+			
4822			st	st	st	st	-		26.13	65.88	+	+p	+p	+	/	+			
4823			st	st	st	st	-				-	st	st	st	-	st		-	
4824			st	st	st	st	-				-	st	st	st	-	st		-	
4825			+p	+p	+p	+p	+		25.14	66.09	+	+p	+p	+	/	+			
4826			st	st	st	st	-		25.29	66.03	+	+p	+p	+	/	+			
4827			st	st	st	st	-		25.13	65.81	+	+p	+p	+	/	+			
4828			st	st	st	st	-				-	st	st	st	-	st		-	
4829			+p	+p	+p	+p	+		25.57	65.85	+	+p	+p	+	/	+			
4830			st	st	st	st	-				-	st	st	st	-	st		-	
4831			st	st	st	st	-				-	st	st	st	-	st		-	
4832			+p	+p	+p	+p	+		25.65	66.04	+	+p	+p	+	/	+			
4833			+p	+p	+p	+p	+				-	st	st	st	-	st		-	
4834	+p	+p	+p	+p	+	25.8	65.84	+	+p	+p	+	/	+						
4835	+p	+p	+p	+p	+	27.12	65.89	+	+p	+p	+	/	+						
4836	+p	+p	+p	+p	+			-	st	st	st	-	st	-					
4837	+p	+p	+p	+p	+	26.51	65.94	+	+p	+p	+	/	+						
4838	+p	+p	+p	+p	+			-	st	st	st	-	st	-					
4839	+p	+p	+p	+p	+	25.86	65.86	+	+p	+p	+	/	+						
4840	st	st	st	st	-	24.98	65.99	+	+p	+p	+	/	+						
4841	+p	+p	+p	+p	+	25.96	66.09	+	+p	+p	+	/	+						
4842	st	st	st	st	-			-	st	st	st	-	st	-					
4843	st	st	st	st	-	26.22	65.91	+	+p	+p	+	/	+						
4844	+p	+p	+p	+p	+	26	65.9	+	+p	+p	+	/	+						
4845	st	st	st	st	-			-	st	st	st	-	st	-					
4846	+p	+p	+p	+p	+	26.1	65.93	+	+p	+p	+	/	+						
4847	st	st	st	st	-	26.05	65.83	+	+p	+p	+	/	+						
4848	st	st	st	st	-	25.49	66.06	+	+p	+p	+	/	+						
4849	+p	+p	+p	+p	+	24.82	66.06	+	+p	+p	+	/	+						
4850	st	st	st	st	-	25.45	65.79	+	+p	+p	+	/	+						
4851	+p	+p	+p	+p	+	25.98	65.89	+	+p	+p	+	/	+						
4852	+p	+p	+p	+p	+	28.21	66.17	+	+p	+p	+	/	+						
4853	+p	+p	+p	+p	+	26.61	65.98	+	+p	+p	+	/	+						

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

**Matrix : Beef trim (375 g sample size) - 10 h incubation time**  
**Strain : Salmonella Bredeney 975**

Aerobic mesophilic flora : 2,25.10<sup>7</sup> CFU/g

N° sample	Level	Contamination level- (cfu/sample)	ISO 6579 method*			Number positive samples/Total	GENE UP Salmonella										Number positive samples / Total 10h		
			RVS broth		MKT Tn broth		Final result	BPW 41.5°C / 10h					SX2-24h	Final result 10h					
			XLD	ASAP	XLD			ASAP	PCR		Direct streaking								
									CP	TM	Result	ChromID Salmonella			XLD	ASAP		Result	
4997	0	/	-	-	-	-	-	0	0	-	-	-	-	-	-	0/5			
4998			-	-	-	-	-	0	0	-	-	-	-	-	-				
4999			-	-	-	-	-	0	0	-	-	-	-	-	-				
5000			-	-	-	-	-	0	0	-	-	-	-	-	-				
5001			-	-	-	-	-	0	0	-	-	-	-	-	-				
5002			-	-	-	-	-	35.69	66.32	+	-	+md/-	+md/-	-	+		+		
5003	Low	0,8	-	-	-	-	-	0	0	-	-	-	-	-	-	8/20			
5004			-	-	-	-	-	34.66	66.2	+	-	+m/+	+md/-	+	/		+		
5005			+p	+p	+p	+p	+	0	0	-	-	+md/-	-	-	-		-		
5006			+p	+p	+p	+p	+	32.98	65.74	+	-	+md/+	+md/-	+	/		+		
5007			+p	+p	+p	+p	+	0	0	-	-	+md/-	-	-	-		-		
5008			-	-	-	-	-	0	0	-	-	+md/-	-	-	-		-		
5009			-	-	-	-	-	0	0	-	-	-	-	-	-		-		
5010			+p	+p	+p	+p	+	0	0	-	-	-	-	-	-		-		
5011			+p	+p	+p	+p	+	0	0	-	-	+md/-	-	-	-		-		
5012			+p	+p	+p	+p	+	32.83	65.88	+	+m(1)/+	-	+m	+	/		+		
5013			+p	+p	+p	+p	+	0	0	-	-	-	-	-	-		-		
5014			+p	+p	+p	+p	+	32.76	66.06	+	-	+m(1)/+	+m	+	/		+		
5015			-	-	-	-	-	0	0	-	-	-	-	-	-		-		
5016			-	-	-	-	-	0	0	-	-	-	-	-	-		-		
5017			+p	+p	+p	+p	+	0	0	-	-	-	-	-	-		-		
5018			+p	+p	+p	+p	+	32.1	66.02	+	+m(1)/+	+md/+	+m/+	+	/		+		
5019			-	-	-	-	-	0	0	-	-	-	-	-	-		-		
5020			+p	+p	+p	+p	+	31.54	66.07	+	+m(2)/+	+m/+	+1/2	+	/		+		
5021			-	st	-	-	-	31.83	66.12	+	+m(3)/+	+m/+	+m/+	+	/		+		
5131			High	1,6	+p	+p	+p	+p	+	32.73	65.97	+	+m(1)/+	+m(1)/+	+m/+		+	/	+
5132					+p	+p	+p	+p	+	32.63	65.86	+	-	+m(1)/+	+m/+		+	/	+
5133	-	-			-	-	-	32.22	66.01	+	-	+m/+	+m/+	+	/	+			
5134	-	-			-	-	-	0	0	-	-	-	-	-	-	-			
5135	+M	+p			+M	+p	+	32.96	65.97	+	+m(1)/+	+m(3)/+	+m/+	+	/	+			
5136	+M	+p			+M	+M	+	33.98	66.27	+	-	-	-	+	+1/2	+			
5137	+M	+M			+M	+M	+	33.17	65.85	+	+m(1)/-	+m(1)/+	+m/+	+	/	+			
5138	+M	+M			+M	+M	+	31.73	66.06	+	-	+m(2)/+	+m/+	+	/	+			
5139	+M	+M			+M	+M	+	33.84	65.9	+	-	-	+m(1)/+	+	/	+			
5140	+M	+p			+M	+M	+	31.46	65.51	+	+m(2)/-	-	+m/+	+	/	+			
5141	+M	+p			+M	+M	+	32.67	65.67	+	+m(1)/-	+m(3)/+	+m(5)/-	+	/	+			
5142	-	-			-	-	-	33.29	65.8	+	-	+m(2)/+	+m(1)/-	+	/	+			
5143	+M	+M			+M	+M	+	31.26	65.67	+	+m(1)/+	+m(2)/+	+m/+	+	/	+			
5144	+M	+M			+M	+M	+	31.75	65.66	+	-	+m(2)/+	+m/+	+	/	+			
5145	+M	+M			+M	+M	+	32.32	65.56	+	-	-	+m/+	+	/	+			
5146	-	-			-	-	-	0	0	-	-	-	-	-	-	-			
5147	+M	+M			+M	+M	+	31.75	65.82	+	-	+m(1)/+	+m/+	+	/	+			
5148	+M	+p			+M	+M	+	32.06	65.85	+	-	+m(2)/+	+m/+	+	/	+			
5149	-	-			-	-	-	33.49	66	+	-	-	-	+	/	+			
5150	+M	+M			+M	+M	+	0	0	-	-	-	-	-	-	-			

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

Matrix : Beef trim 375 g sample size) - 24 h incubation time  
 Strain : Salmonella Bredeney 975

Aerobic mesophilic flora : 2,25.10<sup>7</sup> CFU/g

Extension study No 1

N° sample	Level	Contamination level- (cfu/sample)	ISO 6579 method*				Final result	Number positive samples / Total 10h	GENE UP Salmonella										Number positive samples / Total 24h	
			RVS broth		MKTn broth				BPW 41.5°C / 24h											
			XLD	ASAP	XLD	ASAP			PCR			Direct streaking				SX2-24h	Final result 24h			
				CP	TM	Result	ChromID Salmonella	XLD	ASAP	Result										
4997	0	/	-	-	-	-	-	0/5	0	0	-	-	-	-	-	-	-	-	-	0/5
4998			-	-	-	-	-		0	0	-	-	-	-	-	-	-	-	-	
4999			-	-	-	-	-		0	0	-	-	-	-	-	-	-	-	-	
5000			-	-	-	-	-		0	0	-	-	-	-	-	-	-	-	-	
5001			-	-	-	-	-		0	0	-	-	-	-	-	-	-	-	-	
5002	Low	0,8	-	-	-	-	-	11/20	33.66	65.78	+	+m(1)/+	+m(1)/+	+m/+	+	/	+	8/20		
5003			-	-	-	-	-		0	0	-	-	-	-	-	-	-		-	
5004			-	-	-	-	-		33.81	65.94	+	+m(1)/-	+m/+	+m/+	+	/	+			
5005			+p	+p	+p	+p	+		0	0	-	-	-	-	-	-	-		-	-
5006			+p	+p	+p	+p	+		32.19	65.85	+	+m(2)/+	-	+m/+	+	/	+			
5007			+p	+p	+p	+p	+		0	0	-	+md/-	+md/-	+md/-	-	-	-		-	-
5008			-	-	-	-	-		0	0	-	-	-	-	-	-	-		-	-
5009			-	-	-	-	-		0	0	-	-	-	-	-	-	-		-	-
5010			+p	+p	+p	+p	+		0	0	-	-	-	-	-	-	-		-	-
5011			+p	+p	+p	+p	+		0	0	-	-	-	-	-	-	-		-	-
5012			+p	+p	+p	+p	+		30.98	65.97	+	+m(4)/+	+m(2)	+m/+	+	/	+			
5013			+p	+p	+p	+p	+		0	0	-	-	-	-	-	-	-		-	-
5014			+p	+p	+p	+p	+		32.01	65.86	+	+m(1)/+	+m/+	+m/+	+	/	+			
5015			-	-	-	-	-		0	0	-	-	-	-	-	-	-		-	-
5016			-	-	-	-	-		0	0	-	-	-	-	-	-	-		-	-
5017			+p	+p	+p	+p	+		0	0	-	-	-	-	-	-	-		-	-
5018			+p	+p	+p	+p	+		32.68	66.06	+	-	+m/+	+m/+	+	/	+			
5019			-	-	-	-	-		0	0	-	-	-	-	-	-	-		-	-
5020			+p	+p	+p	+p	+		31.61	65.96	+	+m(3)/+	+m/+	+m/+	+	/	+			
5021			-	st	-	-	-		0/29.71/31.51*	0/65.5/66.17*	i/+/*	+m(3)/+	+m(3)/+	+1/2/+	+	/	+			
5131	High	1,6	+p	+p	+p	+p	+	15/20	31.24	65.7	+	-	+m/+	+m/+	+	/	+	17/20		
5132			+p	+p	+p	+p	+		31.56	65.57	+	-	+m	+m/+	+	/	+			
5133			-	-	-	-	-		30.96	65.66	+	-	+m	+m/+	+	/	+			
5134			-	-	-	-	-		0	0	-	-	-	-	-	-	-		-	
5135			+M	+p	+M	+p	+		30.45	65.69	+	+m(1)	+m/+	+m/+	+	/	+			
5136			+M	+p	+M	+M	+		32.92	65.86	+	-	+m/+	+m/+	+	/	+			
5137			+M	+M	+M	+M	+		30.65	65.71	+	+m(1)/+	+m	+m/+	+	/	+			
5138			+M	+M	+M	+M	+		29.26	65.85	+	+m(1)	+m	+m	+	/	+			
5139			+M	+M	+M	+M	+		31.7	65.8	+	-	+m	+m/+	+	/	+			
5140			+M	+p	+M	+M	+		28.99	65.7	+	+m	+1/2	+m/+	+	/	+			
5141			+M	+p	+M	+M	+		30.56	65.7	+	-	+m	+m	+	/	+			
5142			-	-	-	-	-		31.57	65.68	+	-	+m	+m/+	+	/	+			
5143			+M	+M	+M	+M	+		30.02	65.5	+	+m/+	+m	+m/+	+	/	+			
5144			+M	+M	+M	+M	+		31.87	65.79	+	+m(1)/+	+m/+	+m/+	+	/	+			
5145			+M	+M	+M	+M	+		31.01	65.59	+	-	+m	+m/+	+	/	+			
5146	-	-	-	-	-	0	0	-	-	+m/+d	-	-(Proteus mirabilis)	-	-	-					
5147	+M	+M	+M	+M	+	30.99	65.91	+	-	+m/+	+m/+	+	/	+						
5148	+M	+p	+M	+M	+	30.79	65.6	+	-	+m	+m/+	+	/	+						
5149	-	-	-	-	-	32.91	65.74	+	-	+m	+m/+	+	/	+						
5150	+M	+M	+M	+M	+	0	0	-	-	-	-	-	-	-	-					

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

Matrix : Process water  
Strain : *Salmonella* Livingstone A00E058

Aerobic mesophilic flora : 3.6.10<sup>3</sup>CFU/g

Extension study No 4

N° sample	Level	Contamination level- (cfu/sample)	ISO 6579 method*					Number positive samples/Total	GENE UP Salmonella										Number positive samples/Total
			RVS broth		MKTn broth		Final result		PCR			Direct streaking				SX2-24h	Final result		
			XLD	ASAP	XLD	ASAP			CP	TM	Result	ChromID Salmonella	XLD	ASAP	Result				
6062	0	/	st	st	st	st	-	0/5	0	0	-	st	st	st	-	-	-	0/5	
6063			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6064			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6065			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6066			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6067	Low	0,6	+p	+p	+p	+p	+	10/20	0	0	-	st	st	st	-	-	-	3/20	
6068			+p	+p	+p	+p	+		0	0	-	st	st	st	-	-	-		
6069			+p	+p	+p	+p	+		22,7	66,23	+	+p	+p	+p	+	/	+		
6070			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6071			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6072			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6073			+p	+p	+p	+p	+		22,2	65,9	+	+p	+p	+p	+	/	+		
6074			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6075			+p	+p	+p	+p	+		0	0	-	st	st	st	-	-	-		
6076			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6077			+p	+p	+p	+p	+		0/0/0	66,14/0/0	+/-	st	st	st	-	(MSRV -)	-		
6078			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6079			+p	+p	+p	+p	+		0	0	-	st	st	st	-	-	-		
6080			st	st	st	st	-		22,09	66,02	+	+p	+p	+p	+	/	+		
6081			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6082			st	st	st	st	-		0/0/0	48,72 ; 69,21/0/0	+/-	st	st	st	-	(MSRV -)	-		
6083			+p	+p	+p	+p	+		0	0	-	st	st	st	-	-	-		
6084			st	st	+p	+p	+		0	0	-	st	st	st	-	-	-		
6085			+p	+p	+p	+p	+		0	0	-	st	st	st	-	-	-		
6086			st	st	st	st	-		0	0	-	st	st	st	-	-	-		
6087	st	st	st	st	-	0	0	-	st	st	st	-	-	-					
6088	+p	+p	+p	+p	+	21,92	66,42	+	+p	+p	+p	+	/	+					
6089	+p	+p	+p	+p	+	0	0	-	st	st	st	-	-	-					
6090	+p	+p	+p	+p	+	22,47	66,44	+	+p	+p	+p	+	/	+					
6091	st	st	st	st	-	0	0	-	st	st	st	-	-	-					
6092	+p	+p	+p	+p	+	22,11	66,31	+	+p	+p	+p	+	/	+					
6093	st	st	st	st	-	21,67	66,24	+	+p	+p	+p	+	/	+					
6094	st	st	st	st	-	0	0	-	st	st	st	-	-	-					
6095	st	-	st	-	-	22,49	66,48	+	+p	+p	+p	+	/	+					
6096	st	st	st	st	-	0	0	-	st	st	st	-	-	-					
6097	st	st	st	st	-	22,42	66,42	+	+p	+p	+p	+	/	+					
6098	+p	+p	+p	+p	+	0	0	-	st	st	st	-	-	-					
6099	+p	+p	+p	+p	+	0	0	-	st	st	st	-	-	-					
6100	+p	+p	+p	+p	+	22,43	65,9	+	+p	+p	+p	+	/	+					
6101	st	st	st	st	-	21,31	66,06	+	+p	+p	+p	+	/	+					
6102	st	st	st	st	-	21,92	66,13	+	+p	+p	+p	+	/	+					
6103	+p	+p	+p	+p	+	0	0	-	st	st	st	-	-	-					
6104	st	st	st	st	-	22,15	66,56	+	+p	+p	+p	+	/	+					
6105	+p	+p	+p	+p	+	22,48	66,47	+	+p	+p	+p	+	/	+					
6106	st	st	st	st	-	22,57	66,59	+	+p	+p	+p	+	/	+					

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

Appendix 7 – Inclusivity / Exclusivity: raw data (initial validation study)

INCLUSIVITY (BPW for 8 h at 41.5°C)														
N°	Strain		Reference	Origin	Inoculation Level CFU/225ml	PCR Result			Confirmations					
						CP	Tm	Result	ChromID Salmonella		XLD		ASAP	
								Result	Latex	Result	Latex	Result	Latex	
1	<i>Salmonella</i>	Abaetetuba	Ad2318		31	31.28	67.87	+	+	+	+	+	+	
2	<i>Salmonella</i>	Aberdeen	CIP 105618	/	22	30.73	67.53	+	+	+	+	+	+	
3	<i>Salmonella</i>	Abortusequi	Ad2321		4	0	0	-	4+ (pale colonies)	+	4+ (H2S-)	+	st	
						22.79	67.95	+	+	+	+	+	+	
4	<i>Salmonella</i>	Abortusovis	Ad2320	Ovine foetus	23	0	0	-	st	/	st	/	st	
						22.15	67.26	+	- (white colonies)	+	micro colonies H2S-	-	st	
5	<i>Salmonella</i>	Adelaïde	Ad2319	Turkey breeding environment	31	0	0	-	st	/	3+	-	1+ (pale colony)	
						20.66	67.76	+	- (blue colonies)	+ weak	+	+	+	+ (blue halo)
6	<i>Salmonella</i>	Agona	A00V038	Feed for pork	24	30.08	67.67	+	+	+	+	+	+	
7	<i>Salmonella</i>	Anatum	A00E007	Dusts	39	30.16	67.48	+	+	+	+	+	+	
8	<i>Salmonella</i>	arizonae 51:z4,z23	CIP 5523	Turkey meat	24	0	0	-	+	+ weak	+	-	+	
						21.08	66.31	+						
9	<i>Salmonella</i>	arizonae 48:z4,z23:-	Ad1850	Poultry environmental sample	13	31.16	66.52	+	+	+	-	+	-	
10	<i>Salmonella</i>	Bardo	Adria 569	Meat for sausage	32	29.92	67.23	+	+	+	+	+	+	
11	<i>Salmonella</i>	Bareilly	Ad 1687	Chocolate industry	19	29.28	67.35	+	+	+	+	+	+	
12	<i>Salmonella</i>	Blockley	Ad 923	Poultry environment	15	29.07	67.19	+	+	+	+	+	+	
13	<i>Salmonella</i>	bongori 66 :z35	Ad 599	Environmental sample	32	29.81	58.76	+	- (white colonies)	+ weak	+	-	- (cream colonies)	
14	<i>Salmonella</i>	Bovismorbificans	Adria 6629	Sausage	25	29.69	67.4	+	+	+	+	+	+	
15	<i>Salmonella</i>	Braenderup	Adria 111	Pork meat	24	30.14	67.19	+	+	+	+	+	+	
16	<i>Salmonella</i>	Brandenburg	Ad 351	Seafood cocktail	24	30.08	67.55	+	+	+	+	+	+	
17	<i>Salmonella</i>	Bredeney	Adria 396	Ground beef	13	30.74	67.79	+	+	+	+	+	+	
18	<i>Salmonella</i>	Caracas	Ad2322	Spice	31	30.48	57.86	+	+	+ weak	+	+ weak	+	
19	<i>Salmonella</i>	Cerro	Ad 689	Dehydrated poultry proteins	19	29.46	67.56	+	+	+ weak	+	-	+	
20	<i>Salmonella</i>	Chester	CIP 103543	/	25	29	58.04	+	+	+	+	+	+	
21	<i>Salmonella</i>	Cubana	Ad2323	Dust feed environment	16	29.7	67.41	+	+	+	+	+	+	
22	<i>Salmonella</i>	Derby	Ad 1093	Fish fillet	33	29.64	67.47	+	+	+	+	+	+	
23	<i>Salmonella</i>	diarizonae 38:lv:z53	Ad 451	Ewe milk cheese	25	29.75	59	+	+	-	+	-	+	
24	<i>Salmonella</i>	diarizonae 61:k:1,57	Ad 1300	Raw ewe milk	24	29.46	67.6	+	+	+	+	+	+	
25	<i>Salmonella</i>	Dublin	Ad 529	Beef meat	28	31.56	67.92	+	- (white colonies)	+ weak	+	-	- (white colonies)	
26	<i>Salmonella</i>	Emek	Ad 333		18	29.84	67.42	+	+	-	+	+	-	
27	<i>Salmonella</i>	Enteritidis	Ad 477	Hen meat	26	29.82	67.68	+	+	+	+	+ weak	+	
28	<i>Salmonella</i>	Gallinarum biovar pullorum	Ad 300	Poultry environment	43	29.98	59.42	+	+	+	+	+ (yellow edge)	+	
29	<i>Salmonella</i>	Gaminara	Ad2324	Boar meat	31	29.81	67.49	+	+	+	+	+	-	
30	<i>Salmonella</i>	Give	436	Ground beef	13	30.03	67.51	+	+	+	+	+	+ weak	
31	<i>Salmonella</i>	Guinea	29		22	29.18	67.3	+	+	+	+	+	+ weak	
32	<i>Salmonella</i>	Hadar	24871	Chicken meat	15	29.97	67.45	+	+	+	+	+	+	
33	<i>Salmonella</i>	Havana	Ad 930	Poultry environment	12	30.13	67.65	+	+	+	+	+	+	
34	<i>Salmonella</i>	Heidelberg	A00E005	Dusts from dairy industry	21	30.46	67.41	+	+	+	+	+ weak	+	
35	<i>Salmonella</i>	houtenae 50:g,z51	Ad 596	Dairy product	17	30.85	67.65	+	+	+ weak	+	+	+ weak	
36	<i>Salmonella</i>	Hvittingfoss	Ad2325	Raw stuff	31	29.54	67.37	+	+	+ weak	+	+	+	
37	<i>Salmonella</i>	Indiana	Ad 174	White cheese	11	29.64	67.29	+	+	+	+	+	+	
38	<i>Salmonella</i>	indica	Ad 600	Environmental sample	27	30.75	67.53	+	- (blue colonies)	+ weak	+	+ weak	+	
39	<i>Salmonella</i>	indica 11:b:e,n,x	Ad2337	Chicken breeding environment	19	0	67.56	+	+	+ weak	+	+ weak	+	
40	<i>Salmonella</i>	Infantis	F401B	Cheese	18	29.45	67.47	+	+	+	+	+	+	
41	<i>Salmonella</i>	Javiana	Ad2326	Turkey meat	36	29.77	67.57	+	+	+ weak	+	+ weak	+ weak	
42	<i>Salmonella</i>	Kedougou	Ad 929	Bovine environmental sample	16	30.53	67.35	+	+	+ weak	+	+	+	
43	<i>Salmonella</i>	Kentucky	CIP 105623	/	21	29.75	67.46	+	+	+	+	+	+	
44	<i>Salmonella</i>	Kottbus	Adria 1	Poultry environmental sample	20	30.08	67.49	+	+	+	+	+	+	

24 h

24 h

24 h

24h

INCLUSIVITY (BPW for 8 h at 41.5°C)														
N°	Strain		Reference	Origin	Inoculation Level CFU/225ml	PCR Result			Confirmations					
									ChromID Salmonella		XLD		ASAP	
						CP	Tm	Result	Result	Latex	Result	Latex	Result	Latex
45	Salmonella	Landau	Ad 499		26	0	0	-	+ (pale colonies)	+	+	+	+	
						20.59	67.75	+	+	+	+	+	+	
46	Salmonella	Lille	Adria 37	Food product	19	29.92	67.35	+	+	+	+	+	+	
47	Salmonella	Livingstone	Ad 1107	Dusts	31	29.48	67.13	+	+	+	+	+	+	
48	Salmonella	London	Adria 326	Cooked meat sample	33	29.86	67.45	+	+	+	+	+	+	
49	Salmonella	Luciana	CIP 105626	/	13	30.89	67.7	+	+ (pale green colonies)	+	+	+	+	
50	Salmonella	Manhattan	Adria 900	Dusts from dairy industry	28	29.5	67.3	+	+	+	+	+	+	
51	Salmonella	Maracaibo	CIP 54143		2	31.94	68.1	+	+	+	+	+	+	
52	Salmonella	Marseille	CIP105627	/	20	29.97	57.96	+	+	+	+	+	+ weak	
53	Salmonella	Mbandaka	Ad 914	Mayonnaise	37	29.19	67.78	+	+	+	+	+	+	
54	Salmonella	Meleagridis	505	Raw milk	24	29.85	67.67	+	+	+	+	+ weak	+	
55	Salmonella	Michigan	Ad2327	Low moisture sausage	40	29.97	67.72	+	+	+	+	+	+	
56	Salmonella	Mikawasima	Ad1811	Raw ewe milk	40	30.26	67.83	+	+	+	+	+ weak	+	
57	Salmonella	Minnesota	Ad2328	Feed	44	30.19	67.69	+	+	+	+	+	+	
58	Salmonella	Missisipi	Ad2329	Parakeet	35	30.86	68.02	+	+	+	+	+	+	
59	Salmonella	Montevideo	Ad912	Raw milk	28	30.34	67.6	+	+	+	+	+	+	
60	Salmonella	Muenchen	CIP 106178	/	13	29.79	67.32	+	+	+	+	+	+	
61	Salmonella	Napoli	Ad 928	Clinical	29	29.26	67.45	+	+	+	+	+	+	
62	Salmonella	Newport	Adria 586	Sausage	17	30.18	67.35	+	+	+	+	+	+	
63	Salmonella	Norwich	Ad1172		27	29.09	67.43	+	+	+	+	+	+	
64	Salmonella	Ohio	Ad1482	Raw cow milk	19	30.07	67.54	+	+	+	+	+	+	
65	Salmonella	Orion	27		17	0	67.76	+	+ (pale colonies)	+ weak	+ (small colonies)	+ weak	st	
66	Salmonella	Orianenburg	Ad1724	Cereals	36	30	67.47	+	+	+	+	+	+	
67	Salmonella	Ovakam	Ad1647	Compost	34	29.86	67.6	+	+	+	+	+	+ weak	
68	Salmonella	Panama	Adria 8	Ground beef	20	29.03	67.32	+	+	+	+	+	+	
69	Salmonella	Paratyphi A	ATCC 9150		16	31.55	67.69	+	+ (pale pink colonies)	+	+ (H2S-)	+ weak	+ (pale colonies)	
70	Salmonella	Paratyphi B	Ad 301	Clinical	19	28.84	67.46	+	+	+	+	+	+	
71	Salmonella	Paratyphi C	ATCC 13428		21	30.48	67.43	+	+ (pale pink colonies)	+	+	+	+ (white pink colonies)	
72	Salmonella	Pomona	CIP105630	/	23	30.15	67.43	+	+	+	+ (yellow colonies, H2S-)	+	+ (pale colonies)	
73	Salmonella	Poona	Ad2330	Poultry feed	56	29.47	57.84	+	+	+	+	+	+	
74	Salmonella	Putten	Ad2331	Feed for chicken	45	30.46	67.7	+	+	+	+	+	+	
75	Salmonella	Regent	Adria 328	Duck	17	30.69	67.63	+	+	+	+	+ weak	+	
76	Salmonella	Rissen	Adria 39	Food product	13	30.67	67.34	+	+	+	+	+	+	
77	Salmonella	Rubislaw	Ad2332	Shark cartilage	33	29.55	67.49	+	+	+	+	+	+	
78	Salmonella	Saintpaul	Adria F31	Pilchard fillets	47	29.01	67.49	+	+	+	+	+	+	
79	Salmonella	salamae 42ib:enz15	Ad 593	Cereals	29	29.67	67.47	+	+ (pale colonies)	+	+	+	+ (pink colonies)	
80	Salmonella	Schwarzengrund	Ad2333	Egg products environment	39	28.66	67.46	+	+	+	+	+ weak	+	
81	Salmonella	Senftenberg	Ad 355	Seafood cocktail	16	29.68	67.34	+	+ (white pink colonies)	+	+	+	+ (pink colonies)	
82	Salmonella	Stanley	CIP106163	/	27	30.05	67.56	+	+	+	+	+	+	
83	Salmonella	Sternschanze	Ad500		24	29.62	67.59	+	+	+ weak	+	+ weak	+	
84	Salmonella	Strasbourg	CIP105632	/	12	30.63	67.44	+	- (blue colonies)	+ weak	+	+	st	
85	Salmonella	Tananarive	CIP54142	/	29	29.6	67.5	+	+	+	+	+	+	
86	Salmonella	Tennessee	A00E006	Dusts from dairy industry	27	28.91	67.48	+	+	+	+	+	+	
87	Salmonella	Thompson	AER301	Poultry	22	28.67	67.47	+	+	+	+	+	+	
88	Salmonella	Typhi	Ad 302	Clinical	25	28.07	67.49	+	+	+	+	+	+	
89	Salmonella	Typhimurium	Ad 1070	Pork meat	30	29.24	67.39	+	+	+	+	+	+	
90	Salmonella	Typhimurium 1,4 [5], I2:-	Ad 1333	Tiramisu	40	28.46	67.68	+	+	+	+	+	+	
91	Salmonella	Typhimurium 1,4 [5], I2:-,1,2	Ad 1335	Poultry environmental sample	29	29.68	67.62	+	+	+	+	+	+	
92	Salmonella	Typhimurium 1,4 [5], II2:i:-	Ad 1334	Ready to cook pork	37	28.87	67.4	+	+	+	+	+ weak	+	
93	Salmonella	Urbana	Ad501	Food product	36	29.5	67.49	+	+	+	+	+ weak	+ weak	
94	Salmonella	Veneziana	Adria 233	Food product	23	30.04	67.32	+	+	+ weak	+	+	+	

24 h



INCLUSIVITY (BPW for 8 h at 41.5°C)														
N°	Strain		Reference	Origin	Inoculation Level CFU/225ml	PCR Result			Confirmations					
									ChromID Salmonella		XLD		ASAP	
						CP	Tm	Result	Result	Latex	Result	Latex	Result	Latex
95	<i>Salmonella</i>	Virchow	Adria F276	Curry	34	29.26	67.43	+	+	+	+	+	+	
96	<i>Salmonella</i>	Wandsworth	Ad2335	Fillet of mullet	30	30.01	67.45	+	+	+ weak	+	+ weak	+ weak	
97	<i>Salmonella</i>	Waycross	CIP105634	/	40	29.7	67.26	+	+	+ weak	+	-	+ weak	
98	<i>Salmonella</i>	Wayne	Ad502	Food product	11	0	0	-	- (white colonies)	-	- (yellow colonies)	-	+ (pale colonies)	+ weak
						22.7	68	+	+ (pale colonies)	+ weak	+ (small colonies)	+ weak	+	+ weak
99	<i>Salmonella</i>	Weltevreden	Ad2336	Treated water	38	29.56	67.59	+	+	+	+	+	+	
100	<i>Salmonella</i>	Worthington	Adria 3506	Pâté	45	29.58	67.4	+	+	+	+	+	+	

24 h

**Additional tests**

N°	Strain			Origin	Inoculation Level CFU/225ml	PCR Result			Confirmations						
						CP	Tm	Result	ChromID Salmonella		XLD		ASAP		
									Result	Latex	Result	Latex	Result	Latex	
98	<i>Salmonella</i>	Wayne	Ad502	Food product	11 (+milk)	0	67.12	+	- (white colonies)	-	- (yellow colonies)	-	+ (pale colonies)	+ weak	<b>8h</b>
						22.93	67.47	+	+ (pale colonies)	+ weak	+ (small colonies)	+ weak	+	+ weak	<b>24h</b>
3	<i>Salmonella</i>	Abortusequi	Ad2321		15 (+milk)	0	0	-	st	/	st	/	st	/	<b>8h</b>
						25.74	74	+	+	+	H2S-	+	pale micro-colonies	+	<b>24h</b>
					20 (+meat)	0	67.79	+	+(10) pale colonies	+	H2S-	+	st	/	<b>8h</b>
4	<i>Salmonella</i>	Abortusovis	Ad2320	Ovine foetus	15 (+milk)	0	0	-	st	/	st	/	st	/	<b>8h</b>
						25	67.17	+	white colonies	+	H2S-	+	white micro-colonies	+w	<b>24h</b>
					28 (+meat)	0	67.52	+	st	/	st	/	st	/	<b>8h</b>
5	<i>Salmonella</i>	Adelaïde	Ad2319	Turkey breeding environment	52 (+milk)	0	0	-	st	/	st	/	+(1) pale	+w	<b>8h</b>
						22.56	67.65	+	+ pale pink colonies	+w	+	+	+	+w	<b>24h</b>
					23(+meat)	31.75	67.21	+	st	/	st	/	+(1) pale	+w	<b>8h</b>
8	<i>Salmonella</i>	arizonae 51:z4,z23	CIP 5523	Turkey meat	28 (+milk)	0	0	-	st	/	+pales colonies	+w	+small	+w	<b>8h</b>
						22.62	65.9	+	+	+	+	+w	+	+w	<b>24h</b>
					28(+meat)	29.78	66.06	+	st	/	+pales colonies	+w	+small	+w	<b>8h</b>
45	<i>Salmonella</i>	Landau	Ad 499		30 (+milk)	32.52	67.36	+	+pale colonies	+w	+	+w	+	+w	<b>8h</b>
						23.82	67.22	+	+	+w	+	+	+	+w	<b>24h</b>

EXCLUSIVITY							
N°	Strain	Reference	Origin	Inoculation level CFU/ml	PCR Result		
					CP	Tm	Result
1	<i>Citrobacter braakii</i>	Ad833	Raw beef meat	3.3 10 <sup>5</sup>	0	0	-
2	<i>Citrobacter Diversus</i>	adria 140	Raw milk	3.6 10 <sup>5</sup>	0	0	-
3	<i>Citrobacter freundii</i>	adria 23	Raw pork sausage	3.8 10 <sup>5</sup>	0	0	-
4	<i>Citrobacter freundii</i>	adria 175	Raw duck meat	3.6 10 <sup>5</sup>	0	0	-
5	<i>Citrobacter koseri</i>	adria 71	Frozen vegetables	3.7 10 <sup>5</sup>	0	0	-
6	<i>Enterobacter agglomerans</i>	adria 11	Cheese	2.4 10 <sup>5</sup>	0	0	-
7	<i>Enterobacter amnigenus</i>	A00C068	Raw poultry meat	2.1 10 <sup>5</sup>	0	0	-
8	<i>Enterobacter cloacae</i>	adria 10	Raw milk	1.6 10 <sup>5</sup>	0	0	-
9	<i>Enterobacter intermedius</i>	adria 60	Bean	1.1 10 <sup>5</sup>	0	0	-
10	<i>Enterobacter kobei</i>	Ad 342	Ham	1.7 10 <sup>5</sup>	0	0	-
11	<i>Enterobacter sakazakii</i>	adria 95	Fermented milk	3.6 10 <sup>5</sup>	0	0	-
12	<i>Erwinia carotovora</i>	CIP 8283	Potatoes	3.4 10 <sup>4</sup>	0	0	-
13	<i>Escherichia coli</i>	adria 19	Grated carrots	2.7 10 <sup>5</sup>	0	0	-
14	<i>Escherichia hermanii</i>	Ad 461	Dessert	2.5 10 <sup>5</sup>	0	0	-
15	<i>Escherichia vulneris</i>	adria 127	Raw milk	4.4 10 <sup>5</sup>	0	0	-
16	<i>Hafnia alvei</i>	adria 167	Raw pork sausage	4.4 10 <sup>5</sup>	0	0	-
17	<i>Klebsiella oxytoca</i>	57	Food product	2.4 10 <sup>5</sup>	0	0	-
18	<i>Klebsiella pneumoniae</i>	47	Raw turkey meat	2.9 10 <sup>5</sup>	0	0	-
19	<i>Kluyvera spp</i>	adria 41	Raw milk	3.1 10 <sup>5</sup>	0	0	-
20	<i>Morganella morganii</i>	CIP A236	/	4.9 10 <sup>5</sup>	0	0	-
21	<i>Pantoea agglomerans</i>	adria 62	Frozen vegetables	7.6 10 <sup>4</sup>	0	0	-
22	<i>Proteus mirabilis</i>	Ad639	Mayonnaise	5.1 10 <sup>5</sup>	0	0	-
23	<i>Proteus vulgaris</i>	adria 43	Sliced ham	7.2 10 <sup>4</sup>	0	0	-
24	<i>Providencia rettgeri</i>	adria 112	White liquid egg	2.3 10 <sup>5</sup>	0	0	-
25	<i>Rhanella aquatilis</i>	adria 69	Molluscs	7.2 10 <sup>4</sup>	0	0	-
26	<i>Serratia liquefaciens</i>	26	Egg product	9.2 10 <sup>4</sup>	0	0	-
27	<i>Serratia proteomaculans</i>	A00C056	Ham	3.8 10 <sup>4</sup>	0	0	-
28	<i>Shigella flexneri</i>	CIP 8248	/	1.6 10 <sup>5</sup>	0	0	-
29	<i>Shigella sonnei</i>	CIP 8249T (ATCC 29930)	/	1.9 10 <sup>5</sup>	0	0	-
30	<i>Yersinia enterocolitica</i>	adria 32	Bacon	1.1 10 <sup>5</sup>	0	0	-

Appendix 8 – Sensitivity study: raw data (Extension study No 6, 2018)

READY TO EAT AND READY TO REHEAT (STANDARD PROTOCOL)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2015	7414	Mayonnaise	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	a
2015	7415	Strawberries pie	-	23,71	67,21	+	+	+	PD	23.56	66.27	+	23.9	66.2	+	PA	1	a
2015	7416	Egg cream	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	1	a
2015	7417	Scallops terrine	+	20,69	67,32	+	+	+	PA	21.05	66.47	+	21.16	66.09	+	PA	1	a
2015	7418	Salmon terrine	+	20,27	67,4	+	+	+	PA	20.55	66.44	+	20.54	65.94	+	PA	1	a
2015	7419	Grated carrots	+	21,11	67,37	+	+	+	PA	21.21	66.01	+	20.88	66.24	+	PA	1	a
2015	7420	Concumber with cream	+	30,04	67,3	+	+	+	PA	29.98	65.92	+	29.46	65.92	+	PA	1	a
2015	7421	Tabbouleh	+	22,69	67,59	+	+	+	PA	23.46	66.14	+	23.65	66.33	+	PA	1	a
2015	7422	Sanwich (chicken, vegetables)	+	24,44	67,18	+	+	+	PA	25.26	66.28	+	25.81	66.42	+	PA	1	a
2015	7423	Pâté	+	23,15	66,86	+	+	+	PA	22.94	66.01	+	23.93	66.28	+	PA	1	a
2016	68	Mayonnaise	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	a
2016	69	Pastry	+	21,09	67,23	+	+	+	PA	22.24	66.69	+	23.1	66.49	+	PA	1	a
2016	70	Cooked ham	+	26,22	67,43	+	+	+	PA	24.58	66.26	+	24.32	66.34	+	PA	1	a
2016	750	Ready to eat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	a
2016	751	Apple pie	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	a
2016	752	Pâté	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	a
2016	753	Ham	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	a
2016	784	Pastry	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	a
2016	935	Fruit salad	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	a
2016	941	Ready to eat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	a
2016	943	Grated carrots	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	a
2015	7232	Ready to reheat meal	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	b
2015	7498	Scallops	+	30,05	67,44	+	+	+	PA	29.99	66.05	+	30.04	66.27	+	PA	1	b
2015	7499	Ready to reheat salmon	+	21,78	67,26	+	+	+	PA	21.52	65.84	+	21.56	65.99	+	PA	1	b
2015	7500	Ready to reheat fish	+	23,72	67,46	+	+	+	PA	22.85	66.04	+	23.07	66.31	+	PA	1	b
2015	7780	Ready to reheat beef meat	+	21,89	67,36	+	+	+	PA	22.85	66.31	+	23.08	66.62	+	PA	1	b
2015	7781	Ready to reheat beef meat	+	22,16	67,4	+	+	+	PA	22.77	65.92	+	24.12	66.2	+	PA	1	b
2015	7782	Couscous	+	20,22	67,28	+	+	+	PA	22.2	66.2	+	21.9	66.28	+	PA	1	b
2015	7783	Pizza	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	1	b
2015	7784	Quiche Lorraine	+	22,66	67,25	+	+	+	PA	24.13	66.27	+	23	66.19	+	PA	1	b
2015	7785	Ready to reheat food	+	0/0/0	0/0/0	-/-	+	-	ND	0	0	-	36.05	66.01	+	PD	1	b
2016	735	Ready to reheat food	-	23,92	67,52	+	+	+	PD	23.72	66.6	+	23.14	66.09	+	PA	1	b
2016	736	Ready to reheat food	+	21,12	67,38	+	+	+	PA	21.9	65.94	+	21.24	66.23	+	PA	1	b
2016	938	Ready to reheat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	b
2016	939	Ready to reheat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	b
2016	940	Ready to reheat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	b
2016	942	Ready to reheat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	b
2016	944	Ready to reheat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	b
2016	945	Ready to reheat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

READY TO EAT AND READY TO REHEAT (STANDARD PROTOCOL)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	946	Ready to reheat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	b
2016	947	Ready to reheat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	b
2016	948	Ready to reheat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	b
2015	7424	Smoked herrings	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	c
2015	7425	Smoked salmon	-	23,21	67,01	+	+	+	PD	24.32	66.08	+	24.58	66.12	+	PA	1	c
2015	7428	Smoked duck meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	c
2015	7453	Smoked duck meat	+	24,72	67,37	+	+	+	PA	24.51	66.04	+	24.59	66.29	+	PA	1	c
2015	7454	Smoked duck meat	+	23,89	67,16	+	+	+	PA	24.71	65.92	+	24.04	66.1	+	PA	1	c
2015	7455	Smoked duck meat	-	23,8	67,37	+	+	+	PD	24.06	66.07	+	23.31	66.24	+	PA	1	c
2015	7456	Smoked trout	-	22,99	67,21	+	+	+	PD	21.53	66.26	+	22.15	66.23	+	PA	1	c
2015	7457	Smoked salmon	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	c
2016	71	Smoked trout	+	22,92	67,36	+	+	+	PA	22.97	66.64	+	24.97	66.03	+	PA	1	c
2016	72	Haddock	-	21,23	67,41	+	+	+	PD	21.98	66.79	+	23.03	66.22	+	PA	1	c
2016	73	Smoked herrings	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	1	c
2016	74	Smoked duck meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	c
2016	75	Smoked duck meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	c
2016	737	Ready to eat food	+	26,64	67,5	+	+	+	PA	25.89	66.2	+	25.68	66.49	+	PA	1	c
2016	738	Ready to eat food	+	24,68	67,47	+	+	+	PA	24.52	66.1	+	24.76	66.46	+	PA	1	c
2016	739	Ready to eat food	+	22,06	67,51	+	+	+	PA	22.56	65.99	+	21.03	66.09	+	PA	1	c
2016	754	Ready to eat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	c
2016	755	Ready to eat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	c
2016	756	Ready to eat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	c
2016	936	Ready to eat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	c
2016	937	Ready to eat food	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	1	c

**MEAT PRODUCTS (STANDARD PROTOCOL)**

Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2015	7227	Raw pork meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	a
2015	7228	Raw pork meat	+	30,76	67,24	+	+	+	PA	30,79	66,46	+	32,07	66,07	+	PA	2	a
2015	7229	Raw pork meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	a
2015	7230	Raw pork meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	a
2015	7231	Raw pork meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	a
2015	7233	Raw pork meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	a
2015	7318	Ground veal	+	28,42	67,65	+	+	+	PA	25.66	64.57	+	27.94	65.99	+	PA	2	a
2015	7319	Raw veal meat	-	26,41	67,15	+	+	+	PD	26.3	66.02	+	25.79	65.6	+	PA	2	a
2015	7320	Raw veal meat	+	24,46	67,38	+	+	+	PA	24.33	66.08	+	24.06	66	+	PA	2	a
2015	7321	Raw lamb meat	+	22,65	67,36	+	+	+	PA	22.43	66.1	+	21.59	65.76	+	PA	2	a
2015	7322	Raw lamb meat	+	23,52	67,45	+	+	+	PA	20.85	66	+	22.69	65.66	+	PA	2	a
2015	7323	Raw lamb meat	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	2	a
2015	7324	Ground beef	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	2	a
2015	7325	Ground beef	+	29,25	67,6	+	+	+	PA	27.59	66.26	+	27.71	66.31	+	PA	2	a
2015	7326	Beef trim	+	26,44	67,36	+	+	+	PA	26.07	66.16	+	26.64	65.93	+	PA	2	a
2015	7708	Raw beef meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	a
2015	7709	Ground beef	+	27,15	66,95	+	+	+	PA	27.71	66.03	+	27.93	65.91	+	PA	2	a
2015	7710	Raw lamb meat	-	25,82	67,05	+	+	+	PD	27.51	66.03	+	26.85	65.9	+	PA	2	a
2015	7711	Frozen raw lamb meat	-	29,75	67,15	+	+	+	PD	29.71	66	+	29.94	65.88	+	PA	2	a
2015	7712	Raw pork meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	a
2015	7212	Raw ground poultry meat	-	24,79	67,4	+	+	+	PD	23.29	65.96	+	26.84	66.66	+	PA	2	b
2015	7213	Raw duck meat	+	32,84	67,11	+	+	+	PA	31.45	66.33	+	34	65.93	+	PA	2	b
2015	7214	Raw hen leg	-	0	0	-	-	-	NA	0/32,9/32,8	0/66,33/66,28	-/+	36,16/36,6/36,65	66,05/65,53/65,3	+	PD	2	b
2015	7215	Chicken wings	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2015	7216	Raw turkey meat	-	0	0	-	-	-	NA	0/0/0*	0/0/0*	i/-*	0	0	-	NA	2	b
2015	7217	Raw turkey meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2015	7218	Raw turkey meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2015	7219	Deboned chicken leg	+	27,04	67,26	+	+	+	PA	27.44	66.51	+	28,62	66,48	+	PA	2	b
2015	7220	Raw duck neck meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2015	7221	Raw duck neck meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2016	154	Ground duck meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2016	155	Poultry meat	+	31,01	67,08	+	+	+	PA	30.98	65.94	+	31.81	65.17	+	PA	2	b
2016	156	Ground chicken meat	-	0	0	-	-	-	NA	0	0	-	0/0*	0/0*	i/-*	NA	2	b
2016	157	Poultry meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2016	158	Ground duck neck meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2016	159	Guinea pool meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2016	160	Chicken meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2016	161	Chicken wings	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2016	740	Duck	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2016	741	Poultry meat	+	29,89	67,37	+	+	+	PA	30.09	65.98	+	31.33	63.74	+	PA	2	b
2016	742	Poultry meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

MEAT PRODUCTS (STANDARD PROTOCOL)

Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	743	Poultry meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2016	744	Poultry meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2016	745	Poultry meat	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	2	b
2016	949	Poultry meat	+	29,19	67,34	+	+	+	PA	29.23	66.24	+	30,7	66,2	+	PA	2	b
2016	950	Ground poultry meat	-	31,58	67,69	+	+	+	PD	30.91	66.46	+	32,41	65,93	+	PA	2	b
2016	2077	Carcass rinse	-	0	0	-	-	-	NA	32,63	66,37	+	34,9	65,39	+	PA	2	b
2016	2078	Carcass rinse	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	b
2015	7427	Bacon	+	22,58	67,17	+	+	+	PA	23.59	66.1	+	23.49	66.01	+	PA	2	c
2015	7713	Coppa	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	c
2015	7714	Merguez	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	c
2015	7715	Sausages	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	c
2015	7716	Sausages	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	c
2015	7717	Sausages	+	0	0	-/-	-	-	ND	0	0	-	0	0	-	NA	2	c
2015	7718	Sausages	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	c
2015	7719	Sausages	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	2	c
2015	7720	Sausages	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	c
2015	7721	Sausages	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	2	c
2016	78	Low moisture ham	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	2	c
2016	79	Low moisture ham	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	c
2016	81	Bacon	+	23,63	67,27	+	+	+	PA	24.01	65.94	+	23.99	65.81	+	PA	2	c
2016	83	Salami	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	c
2016	85	Low moisture sausage	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	2	c
2016	746	Sausages	+	29,18	67,01	+	+	+	PA	30.77/29,86	66.41/66,33	+/+	30.4	65.9	+	PA	2	c
2016	747	Sausages	+	0/0/0	0/0/0	-/-	+	-	ND	0/0	0/0	-/-	35.6	65.49	+	PD	2	c
2016	748	Sausages	-	0/0/0	0/0/0	-/-	+	-	NA	0/0	0/0	-/-	0	0	-	NA	2	c
2016	749	Sausages	-	27,97	67,03	+	+	+	PD	29.43/28,74	66.02/66,29	+/+	29.53	65.43	+	PA	2	c
2016	1665	Bacon	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	2	c

MILK AND DAIRY PRODUCTS (except raw milk based products) (STANDARD PROTOCOL)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	322	Ice cream	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	323	Ice cream	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	3	a
2016	324	Ice cream	-	26,3	58,18	+	+	+	PD	27.7	56.59	+	27.43	56.25	+	PA	3	a
2016	325	Ice cream	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	326	Ice cream	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	927	Pasteurized cow milk cheese	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	928	Pasteurized cow milk cheese	+	25,63	58,03	+	+	+	PA	25.09	56.97	+	25.7	56.18	+	PA	3	a
2016	929	Pasteurized goat milk cheese	+	33,15	59,41	+	+	+	PA	32.87	58.15	+	34.66	57.4	+	PA	3	a
2016	930	Pasteurized milk	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	3	a
2016	931	Fermented milk	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	932	Fermented milk	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	933	Dairy dessert	+	21,2	67,61	+	+	+	PA	21.07	66.43	+	20.65	66.56	+	PA	3	a
2016	934	Chantilly	+	25,98	67,92	+	+	+	PA	24.23	66.96	+	24.43	66.95	+	PA	3	a
2016	1666	Pasteurized goat milk cheese	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	1667	Pasteurized cow milk cheese	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	1668	Pasteurized cow milk cheese	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	1669	Pasteurized goat milk cheese	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	1670	Fermented milk	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	1671	Fermented milk	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	1672	Fermented milk	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	a
2016	5615	Pasteurized milk cheese	+	30,73	56,33	+	+	+	PA	30.55	56.59	+	31.95	56.22	+	PA	3	a
2016	5616	Pasteurized milk cheese	+	29,5	56,26	+	+	+	PA	28.73	56.61	+	30.01	56.04	+	PA	3	a
2016	5617	Pasteurized milk cheese	+	34,58	56,32	+	+	+	PA	33.99	56.52	+	34.35	56.21	+	PA	3	a
2016	5618	Pasteurized milk cheese	+	32,7	66,25	+	+	+	PA	31.32	66.15	+	32.01	66.12	+	PA	3	a
2016	5619	Pasteurized milk cheese	+	25,89	66,71	+	+	+	PA	24.93	66.24	+	25.85	66.14	+	PA	3	a
2016	327	Milk powder	-	22,86	66,27	+	+	+	PD	24.21	65.75	+	24.1	65.28	+	PA	3	b
2016	328	Milk powder	+	22,9	67,37	+	+	+	PA	24.19	66.43	+	24.66	65.19	+	PA	3	b
2016	329	Milk powder	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	3	b
2016	330	Milk powder	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	3	b
2016	331	Milk powder	+	23,78	67,18	+	+	+	PA	25.21	66.54	+	24.72	65.68	+	PA	3	b
2016	332	Milk powder	+	23,79	67,26	+	+	+	PA	24.55	65.78	+	24.24	65.55	+	PA	3	b
2016	1673	Milk powder	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	b
2016	1674	Milk powder	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	b
2016	2084	Milk powder	-	0	0	-	-	-	NA	36,39/0/0	66,21/0/0	+/-	0	0	-	ND	3	b
2016	4264	Skimmed milk powder	-	0	0	-	-	-	NA	0	0	-	0/0	0/0	i/-	NA	3	b
2016	4689	Skimmed milk powder	+	29,21	65,65	+	+	+	PA	27.74	65.64	+	29.82	65.64	+	PA	3	b
2016	4690	Skimmed milk powder	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	3	b
2016	4691	Skimmed milk powder	+	34,91	65,74	+	+	+	PA	34.9	66.34	+	35.28	65.84	+	PA	3	b
2016	4692	Skimmed milk powder	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	3	b
2016	4693	Skimmed milk powder	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	b
2016	5216	Skimmed milk powder	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	b
2016	5217	Semi-skimmed milk powder	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))



MILK AND DAIRY PRODUCTS (except raw milk based products) (STANDARD PROTOCOL)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	5218	Skimmed milk powder	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	b
2016	5219	Milk powder	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	b
2016	5220	Semi-skimmed milk powder	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	b
2016	333	Maltodextrin	+	19,7	67,28	+	+	+	PA	21.23	66.77	+	21.03	66.34	+	PA	3	c
2016	334	Maltodextrin	+	20,57	67,23	+	+	+	PA	25.94	66.5	+	22.14	66.36	+	PA	3	c
2016	335	Lactoserum	+	22,83	67,29	+	+	+	PA	25.06	65.97	+	24.52	65.31	+	PA	3	c
2016	336	Lactoserum	+	25,09	67,06	+	+	+	PA	27.22	66.08	+	26.9	65.46	+	PA	3	c
2016	337	Lactoserum	+	25,24	67,46	+	+	+	PA	25.17	66.24	+	26.16	65.26	+	PA	3	c
2016	338	Lactoserum	+	25,53	67,57	+	+	+	PA	25.21	66.16	+	25.82	65.21	+	PA	3	c
2016	339	Caseinate	+	22,58	66,38	+	+	+	PA	21.98	65.96	+	24.23	64.79	+	PA	3	c
2016	340	Caseinate	+	24,89	66,18	+	+	+	PA	22.57	65.98	+	22.96	64.8	+	PA	3	c
2016	341	Caseinate	+	31,5	66,24	+	+	+	PA	25.97	66.31	+	22.8	65.96	+	PA	3	c
2016	1675	Lactoserum	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	c
2016	1676	Caseinate	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	c
2016	1677	Maltodextrin	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	c
2016	2083	Caseinate	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	c
2016	4261	Caseinate	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	c
2016	4262	Caseinate	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	c
2016	4263	Maltodextrin	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	c
2016	4687	Milk proteins	-	32,65	66,15	+	+	+	PD	32.01	66,6	+	34.58	66,21	+	PA	3	c
2016	4987	Maltodextrin	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	c
2016	4988	Milk proteins	-	0	0	-	-	-	NA	0	0	-	0/0/0*	0/0/0*	i/-/-*	NA	3	c
2016	4989	Caseinate	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	c
2016	4990	Lactoserum	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	3	c

VEGETABLES, FRUITS, SEAFOODS (STANDARD PROTOCOL)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella												Category	Type	
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit					Agreement Multi Dose/Unit Dose
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	1925	Seafood	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	a
2016	1935	Salmon terrine	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	a
2016	2068	Frozen fish fillet	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	a
2016	2069	Frozen fish fillet	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	a
2016	2070	Frozen fish fillet	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	a
2016	2071	Surimi	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	a
2016	2072	Surimi	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	a
2016	2073	Shrimp	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	a
2016	2074	Shrimp	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	a
2016	2075	Seafood	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	a
2016	2076	Seafood terrine	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	a
2016	2970	Seafood terrine	+	27,26	67,58	+	+	+	PA	22.2	66.35	+	25.4	66.68	+	PA	4	a
2016	2971	Seafood terrine	+	24,15	67,34	+	+	+	PA	22.46	66.3	+	22.49	66.29	+	PA	4	a
2016	2972	Flaked crab	+	24,79	67,64	+	+	+	PA	22.05	66.44	+	20.88	66.21	+	PA	4	a
2016	2973	Flaked crab	+	25,51	67,45	+	+	+	PA	23.85	66.5	+	24.16	66.69	+	PA	4	a
2016	2974	Fish fillet	+	31,92	67,5	+	+	+	PA	30.02	66.38	+	29.8	66.14	+	PA	4	a
2016	2975	Fish fillet	+	28,78	67,53	+	+	+	PA	26.55	66.35	+	26.8	66.58	+	PA	4	a
2016	2976	Surimi	+	24,1	67,45	+	+	+	PA	21.59	66.26	+	21.73	66.4	+	PA	4	a
2016	4239	Fish fillet	+	27,2	65,85	+	+	+	PA	27.48	66.21	+	27.94	66.22	+	PA	4	a
2016	4240	Fish fillet	+	27,76	65,87	+	+	+	PA	27.44	66.26	+	28.21	66.24	+	PA	4	a
2016	4241	Fish fillet	+	26,2	65,81	+	+	+	PA	25.17	66.25	+	25.28	66.04	+	PA	4	a
2016	4242	Fish fillet	-	28,71	66,14	+	+	+	PD	27.31	66.44	+	27.2	66.06	+	PA	4	a
2016	4243	Fish fillet	+	25,87	65,94	+	+	+	PA	24.94	66.17	+	25.83	66.1	+	PA	4	a
2015	7595	Sprouts	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2015	7598	Parsley	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2015	7599	Chives	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2015	7600	Chives	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2015	7601	Baby leaves	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2016	245	Sprouts	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2016	1922	Baby leaves	-	0	0	-	-	-	NA	0	0	-	0/0/0*	0/0/0*	i/i/-*	NA	4	b
2016	2062	Sprouts	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2016	2063	Sprouts	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2016	2066	Baby leaves	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2016	2067	Baby leaves	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2016	2977	Sprouts	-	36,35	67,76	+	+	+	PD	35.89	67.08	+	0/0/0	0/0/0	-/-	ND	4	b
2016	2978	Sprouts	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	4	b
2016	2979	Sprouts	+	33,47	67,25	+	+	+	PA	32.6	66.14	+	32.41	65.59	+	PA	4	b
2016	2980	Sprouts	+	35,64	67,29	+	+	+	PA	35.52	66.44	+	35.2	65.6	+	PA	4	b
2016	2981	Baby leaves	+	32,88	67,1	+	+	+	PA	32.47	66.1	+	34.54	65.2	+	PA	4	b
2016	2982	Baby leaves	+	30,17	67,23	+	+	+	PA	26.96	66.09	+	31.11	65.32	+	PA	4	b
2016	2983	Baby leaves	+	33,66	67,3	+	+	+	PA	29.57	66.08	+	34.13	65.51	+	PA	4	b
2016	2985	Baby leaves	+	29,06	67,26	+	+	+	PA	25.96	66.1	+	28.28	66.17	+	PA	4	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

VEGETABLES, FRUITS, SEAFOODS (STANDARD PROTOCOL)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	4244	Baby leaves	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2016	4245	Baby leaves	-	0/0/0	0/0/0	-/-	+	-	NA	0	0	-	0	0	-	NA	4	b
2016	4246	Sprouts	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	b
2016	4247	Sprouts	+	0/0/0	0/0/0	-/-	+	-	ND	0	0	-	35.99	65.71	+	PD	4	b
2015	7222	Sliced zuchini	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2015	7223	Zuchini	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2015	7224	Vegetables mix	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2015	7226	Cooked vegetables	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2016	1919	Mâche	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2016	1921	Cress	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2016	2060	Sucrine	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2016	2061	Grated carrots	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2016	2064	Frozen fruit mix	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2016	2065	Frozen strawberry	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2016	2085	Frozen carrots	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2016	2086	Frozen mixed vegetables	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2016	2344	Grated carrots	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	4	c
2016	2986	White cabbage/carrot/celery	+	27,93	67,58	+	+	+	PA	25.69	66.39	+	25.57	66.3	+	PA	4	c
2016	2987	Red cabbage	+	23,57	67,29	+	+	+	PA	22.91	66.24	+	22.69	66.36	+	PA	4	c
2016	2988	Grated carrots	+	30,58	67,46	+	+	+	PA	28.69	66.29	+	29.14	65.8	+	PA	4	c
2016	2989	Mixed salad	+	26,64	67,24	+	+	+	PA	25.87	66.26	+	25.57	66.07	+	PA	4	c
2016	2990	Mixed salad	+	25,05	67,22	+	+	+	PA	21.97	66.04	+	23.14	65.87	+	PA	4	c
2016	2991	Sucrine	+	25,6	67,31	+	+	+	PA	23.86	66.29	+	22.94	66.04	+	PA	4	c
2016	2992	White cabbage/carrot/salad/red bell pepper	+	24,49	67,27	+	+	+	PA	22.81	66.07	+	22.46	66.1	+	PA	4	c
2016	2993	Pre-cooked carrots	+	22,95	67,53	+	+	+	PA	20.88	66.78	+	21.4	66.6	+	PA	4	c
2016	2994	Pre-cooked potatoes	+	23,04	67,52	+	+	+	PA	21.46	66.39	+	20.74	66.26	+	PA	4	c
2016	2995	Chinese cabbage/salad /tomatoe/ corn/zucchini/radish/parsley	+	32,88	67,28	+	+	+	PA	32.59	66.3	+	32.01	65.86	+	PA	4	c

SPECIFIC INGREDIENTS AND FOODS (GENERAL PROTOCOL)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	3071	Dried basil	-	0/0/0/0	0/0/0/0	i/i*/i**/-***	-	-	NA	0/0*/0**	0/0*/0**	i/i*/-**	0/0*/0**	0/0*/0**	i/i*/-**	NA	5	a
2016	3072	Dried herbs	-	0/0/0/0	0/0/0/0	i/i*/i**/-***	-	-	NA	0/0*/0**	0/0*/0**	i/i*/-**	0/0*/0**	0/0*/0**	i/i*/-**	NA	5	a
2016	3073	Paprika	+	0	0	-	-	-	ND	0	0	-	0/0*	0/0*	i/-*	NA	5	a
2016	3074	Turmeric	+	8,9	0	-	-	-	ND	0	0	-	0	0	-	NA	5	a
2016	3075	Curry	-	0	0	-	-	-	NA	0	0	-	0/(36,71/36,59/0)*	0/(66,02/66,56/0)*	i/(+/-)*	PD	5	a
2016	3076	Dried thyme	+	0/0/40	0/0/61,74	i/i*/+**	+	+	PA	0/0*/29,46**	0/0*/66,31**	i/i*/+**	0/0*/31,67**	0/0*/66,33**	i/i*/+**	PA	5	a
2016	4265	Cocoa powder	-	0/0/0	0/0/0	i/i*/-**	-	-	NA	0/0*/0**	0/0*/0**	i/i*/-**	0/0*/0**	0/0*/0**	i/i*/-**	NA	5	a
2016	4266	Cocoa powder	-	0/0/0	0/0/0	i/i*/-**	-	-	NA	0/0*/0**	0/0*/0**	i/i*/-**	0/0*/0**	0/0*/0**	i/i*/-**	NA	5	a
2016	4267	Cocoa powder	+	0/0/33,43	0/0/66,19	i/i*/+**	+	+	PA	0/0*/32,98**	0/0*/66,56**	i/i*/+**	0/0*/37,56**	0/0*/66,32**	i/i*/+**	PA	5	a
2016	4268	Milk chocolate tablet	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	a
2016	4269	Dark chocolate tablet	-	0	0	-	-	-	NA	0	0	-	0/0*	0/0*	i/-*	NA	5	a
2016	4270	Cocoa bean	+	0	0	-	-	-	ND	0	0	-	0/0*	0/0*	i/-*	NA	5	a
2016	4694	Cocoa powder	-	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/-***	-	-	NA	0/0*/0**	0/0*/0**	i/i*/-**	0/0*/0**	0/0*/0**	i/i*/-**	NA	5	a
2016	4695	Cocoa powder	-	0/0*/0**	0/0*/62,46**	i/i*/+**	+	+	PD	0/0*/33,52**/32,78***	0/0*/64,34**/66,21***	i/i*/+**/+***	0/0*/0**/34,37***	0/0*/0**/65,28***	i/i*/i**/+***	PA	5	a
2016	4696	Tarragon	-	0/0*/0**	0/0*/0**	i/-*/i**	-	-	NA	0/0*/0**/35,96***	0/0*/0**/66,37***	i/i*/i**/+***	0/0*/0**/35,93***	0/0*/0**/65,34***	i/i*/i**/+***	PA	5	a
2016	4697	Oregano	-	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/-***	-	-	NA	0/0*/0**/38,82***	0/0*/0**/65,49***	i/i*/i**/+***	0/0*/0**/0***/0°	0/0*/0**/0***/0°	i/i*/i**/i***/-°	ND	5	a
2016	4698	Salsa spices	-	34,78/33,8/33,68	65,89/65,94*/66,1	+/+/*	- (MSRV -)	-	PPNA	33,02	66	+	40	65,96	+	PA	5	a
2016	4699	Chinese spices	-	0	0	-	-	-	NA	0	0	-	38,21/0/0	65,99/0/0	+/-/-	PD	5	a
2016	4984	Black chocolate tablets	-	24,56	66,28	+	+	+	PD	26,09	65,76	+	0/0/23,76	0/0/66,32	i/i/+*	PA	5	a
2016	4985	Black chocolate tablets	-	26,74	65,97	+	+	+	PD	33,21	65,4	+	0/0/25,47	0/0/66,74	i/i/+*	PA	5	a
2016	4986	Black chocolate tablets	+	25,78	66,28	+	+	+	PA	28,98	65,81	+	0/0/23,59	0/0/66,71	i/i/+*	PA	5	a
2016	5620	Tarragon	-	0/0*/0**	0/0*/0**	i/-*/-**	-	-	NA	0/0*/0**	0/0*/0**	i/-*/-**	0/0*/0**	0/0*/0**	i/i*/-**	NA	5	a
2016	5621	Cocoa powder	-	(34,83)**	(66,13)**	i/i*/+**	+	+	PD	0/0*/35,19**	0/0*/66,96**	i/i*/+**	0/0*/0**/0***	0/0*/0**/0***	i/i*/i**/-***	ND	5	a
2016	4381	Cereals with probiotics (1,8.10 <sup>6</sup> /g)	+	22,62	66,52	+	+	+	PA	21,72	66,45	+	21,08	66,54	+	PA	5	b
2016	4382	Cereals with probiotics (2,1.10 <sup>6</sup> /g)	+	26,55	66,31	+	+	+	PA	23,73	65,92	+	24,83	66,09	+	PA	5	b
2016	4383	Cereals with probiotics (<10 <sup>2</sup> /g)	+	23,5	66,08	+	+	+	PA	22,16	66,5	+	23,08	65,42	+	PA	5	b
2016	4384	Cereals with probiotics (3,0.10 <sup>2</sup> /g)	-	0/0/31,98	66,44/0/66,32	+/-/+	- (MSRV -)	-	PPNA	33,39	65,8	+	36,05	65,28	+	PA	5	b
2016	4385	Cereals with probiotics (8,7.10 <sup>3</sup> /g)	-	0	0	-	-	-	NA	0/0/0	66,29/65,48/0	+/-/-	35,57/35,65/35,66	65,68/65,19/64,91	+/+/*	PA	5	b
2016	4386	Cereals with probiotics (6,0.10 <sup>3</sup> /g)	+	32,51	66,24	+	+	+	PA	0	66,24	+	35,01	66,1	+	PA	5	b
2016	4387	Cereals with probiotics (2,0.10 <sup>4</sup> /g)	+	33,07	65,98	+	+	+	PA	33,1	65,82	+	35,43	65,94	+	PA	5	b
2016	4388	Infant formula with probiotics (4,7.10 <sup>5</sup> /g)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	b
2016	4389	Infant formula with probiotics (<10 <sup>2</sup> /g)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	b
2016	4390	Infant formula with probiotics (<10 <sup>2</sup> /g)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	b
2016	4391	Infant formula with probiotics (1,8.10 <sup>5</sup> /g)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	b
2016	4392	Infant formula with probiotics (4,8.10 <sup>3</sup> /g)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	b
2016	4393	Infant formula with probiotics (2,3.10 <sup>4</sup> /g)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

SPECIFIC INGREDIENTS AND FOODS (GENERAL PROTOCOL)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	4394	Infant formula with probiotics (<10 <sup>2</sup> /g)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	b
2016	5622	Infant formula with probiotics (9,0.10 <sup>4</sup> /g)	+	27,42	66,83	+	+	+	PA	26.45	66.44	+	29.2	66.54	+	PA	5	b
2016	5623	Infant formula with probiotics (<10 <sup>2</sup> /g)	+	26,06	66,58	+	+	+	PA	26.2	66.16	+	26.51	66.07	+	PA	5	b
2016	5624	Infant formula with probiotics (<10 <sup>2</sup> /g)	-	0	0	-	-	-	NA	32.84	57.12	+	34.86	55.87	+	PA	5	b
2016	5625	Infant formula with probiotics (7,1.10 <sup>3</sup> /g)	+	0/0/0	0/0/0	-/-	+	-	ND	0	0	-	36.01	65.4	+	PD	5	b
2016	5626	Infant formula with probiotics (5,9.10 <sup>3</sup> /g)	+	25,54	66,08	+	+	+	PA	25.32	66.31	+	25.75	65.56	+	PA	5	b
2016	5627	Infant formula with probiotics (3,5.10 <sup>6</sup> /g)	+	25,02	66,3	+	+	+	PA	23.76	66.22	+	24.47	65.56	+	PA	5	b
2016	5628	Infant formula with probiotics (1,2.10 <sup>6</sup> /g)	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	5	b
2016	4395	Whole egg powder	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	5	c
2016	4396	White egg powder	+	25.63	66.58	+	+	+	PA	24.56	66.08	+	25.1	66.45	+	PA	5	c
2016	4397	White egg powder	+	34.59	66.05	+	+	+	PA	0	63.35	+	0/34,59/ 33,82*	0/64,63/ 66,41*	i/+/*	PA	5	c
2016	4398	Whole egg powder	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	c
2016	4399	Whole egg powder	-	23.8	66.39	+	+	+	PD	23.84	65.93	+	24.01	65.62	+	PA	5	c
2016	4400	Whole egg powder	+	24	66.08	+	+	+	PA	23.44	66.28	+	26.31	64.86	+	PA	5	c
2016	4401	Whole egg powder	+	0		-	-	-	ND	0	0	-	0	0	-	NA	5	c
2016	4730	Pasteurized egg yolk	-	30.08	65.65	+	+	+	PD	21.13	66.44	+	21.77	65.46	+	PA	5	c
2016	4731	Pasteurized egg yolk	+	29.88	65.56	+	+	+	PA	21.18	66.39	+	20.83	65.24	+	PA	5	c
2016	4732	Pasteurized whole egg	-	26.4	66.52	+	+	+	PD	23.15	66.39	+	23.43	66.39	+	PA	5	c
2016	4733	Pasteurized whole egg	+	23.29	66.45	+	+	+	PA	20.85	66.23	+	21.08	65.92	+	PA	5	c
2016	4734	Pasteurized egg white	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	5	c
2016	5212	Whole egg powder	-	35,83/0/0	65,84/0/0	+/-	- (MSRV -)	-	PPNA	0	0	-	0/0	0/0	i/-	NA	5	c
2016	5213	Whole egg powder	-	0	0	-	-	-	NA	0	0	-	0/0/0*	0/0/0*	i/i/*	NA	5	c
2016	5214	Egg yolk powder	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	c
2016	5215	White egg powder	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	c
2016	5221	Pasteurized egg yolk	-	0/0/0	69,64/0/0	+/-	- (MSRV -)	-	PPNA	0	0	-	0	0	-	NA	5	c
2016	5222	Pasteurized whole egg	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	c
2016	5223	Pasteurized whole egg	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	c
2016	5629	Sweet egg yolk pasteurized egg (50%)	+	30,55	65,6	+	+	+	PA	22.28	66.19	+	21.58	65.53	+	PA	5	c
2016	5630	Salted egg yolk pasteurized (10%)	+	28,88	66,6	+	+	+	PA	22.77	66.17	+	23.67	66.1	+	PA	5	c
2016	5631	Sweet egg yolk pasteurized egg (50%)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	c
2016	5632	Salted egg yolk pasteurized (10%)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	5	c

PRODUCTION ENVIRONMENTAL SAMPLES (GENERAL PROTOCOL)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	7349	Residues (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	a
2016	7572	Residues (vegetables industry)	+	25,86	66,36	+	+	+	PA	23,97	66,11	+	24,4	66,64	+	PA	7	a
2016	7573	Residues (vegetables industry)	+	26,09	66,29	+	+	+	PA	25,57	66,18	+	25	66,66	+	PA	7	a
2016	7578	Residues (fish industry)	+	34,59	66,11	+	+	+	PA	34,69	66,45	+	34,05	65,95	+	PA	7	a
2016	7579	Residues (fish industry)	+	25,74	66,29	+	+	+	PA	22,88	66,22	+	22,22	66,35	+	PA	7	a
2016	7580	Residues (fish industry)	+	0	0	-	+	-	ND	0	0	-	0	0	-	NA	7	a
2016	7581	Residues (fish industry)	-	24,8	66,35	+	+	+	PD	23,29	66,17	+	23	66,54	+	PA	7	a
2016	7667	Dust from dairy industry	+	36,13	66,25	+	+	+	PA	35,46	66,14	+	36,09	65,73	+	PA	7	a
2016	7669	Dust from dairy industry	+	33,14	65,59	+	+	+	PA	32,18	65,48	+	33,07	65,44	+	PA	7	a
2016	7670	Dust from dairy industry	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	7	a
2016	7777	Residues (delicatessen industry)	-	30,47	66,15	+	+	+	PD	30,62	66,54	+	30,26	66,21	+	PA	7	a
2016	7963	Residues (vegetables industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	a
2016	7964	Residues (delicatessen industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	a
2016	7965	Residues (delicatessen industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	a
2016	7966	Residues (delicatessen industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	a
2016	7967	Residues (Beef meat)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	a
2016	7968	Residues (Beef meat)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	a
2016	7969	Residues (dusts from dairy industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	a
2016	7970	Residues (dusts from dairy industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	a
2016	7971	Residues (dusts from dairy industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	a
2016	2404	Porcine environment	+	28,66	67,47	+	+	+	PA	30,2	66,94	+	29,78	66,27	+	PA	7	b
2016	2405	Porcine environment	-	33,63	67,25	+	+	+	PD	33,25	66,8	+	34,72	34,72	+	PA	7	b
2016	2406	Porcine environment	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	b
2016	2407	Porcine environment	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	b
2016	2408	Porcine environment	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	b
2016	2409	Porcine environment	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	b
2016	7350	Process water (swine industry)	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	7	b
2016	7351	Process water (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	b
2016	7352	Process water (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	b
2016	7353	Process water (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	b
2016	7354	Process water (swine industry)	+	33,71	66,32	+	+	+	PA	32,63	66,21	+	32,54	66,21	+	PA	7	b
2016	7355	Process water (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	b
2016	7569	Cleaning water (vegetables industry)	+	27,53	66,27	+	+	+	PA	26,96	66,5	+	26,87	66,36	+	PA	7	b
2016	7570	Cleaning water (vegetables industry)	+	26,48	66,15	+	+	+	PA	25,93	66,27	+	24,84	66,59	+	PA	7	b
2016	7571	Process water (vegetables industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	b
2016	7574	Process water (fish industry)	+	23,56	66,33	+	+	+	PA	23,2	66,33	+	22,5	66,9	+	PA	7	b
2016	7575	Process water (fish industry)	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	7	b
2016	7576	Process water (fish industry)	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	7	b
2016	7577	Process water (fish industry)	+	26,68	66,29	+	+	+	PA	26,83	66,54	+	25,6	66,73	+	PA	7	b
2016	7671	Water from pasteurizer (ovoproduct industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	b

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

PRODUCTION ENVIRONMENTAL SAMPLES (GENERAL PROTOCOL)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 18h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 18h	Agreement 18h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	7672	Water from pasteurizer (ovoproduct industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	b
2016	7773	Cleaning water (delicatessen industry)	-	25,62	66,42	+	+	+	PD	25,77	66,55	+	28,52	66,77	+	PA	7	b
2016	2410	Porcine environment	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	2411	Porcine environment	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	2412	Porcine environment	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	2413	Porcine environment	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	2414	Porcine environment	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	2415	Porcine environment	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7356	Wipe (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7357	Wipe (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7358	Wipe (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7360	Wipe (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7361	Wipe (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7362	Wipe (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7363	Wipe (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7364	Wipe (swine industry)	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	7	c
2016	7365	Wipe (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7366	Wipe (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7367	Wipe (swine industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7661	Wipe (vegetables industry)	+	24,28	66,07	+	+	+	PA	23.1	65.97	+	22.79	66.55	+	PA	7	c
2016	7662	Wipe (vegetables industry)	+	30,09	66,27	+	+	+	PA	29.13	66.11	+	30.52	66.42	+	PA	7	c
2016	7663	Wipe (vegetables industry)	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	7	c
2016	7664	Wipe (vegetables industry)	-	33,02	66,45	+	+	+	PD	34.95	67.33	+	35.89	66.33	+	PA	7	c
2016	7665	Wipe (dairy industry)	+	27,65	66,5	+	+	+	PA	27.6	66.65	+	28.84	66.43	+	PA	7	c
2016	7666	Wipe (dairy industry)	+	23,87	66,42	+	+	+	PA	24.5	66.61	+	24.66	66.4	+	PA	7	c
2016	7786	Wipe (delicatessen industry)	+	24,64	66,41	+	+	+	PA	24,65	66,26	+	24,66	66,73	+	PA	7	c
2016	7787	Wipe (delicatessen industry)	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	7	c
2016	7788	Wipe after cleaning (delicatessen industry)	+	21,82	66,43	+	+	+	PA	24,15	66,57	+	23,45	66,98	+	PA	7	c
2016	7789	Wipe after cleaning (delicatessen industry)	+	29,6	65,75	+	+	+	PA	30,67	66,65	+	30,72	65,95	+	PA	7	c

**RAW MEAT (except poultry) (SPECIFIC PROTOCOL 1)**

Year of analyse	Sample N°	Product	Reference method: ISO 6579	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 8h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 8h	Agreement 8h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	547	Fresh veal trim	-	33,35	67,94	+	+	+	PD	32.14	66.5	+	33.94	66.13	+	PA	8	a
2016	548	Fresh veal trim	-	31,53	67,38	+	+	+	PD	31.22	66.1	+	32.49	65.86	+	PA	8	a
2016	549	Fresh veal trim	+	29,96	67,51	+	+	+	PA	28.17	65.95	+	30.72	66.3	+	PA	8	a
2016	550	Fresh lamb meat	-	30,62	67,42	+	+	+	PD	30.53	66.32	+	31.74	65.94	+	PA	8	a
2016	551	Fresh lamb meat	+	31,89	67,48	+	+	+	PA	23.35	66.04	+	32.99	65.96	+	PA	8	a
2016	552	Fresh ground beef	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	8	a
2016	553	Fresh ground beef	+	31,73	67,33	+	+	+	PA	31.94	66.43	+	33.06	66.16	+	PA	8	a
2016	554	Fresh ground beef	+	31,29	67,66	+	+	+	PA	31.9	66.71	+	32.97	66.19	+	PA	8	a
2016	555	Fresh beef trim	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	8	a
2016	556	Fresh beef trim	+	31,35	66,94	+	+	+	PA	31.43	65.82	+	32.01	65.06	+	PA	8	a
2016	1162	Fresh beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1163	Fresh beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1164	Fresh beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1165	Fresh ground	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1166	Fresh ground	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1167	Fresh veal trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1168	Fresh veal trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1169	Fresh veal trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1170	Fresh lamb meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1171	Fresh lamb meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2015	7327	Frozen veal trim	+	31,84	67,62	+	+	+	PA	31.25	66.33	+	34.3	65.56	+	PA	8	b
2015	7328	Frozen veal trim	-	29,46	67,15	+	+	+	PD	29.27	66.14	+	30.57	65.52	+	PA	8	b
2015	7329	Frozen veal trim	+	29,6	67,39	+	+	+	PA	28.23	66.18	+	29.55	65.96	+	PA	8	b
2015	7330	Frozen lamb meat	+	28,68	67,25	+	+	+	PA	28.68	66.13	+	28.92	65.66	+	PA	8	b
2015	7331	Frozen lamb meat	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	8	b
2015	7332	Frozen lamb meat	+	27,95	67,25	+	+	+	PA	27.45	66.09	+	27.64	65.54	+	PA	8	b
2015	7333	Frozen ground beef	+	31,1	67,22	+	+	+	PA	30.98	66	+	31.34	65.12	+	PA	8	b
2015	7334	Frozen ground beef	+	30,06	67,5	+	+	+	PA	29.9	66.34	+	29.76	66.02	+	PA	8	b
2015	7335	Frozen ground beef	+	30,17	67,19	+	+	+	PA	0	62.4	+	31.64	65.67	+	PA	8	b
2015	7336	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2015	7337	Frozen ground beef	+	0	0	-	-	-	ND	0	0	-	36.02/0/0	56.94/0/0	+/-	PD	8	b
2015	7338	Frozen beef trim	+	29,42	66,98	+	+	+	PA	29.7	65.93	+	30.4	65.71	+	PA	8	b
2015	7339	Frozen beef trim	-	33,19	67,16	+	+	+	PD	32	65.91	+	33.46	65.14	+	PA	8	b
2015	7340	Frozen beef trim	+	31,75	67,15	+	+	+	PA	31.77	66.15	+	33.97	65.78	+	PA	8	b
2015	7341	Frozen beef trim	+	33,33	66,96	+	+	+	PA	33.33	66.24	+	34.32	65.01	+	PA	8	b
2015	7342	Frozen beef trim	+	31,52	67,24	+	+	+	PA	30.72	66	+	31.21	65.14	+	PA	8	b
2016	1154	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1155	Frozen beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1156	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1157	Frozen beef trim meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1158	Frozen ground veal	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1159	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1160	Frozen lamb meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1161	Frozen ground veal	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2015	7343	Frozen seasoned ground beef	+	31,52	67,44	+	+	+	PA	30.56	66.36	+	33.01	65.72	+	PA	8	c
2015	7344	Frozen seasoned ground beef	+	30,69	67,01	+	+	+	PA	30.15	65.95	+	31.88	65.56	+	PA	8	c
2015	7345	Frozen seasoned beef trim	+	31,89	67,2	+	+	+	PA	30.97	65.89	+	32.7	65.54	+	PA	8	c



RAW MEAT (except poultry) (SPECIFIC PROTOCOL 1)																			
Year of analyse	Sample N°	Product	Reference method: ISO 6579	Alternative method : GENE-UP® Salmonella BPW for 8h at 41.5°C														Category	Type
				PCR initial validation						PCR extension									
				PCR result			Confirmation final result	Final result 8h	Agreement 8h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose			
				Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result				
2015	7346	Frozen seasoned beef trim	-	32,33	67,41	+	+	+	PD	31.94	66.25	+	34.24	65.53	+	PA	8	c	
2015	7347	Fresh seasoned beef trim	+	31,59	67,18	+	+	+	PA	30.74	66.14	+	32.24	65.47	+	PA	8	c	
2015	7881	Fresh seasoned beef trim	+	30,13	67,16	+	+	+	PA	29.81	66.05	+	30.66	65.65	+	PA	8	c	
2015	7882	Fresh seasoned ground beef	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	8	c	
2015	7883	Fresh seasoned beef meat	+	28,19	67,08	+	+	+	PA	27.04	66.08	+	26.68	65.78	+	PA	8	c	
2015	7884	Fresh seasoned ground beef	+	0/0/0	0/0/0	-/-/-	-	-	ND	0	0	-	0	0	-	NA	8	c	
2015	7885	Fresh seasoned beef trim	+	31,31	67,18	+	+	+	PA	31.44	65.93	+	32.84	65.51	+	PA	8	c	
2016	1172	Fresh seasoned beef meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c	
2016	1173	Fresh seasoned beef meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c	
2016	1174	Fresh seasoned beef meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c	
2016	1175	Fresh seasoned beef meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c	
2016	1176	Fresh seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c	
2016	1177	Fresh seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c	
2016	1178	Fresh seasoned ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c	
2016	1179	Fresh seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c	
2016	1180	Fresh seasoned ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c	
2016	1181	Fresh seasoned beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c	
2016	1182	Fresh seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c	

RAW MEAT (except poultry) (SPECIFIC PROTOCOL 1)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella												Category	Type	
				BPW for 24h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 24h	Agreement 24h	Multi dose kit			Unit dose kit					Agreement Multi Dose/Unit Dose
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	547	Fresh veal trim	-	25,26	67,52	+	+	+	PD	27.22	66.42	+	26.16	66.43	+	PA	8	a
2016	548	Fresh veal trim	-	25,97	67,14	+	+	+	PD	28.04	66.26	+	27.3	66.14	+	PA	8	a
2016	549	Fresh veal trim	+	24,6	67,91	+	+	+	PA	23.52	66.27	+	25.52	66.46	+	PA	8	a
2016	550	Fresh lamb meat	-	23,76	67,81	+	+	+	PD	25.87	66.22	+	24.42	65.57	+	PA	8	a
2016	551	Fresh lamb meat	+	24,15	67,25	+	+	+	PA	25.43	66.11	+	24.5	66.22	+	PA	8	a
2016	552	Fresh ground beef	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	8	a
2016	553	Fresh ground beef	+	28,98	67,14	+	+	+	PA	29.74	66.15	+	29.86	65.83	+	PA	8	a
2016	554	Fresh ground beef	+	25,69	67,6	+	+	+	PA	25.59	66.31	+	25.46	66.14	+	PA	8	a
2016	555	Fresh beef trim	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	8	a
2016	556	Fresh beef trim	+	23,9	67,21	+	+	+	PA	23.76	66.09	+	24.85	66.48	+	PA	8	a
2016	1162	Fresh beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1163	Fresh beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1164	Fresh beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1165	Fresh ground	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1166	Fresh ground	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1167	Fresh veal trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1168	Fresh veal trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1169	Fresh veal trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1170	Fresh lamb meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2016	1171	Fresh lamb meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	a
2015	7327	Frozen veal trim	+	26,12	67,42	+	+	+	PA	26.45	66.13	+	26.47	66.02	+	PA	8	b
2015	7328	Frozen veal trim	-	26,74	67,16	+	+	+	PD	25.57	65.83	+	26.51	65.91	+	PA	8	b
2015	7329	Frozen veal trim	+	24,49	67,29	+	+	+	PA	24.31	66.01	+	23.57	66.11	+	PA	8	b
2015	7330	Frozen lamb meat	+	23,57	67,31	+	+	+	PA	23.32	65.95	+	23.48	65.97	+	PA	8	b
2015	7331	Frozen lamb meat	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	8	b
2015	7332	Frozen lamb meat	+	22,84	67,45	+	+	+	PA	22.59	66.05	+	21.74	65.62	+	PA	8	b
2015	7333	Frozen ground beef	+	29	67,19	+	+	+	PA	28.05	65.84	+	27.88	65.2	+	PA	8	b
2015	7334	Frozen ground beef	+	28,63	67,61	+	+	+	PA	26.91	66.15	+	26.62	65.94	+	PA	8	b
2015	7335	Frozen ground beef	+	27,1	67,1	+	+	+	PA	27.92	66.16	+	27.91	66.09	+	PA	8	b
2015	7336	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2015	7337	Frozen ground beef	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	8	b
2015	7338	Frozen beef trim	+	22,6	67	+	+	+	PA	22.88	65.99	+	23.53	66.03	+	PA	8	b
2015	7339	Frozen beef trim	-	27,07	67,01	+	+	+	PD	27.67	66.06	+	28.05	65.86	+	PA	8	b
2015	7340	Frozen beef trim	+	23,75	67,38	+	+	+	PA	24.53	66.03	+	24.8	65.91	+	PA	8	b
2015	7341	Frozen beef trim	+	30,03	67,01	+	+	+	PA	29.53	65.88	+	29.52	65.67	+	PA	8	b
2015	7342	Frozen beef trim	+	27,41	67,25	+	+	+	PA	26.47	66.08	+	25.79	65.91	+	PA	8	b
2016	1154	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1155	Frozen beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1156	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1157	Frozen beef trim meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1158	Frozen ground veal	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1159	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1160	Frozen lamb meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2016	1161	Frozen ground veal	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	b
2015	7343	Frozen seasoned ground beef	+	26,08	67,25	+	+	+	PA	26.61	65.98	+	26.93	66.16	+	PA	8	c
2015	7344	Frozen seasoned ground beef	+	25,2	67,01	+	+	+	PA	25.79	66.19	+	26.27	65.93	+	PA	8	c

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

RAW MEAT (except poultry) (SPECIFIC PROTOCOL 1)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 24h at 41.5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 24h	Agreement 24h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2015	7345	Frozen seasoned beef trim	+	28,99	67,17	+	+	+	PA	28.8	65.94	+	29.6	66.08	+	PA	8	c
2015	7346	Frozen seasoned beef trim	-	30,8	67,21	+	+	+	PD	30.65	65.92	+	31.76	65.34	+	PA	8	c
2015	7347	Fresh seasoned beef trim	+	28,84	66,97	+	+	+	PA	28.48	65.92	+	28.59	65.42	+	PA	8	c
2015	7881	Fresh seasoned beef trim	+	28,27	67,01	+	+	+	PA	28.33	65.98	+	28.47	65.74	+	PA	8	c
2015	7882	Fresh seasoned ground beef	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	8	c
2015	7883	Fresh seasoned beef meat	+	21,98	67,14	+	+	+	PA	21.85	66.49	+	21.87	66.11	+	PA	8	c
2015	7884	Fresh seasoned ground beef	+	0/36,15/12,1	0/67,67/0	-/+/-	+	-	ND	0	0	-	35.51	65.73	+	PD	8	c
2015	7885	Fresh seasoned beef trim	+	30,62	67,07	+	+	+	PA	30.7	65.96	+	31.55	65.24	+	PA	8	c
2016	1172	Fresh seasoned beef meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c
2016	1173	Fresh seasoned beef meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c
2016	1174	Fresh seasoned beef meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c
2016	1175	Fresh seasoned beef meat	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c
2016	1176	Fresh seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c
2016	1177	Fresh seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c
2016	1178	Fresh seasoned ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c
2016	1179	Fresh seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c
2016	1180	Fresh seasoned ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c
2016	1181	Fresh seasoned beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c
2016	1182	Fresh seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	8	c

RAW MEAT (except poultry) (SPECIFIC PROTOCOL 2) (375 g sample size)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella													Category	Type
				BPW for 10h at 41,5°C														
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 10h	Agreement 10h	Multi dose kit			Unit dose kit			Agreement Multi Dose/ Unit Dose		
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result							
2016	4357	Ground beef	+	31,1	65,95	+	+	+	PA	30.86	66.48	+	31.18	65.89	+	PA	9	a
2016	4358	Ground beef	-	33,32	65,58	+	+	+	PD	32.34	66.12	+	34.11	62.94	+	PA	9	a
2016	4359	Beef trim	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	9	a
2016	4360	Lamb trim	+	33,25	65,85	+	+	+	PA	32.47	66.14	+	32.77	65.42	+	PA	9	a
2016	4361	Lamb trim	+	33,5	65,8	+	+	+	PA	33.47	66.3	+	33.56	65.56	+	PA	9	a
2016	4362	Lamb trim	-	34,16	66	+	+	+	PD	33.28	66.42	+	33.33	65.43	+	PA	9	a
2016	4363	Veal trim	-	0/0/35,16	0/0/66,09	-/-/+	+	-	NA	0	64.09	+	33.58	65.71	+	PA	9	a
2016	4364	Veal trim	+	0/35,92/0	0/65,98/0	-/+/-	+	-	ND	0	0	-	35.11	65.92	+	PD	9	a
2016	4365	Veal trim	+	34,48	66,25	+	+	+	PA	34.58	66.32	+	0	66.28	+	PA	9	a
2016	4366	Pork trim	-	0/37,41/35,64	0/66,22/66,04	-/+/+	+	-	NA	0	0	-	36.26	65.87	+	PD	9	a
2016	4367	Pork trim	+	32,89	65,56	+	+	+	PA	31.88	64.97	+	32.95	63.86	+	PA	9	a
2016	4368	Pork trim	+	34,91	65,42	+	+	+	PA	33.92	66.25	+	0/0/35,81*	0/64,07/66,28*	i/+/*	PA	9	a
2016	5304	Beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5305	Ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5306	Beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5307	Pork trim	+	34,2	66,3	+	+	+	PA	33.51	66.36	+	34,36	65,03	+	PA	9	a
2016	5308	Pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5309	Lamb trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5310	Lamb trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5311	Veal trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5854	Ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	4369	Frozen ground beef	+	34,37	66,42	+	+	+	PA	33.8	66.47	+	34,78	66,45	+	PA	9	b
2016	4370	Frozen ground beef	+	35,15	66,06	+	+	+	PA	35	66.53	+	35,44	66,19	+	PA	9	b
2016	4371	Frozen ground beef	+	0/35,66/0	0/66,22/0	-/+/-	+	-	ND	0	0	-	35,3	66,2	+	PD	9	b
2016	4372	Frozen ground veal	+	34,79	66,1	+	+	+	PA	33.36	66.36	+	34,21	66,15	+	PA	9	b
2016	4373	Frozen ground veal	+	0/38,14/0	0/66,49/0	-/+/-	+	-	ND	0	0	-	35,82	66,04	+	PD	9	b
2016	4374	Frozen Veal trim	-	32,85	66,21	+	+	+	PD	31.43	66.31	+	31,75	66,11	+	PA	9	b
2016	4375	Frozen lamb trim	+	33,2	66,07	+	+	+	PA	31.27	66.25	+	31,59	66,05	+	PA	9	b
2016	4376	Frozen lamb trim	-	33,28	66,37	+	+	+	PD	31.99	66.64	+	32,61	66,5	+	PA	9	b
2016	4377	Frozen lamb trim	+	31,9	66,09	+	+	+	PA	31.12	66.51	+	31,48	66,32	+	PA	9	b
2016	4378	Frozen pork trim	+	32,63	65,88	+	+	+	PA	31.53	66.32	+	29,47	66,09	+	PA	9	b
2016	4379	Frozen pork trim	+	32,09	65,95	+	+	+	PA	31.13	66.5	+	29,43	66,18	+	PA	9	b
2016	4380	Frozen pork trim	+	33,68	65,93	+	+	+	PA	31.64	66.44	+	31,65	66,34	+	PA	9	b
2016	5312	Frozen pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5313	Frozen Veal trim	-	0	0	-	-	-	NA	35.28	66.63	+	0	0	-	ND	9	b
2016	5314	Frozen Veal trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5315	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5316	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5325	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5326	Frozen pork trim	-	0	0	-	-	-	NA	34.98/0/0	66.88/0/0	+/-/-	0	0	-	ND	9	b
2016	5327	Frozen pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5328	Frozen lamb trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5329	Frozen lamb trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	4402	Seasoned ground beef	+	32,12	66,03	+	+	+	PA	32.2	66.52	+	32,02	66,1	+	PA	9	c
2016	4403	Seasoned ground beef	+	32,27	65,75	+	+	+	PA	32.2	66.25	+	31,97	65,7	+	PA	9	c

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

RAW MEAT (except poultry) (SPECIFIC PROTOCOL 2) (375 g sample size)																			
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella														Category	Type
				BPW for 10h at 41,5°C															
				PCR initial validation						PCR extension									
				PCR result			Confirmation final result	Final result 10h	Agreement 10h	Multi dose kit			Unit dose kit			Agreement Multi Dose/ Unit Dose			
Cp	Tm	Result	Cp	Tm	Result	Cp				Tm	Result								
2016	4404	Seasoned beef trim	+	31,44	65,88	+	+	+	PA	30.23	66.19	+	29.79	66.2	+	PA	9	c	
2016	4405	Seasoned ground beef	+	34,33	65,9	+	+	+	PA	34.26	66.15	+	34.47	65.84	+	PA	9	c	
2016	4406	Seasoned beef trim	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	9	c	
2016	4407	Seasoned pork trim	+	34,21	66,09	+	+	+	PA	33.85	66.72	+	34.49	65.91	+	PA	9	c	
2016	4408	Seasoned beef trim	+	34,63	65,85	+	+	+	PA	31.82	66.29	+	32.13	65.73	+	PA	9	c	
2016	4409	Seasoned pork trim	+	33,76	66,03	+	+	+	PA	33.21	66.66	+	33.55	66.14	+	PA	9	c	
2016	4410	Seasoned pork trim	-	33,2	66,08	+	+	+	PD	33.47	66.64	+	34.12	66.06	+	PA	9	c	
2016	4411	Seasoned pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c	
2016	4412	Seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c	
2016	4413	Seasoned lamb trim	+	34,14	65,83	+	+	+	PA	34.02	66.38	+	34.49	65.79	+	PA	9	c	
2016	5317	Seasoned pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c	
2016	5318	Seasoned pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c	
2016	5319	Seasoned pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c	
2016	5320	Seasoned pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c	
2016	5321	Seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c	
2016	5322	Seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c	
2016	5323	Seasoned ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c	
2016	5324	Seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c	

RAW MEAT (except poultry) (SPECIFIC PROTOCOL 2) (375 g sample size)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella ( BPW for 24h at 41,5°C												Category	Type	
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 24h	Agreement 24h	Multi dose kit			Unit dose kit					Agreement Multi Dose/Unit Dose
				Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result			
2016	4357	Ground beef	+	30,44	65,88	+	+	+	PA	31.93	64.13	+	0/30,2*	0/66,51*	i/+*	PA	9	a
2016	4358	Ground beef	-	31,82	65,8	+	+	+	PD	31.7	66.41	+	32.69	66.04	+	PA	9	a
2016	4359	Beef trim	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	9	a
2016	4360	Lamb trim	+	31,49	65,67	+	+	+	PA	30.46	66.31	+	32.41	65.54	+	PA	9	a
2016	4361	Lamb trim	+	32,75	65,6	+	+	+	PA	31.85	66.34	+	32.92	65.69	+	PA	9	a
2016	4362	Lamb trim	-	32,54	65,6	+	+	+	PD	31.74	66.36	+	32.27	65.81	+	PA	9	a
2016	4363	Veal trim	-	33,43	65,61	+	+	+	PD	32.31	66.26	+	33.05	65.33	+	PA	9	a
2016	4364	Veal trim	+	34,87	65,89	+	+	+	PA	34.06	66.5	+	35.05	65.94	+	PA	9	a
2016	4365	Veal trim	+	33,32	65,85	+	+	+	PA	33.12	66.13	+	37,25	64,62	+	PA	9	a
2016	4366	Pork trim	-	33,44	65,69	+	+	+	PD	31.68	64.48	+	32.77	65.45	+	PA	9	a
2016	4367	Pork trim	+	32,63	65,74	+	+	+	PA	30.04	65.3	+	31.17	65.5	+	PA	9	a
2016	4368	Pork trim	+	32,98	65,6	+	+	+	PA	31.04	65.83	+	32.68	65.8	+	PA	9	a
2016	5304	Beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5305	Ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5306	Beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5307	Pork trim	+	34,82	66,14	+	+	+	PA	31.72	66.08	+	32,8	65,49	+	PA	9	a
2016	5308	Pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5309	Lamb trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5310	Lamb trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5311	Veal trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	5854	Ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	a
2016	4369	Frozen ground beef	+	33,15	66,39	+	+	+	PA	32.58	66.54	+	32.84	66.69	+	PA	9	b
2016	4370	Frozen ground beef	+	34,76	65,84	+	+	+	PA	32.74	66.43	+	33.76	66.22	+	PA	9	b
2016	4371	Frozen ground beef	+	31,46	66,15	+	+	+	PA	29.91	66.35	+	28.56	66.72	+	PA	9	b
2016	4372	Frozen ground veal	+	33,63	66,07	+	+	+	PA	30.13	66.32	+	31.55	66.22	+	PA	9	b
2016	4373	Frozen ground veal	+	34,9	66,05	+	+	+	PA	33.43	66.4	+	33.25	66.27	+	PA	9	b
2016	4374	Frozen Veal trim	-	32,62	66,09	+	+	+	PD	31.07	66.37	+	29.74	66.29	+	PA	9	b
2016	4375	Frozen lamb trim	+	29,81	65,96	+	+	+	PA	28.61	66.08	+	28.69	66.63	+	PA	9	b
2016	4376	Frozen lamb trim	-	32,47	66,12	+	+	+	PD	30.67	66.4	+	31.07	66.77	+	PA	9	b
2016	4377	Frozen lamb trim	+	28,03	66,08	+	+	+	PA	25.43	66.73	+	25.92	66.89	+	PA	9	b
2016	4378	Frozen pork trim	+	31,96	66,05	+	+	+	PA	28.09	66.53	+	26.54	66.65	+	PA	9	b
2016	4379	Frozen pork trim	+	30,67	66,04	+	+	+	PA	26.6	66.45	+	24.82	66.76	+	PA	9	b
2016	4380	Frozen pork trim	+	33,65	65,97	+	+	+	PA	30.1	66.16	+	30.67	65.87	+	PA	9	b
2016	5312	Frozen pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5313	Frozen Veal trim	-	35,9	65,3	+	+	+	PD	35.82	66.72	+	0/36,46*	0/67,25*	i/+*	PA	9	b
2016	5314	Frozen Veal trim	-	0	0	-	-	-	NA	0	0	-	0/0	0/0	i/-	NA	9	b
2016	5315	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5316	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5325	Frozen ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5326	Frozen pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5327	Frozen pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5328	Frozen lamb trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	5329	Frozen lamb trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	b
2016	4402	Seasoned ground beef	+	29,92	66,05	+	+	+	PA	29.74	66.48	+	31.04	66.22	+	PA	9	c
2016	4403	Seasoned ground beef	+	32,21	65,88	+	+	+	PA	31.62	66.21	+	31.56	65.64	+	PA	9	c
2016	4404	Seasoned beef trim	+	26,55	66,52	+	+	+	PA	23.6	66.37	+	23.27	66.22	+	PA	9	c

\* Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on [www.cofrac.fr](http://www.cofrac.fr))

RAW MEAT (except poultry) (SPECIFIC PROTOCOL 2) (375 g sample size)																		
Year of analyse	Sample N°	Product	Reference method: ISO 6579*	Alternative method : GENE-UP® Salmonella ( BPW for 24h at 41,5°C													Category	Type
				PCR initial validation						PCR extension								
				PCR result			Confirmation final result	Final result 24h	Agreement 24h	Multi dose kit			Unit dose kit			Agreement Multi Dose/Unit Dose		
				Cp	Tm	Result				Cp	Tm	Result	Cp	Tm	Result			
2016	4405	Seasoned ground beef	+	37,2	66,02	+	+	+	PA	36.45	66.63	+	35.57	65.99	+	PA	9	c
2016	4406	Seasoned beef trim	+	0	0	-	-	-	ND	0	0	-	0	0	-	NA	9	c
2016	4407	Seasoned pork trim	+	30,98	65,92	+	+	+	PA	30.5	66.32	+	30.61	66.26	+	PA	9	c
2016	4408	Seasoned beef trim	+	30,97	65,83	+	+	+	PA	30.31	66.09	+	28.93	66.33	+	PA	9	c
2016	4409	Seasoned pork trim	+	32,47	66,06	+	+	+	PA	31.71	66.53	+	31.94	66.1	+	PA	9	c
2016	4410	Seasoned pork trim	-	33,17	65,97	+	+	+	PD	32.02	66.55	+	33.11	66.56	+	PA	9	c
2016	4411	Seasoned pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c
2016	4412	Seasoned beef trim	-	34,8	65,9	+	+	+	PD	34.14	66.72	+	34.45	65.97	+	PA	9	c
2016	4413	Seasoned lamb trim	+	32,88	65,78	+	+	+	PA	32.58	66.43	+	32.8	65.73	+	PA	9	c
2016	5317	Seasoned pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c
2016	5318	Seasoned pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c
2016	5319	Seasoned pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c
2016	5320	Seasoned pork trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c
2016	5321	Seasoned beef trim	-	0/0/0*	0/0/0*	i/-*	-	-	NA	0	0	-	0/0*	0/0*	i/-*	NA	9	c
2016	5322	Seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c
2016	5323	Seasoned ground beef	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c
2016	5324	Seasoned beef trim	-	0	0	-	-	-	NA	0	0	-	0	0	-	NA	9	c

Appendix 9 – Inclusivity and exclusivity study: raw data (Extension study No 6, 2018)

**BPW (8 h at 41.5°C)**

n°	Strain		Reference	Origin	Inoculation Level CFU/225ml	PCR Result initial validation			PCR Extension						Confirmations							
						CP	Tm	Result	Multi dose			Unit Dose			ChromID <i>Salmonella</i>		XLD		ASAP		RAPID <i>Salmonella</i>	
									CP	Tm	Result	CP	Tm	Result	Result	Latex	Result	Latex	Result	Latex	Result	Latex
12	<i>Salmonella</i>	Blockley	Ad 923	Poultry environment	15	29,07	67,19	+	29.29	66.06	+	30.68	65.64	+	+	+	+	+	+	+	+	
13	<i>Salmonella</i>	<i>bongori</i> 66 :z35	Ad 599	Environmental sample	32	29,81	58,76	+	29.8	57.07	+	30.99	56.33	+	- (white colonies)	+ weak	+	-	- (cream colonies)	-	+	-
18	<i>Salmonella</i>	Caracas	Ad2322	Spice	31	30,48	57,86	+	30.69	56.64	+	32.17	56.12	+	+	+ weak	+	+ weak	+	+ weak	+	+ weak
20	<i>Salmonella</i>	Chester	CIP 103543	/	25	29	58,04	+	30.01	56.47	+	30.52	56.13	+	+	+	+	+	+	+	+	
23	<i>Salmonella</i>	<i>diarizonae</i> 38:iv:z53	Ad 451	Ewe milk cheese	25	29,75	59	+	30.09	57.61	+	31.15	56.87	+	+	-	+	-	+	-	+	-
28	<i>Salmonella</i>	Gallinarum biovar pullorum	Ad 300	Poultry environment	43	29,98	59,42	+	30.67	57.77	+	31.65	57.26	+	+	+	+ (yellow edge)	-	+	+ weak	+	+ weak
52	<i>Salmonella</i>	Marseille	CIP105627	/	20	29,97	57,96	+	29.47	56.33	+	30.88	56.11	+	+	+	+	+	+ weak	+	+ weak	
73	<i>Salmonella</i>	Poona	Ad2330	Poultry feed	56	29,47	57,84	+	30.14	56.5	+	31.71	56.2	+	+	+	+	+	+	+	+	