

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

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

Qualitative method

**NEOGEN ANSR™ *Salmonella*  
(certificate # NEO 35/02-05/13)  
for the detection of *Salmonella* spp.  
in a broad range of foods and in feed products.**

**CONFIDENTIAL**

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## Preamble

- Protocols of validation :

- EN ISO 16140-1 and EN ISO 16140-2 (September 2016): Microbiology of the food chain — Method validation  
Part 1: Vocabulary.  
Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method.
- Requirements regarding comparison and interlaboratory studies for implementation of the standard EN ISO 16140-2 (version 6).

- Reference method:

- **EN ISO 6579-1/A1 (March 2020):** Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella - 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 and SC.

- Application scope:

- **All human food products** by a validation testing of a broad range of foods, including:
  - composite foods / Ready-to-eat and ready-to-reheat products,
  - meat products,
  - milk and dairy products,
  - seafood and vegetables,
  - egg products,
- **Feed products.**

- Certification body:

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

## Definitions

- **Method comparison study**

The method comparison study is the part of the validation process that is performed in the organizing laboratory. It consists of three parts namely the following:

- A comparative study of the results of the reference method to the results of the alternative method in (naturally and/or artificially) contaminated samples (so-called sensitivity study);
- A comparative study to determine the relative level of detection (RLOD) in artificially contaminated samples (so-called RLOD study);
- An inclusivity/exclusivity study of the alternative method.

- **Sensitivity study**

The sensitivity study aims to determine the difference in sensitivity between the reference and the alternative method.

The sensitivity is the ability of the reference method or alternative method to detect the analyte.

- **Relative level of detection study**

A comparative study is conducted to evaluate the level of detection (LOD) of the alternative method against the reference method. The evaluation is based on the calculation of the relative level of detection (RLOD).

The level of detection at 50% ( $LOD_{50}$ ) is the measured analyte concentration, obtained by a given measurement procedure, for which the probability of detection is 50%.

The relative level of detection level of detection at  $P = 0,50$  ( $LOD_{50}$ ) of the alternative method divided by the level of detection at  $P = 0,50$  ( $LOD_{50}$ ) of the reference method.

- **Inclusivity and exclusivity study**

The inclusivity study is a study involving pure target strains to be detected or enumerated by the alternative method.

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

- **Interlaboratory study**

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

The aim of the interlaboratory study is to determine the difference in sensitivity between the reference and the alternative method when tested by different collaborators using identical samples (reproducibility conditions).

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## **Appendices**

Appendix A: Protocol of the alternative method

Appendix B: Protocol of the reference method

Appendix C: Artificial contaminations

Appendix D: Results of the sensitivity study

Appendix E: Results of the relative level of detection study

Appendix F: Results of the selectivity study

Appendix G: Results of the interlaboratory study

## 1. Introduction

The present document introduces the results of the studies NF Validation certification of the ISO 16140-2 validation of the NEOGEN ANSR™ Salmonella method.

The **NEOGEN ANSR™ Salmonella** was validated in meat products, dairy products, seafood and vegetables according to the EN ISO 16140 (2003) and the AFNOR technical rules. The validation was obtained on the 23<sup>rd</sup> of May 2013 (certificate number NEO 35/02 - 05/13).

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

*Table 1: validation history*

Date	Study	Expert Laboratory	Standards
May 2013	Initial validation for the detection of <i>Salmonella</i> spp.	ADRIA Développement	- ISO 16140 (2003) - EN ISO 6579 (2002)
March 2017	Renewal and extension study. Modification of the solubility of the lyophilised ANSR for <i>Salmonella</i> reagents.	ADRIA Développement	- EN ISO 16140-2:2016 - EN ISO 6579:2017
June 2017	Extension study for composite foods, ready-to-eat and ready-to-reheat, egg products and feed products.	ADRIA Développement	- EN ISO 16140-2:2016 - EN ISO 6579:2017
April 2021	Renewal study project without modification.	Laboratory MICROSEPT	- EN ISO 16140-2:2016 - EN ISO 6579:2017

The results set out in this report were produced during validation tests carried out by ADRIA Développement as part of NF Validation, in accordance with prevailing requirements.

## 2. Protocols of the methods

### 2.1. Alternative method

#### 2.1.1. Principle of the alternative method

ANSR™ for *Salmonella* is an isothermal, amplified nucleic acid assay. The ANSR method is based on nicking enzyme amplification reaction (NEARTM) technology. Target nucleic acid is amplified through a mechanism of polymerization from the ends of nicks created in double-stranded DNA by the action of a specific endonuclease. Amplified target sequences are detected in real time using fluorescent molecular beacon probes.

A two-stage lysis reaction is performed, first at  $37 \pm 2^\circ\text{C}$  for 10 minutes, then at  $80 \pm 2^\circ\text{C}$  for 20 minutes. Next, a portion of the lysed sample is transferred to a strip tube containing lyophilized ANSR reagents. The tubes are sealed and incubated at  $56 \pm 1^\circ\text{C}$  on the ANSR reader. Results are generated by the reader and displayed in the ANSR software within 10 minutes. Positive results may be confirmed from the enrichment cultures following standard procedures. Each tube of ANSR reagents contains an internal positive control, ensuring that the reagents are functioning properly.

#### 2.1.2. Protocol of the alternative method

The validated protocol is as follows:

Enrichment step:

- **Protocol 1**: unprocessed raw food, even frozen, with high background microflora: in BPW supplemented with selective reagents for  $22 \text{ h} \pm 2 \text{ h}$  at  $41.5^\circ\text{C} \pm 1^\circ\text{C}$ ,
- **Protocol 2**: processed food with low background microflora: in BPW for  $22 \text{ h} \pm 2 \text{ h}$  at  $34 - 38^\circ\text{C}$

Lysis step:

- 50  $\mu\text{l}$  enrichment broth + 450  $\mu\text{l}$  lysis buffer
- Incubation at  $37^\circ\text{C}$  for 10 min in a heater block
- Heat treatment at  $80^\circ\text{C}$  for 20 min

ANSR test on 50  $\mu\text{l}$  DNA extract. The result is obtained within 10 min.

Confirmation by performing an enrichment step in RVS (0.1 ml in 10 ml RVS) for  $24 \text{ h} \pm 3^\circ\text{C}$  at  $41.5^\circ\text{C} \pm 1^\circ\text{C}$  and streaking onto a selective agar plate followed by a latex test (OXOID latex test), performed directly on isolated colonies.

It is possible to store the enrichment broths for 72 h at  $5^\circ\text{C} \pm 3^\circ\text{C}$ .

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

### 2.2. Reference method

The initial validation study and the renewal study were run according to the ISO 6579 (2002): Horizontal method for the detection of *Salmonella* spp.

The extension study was run according to the ISO 6579-1 (February 2017) - Microbiology of food and animal feeding stuffs - Horizontal method for the detection, enumeration and serotyping of *Salmonella* spp. - Part 1: detection of *Salmonella* spp.

The current version of the standard is the EN ISO 6579-1/A1:2020. This first amendment is entitled Broader range of incubation temperatures, amendment to the status of Annex D and correction of the composition of MSR and SC.

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

### 2.3. Restriction

There is no restriction on use for the NEOGEN ANSR™ Salmonella method.

### 2.4. Study design

For Protocol 1, it is an unpaired study design because the reference and the alternative methods have different primary enrichment procedures.

For Protocol 2, it is a paired study design because the reference and the alternative methods have common primary enrichment procedures.



### 3. Method comparison study

#### 3.1. Sensitivity study

##### 3.1.1. Protocols applied during the validation

During the validation study, the minimum incubation times were tested for:

- Enrichment step: 20 h at 41.5°C (Protocol 1) and 34 – 38 °C (Protocol 2)
- Subculture in RVS: 21 h at 41.5°C
- The selective agar plates: 21 h at 37°C.

The positive results of the ANSR™ Salmonella method were confirmed by a subculture in RVS broth, followed by streaking onto XLD and ASAP. The isolated colonies were confirmed by:

- Latex tests directly on isolated colonies (OXOID Latex test was used during the study)
- The tests described in the reference method.

##### 3.1.2. Number and nature of samples

For the initial validation study, 202 samples were analyzed in 2013: 128 samples with the Protocol 1 and 76 samples with the Protocol 2.

For the renewal study realized in 2017, two samples from the initial validation study were removed due to high inoculation level (samples No 1296 “Rosette” and 1297 “Coppa”).

Four samples were analyzed in order to be in agreement with the EN ISO 16140-2:2016 and the AFNOR technical rules (revision 5). These samples were tested by both versions of the kit.

For the extension study, 105 samples analyzed in 2013 were included in the study as well as 103 samples analyzed in 2017.

Finally, 203 positive and 209 negative samples were analyzed, 254 with the Protocol 1 and 158 with the Protocol 2.

The different kinds of samples analyzed are presented in table 2.

Table 2: Number and nature of samples analyzed for all categories (<sup>1</sup>: positive by any method)

Category	Type		Number of positive results <sup>1</sup>	Number of negative results	Total
Composite foods / Ready-to-eat and ready-to-reheat ①	a	Ready-to-eat	14	10	24
	b	Ready-to-reheat	21	20	41
	c	Marinated, cured (no delicatessen)	9	11	20
	<b>Total</b>		<b>44</b>	<b>41</b>	<b>85</b>
Meat products ②	a	Raw meat	12	11	23
	b	Raw poultry meat	10	10	20
	c	Delicatessen (raw and cooked)	12	16	28
	<b>Total</b>		<b>34</b>	<b>37</b>	<b>71</b>
Milk & dairy products ③	a1	Thermisation/pasteurised products	3	9	12
	a2	Milk powder	7	4	11
	b	Fermented/acidified products	11	11	22
	c	Raw milk based products	12	12	24
	<b>Total</b>		<b>33</b>	<b>36</b>	<b>69</b>
Seafood and vegetables ④	a	Fish and Seafood	8	12	20
	b	Produces	11	9	20
	c	Fruits & vegetables	11	9	20
	<b>Total</b>		<b>30</b>	<b>30</b>	<b>60</b>
Egg products ⑤	a	Egg powders	10	10	20
	b	Liquid egg products	11	11	22
	c	Egg based products (mayonnaise, custard, ...)	9	11	20
	<b>Total</b>		<b>30</b>	<b>32</b>	<b>62</b>
Feed ⑥	a	Raw products	11	14	25
	b	Low moisture products	8	12	20
	c	Heat processed products	13	7	20
	<b>Total</b>		<b>32</b>	<b>33</b>	<b>65</b>
<b>TOTAL (All categories)</b>			<b>203</b>	<b>209</b>	<b>412</b>
<b>Protocol 1</b>			<b>122</b>	<b>132</b>	<b>254</b>
<b>Protocol 2</b>			<b>81</b>	<b>77</b>	<b>158</b>

### 3.1.3. Artificial contamination of samples

Artificial contaminations were done by seeding and spiking. The strains were stressed using various injury protocols. The injury efficiency was evaluated by comparing enumeration results onto selective and non-selective agars (respectively XLD and TSYE).

182 samples were artificially contaminated, using 63 different strains. 172 gave a positive result. Most of the inoculation levels, after injury protocols on the inoculum, were lower or equal to 5 CFU/sample.

The repartition of the positive natural and artificial contaminated samples is given in table 3.

Table 3: Repartition of the positive natural and artificial contaminated samples

	Naturally contaminated	Inoculation protocol					Total
		Spiking			Seeding		
		≤ 5 CFU	5<x≤10	10<x≤30	≤ 3 CFU	3<x≤10	
Number of positive samples	31	111	20	4	25	12	203
%	15.3%	54.7%	9.9%	2.0%	12.3%	5.9%	100.0%

In total, 31 positive results out of 203 were obtained with naturally contaminated samples, i.e. 15.3%. The samples and the strains used for the artificial contaminations are presented in Appendix C.

#### 3.1.4. Confirmation protocols

The positive results of the ANSR™ Salmonella method were confirmed by a subculture in RVS broth, followed by streaking onto XLD and ASAP. The isolated colonies were confirmed by:

- Latex tests directly on isolated colonies (OXOID Latex test was used during the study);
- The tests described in the ISO 6579 method.

#### 3.1.5. Results

Raw data are shown in Appendix D.

Table 4 shows the results for the two methods.

Table 4: results of the sensitivity study for both methods (R+/-: reference method positive or negative, A+/-: alternative method positive or negative, PA: positive agreement, NA: negative agreement, ND: negative deviation, PD: positive deviation, PP: presumptive positive before confirmation)

Category	Protocol	Response	R+	R-
Composite foods / Ready-to-eat and ready-to-reheat ①		A+	PA = 42	PD = 0
		A-	ND = 2 and 0 PPND	NA = 41 and 0 PPNA
Meat products ②		A+	PA = 21	PD = 10
		A-	ND = 3 and 0 PPND	NA = 37 and 0 PPNA
Milk and dairy products ③		A+	PA = 27	PD = 4
		A-	ND = 2 and 0 PPND	NA = 36 and 0 PPNA
Seafood and vegetables ④		A+	PA = 22	PD = 6
		A-	ND = 2 and 0 PPND	NA = 29 and 1 PPNA
Egg products ⑤		A+	PA = 30	PD = 0
		A-	ND = 0 and 0 PPND	NA = 32 and 0 PPNA
Feed ⑥		A+	PA = 22	PD = 4
		A-	ND = 6 and 0 PPND	NA = 32 and 1 PPNA
All categories		A+	<b>PA = 164</b>	<b>PD = 24</b>
		A-	<b>ND = 15 and 0 PPND</b>	<b>NA = 207 and 2 PPNA</b>
Protocol 1		A+	<b>PA = 86</b>	<b>PD = 24</b>
		A-	<b>ND = 12 and 0 PPND</b>	<b>NA = 130 and PPNA</b>
Protocol 2		A+	<b>PA = 78</b>	<b>PD = 0</b>
		A-	<b>ND = 3 and 0 PPND</b>	<b>NA = 77 and PPNA</b>

### 3.1.6. Calculation of relative accuracy (AC), relative sensitivity (SE) and false positive ratio (FP)

All results were used to calculate the sensitivity for the alternative method and the reference method, the relative trueness and the false positive ratio.

Table 5 presents the results.

Table 5: values in % of sensitivity for the two methods, relative trueness and false positive ratio for the alternative method ( $SE_{alt}$ : sensitivity for the alternative method,  $SE_{ref}$ : sensitivity for the reference method, RT: relative trueness, FPR: false positive ratio for the alternative method)

Category	Type		Protocol	PA	NA	PD	ND	PPND	PPNA	$SE_{alt}$ %	$SE_{ref}$ %	AC %	FP %
Composite foods / Ready-to-eat and ready-to-reheat ①	a	RTE	2	12	10	0	2	0	0	85.7	100.0	91.7	0.0
	b	RTRH	2	21	20	0	0	0	0	100.0	100.0	100.0	0.0
	c	Marinated. cured (no delicatessen)	2	9	11	0	0	0	0	100.0	100.0	100.0	0.0
	<b>Total</b>			<b>42</b>	<b>41</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>95.5</b>	<b>100.0</b>	<b>97.6</b>	<b>0.0</b>
Meat products ②	a	Raw meat	1	4	11	6	2	0	0	83.3	50.0	65.2	0.0
	b	Raw poultry meat	1	8	10	2	0	0	0	100.0	80.0	90.0	0.0
	c	Delicatessen (raw and cooked)	1	9	16	2	1	0	0	91.7	83.3	89.3	0.0
	<b>Total</b>			<b>21</b>	<b>37</b>	<b>10</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>91.2</b>	<b>70.6</b>	<b>81.7</b>	<b>0.0</b>
Milk & dairy products ③	a1	Thermisation/pasteurised products	1	2	9	0	1	0	0	66.7	100.0	91.7	0.0
	a2	Milk powder	2	6	4	0	1	0	0	85.7	100.0	90.9	0.0
	b	Fermented/acidified products	1	7	11	4	0	0	0	100.0	63.6	81.8	0.0
	c	Raw milk based products	1	12	12	0	0	0	0	100.0	100.0	100.0	0.0
	<b>Total</b>			<b>27</b>	<b>36</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>93.9</b>	<b>87.9</b>	<b>91.3</b>	<b>0.0</b>
Seafood and vegetables ④	a	Fish and Seafood	1	8	12	0	0	0	0	100.0	100.0	100.0	0.0
	b	Produce	1	6	8	4	1	0	1	90.9	63.6	75.0	12.5
	c	Fruits & vegetables	1	8	9	2	1	0	0	90.9	81.8	85.0	0.0
	<b>Total</b>			<b>22</b>	<b>29</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>93.3</b>	<b>0.0</b>	<b>86.7</b>	<b>3.3</b>
Egg products ⑤	a	Egg powders	2	10	10	0	0	0	0	100.0	100.0	100.0	0.0
	b	Liquid egg products	2	11	11	0	0	0	0	100.0	100.0	100.0	0.0
	c	Egg based products	2	9	11	0	0	0	0	100.0	100.0	100.0	0.0
	<b>Total</b>			<b>30</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>
Feed ⑥	a	Raw products	1	3	14	3	5	0	0	54.5	72.7	68.0	0.0
	b	Low moisture products	1	6	11	1	1	0	1	87.5	87.5	90.0	9.1
	c	Heat processed products	1	13	7	0	0	0	0	100.0	100.0	100.0	0.0
	<b>Total</b>			<b>22</b>	<b>32</b>	<b>4</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>81.3</b>	<b>87.5</b>	<b>84.6</b>	<b>3.0</b>
<b>Total (All categories)</b>				<b>164</b>	<b>207</b>	<b>24</b>	<b>15</b>	<b>0</b>	<b>2</b>	<b>92.6</b>	<b>88.2</b>	<b>90.5</b>	<b>1.0</b>
<b>Protocol 1</b>				<b>86</b>	<b>130</b>	<b>24</b>	<b>12</b>	<b>0</b>	<b>2</b>	<b>90.2</b>	<b>80.3</b>	<b>85.8</b>	<b>1.5</b>
<b>Protocol 2</b>				<b>78</b>	<b>77</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>96.3</b>	<b>100.0</b>	<b>98.1</b>	<b>0.0</b>

Table 6 summarizes the calculated parameters for all categories per kind of samples.

Table 6: parameters for all categories per kind of samples (ND=ND+PPND, NA=NA+PPNA)

Parameter	Formula EN ISO 16140-2 :2016	Value
Sensitivity of the alternative method (SE <sub>alt</sub> )	$SE_{alt} = \frac{(PA + PD)}{(PA + ND + PD)} \times 100 \%$	92.6 %
Sensitivity of the reference method (SE <sub>ref</sub> )	$SE_{ref} = \frac{(PA + ND)}{(PA + ND + PD)} \times 100 \%$	88.2 %
Relative trueness (RT)	$RT = \frac{(PA + NA)}{N} \times 100 \%$	90.5 %
False positive ratio (FPR) False positive results are the sum of PPNA and PPND	$FPR = \frac{FP}{NA} \times 100 \%$	1.0 %

### 3.1.7. Analysis of discordant results

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

15 negative deviations were obtained: 8 on artificially contaminated samples and 7 on naturally contaminated samples.

12 negative deviations concern samples analyzed with the Protocol 1 (unpaired study design) and 3 with the Protocol 2 (paired study design).

For 9 samples, the presence of *Salmonella* spp. was confirmed in the enrichment broth; the detection limit of the alternative method was probably not reached in this case.

24 positive deviations were obtained: 14 on artificially contaminated samples and 10 on naturally contaminated samples.

For 2 samples in negative agreement (samples No 2507 - meat for pet - and 2544 - salmon -) the presence of *Salmonella* spp. was confirmed in the enrichment broth of the alternative method.

Table 7: negative deviations

Sample	Product	Strain inoculated	Inoculation level (CFU/sample)	ANSR test	Confirmation	Final result	Agreement	Protocol	Category	Type
6471	Deli salad (Vegetable mix, cheese)	<i>S. Mbandaka</i> Ad1723	5,8	-/-/-	+	-	ND	2	1	a
1350	Deli salad (vegetables)	<i>S. Infantis</i> Ad 1646	8,2	-/-/+ (atypical curve)	+	-	ND	2	1	a
5605	Pork meat	/	/	-	-	-	ND	1	2	a
2047	Pork meat	/	/	-	-	-	ND	1	2	a
5604	Cured pork meat	/	/	-	+	-	ND	1	2	c
6281	Pasteurized milk cheese	<i>S. Indiana</i> Ad 174	1,6	-	-	-	ND	1	3	a1
1352	Milk powder	<i>S. Infantis</i> F401B	3,4	-/-/-	+	-	ND	2	3	a2
2004	Baby leaves	<i>S. Havana</i> Ad930	4,2	-/-	+	-	ND	1	4	b
3324	Mix of 5 fruits (pineapple, orange, apple, kiwi, grenade)	<i>S. Livingstone</i> Ad2566	2,0	-	-	-	ND	1	4	c
2234	Raw material (fat)	<i>S. Newport</i> 586	6,0	-	-	-	ND	1	6	a
6287	Raw meat for pet	<i>S. Braenderup</i> F286	6,0	-/-/-	+	-	ND	1	6	a
2967	Raw meat for pets	/	/	-/-/-	+	-	ND	1	6	a
2971	Raw material for feed	/	/	-/-/-	+	-	ND	1	6	a
2972	Raw material for feed	/	/	-/-/-	+	-	ND	1	6	a
1324	Pet food powder	/	/	i/-	-	-	ND	1	6	b

Table 8: positive deviations

Sample	Product	Strain inoculated	Inoculation level (CFU/sample)	ANSR test	Confirmation	Final result	Agreement	Protocol	Category	Type
5553	Meat skewers with peppers	/	/	+	+	+	PD	1	2	a
5556	Pork meat	/	/	+	+	+	PD	1	2	a
5606	Pork meat	/	/	+	+	+	PD	1	2	a
2723	Beef trim	<i>S. Enteritidis</i> Ad2294	3,4	+	+	+	PD	1	2	a
2725	Beef trim	<i>S. Enteritidis</i> Ad2294	3,4	+	+	+	PD	1	2	a
1979	Pork meat	/	/	+	+	+	PD	1	2	a
5603	Ground poultry meat	/	/	+	+	+	PD	1	2	b
2048	Poultry meat	/	/	+	+	+	PD	1	2	b
5545	Pork fat	/	/	+	+	+	PD	1	2	c
5547	Sausage	/	/	+	+	+	PD	1	2	c
6427	Fermented milk	<i>S. Mbandaka</i> Ad 1722	8,4	+	+	+	PD	1	3	b
1298	Fermented milk	<i>S. Dublin</i> Ad531	4,0	+	+	+	PD	1	3	b
1302	Fermented milk	<i>S. Ohio</i> Ad1482	0,2	+	+	+	PD	1	3	b
1303	Fermented milk	<i>S. Ohio</i> Ad1482	0,2	+	+	+	PD	1	3	b
2003	Baby leaves	<i>S. Senftenberg</i> 6	0,2	+	+	+	PD	1	4	b
2726	Sprouts	<i>S. Typhimurium</i> Ad1335	3,2	+	+	+	PD	1	4	b
2727	Sprouts	<i>S. Amsterdam</i> Ad1767	2,6	+	+	+	PD	1	4	b
3315	Baby leaves	<i>S. Virchow</i> Ad2569	1,2	+	+	+	PD	1	4	b
3325	Mix of 5 fruits (pineapple, orange, apple, kiwi, grenade)	<i>S. Virchow</i> Ad2569	1,2	+	+	+	PD	1	4	c
3327	Mix of apple and grape	<i>S. Virchow</i> Ad2569	1,2	+	+	+	PD	1	4	c
1306	Raw beef meat for pet	<i>S. Panama</i> 8	0,6	+	+	+	PD	1	6	a
2506	Raw meat for pet	/	/	+	+	+	PD	1	6	a
2968	Raw meat for pets	/	/	+	+	+	PD	1	6	a
1309	Pellets for cat	<i>S. Typhimurium</i> Ad1070	<1	+	+	+	PD	1	6	b



### 3.1.8. Calculation and interpretation of data

For each category and for all categories, the difference between ND and PD is calculated. The values obtained are compared to the acceptability limits defined by the EN ISO 16140-2:2016 standard.

Tables 9 and 10 shows these results.

Table 9: acceptability limits for unpaired study (protocol 1)

Category	Type	Protocol	Values					
			PD	ND	PPND	N+	ND+PPND-PD	AL
Meat products ②	a	1	6	2	0	12	-4	/
	b	1	2	0	0	10	-2	
	c	1	2	1	0	12	-1	
	<b>Total</b>			<b>10</b>	<b>3</b>	<b>0</b>	<b>34</b>	<b>-7</b>
Milk and dairy products ③	a1	1	0	1	0	3	1	/
	b	1	4	0	0	11	-4	
	c	1	0	0	0	12	0	
	<b>Total</b>			<b>4</b>	<b>1</b>	<b>0</b>	<b>26</b>	<b>-3</b>
Seafood and vegetables ④	a	1	0	0	0	8	0	/
	b	1	4	1	0	11	-3	
	c	1	2	1	0	11	-1	
	<b>Total</b>			<b>6</b>	<b>2</b>	<b>0</b>	<b>30</b>	<b>-4</b>
Feed ⑥	a	1	3	5	0	11	2	/
	b	1	1	1	0	8	0	
	c	1	0	0	0	13	0	
	<b>Total</b>			<b>4</b>	<b>6</b>	<b>0</b>	<b>32</b>	<b>2</b>
<b>Total protocol 1</b>			<b>24</b>	<b>12</b>	<b>0</b>	<b>122</b>	<b>-12</b>	<b>5</b>

Table 10: acceptability limits for paired study (protocol 2)

Category	Type	Pro- tocol	Values							
			PD	ND	PPND	N+	ND+PPND- PD	AL	ND+PPND +PD	AL
Composite foods / Ready-to-eat and ready-to-reheat ①	a	2	0	2	0	14	2	/	2	/
	b	2	0	0	0	21	0		0	
	c	2	0	0	0	9	0		0	
	<b>Total</b>			<b>0</b>	<b>2</b>	<b>0</b>	<b>44</b>	<b>2</b>	<b>3</b>	<b>2</b>
Milk and dairy products ③	a2	2	0	1	0	7	1	/	1	/
	<b>Total</b>			<b>0</b>	<b>1</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>3</b>	<b>1</b>
Egg products ⑤	a	2	0	0	0	10	0	/	0	/
	b	2	0	0	0	11	0		0	
	c	2	0	0	0	9	0		0	
	<b>Total</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>0</b>	<b>3</b>	<b>0</b>
<b>Total protocol 2</b>			<b>0</b>	<b>3</b>	<b>0</b>	<b>81</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>8</b>

For the unpaired study design (protocol 1), the observed values are lower than the acceptability limits for each category and for the combined categories.

For the paired study design (protocol 2), the observed values are lower than the acceptability limits for each category and for the combined categories.

The alternative method produces results comparable to the reference method.

### 3.1.9. Enrichment broth storage at 2 - 8°C for 72 h

A stability study of the enriched broths stored at 5±3°C for 72 hours was performed on all positive and discordant samples (104 enrichment broths). After storage, the broths were reanalyzed and confirmed.

The following changes were observed (cf. table 11).

*Table 11: results modifications after storage of the broth for 72h at 2-8°C*

Category	Sample N°	Products	Before storage	After storage
2	5602	Ground poultry meat	PA	ND
1	1350	Deli salad	ND	PA
6	5615	Pet food	PA	ND
6	2507	Raw meat for pet	NA	PD

Tables 12 and 13 shows the differences between ND and PD and the acceptability limits after storage.

Table 12: acceptability limits after storage of the enriched broths for unpaired study (protocol 1)

Category	Type	Protocol	Values					
			PD	ND	PPND	N+	ND+PPND-PD	AL
Meat products ②	a	1	6	2	0	12	-4	/
	b	1	1	1	0	9	0	
	c	1	2	1	0	12	-1	
	<b>Total</b>			<b>9</b>	<b>4</b>	<b>0</b>	<b>33</b>	<b>-5</b>
Milk and dairy products ③	a1	1	0	1	0	3	1	/
	b	1	4	0	0	11	-4	
	c	1	0	0	0	12	0	
	<b>Total</b>			<b>4</b>	<b>1</b>	<b>0</b>	<b>26</b>	<b>-3</b>
Seafood and vegetables ④	a	1	0	0	0	8	0	/
	b	1	4	1	0	11	-3	
	c	1	2	1	0	11	-1	
	<b>Total</b>			<b>6</b>	<b>2</b>	<b>0</b>	<b>30</b>	<b>-4</b>
Feed ⑥	a	1	4	5	0	12	2	/
	b	1	1	1	0	8	0	
	c	1	0	1	0	13	0	
	<b>Total</b>			<b>5</b>	<b>7</b>	<b>0</b>	<b>33</b>	<b>2</b>
<b>Total protocol 1</b>			<b>24</b>	<b>14</b>	<b>0</b>	<b>122</b>	<b>-10</b>	<b>5</b>

Table 13: acceptability limits after storage of the enriched broths for paired study (protocol 2)

Category	Type	Pro- tocol	Values							
			PD	ND	PPND	N+	ND+PPND- PD	AL	ND+PPND+ PD	A L
Composite foods / Ready-to-eat and ready-to-reheat ①	a	2	0	1	0	14	1	/	1	/
	b	2	0	0	0	21	0		0	
	c	2	0	0	0	9	0		0	
	<b>Total</b>			<b>0</b>	<b>1</b>	<b>0</b>	<b>44</b>	<b>1</b>	<b>3</b>	<b>1</b>
Milk and dairy products ③	a2	2	0	1	0	7	1	/	1	/
	<b>Total</b>			<b>0</b>	<b>1</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>3</b>	<b>1</b>
Egg products ⑤	a	2	0	0	0	10	0	/	0	/
	b	2	0	0	0	11	0		0	
	c	2	0	0	0	9	0		0	
	<b>Total</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>0</b>	<b>3</b>	<b>0</b>
<b>Total protocol 2</b>			<b>0</b>	<b>2</b>	<b>0</b>	<b>81</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>8</b>

For the unpaired study design (protocol 1), the observed values are lower than the acceptability limits for each category and for the combined categories.

For the paired study design (protocol 2), the observed values are lower than the acceptability limits for each category and for the combined categories.

### 3.1.10. Confirmation

The confirmations were performed by using:

- The tests described in the reference method,
- A sub-culture in RVS broth, followed by streaking onto one selective agar and performing a latex test directly on isolated characteristic colonies. Note that XLD and ASAP were used as selective agar during the validation study. All the alternative method positive results were confirmed by using this protocol, except for sample n° 5603 which needed a subculture in MKTTn to confirm the presence of *Salmonella*.

For 15 samples, typical colonies were observed only on XLD plates; 13 samples were artificially contaminated with *Salmonella* Dublin. In these cases, atypical white colonies were observed on ASAP plates.

For samples 2506 (naturally contaminated) and 2003 (artificially contaminated with *S. Senftenberg*), typical colonies were observed only on ASAP plates.

### 3.1.11. Inhibitions

The following inhibitions were observed:

- 5 inhibitions concern egg-based products, one a dairy product and 2 feed products.
- For 5 samples, an ANSR test result was obtained without applying any dilution. For 3 samples, a 1/10 dilution of the enrichment broth was necessary to obtain the result.

Table 14 show these results.

Table 14: Inhibitions observed

Sample N°	Product	ANSR Result
6087	Egg white powder	i/+/+
6106	Half skimmed milk powder	i/-/-
6111	Egg white powder	i/-/-
6115	Egg white powder	i/i/-
6435*	English cream	i/i/i /*+
6544*	Custard	i/*-
1324	Pet food powder	i/-
4185*	Cattle feed	i/i/i+*

\*: 1/10 dilution of the enrichment broth was necessary to obtain the result

8 inhibitions were observed for 412 tests applied; this represents 1.9 %.

## 3.2. Relative level of detection study

### 3.2.1. Experimental design

Six matrix-strain pairs were analyzed by the reference method and by the alternative method (See Table 16):

Four levels were tested; six replicates for each combination were tested:

- Level 0,
- Level providing between 0 and 50 % positive results,
- Level providing between 50 and 75 % positive results,
- Level providing 100 % positive results.

The contaminations and enumerations were realized according to the AFNOR technical rules (protocol for low level inoculations). The samples were analyzed by both methods, and the background microflora was enumerated.

Table 16: matrix-strain couples used for the determination of the RLOD of the method

Category	Matrix	Strain	Origin	Protocol	Study design
<b>Composite foods / Ready-to-eat and ready-to-reheat ①</b>	Moussaka	<i>Salmonella</i> Typhimurium 4874	Pâté	2	Paired
<b>Meat products ②</b>	Ground	<i>Salmonella</i> Infantis 128	Ground beef	1	Unpaired
<b>Milk and dairy products ③</b>	Raw milk	<i>Salmonella</i> Montevideo 510	Raw milk	1	Unpaired
<b>Seafood and vegetables ④</b>	Fresh bagged spinach	<i>Salmonella</i> Virchow F276	Cereals	1	Unpaired
<b>Egg products ⑤</b>	Liquid egg product	<i>Salmonella</i> Enteritidis 657	Liquid egg products	2	Paired
<b>Feed ⑥</b>	Pellets for dog	<i>Salmonella</i> Derby Ad1878	Feed	1	Unpaired

### 3.2.2. Results and calculation of the RLODs

Raw results are shown in Appendix -E. The RLOD is defined as the ratio of the LODs of the alternative method and the reference method:  $RLOD = \frac{LOD_{alt}}{LOD_{ref}}$ .

The RLODs calculations were performed according to the standard ISO 16140-2: 2016 using the Excel spreadsheet available for download at <http://standards.iso.org/iso/16140>, with unknown concentrations. Values of the RLODs are presented in table 17.

Table 17: RLODs values (RLOD: the estimated relative level of detection value, RLODU: the upper limit of the 95% confidence interval for RLOD, RLODL: the lower limit of the 95% confidence interval for RLOD,  $b=\ln(\text{RLOD})$ : logarithm of the RLOD value,  $sd(b)$ : standard deviation of  $b$ , z-Test statistic: absolute value of the test statistic of the z-Test with the null hypothesis  $H_0: b=0$ , p-value: p-value of the z-Test)

Category	RLOD	RLODL	RLODU	$b=\ln(\text{RLOD})$	$sd(b)$	z-Test statistic	p-value	AL
RTRH (Moussaka) / <i>Salmonella</i> Typhimurium 4874	1.000	0.364	2.744	0.000	0.505	0.000	1.000	1.5
Ground beef / <i>Salmonella</i> Infantis 128	0.755	0.329	1.735	-0.281	0.416	0.675	1.500	2.5
Raw milk / <i>Salmonella</i> Montevideo 510	2.000	0.701	5.704	0.693	0.524	1.323	0.186	2.5
Spinach / <i>Salmonella</i> Virchow F276	1.000	0.456	2.195	0.000	0.393	0.000	1.000	1.5
Whole egg product / <i>Salmonella</i> Enteritidis 465	1.000	0.480	2.082	0.000	0.367	0.000	1.000	2.5
Pellets for dog / <i>Salmonella</i> Derby 630	0.816	0.328	2.029	-0.203	0.455	0.446	1.344	2.5
<b>Combined</b>	<b>0.972</b>	0.695	1.359	-0.029	0.168	0.170	1.135	/

The LOD50 calculations according to Wilrich & Wilrich POD-LOD calculation program - version 9, are given in table 18.

Table 18: LOD50% for the alternative and reference method

Matrix	Strain	LOD50% (CFU/25g) alternative method	LOD50% (CFU/25g) Reference method
Moussaka	<i>Salmonella</i> Typhimurium 4874	0.545	0.545
Ground beef	<i>Salmonella</i> Infantis 128	1.147	1.604
Raw milk	<i>Salmonella</i> Montevideo 510	1.200	0.586
Spinach	<i>Salmonella</i> Virchow F276	0.545	0.545
Whole egg product	<i>Salmonella</i> Enteritidis 465	0.615	0.615
Pellet for dog	<i>Salmonella</i> Derby 630	0.708	0.899
<b>Combined results</b>		<b>0.758</b>	<b>0.791</b>

### 3.2.3. Interpretation and conclusion

The RLODs values are below the acceptability limit set at 2.5 for the unpaired study design and at 1.5 for the paired study design for all the tested matrix/strains.

### 3.3. Inclusivity and exclusivity study

#### 3.3.1. Test protocols

- **Inclusivity**

*Salmonella* strains cultures were performed in BHI medium at 37°C. Dilutions were done in order to inoculate between 10 to 100 cells/225 ml in supplemented BPW (Protocol 1). The broths were incubated for 20 h at 41.5°C ± 1°C. The alternative method was then performed.

- **Exclusivity**

Negative strains cultures were performed in BHI at 37°C. Dilutions were performed in order to inoculate 10<sup>5</sup> cells/ml BPW. The broths were incubated for 24 h at 37°C ± 1°C. The alternative method was then performed.

#### 3.3.2. Results

Raw data are given in Appendix F.

- **Inclusivity**

51 *Salmonella* strains were tested for the initial validation study and gave a positive ANSR™ *Salmonella* result. For three of them (*Salmonella arizonae* 50;24;23 CIP 5526, *Salmonella* Havana Ad930 and *Salmonella* Urbana Ad501), a positive ANSR™ *Salmonella* result was observed only when BPW supplemented with milk was used for enrichment.

For the renewal study run in 2017, 51 strains were tested using the two versions of the ANSR kits. All the strains gave a positive ANSR™ *Salmonella* result with both kits, except 2 strains:

- *Salmonella* Strasbourg CIP 105632 required addition of milk in the enrichment broth to obtain a positive result,
- *Salmonella* Abortusovis Ad2320 did not give a positive result even when adding milk. The ANSR™ *Salmonella* test was performed on a BHI culture and a positive result was then obtained.

- **Exclusivity**

No cross reaction was observed among the 30 non-target tested strains.

#### 3.3.3. Conclusion

The selectivity of the method is satisfactory.

### 3.4. Practicability

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

- **Storage conditions, shelf-life and modalities of utilization after first use**

The storage temperature is: 2-8°C. The shelf-life is given on the package. The lysis buffer after reconstitution must be stored for 14 days at 2 - 8°C. *Salmonella* lysis buffer and reagent must be reconstituted with 18ml of *Salmonella* lysis buffer.

- **Common step with the reference method**

Pre-enrichment step and confirmatory tests when Protocol 2 is used.  
No common step with Protocol 1.

- **Time-to-result**

See table below:

*Table 18: Time-to-result*

Steps	Reference method	Alternative method
<b>Negative samples</b>		
Sampling Pre-enrichment	Day 0	Day 0
ANSR test	/	Day 1
Subculture in RVS / MKTTn	Day 1	/
Streaking onto selective plates	Day 2	/
Reading plates	Day 3	/
<b>Presumptive positive or positive results</b>		
Subculture in RVS	/	Day 1
Streaking onto selective plates	/	Day 2
Selective plates reading	/	Day 3
Latex test	/	Day 3
Confirmatory test	Day 4 to Day 6	/



## 4. Interlaboratory study

### 4.1. Organization of the study

Samples were sent to 16 laboratories. The study was done with ground beef samples contaminated with *Salmonella* Typhimurium A00C060.

Samples were inoculated and sent on Monday 8th April 2013, as described below:

- 24 codified samples (25 g) for *Salmonella* detection by the NEOGEN ANSR Salmonella method (red label)
- 24 codified samples (25 g) for *Salmonella* detection by the ISO 6579 (2002) reference method (blue label),
- 1 ground beef sample (labelled "Sample for Total Count enumeration") for aerobic mesophilic flora enumeration by ISO 4833 method,
- 1 water flask labelled "Temperature Control" with a temperature probe.

The analyses were started on Wednesday 10<sup>th</sup> April 2013.

The targeted inoculation levels were the following:

- Level: 0 CFU/25 g,
- Level 1: 1 - 10 CFU/25 g,
- Level 2: 5 - 50 CFU/25 g

The samples were inoculated individually. 8 replicates were provided by tested contamination level. Blinded samples were placed in isothermal boxes, which contained cooling blocks, and express-shipped to the different laboratories.

A temperature control flask containing a sensor was added to the package in order to register the temperature profile during the transport, the package delivery and storage until analyses.

Samples were shipped in 24 h to 72 h to the involved laboratories. The temperature conditions had to stay lower or equal to 8.4°C during transport, and between 0°C – 8.4°C in the labs. Collaborators and ADRIA Développement carried out the analyses with the alternative and reference methods at Day 1 or Day 2.

### 4.2. Experimental parameters controls

#### 4.2.1. Strain stability before inoculation

In order to detect *Salmonella*, the ISO 6579 method was performed on five ground beef test portions (25 g) before the inoculation. All the results were negative.

#### 4.2.2. Sample stability

##### 4.2.2.1. Contamination levels before inoculation

The contamination rates and the estimated precisions are set out in the table below.

Table 19: target and real contamination levels (CFU/25 g)

Level	Samples	Theoretical target level	True level	Low limit	High limit
Level 0 $L_0$	3 – 9 – 11 – 12 – 15 – 19 – 22 – 24	0	/	/	/
Low level $L_1$	4 – 7 – 10 – 13 – 14 – 20 – 21 – 23	5	4.8	4.0	5.5
High level $L_2$	1 – 2 – 5 – 6 – 8 – 16 – 17 – 18	25	30	26.1	34.6

#### 4.2.2.2. Strain stability during transport

Sample stability was checked by inoculating the matrix at 500 CFU/g and 5 CFU/g. Enumerations were performed for the high contamination level and detection analyses were performed for the low contamination level. Triplicates were analyzed, and the results were the following:

Table 20: *Salmonella Typhimurium* stability in the matrix

Day	Reference method (research)			CFU/g (XLD)			Aerobic mesophilic flora (CFU/g)
	Sample 1	Sample 2	Sample 3	Sample 1	Sample 2	Sample 3	
Day 0	+	+	+	570	480	550	$1.4 \cdot 10^3$
Day 1	+	+	+	600	510	460	$1.4 \cdot 10^3$
Day 2	+	+	+	460	520	470	$1.2 \cdot 10^3$

No evolution was observed during storage at 4°C.

#### 4.2.2.3. Logistic conditions

The temperatures measured at reception by the Labs, the temperatures registered by the thermo-probe, and the receipt dates are given in Table 21.

Table 21: samples temperature upon receipt ( $T^\circ\text{C}$ : temperature in °C)

Laboratories	Probe $T^\circ\text{C}$	Receipt $T^\circ\text{C}$	Receipt date and time	
A	1.0	7.0	09/04/2013	11h30
B	1.0	4.8	09/04/2013	11h25
C	0.5	10.0	09/04/2013	08h00
D	1.0	2.6	09/04/2013	10h00
E	1.0	5.7	09/04/2013	09h30
F	1.0	2.5	09/04/2013	10h15
G	1.5	4.7	09/04/2013	09h00
H	0.5	6.0	09/04/2013	11h30
I	The Lab didn't realize the analyses			
J	1.5	7.5	09/04/2013	08h15
K	2.5	7.2	09/04/2013	12h15
L	3.5	3.4	10/04/2013	11h00
M	1.5	7.0	09/04/2013	13h30
N	3.0	3.1	09/04/2013	14h00
O	1.0	2.2	09/04/2013	09h00
P	/	5.5	09/04/2013	11h45

All the samples were delivered in appropriate conditions. Temperatures during shipment and at receipt were all correct. Finally Lab I decided to not participate to the ring trial.

### 4.3. Results

The raw data are given in Appendix G.

#### 4.3.1. Results obtained by the Expert Laboratory

The results obtained by the Expert Laboratory are the following (see table 22).

Table 22: Results obtained by the Expert Laboratory

Level	Reference method	Alternative method
$L_0$	0 / 8	0 / 8
$L_1$	8 / 8	8 / 8
$L_2$	8 / 8	8 / 8

#### 4.3.2. Results obtained by the collaborators

- **Mesophilic aerobic flora**

The enumeration of the mesophilic aerobic flora varies from  $3.8 \cdot 10^2$  to  $2.1 \cdot 10^3$  CFU/g.

- **Reference method**

Table 23 presents the positive results of all collaborators.

Table 23: positive results of the collaborators (bc: before confirmation, ac: after confirmation)

Lab	Reference method			Alternative method					
	$L_0$	$L_1$	$L_2$	$L_0$		$L_1$		$L_2$	
				bc	ac	bc	ac	bc	ac
A	0	8	8	1	0	8	8	8	8
B	0	8	8	0	0	8	8	8	8
C	0	8	8	0	0	8	8	8	8
D	1	8	8	0	0	8	8	8	8
E	0	8	8	0	0	8	8	8	8
F	0	7	8	0	0	8	8	8	8
G	0	8	8	0	0	8	8	8	8
H	0	8	8	0	0	8	8	8	8
J	0	8	8	2	0	8	8	8	8
K	0	8	8	0	0	8	8	8	8
L	1	8	8	0	0	8	8	8	8
M	0	6	8	1	0	8	8	8	8
N	0	8	8	0	0	8	8	8	8
O	1	8	8	1	0	8	8	8	8
P	0	8	8	0	0	8	8	8	8
<b>Total</b>	<b>3</b>	<b>117</b>	<b>120</b>	<b>5</b>	<b>0</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>120</b>

According to the AFNOR technical rules, it is possible to include the results from a collaborator with maximum one cross contamination at Level 0.

Two labs were not retained for interpretation:

- Lab E encountered some problems with the incubation at 41.5°C (alternative enrichment incubation). The temperature felt at 37.3°C and it took 14h30 to reach 41.5°C.

- Lab J obtained 2 positive ANSR results at Level 0.

The results from 13 Labs were kept: A, B, C, D, F, G, H, K, L, M, N, O and P.

The results obtained by the collaborators in the inter-laboratory study are summarized in Table 24.

Table 24: positive results of the collaborators after having withdrawn labs E and J (bc: before confirmation, ac: after confirmation)

Lab	Reference method			Alternative method					
	L <sub>0</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>0</sub>		L <sub>1</sub>		L <sub>2</sub>	
				bc	ac	bc	ac	bc	ac
A	0	8	8	1	0	8	8	8	8
B	0	8	8	0	0	8	8	8	8
C	0	8	8	0	0	8	8	8	8
D	1	8	8	0	0	8	8	8	8
F	0	7	8	0	0	8	8	8	8
G	0	8	8	0	0	8	8	8	8
H	0	8	8	0	0	8	8	8	8
K	0	8	8	0	0	8	8	8	8
L	1	8	8	0	0	8	8	8	8
M	0	6	8	1	0	8	8	8	8
N	0	8	8	0	0	8	8	8	8
O	1	8	8	1	0	8	8	8	8
P	0	8	8	0	0	8	8	8	8
<b>Total</b>	<b>3</b>	<b>101</b>	<b>104</b>	<b>3</b>	<b>0</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>104</b>

#### 4.4. Interpretation of the results

##### 4.4.1. Calculation of the specificity percentage (SP)

The percentage specificity (SP) of the reference method and the alternative method is calculated, using the data after confirmation, based on the results of level L<sub>0</sub> as follows:

- Specificity of the reference method:  $SP_{ref} = \left[1 - \left(\frac{P_0}{N-}\right)\right] \times 100\%$
- Specificity of the alternative method:  $SP_{alt} = \left[1 - \left(\frac{CP_0}{N-}\right)\right] \times 100\%$

where:

N- is the number of all L<sub>0</sub> tests,

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

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

The results are the following:

- $SP_{ref} = 97\%$
- $SP_{alt} = 100\%$

#### 4.4.2. Summary of the results

Table 25 details per method, per level and per protocol the results obtained during the study.

Table 25: tests results for the two methods

Response	Reference method positive (R+)	Reference method negative (R-)
Alternative method positive (A+)	Positive agreement PA = 101	Positive deviation PD = 3
Alternative method negative (A-)	Negative deviation ND = 0 including 0 PPND	Negative agreement NA = 0 including 0 PPNA

For level 1, three positive deviations were observed.

Table 26: positive deviations

Lab.	Sample No
F	F7
M	M7
	M10

For an unpaired study design, the difference between (ND – PD) is calculated for the level(s) where fractional recovery is obtained (so L1 and possibly L2). The observed value found for (ND – PD) shall not be higher than the AL. The AL is defined as [(ND – PD)<sub>max</sub>] and calculated per level where fractional recovery is obtained as described below using the following three parameters:

$$-(p+)_{ref} = \frac{P_x}{N_x}, \text{ where}$$

$P_x$  = number of samples with a positive result obtained with the reference method at level x, ( $L_1$  or  $L_2$ ) for all laboratories.

$N_x$  = number of samples tested at level x ( $L_1$  or  $L_2$ ) with the reference method by all laboratories.

$$-(p+)_{alt} = \frac{CP_x}{N_x}, \text{ where}$$

$CP_x$  = number of samples with a confirmed positive result obtained with the alternative method at level x ( $L_1$  or  $L_2$ ) for all laboratories.

$N_x$  = number of samples tested at level x ( $L_1$  or  $L_2$ ) with the alternative method by all laboratories.

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

$N_x$  = the total number of samples tested for level x ( $L_1$  or  $L_2$ ) 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 in case the AL is not met shall be stated in the study report.

In this study, fractional positive results are observed at level  $L_1$  only. The different parameters obtained by the calculation are detailed in the table below:

*Table 27: values obtained for the determination of the acceptability limit.*

Parameter	Value
$N_x$	104
$(p+)_{ref}$	0.97
$(p+)_{alt}$	1.00
<b>Acceptability limit: AL = (ND-PD)<sub>max</sub></b>	3.00
<b>Observed value: ND-PD</b>	-3

The value (ND-PD) is inferior to the acceptability limit, so the requirements of the standard EN ISO 16140-2:2016 are fulfilled.

#### 4.4.3. Calculation of sensitivities, relative accuracy and false positive ratio

Based on the data of table 25, the following parameters are calculated:

- Sensitivity for the alternative method:  $SE_{alt} = \frac{(PA+PD)}{(PA+ND+PD)} \times 100\%$

- Sensitivity for the reference method:  $SE_{ref} = \frac{(PA+ND)}{(PA+ND+PD)} \times 100\%$

- Relative accuracy:  $AC = \frac{(PA+NA)}{N} \times 100\%$

- False positive ratio for the alternative method:  $FP = \frac{(FP)}{NA} \times 100\%$

where N is the total number of samples (NA + PA + PD + ND) and FP is false positive results. The results are the following:

*Table 28: values obtained for sensitivities, relative accuracy and false positive ratio.*

<b>Sensitivity for the alternative method</b>	SEalt	100.0 %
<b>Sensitivity for the reference method</b>	SEref	97.1 %
<b>Relative trueness</b>	RT	97.1 %
<b>False positive ratio for the alternative method</b>	FPR	/

#### 4.4.4. Evaluation of the LOD50%, LOD95% and RLOD

The evaluation of the RLOD between laboratories could not be determined using the Annex F of ISO 16140-2:2016 and using the Excel spreadsheet available at [http://standards.iso.org/iso/16140 - RLOD\\_inter-lab-study\\_16140-2\\_AnnexF\\_ver1\\_28-06-2017](http://standards.iso.org/iso/16140 - RLOD_inter-lab-study_16140-2_AnnexF_ver1_28-06-2017).

Calculation of LOD<sub>50%</sub> and LOD<sub>95%</sub> are not possible because every sample at level 1 was positive for *Listeria* Precis™ method.

## 5. Conclusion

- **Methods comparison study**

In the sensitivity study, 6 categories were tested: 5 food categories and feed products. The alternative method shows 24 positive deviations (PD) and 15 negative deviations (ND) for the overall categories. For the unpaired study design, the observed values for  $((ND + PPND) - PD)$  are lower than the acceptability limit for each category and all the categories. For the paired study design, the observed values for  $((ND + PPND) - PD)$  and  $(ND + PPND + PD)$  are lower than the acceptability limit for each category and all the categories.

The Relative Levels of Detection (RLOD) are lower than the AL fixed at 2.5 for the unpaired study design and at 1.5 for the paired study design for all the tested matrix/strain pairs.

The inclusivity and exclusivity testing give the expected results for the 102 target strains and the 30 non-target strains. One strain (*S. Abortusovis*) shows a positive result only when grown in BHI.

It is possible to store the enrichment broths for 72 h at  $5^{\circ}\text{C} \pm 3^{\circ}\text{C}$ .

The NEOGEN ANSR™ Salmonella method allows a one-day screening of the negative samples and a result in 3 days for the positive samples.

The NEOGEN ANSR™ Salmonella method fulfils all the EN ISO 16140-2 and AFNOR technical rules requirements.

- **Interlaboratory study**

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

Le Lion d'Angers, June 29, 2021  
François Le Nestour  
Head of the Microbiology Department





# APPENDICES

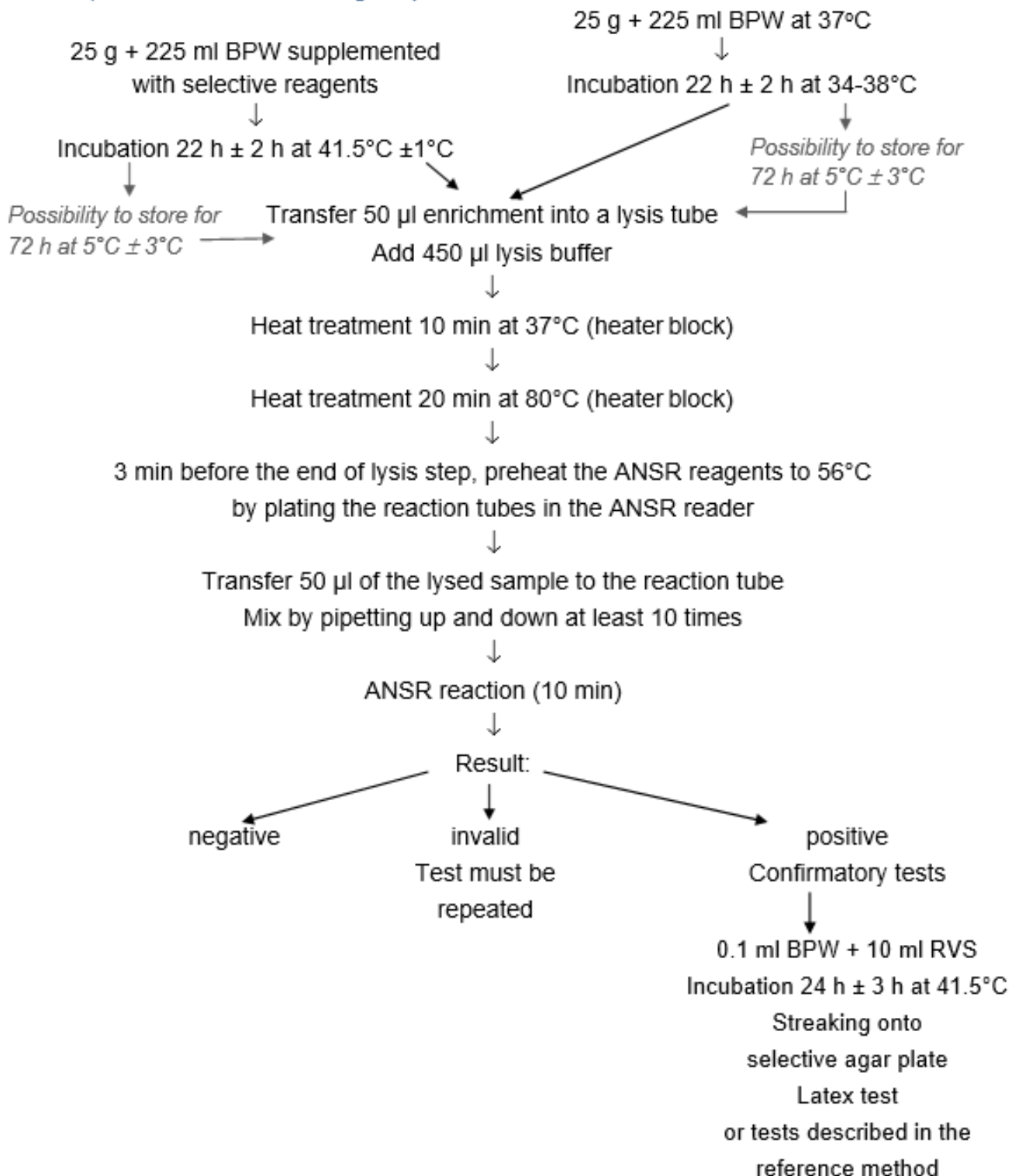
**Appendix A – Flow diagram of the alternative method:  
NEOGEN ANSR™ Salmonella**

**Protocol 1**

**Protocol 2**

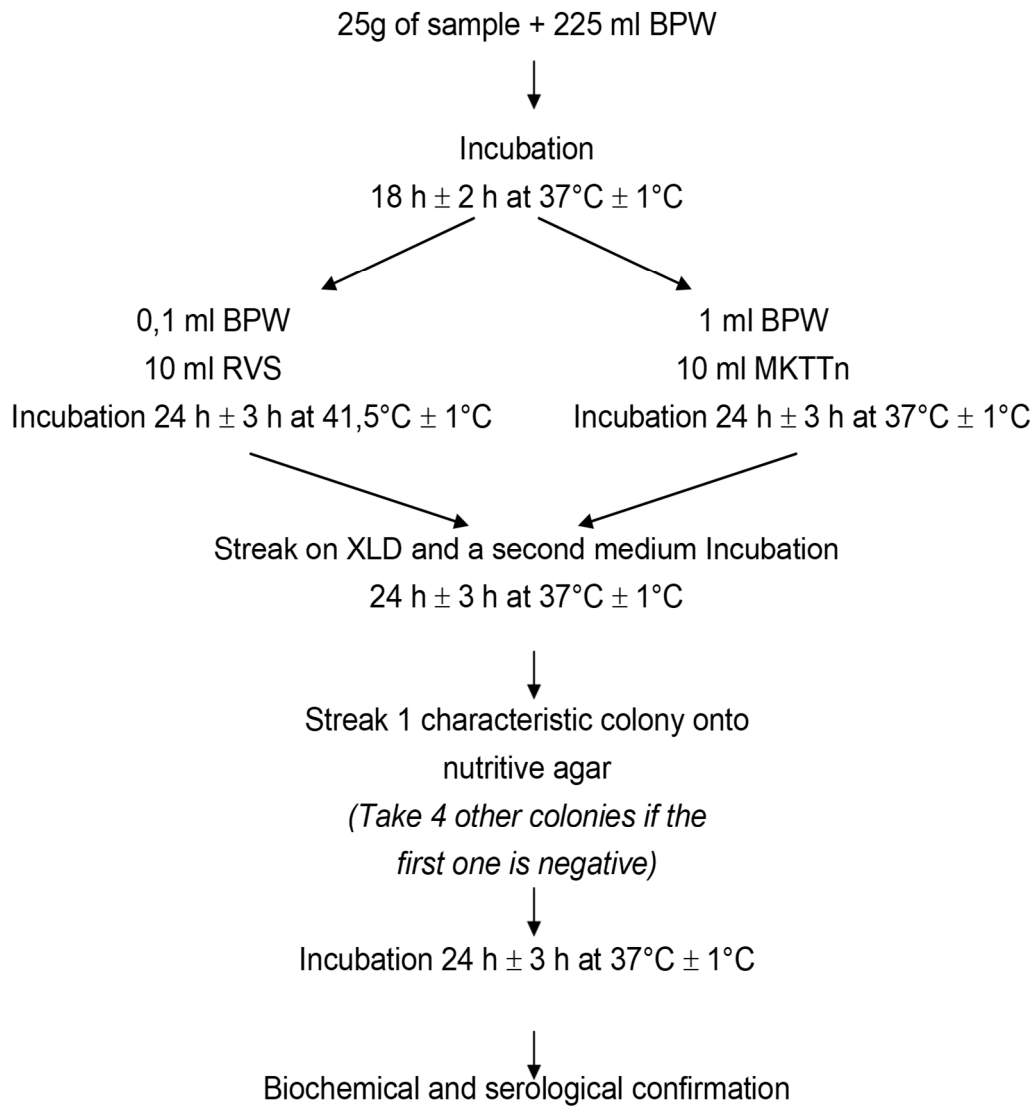
*Unprocessed raw food, even frozen,  
with high background microflora,  
(Protocol used for the ring trial)*

*Processed food with low  
background microflora*

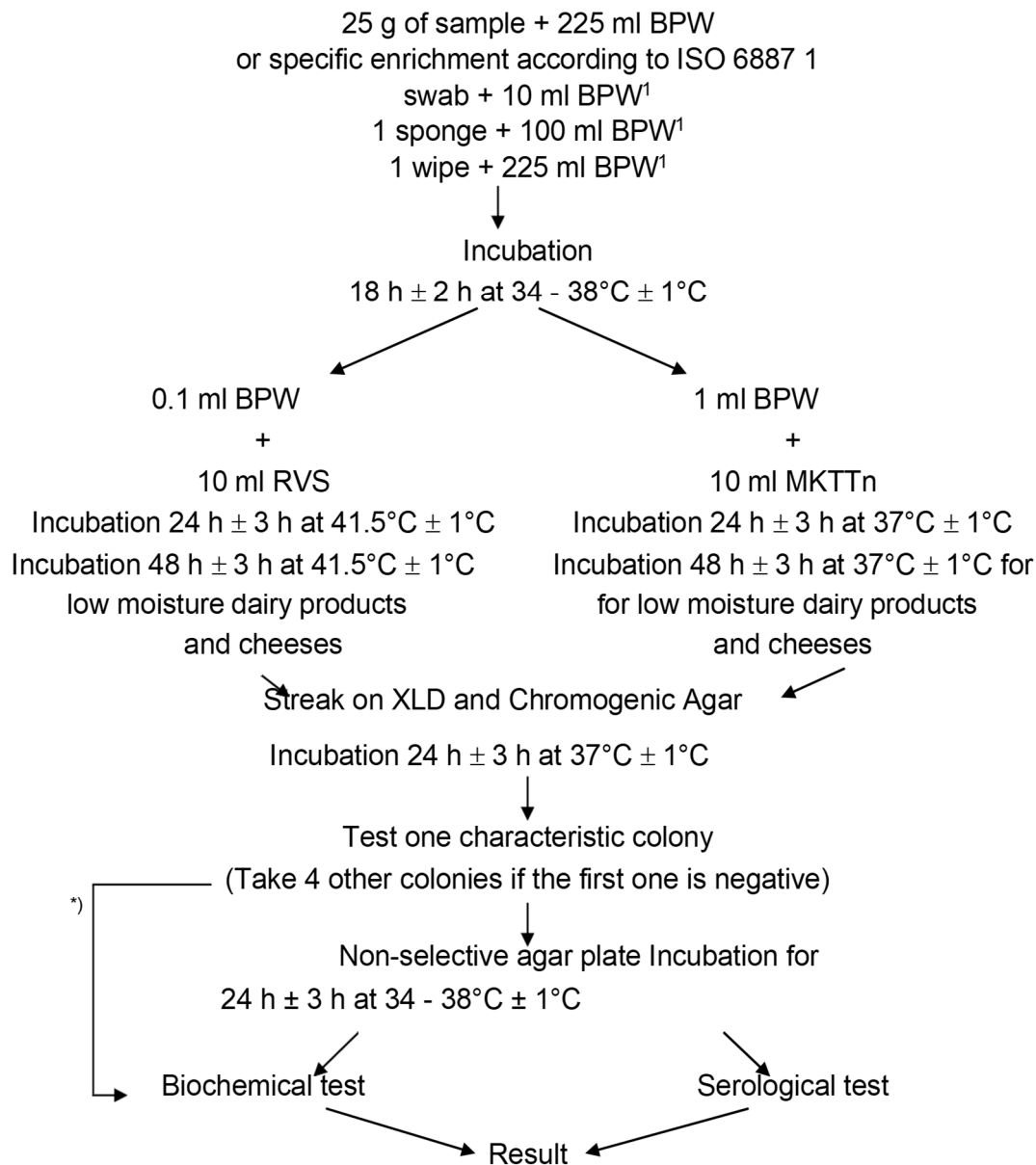


## Appendix B – Reference method

### NF EN ISO 6579: 2002: Microbiology of food and animal feeding stuffs – Horizontal method for the detection of *Salmonella* spp.



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



\*") Tests performed directly on a suspect well-isolated colony

- <sup>1</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 C - Artificial contamination

Study	N° Sample	Product (French name)	Product	Artificial contaminations (spiking protocol)						Global result	
				Strain	Origin	Injury protocol	Injury measurement	Inoculation level (cfu/bag)			
Initial	5590	Lait cru	Raw milk	S. Montevideo 606	Raw milk	5 days 4°C	0,72	5-1-2-4-2(2,8)		2,8	+
Initial	5591	Lait cru	Raw milk	S. Montevideo 606	Raw milk	5 days 4°C	0,72	5-1-2-4-2(2,8)		2,8	+
Initial	5592	Saint Félicien au lait cru	Raw milk cheese	S. Montevideo 606	Raw milk	5 days 4°C	0,72	5-1-2-4-2(2,8)		2,8	+
Initial	5593	Camembert au lait cru	Raw milk cheese	S. Montevideo 606	Raw milk	5 days 4°C	0,72	5-1-2-4-2(2,8)		2,8	+
Initial	5594	Camembert au lait cru	Raw milk cheese	S. Montevideo 606	Raw milk	5 days 4°C	0,72	5-1-2-4-2(2,8)		2,8	+
Initial	5595	Saint-Nectaire au lait cru	Raw milk cheese	S. Infantis 401B	Raw milk	5 days 4°C	0,39	4-7-3-1-3(3,6)		3,6	+
Initial	5596	Bethmale au lait cru	Raw milk cheese	S. Infantis 401B	Raw milk	5 days 4°C	0,39	4-7-3-1-3(3,6)		3,6	+
Initial	5597	Reblochon au lait cru	Raw milk cheese	S. Infantis 401B	Raw milk	5 days 4°C	0,39	4-7-3-1-3(3,6)		3,6	+
Initial	5598	Morbier au lait cru	Raw milk cheese	S. Infantis 401B	Raw milk	5 days 4°C	0,39	4-7-3-1-3(3,6)		3,6	+
2013	5612	Boulettes animaux saumon colin	Pet food balls (fish)	S. Derby 630	Feed stuff	HT 56°C 8min	0,70	5-5-4-1-1(3,2)		3,2	+
2013	5613	Boulettes animaux colin sardine	Pet food balls (fish)	S. Derby 630	Feed stuff	HT 56°C 8min	0,70	5-5-4-1-1(3,2)		3,2	+
2013	5614	Boulettes animaux thon cabillaud	Pet food balls (fish)	S. Infantis 179	Feed stuff	HT 56°C 8min	1,70	4-4-3-1-2(2,8)		2,8	+
2013	5615	Boulettes au poulet	Pet food balls (chicken)	S. Infantis 179	Feed stuff	HT 56°C 8min	1,70	4-4-3-1-2(2,8)		2,8	+
2013	5616	Croquettes pour chats	Cat pellets	S. Infantis 179	Feed stuff	HT 56°C 8min	1,70	4-4-3-1-2(2,8)		2,8	+
2013	5617	Croquettes pour chiens	Dog pellets	S. Derby 630	Feed stuff	HT 56°C 8min	0,70	5-5-4-1-1(3,2)		3,2	+
2013	5618	Croquettes pour chiens	Dog pellets	S. Derby 630	Feed stuff	HT 56°C 8min	0,70	5-5-4-1-1(3,2)		3,2	+
Initial	6077	Poudre de lait entier	Whole milk powder	S. Indiana Ad 174	White cheese	HT 10min 56°C	>1,36	2-2-1-3-4(2,4)		2,4	+
Initial	6078	Poudre de lait 1/2 écrémé	Half skimmed milk powder	S. Indiana Ad 174	White cheese	HT 10min 56°C	>1,36	2-2-1-3-4(2,4)		2,4	+
Initial	6079	Poudre de lait écrémé	Skimmed milk powder	S. Indiana Ad 174	White cheese	HT 10min 56°C	>1,36	2-2-1-3-4(2,4)		2,4	+
Initial	6080	Poudre de lait entier	Milk powder	S. Indiana Ad 174	White cheese	HT 10min 56°C	>1,36	2-2-1-3-4(2,4)		2,4	+

Study	N° Sample	Product (French name)	Product	Artificial contaminations (spiking protocol)						Global result
				Strain	Origin	Injury protocol	Injury measurement	Inoculation level (cfu/bag)		
2013	6081	Poudre de jaune d'œuf	Egg yolk powder	S. Livingstone E1	White egg powder	HT 10min 56°C	1,57	19-27-29-25-24(24,8)	24,8	+
2013	6082	Poudre de jaune d'œuf	Egg yolk powder	S. Livingstone E1	White egg powder	HT 10min 56°C	1,57	19-27-29-25-24(24,8)	24,8	+
2013	6085	Poudre d'œuf entier	Whole egg powder	S. Typhimurium 13	Whole egg product	HT 10min 56°C	1,40	3-5-3-4-3(3,6)	3,6	+
2013	6086	Poudre d'œuf entier	Whole egg powder	S. Typhimurium 13	Whole egg product	HT 10min 56°C	1,40	3-5-3-4-3(3,6)	3,6	+
2013	6087	Poudre de blanc d'œuf	Egg white powder	S. Typhimurium 13	Whole egg product	HT 10min 56°C	1,40	3-5-3-4-3(3,6)	3,6	+
2013	6088	Poudre de blanc d'œuf	Egg white powder	S. Typhimurium 13	Whole egg product	HT 10min 56°C	1,40	3-5-3-4-3(3,6)	3,6	+
2013	6089	Poudre d'œuf entier	Whole egg powder	S. Infantis 14	Whole egg product	HT 10min 56°C	1,84	2-1-0-0-2(1,0)	1,0	+
2013	6090	Poudre d'œuf entier	Whole egg powder	S. Infantis 14	Whole egg product	HT 10min 56°C	1,84	2-1-0-0-2(1,0)	1,0	+
2013	6091	Poudre de jaune d'œuf	Egg yolk powder	S. Infantis 14	Whole egg product	HT 10min 56°C	1,84	2-1-0-0-2(1,0)	1,0	+
2013	6092	Poudre d'œuf entier	Whole egg powder	S. Infantis 14	Whole egg product	HT 10min 56°C	1,84	2-1-0-0-2(1,0)	1,0	+
Initial	6093	Saint-Jacques cuisinées	Ready to cook scallops	S. Typhimurium 305	Paella	HT 10min 56°C	1,62	4-7-1-1-3(3,2)	3,2	+
Initial	6094	Gambas cuisinées	Ready to cook prawns	S. Typhimurium 305	Paella	HT 10min 56°C	1,62	4-7-1-1-3(3,2)	3,2	+
Initial	6095	Saint-Jacques Noilly	Ready to cook scallops	S. Typhimurium 305	Paella	HT 10min 56°C	1,62	4-7-1-1-3(3,2)	3,2	+
Initial	6096	Suprême de sandre	Ready to cook fish	S. Anatum Ad1481	Fish fillet	HT 10min 56°C	2,88	4-3-4-1-2(2,8)	2,8	+
Initial	6097	Cabillaud sauce citron	Ready to cook fish(cod)	S. Anatum Ad1481	Fish fillet	HT 10min 56°C	2,88	4-3-4-1-2(2,8)	2,8	+
Initial	6098	Pavé de saumon et purée de brocolis	Ready to cook Fish (salmon)	S. Anatum Ad1481	Fish fillet	HT 10min 56°C	2,88	4-3-4-1-2(2,8)	2,8	+
Initial	6099	Gratin d'endives au jambon	Ready to cook Meal (endives and ham)	S. Typhimurium Ad1411	Poultry faeces	HT 10min 56°C	1,87	0-0-1-0-2(0,6)	0,6	+
Initial	6100	Lasagnes chèvre, épinards	Ready to cook pasta (spinash and goat cheese)	S. Typhimurium Ad1411	Poultry faeces	HT 10min 56°C	1,87	0-0-1-0-2(0,6)	0,6	-

Year of study	N° Sample	Product (French name)	Product	Artificial contaminations (spiking protocol)						Global result
				Strain	Origin	Injury protocol	Injury measurement	Inoculation level (cfu/bag)		
Initial	6101	Moussaka à l'agneau	Ready to cook meat(moussaka)	S. Typhimurium Ad1411	Poultry faeces	HT 10min 56°C	1,87	0-0-1-0-2(0,6)	0,6	+
Initial	6102	Feuilletés chèvre, épinards	Ready to cook (cheese, spinach)	S. Kentucky Ad1755	Water	HT 10min 56°C	>1,53	1-4-1-1-4(2,2)	2,2	+
Initial	6103	Brocolis, carottes, fèves, semoule, aneth	Ready to cook (vegetables ground)	S. Kentucky Ad1755	Water	HT 10min 56°C	>1,53	1-4-1-1-4(2,2)	2,2	+
Initial	6104	Gratin de légumes et porc cuisiné	Ready to cook (pork and vegetables)	S. Kentucky Ad1755	Water	HT 10min 56°C	>1,53	1-4-1-1-4(2,2)	2,2	+
Initial	6278	Salami	Salami	S. Typhimurium 702	Salami	7 days 10% NaCl	0,60	6-3-8-5-6(5,6)	5,6	+
Initial	6279	Bâton de berger	Dehydrated sausage	S. Typhimurium 702	Salami	7 days 10% NaCl	0,60	6-3-8-5-6(5,6)	5,6	+
Initial	6280	Rosette	Dehydrated sausage	S. Typhimurium 702	Salami	7 days 10% NaCl	0,60	6-3-8-5-6(5,6)	5,6	+
Initial	6281	Gouda cumin lait pasteurisé	Pasteurized milk cheese	S. Indiana Ad 174	White cheese	HT 10min 56°C+7 days 4°C	>0,7	1-3-1-1-2(1,6)	1,6	+
Initial	6282	Etorki fromage brebis lait pasteurisé	Pasteurized ewe milk cheese	S. Indiana Ad 174	White cheese	HT 10min 56°C+7 days 4°C	>0,7	1-3-1-1-2(1,6)	1,6	+
2013	6285	Viande bovine pour animaux	Raw meat for pet	S. Livingstone F104	Feed stuff	7 days 4°C	0,88	3-5-5-3-3(3,8)	3,8	+
2013	6286	Viande bovine pour animaux	Raw meat for pet	S. Braenderup F286	Feed stuff	7 days 4°C	0,57	7-8-1-6-8(6,0)	6,0	+
2013	6287	Viande bovine pour animaux	Raw meat for pet	S. Braenderup F286	Feed stuff	7 days 4°C	0,57	7-8-1-6-8(6,0)	6,0	+
2013	6288	Saucisson pour chien viande et légumes	Sausage for dog	S. Cerro Ad 689	Dehydrated poultry proteins	HT 56°C 8min	1,22	1-0-2-4-3(2,0)	2,0	+
2013	6289	Terrine à l'agneau et aux légumes	Terrine for pet	S. Cerro Ad 689	Dehydrated poultry proteins	HT 56°C 8min	1,22	1-0-2-4-3(2,0)	2,0	+
2013	6290	Terrine à la volaille	Poultry Pâté	S. Cerro Ad 689	Dehydrated poultry proteins	HT 56°C 8min	1,22	1-0-2-4-3(2,0)	2,0	+
2013	6291	Terrine au canard	Duck pâté	S. Cerro Ad 689	Dehydrated poultry proteins	HT 56°C 8min	1,22	1-0-2-4-3(2,0)	2,0	+
Initial	6292	Emincés de bœuf sauce forestière	Ready to cook (beef)	S. Typhimurium Ad 1334	Pork	HT 56°C 8min	1,55	2-3-1-3-1(2,0)	2,0	+

Year of study	N° Sample	Product (French name)	Product	Artificial contaminations (spiking protocol)						Global result
				Strain	Origin	Injury protocol	Injury measurement	Inoculation level (cfu/bag)		
Initial	6293	Langue de bœuf sauce piquante	Ready to cook (beef)	S. Typhimurium Ad 1334	Pork	HT 56°C 8min	1,55	2-3-1-3-1(2,0)	2,0	+
Initial	6294	Veau marengo	Ready to cook (veal)	S. Typhimurium Ad 1334	Pork	HT 56°C 8min	1,55	2-3-1-3-1(2,0)	2,0	+
Initial	6295	Blanquette de veau à la crème	Ready to cook (veal)	S. Typhimurium Ad 1334	Pork	HT 56°C 8min	1,55	2-3-1-3-1(2,0)	2,0	+
Initial	6296	Bœuf bourguignon	Ready to cook (beef)	S. Typhimurium Ad 1334	Pork	HT 56°C 8min	1,55	2-3-1-3-1(2,0)	2,0	+
Initial	6427	Lait fermenté	Fermented milk	S. Mbandaka Ad 1722	Raw milk	20 days PH4	0,11	6-8-9-12-7(8,4)	8,4	+
Initial	6428	Lait ribot tradition bretonne	Fermented milk	S. Mbandaka Ad 1722	Raw milk	20 days PH4	0,11	6-8-9-12-7(8,4)	8,4	+
Initial	6429	Lait ribot maigre	Fermented milk	S. Mbandaka Ad 1722	Raw milk	20 days PH4	0,11	6-8-9-12-7(8,4)	8,4	+
Initial	6230	Lait ribot entier	Fermented milk	S. Mbandaka Ad 1722	Raw milk	20 days PH4	0,11	6-8-9-12-7(8,4)	8,4	+
Initial	6431	Faisselle Rians	Fermented milk	S. Mbandaka Ad 1722	Raw milk	20 days PH4	0,11	6-8-9-12-7(8,4)	8,4	+
2013	6432	Coule œuf entier pasteurisée	Whole pasteurized egg product	S. Havana Ad 1728	Liquid egg	20 days 4°C	0,44	4-6-5-4-4(4,6)	4,6	+
2013	6433	Coule œuf entier pasteurisée	Whole pasteurized egg product	S. Enteritidis Ad 638	Mayonnaise	20 days 4°C	0,44	4-5-6-5-5(5,0)	5,0	+
2013	6434	Coule œuf entier pasteurisée	Whole pasteurized egg product	S. Infantis Ad 1684	Chocolate mousse	20 days 4°C	0,53	6-2-4-4-1(3,4)	3,4	+
2013	6435	Crème anglaise	English cream	S. Infantis Ad 1684	Chocolate mousse	20 days 4°C	0,53	6-2-4-4-1(3,4)	3,4	+
2013	6438	Crème aux œufs	Egg cream	S. Havana Ad 1728	Liquid egg	20 days 4°C	0,44	4-6-5-4-4(4,6)	4,6	+
2013	6439	Ile flottante	Dairy and egg based dessert	S. Havana Ad 1728	Liquid egg	20 days 4°C	0,44	4-6-5-4-4(4,6)	4,6	+
2013	6440	Crème brûlée	Dairy and egg based dessert	S. Infantis Ad 1684	Chocolate mousse	20 days 4°C	0,53	6-2-4-4-1(3,4)	3,4	+
2013	6441	Clafoutis	Clafoutis	S. Infantis Ad 1684	Chocolate mousse	20 days 4°C	0,53	6-2-4-4-1(3,4)	3,4	+
2013	6442	Mayonnaise tradition	Mayonnaise	S. Enteritidis Ad 638	Mayonnaise	20 days 4°C	0,44	4-5-6-5-5(5,0)	5,0	+
2013	6443	Mayonnaise citron	Mayonnaise with lemon	S. Enteritidis Ad 638	Mayonnaise	20 days 4°C	0,44	4-5-6-5-5(5,0)	5,0	+
2013	6444	Mayonnaise ancienne	Mayonnaise	S. Enteritidis Ad 638	Mayonnaise	20 days 4°C	0,44	4-5-6-5-5(5,0)	5,0	+



Year of study	N° Sample	Product (French name)	Product	Artificial contaminations (spiking protocol)						Global result
				Strain	Origin	Injury protocol	Injury measurement	Inoculation level (cfu/bag)		
Initial	6467	Salade choux jambon comté	Del salad (ham, cheese, cubbage)	S. Virchow F276	Curry	15 days 4°C	0,38	2-6-4-7-4(4,6)	4,6	+
Initial	6468	Macédoine	Deli salad (Vegetable mix with mayonnaise)	S. Virchow F276	Curry	15 days 4°C	0,38	2-6-4-7-4(4,6)	4,6	+
Initial	6469	Salade campagnarde	Deli salad (Vegetable mix with mayonnaise)	S. Virchow F276	Curry	15 days 4°C	0,38	2-6-4-7-4(4,6)	4,6	+
Initial	6470	Salade surimi crudités	Deli salad (Vegetable mix, surimi)	S. Mbandaka Ad1723	Compost	15 days 4°C	0,26	4-7-7-5-6(5,8)	5,8	+
Initial	6471	Salade crudités roquefort	Deli salad (Vegetable mix, cheese)	S. Mbandaka Ad1723	Compost	15 days 4°C	0,26	4-7-7-5-6(5,8)	5,8	+
Initial	6472	Sandwich thon crudités	Sandwich (tuna, vegetables)	S. Virchow F276	Curry	15 days 4°C	0,38	2-6-4-7-4(4,6)	4,6	+
Initial	6473	Sandwich surimi crudités pamplemousse	Sandwich (surimi, vegetables, grap fruit)	S. Virchow F276	Curry	15 days 4°C	0,38	2-6-4-7-4(4,6)	4,6	+
Initial	1042	Fromage vieux pané pasteurisé	Pasteurize cheese	S. Typhimurium 4	Milk powder	HT 56°C 8min	1,21	2-2-0-1-1 (1,2)	1,2	-
Initial	1043	Fromage des chaumes pasteurisé	Pasteurize cheese	S. Typhimurium 4	Milk powder	HT 56°C 8min	1,21	2-2-0-1-1 (1,2)	1,2	+
Initial	1044	Brie de meaux au lait cru	Raw milk cheese	S. Dublin Ad 1336	Raw milk cheese	4°C 13 days	0,53	5-6-7-8-7 (6,6)	6,6	+
Initial	1045	Pousse d'épinard cru	Raw spinash	S. infantis Ad 1646	Compost	4°C 13 days	0,38	5-0-5-3-4 (3,4)	3,4	+
Initial	1047	Petits pois surgelés crus	Raw frozen peas	S. Mbandaka Ad1723	Compost	-20°C 13 days	0,64	3-5-2-2-1 (2,6)	2,6	+
Initial	1048	Haricots verts surgelés crus	Raw frozen beans	S. Mbandaka Ad1723	Compost	-20°C 13 days	0,64	3-5-2-2-1 (2,6)	2,6	+
Initial	1059	Courgette surgelée	Frozen courgettes	S. Mbandaka Ad1723	Compost	-20°C 13 days	0,64	3-5-2-2-1 (2,6)	2,6	+
Initial	1060	Poireaux surgelés	Frozen leeks	S. Mbandaka Ad1723	Compost	-20°C 13 days	0,64	3-5-2-2-1 (2,6)	2,6	+
Initial	1063	Haricots	Beans	S. infantis Ad 1646	Compost	4°C 13 days	0,38	5-0-5-3-4 (3,4)	3,4	+
Initial	1294	Coppa	Coppa (fermented meat)	S. Derby SD43	Slaughter	4°C 27 days	>1,5	16-14-11-6-11 (12,0)	12,0	+
Initial	1295	Salami	Salami (fermented meat)	S. Derby SD43	Slaughter	4°C 27 days	>1,5	16-14-11-6-11 (12,0)	12,0	+

Year of study	N° Sample	Product (French name)	Product	Artificial contaminations (spiking protocol)						Global result
				Strain	Origin	Injury protocol	Injury measurement	Inoculation level (cfu/bag)		
Initial	1298	Lait ribot fermenté maigre	Fermented milk	S. Dublin Ad531	Raw milk	4°C 3 months	0,50	7-6-0-3-4 (4,0)	4,0	+
Initial	1299	Lait ribot fermenté entier	Fermented milk	S. Dublin Ad531	Raw milk	4°C 3 months	0,50	7-6-0-3-4 (4,0)	4,0	+
Initial	1300	Lait fermenté	Fermented milk	S. Dublin Ad531	Raw milk	4°C 3 months	0,50	7-6-0-3-4 (4,0)	4,0	+
Initial	1301	Lait ribot fermenté	Fermented milk	S. Dublin Ad531	Raw milk	4°C 3 months	0,50	7-6-0-3-4 (4,0)	4,0	+
Initial	1302	Gros lait fermier	Fermented milk	S. Ohio Ad1482	Raw milk	pH4 3 months	1,20	0-0-1-0-0 (0,2)	0,2	+
Initial	1303	Lait ribot fermenté maigre	Fermented milk	S. Ohio Ad1482	Raw milk	pH4 3 months	1,20	0-0-1-0-0 (0,2)	0,2	+
Initial	1304	Lait ribot fermenté entier	Fermented milk	S. Ohio Ad1482	Raw milk	pH4 3 months	1,20	0-0-1-0-0 (0,2)	0,2	-
2013	1305	Viande pour animaux	Raw beef meat for pet	S. Panama 8	Ground beef	4°C 6 months	2,50	0-0-0-1-2 (0,6)	0,6	-
2013	1306	Viande pour animaux	Raw beef meat for pet	S. Panama 8	Ground beef	4°C 6 months	2,50	0-0-0-1-2 (0,6)	0,6	+
2013	1307	Viande pour animaux	Raw beef meat for pet	S. Panama 8	Ground beef	4°C 6 months	2,50	0-0-0-1-2 (0,6)	0,6	-
2013	1309	Croquettes pour chats poulet et riz	Pellets for cat	S. Typhimurium Ad1070	Slaughter	HT 56°C 8min	0,30	0-0-0-0-0 (0,0)	<1	+
2013	1311	Terrine pour chat au saumon	Terrine for cat (salmon)	S. Agona A00V038	Pet food	HT 56°C 8min	1,80	1-0-0-0-2 (0,6)	0,6	+
2013	1312	Terrine pour chat truite et cabillaud	Terrine for cat (truta)	S. Agona A00V038	Pet food	HT 56°C 8min	1,80	1-0-0-0-2 (0,6)	0,6	+
2013	1313	Terrine pour chien au saumon	Terrine for dog (salmon)	S. Enteritidis Ad926	Raw veal meat	HT 56°C 8min	1,60	2-5-2-2-3 (2,8)	2,8	+
2013	1314	Saucisson pour chien	Sausages for dog	S. Enteritidis Ad926	Raw veal meat	HT 56°C 8min	1,60	2-5-2-2-3 (2,8)	2,8	+
Initial	1341	Filet de poulet et pommes de terre	Ready to cook (chicken)	S. Dublin Ad530	Ground beef	HT 56°C 8min	0,50	0-0-1-1-1 (0,6)	0,6	+
Initial	1342	Bœuf bourguignon et tagliatelles	Ready to cook (beef)	S. Dublin Ad530	Ground beef	HT 56°C 8min	0,50	0-0-1-1-1 (0,6)	0,6	+
Initial	1343	Rognons de bœuf et purée	Ready to cook (beef)	S. Dublin Ad530	Ground beef	HT 56°C 8min	0,50	0-0-1-1-1 (0,6)	0,6	+
Initial	1344	Blanquette de veau et riz blanc	Ready to cook (veal)	S. Dublin Ad530	Ground beef	HT 56°C 8min	0,50	0-0-1-1-1 (0,6)	0,6	+

Year of study	N° Sample	Product (French name)	Product	Artificial contaminations (spiking protocol)						Global result
				Strain	Origin	Injury protocol	Injury measurement	Inoculation level (cfu/bag)		
Initial	1345	Escalope de poulet rôti riz et champignons	Ready to cook (chicken)	S. Dublin Ad530	Ground beef	HT 56°C 8min	0,50	0-0-1-1-1 (0,6)	0,6	+
Initial	1346	Blanquette de veau et riz blanc	Ready to cook (veal)	S. Dublin Ad530	Ground beef	HT 56°C 8min	0,50	0-0-1-1-1 (0,6)	0,6	+
Initial	1347	Tartare de tomate taboulé au poulet	Deli salad (vegetables)	S. infantis Ad 1646	Compost	4°C 1 month	0,60	8-4-5-11-13(8,2)	8,2	+
Initial	1348	Salade de boulghour aux légumes	Deli salad (vegetables)	S. Infantis Ad 1646	Compost	4°C 1 month	0,60	8-4-5-11-13(8,2)	8,2	+
Initial	1349	Macédoine de légumes	Deli salad (Vegetable mix with mayonnaise)	S. Infantis Ad 1646	Compost	4°C 1 month	0,60	8-4-5-11-13(8,2)	8,2	+
Initial	1350	Coleslaw	Deli salad (vegetables)	S. infantis Ad 1646	Compost	4°C 1 month	0,60	8-4-5-11-13(8,2)	8,2	+
Initial	1352	Poudre de lait	Milk powder	S. Infantis F401B	Raw milk	HT 56°C 8min	1,00	3-4-4-3-3 (3,4)	3,4	+
Initial	1353	Poudre de lait	Milk powder	S. Infantis F401B	Raw milk	HT 56°C 8min	1,00	3-4-4-3-3 (3,4)	3,4	+
Initial	1354	Poudre de lait	Milk powder	S. Infantis F401B	Raw milk	HT 56°C 8min	1,00	3-4-4-3-3 (3,4)	3,4	+
Initial	1370	Gruyère au lait cru	Raw milk cheese	S. Dublin Ad 1336	Raw milk cheese	4 °C 1 month	0,60	2-3-4-4-5 (3,6)	3,6	+
Initial	1371	Comté au lait cru	Raw milk cheese	S. Dublin Ad 1336	Raw milk cheese	4 °C 1 month	0,60	2-3-4-4-5 (3,6)	3,6	+
Initial	1372	Coeurs de filets de cabillaud surgelé	Frozen cod fillet	S. Typhimurium Ad 1603	Fish	-20 °C 1 month	0,30	9-6-5-4-8 (6,4)	6,4	+
Initial	1373	Filets de colin surgelés	Frozen fish fillet	S. Typhimurium Ad 1603	Fish	-20 °C 1 month	0,30	9-6-5-4-8 (6,4)	6,4	+
Initial	1374	Filet de sabre surgelé	Frozen fish fillet	S. Anatum Ad 1451	Fish	-20 °C 1 month	0,40	5-6-5-4-4 (4,8)	4,8	+
Initial	1375	Filet de cabillaud surgelé cru	Frozen cod fillet	S. Anatum Ad 1451	Fish	-20 °C 1 month	0,40	5-6-5-4-4 (4,8)	4,8	+
Initial	1376	Taboulé aux crevettes	Deli salad (fish)	S. Anatum Ad 1451	Fish	4°C 1 month	0,40	2-3-4-4-7 (4,0)	4,0	+
Initial	1377	Pâtes aux surimi	Deli salad (surimi)	S. Anatum Ad 1451	Fish	4°C 1 month	0,40	2-3-4-4-7 (4,0)	4,0	+
2013	1943	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	S. Enteritidis 465	Yolk egg product	HT 56°C 8min	1,03	0-4-6-3-5(3,6)	3,6	+
2013	1944	Coule de blanc d'œuf pasteurisée	Pasteurised white egg product	S. Enteritidis 465	Yolk egg product	HT 56°C 8min	1,03	0-4-6-3-5(3,6)	3,6	+
2013	1945	Coule de jaune d'œuf pasteurisée	Pasteurised egg yolk product	S. Mbandaka 81	Whole egg product	HT 56°C 8min	1,71	1-1-0-0-0(0,4)	0,4	+

Year of study	N° Sample	Product (French name)	Product	Artificial contaminations (spiking protocol)						Global result
				Strain	Origin	Injury protocol	Injury measurement	Inoculation level (cfu/bag)		
2013	1946	Coule de blanc d'œuf pasteurisée	Pasteurised white egg product	S. Mbandaka 81	Whole egg product	HT 56°C 8min	1,71	1-1-0-0-0(0,4)	0,4	-
2013	1947	Coule de jaune d'œuf pasteurisée	Pasteurised egg yolk product	S. Typhimurium 472	Yolk egg product	HT 56°C 8min	1,42	1-3-2-1-0(1,4)	1,4	+
2013	1948	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	S. Typhimurium 472	Yolk egg product	HT 56°C 8min	1,42	1-3-2-1-0(1,4)	1,4	+
2013	1949	Coule de blanc d'œuf pasteurisée	Pasteurised white egg product	S. Typhimurium Ad 476	Mayonnaise	HT 56°C 8min	1,65	0-4-0-2-1 (1,4)	1,4	+
2013	1950	Jaune d'œuf sucré pasteurisé	Pasteurised egg yolk product with sugar	S. Typhimurium Ad 476	Mayonnaise	HT 56°C 8min	1,65	0-4-0-2-1 (1,4)	1,4	+
2013	1951	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	S. Typhimurium Ad 476	Mayonnaise	HT 56°C 8min	1,65	0-4-0-2-1 (1,4)	1,4	+
2013	2234	Matière première animale (graisse fondue)	Raw material (fat)	S. Newport 586	Beef carcass	4°C 1 month	0,30	12-7-2-1-8(6,0)	6,0	+
R 2017	1247	Saucisson sec	Low moisture sausage	S.Typhimurium Ad 1876	Low moisture sausage	Seeding 4°C 48h	/	1-0-5-2-1 (1,8)	1,8	+
R 2017	1248	Rosette	Low moisture sausage	S.Typhimurium Ad 1876	Low moisture sausage	Seeding 4°C 48h	/	1-0-5-2-1 (1,8)	1,8	+
E 2017	2003	Tendres pousses	Baby leaves	S. Senftenberg 6	Environmental sample	Seeding 48h 2- 8°C	/	0-0-0-0-1 (0,2)	0,2	+
E 2017	2004	Mélange jeunes pousses	Baby leaves	S. Havana Ad930	Environmental sample	Seeding 48h 2- 8°C	/	4-8-2-3-4 (4,2)	4,2	+
E 2017	2005	Ananas en morceaux	Pieces of pineapple	S. Senftenberg 6	Environmental sample	Seeding 48h 2- 8°C	/	0-0-0-0-1 (0,2)	0,2	-
E 2017	2007	Filet de sardine	Pilchard fillet	S. Derby Ad1093	Fish fillet	Seeding 48h 2- 8°C	/	4-1-6-1-5 (3,4)	3,4	+
E 2017	2008	Filet de vieille	Fish fillet	S. Derby Ad1093	Fish fillet	Seeding 48h 2- 8°C	/	4-1-6-1-5 (3,4)	3,4	+
E 2017	2543	Filet de tacaud	Fish fillet	S. Anatum Ad2727	Seafood	Seeding 48h 2- 8°C	/	4-0-1-2-2 (1,8)	1,8	+
E 2017	2544	Pavé de saumon	Fish fillet	S. Wandsworth Ad2335	Fish fillet	Seeding 48h 2- 8°C	/	1-3-5-3-3 (3,0)	3,0	-

Year of study	N° Sample	Product (French name)	Product	Artificial contaminations (spiking protocol)						Global result
				Strain	Origin	Injury protocol	Injury measurement	Inoculation level (cfu/bag)		
E 2017	2545	Filet de merlan	Fish fillet	S. Indiana 2	Fish flour	Seeding 48h 2- 8°C	/	2-2-2-1-1 (1,6)	1,6	+
E 2017	2720	Steak de bœuf	Beef trim	S. Newport Ad2730	Ground beef	Seeding 48h 2- 8°C	/	2-3-4-2-2 (2,6)	2,6	+
E 2017	2721	Pavé en tournedos	Beef trim	S. Newport Ad2730	Ground beef	Seeding 48h 2- 8°C	/	2-3-4-2-2 (2,6)	2,6	+
E 2017	2722	Bavette d'ailou	Beef trim	S. Newport Ad2730	Ground beef	Seeding 48h 2- 8°C	/	2-3-4-2-2 (2,6)	2,6	+
E 2017	2723	Bavette de flancher	Beef trim	S. Enteritidis Ad2294	Beef meat	Seeding 48h 2- 8°C	/	2-5-6-1-3 (3,4)	3,4	+
E 2017	2724	Pavé de rumsteck	Beef trim	S. Enteritidis Ad2294	Beef meat	Seeding 48h 2- 8°C	/	2-5-6-1-3 (3,4)	3,4	+
E 2017	2725	Hampe	Beef trim	S. Enteritidis Ad2294	Beef meat	Seeding 48h 2- 8°C	/	2-5-6-1-3 (3,4)	3,4	+
E 2017	2726	Graines germées (Alfalfa)	Sprouts	S. Typhimurium Ad1335	Environmental sample	Seeding 48h 2- 8°C	/	6-2-4-1-3 (3,2)	3,2	+
E 2017	2727	Graines germées (Alfalfa et roquettes)	Sprouts	S. Amsterdam Ad1767	Environmental sample	Seeding 48h 2- 8°C	/	5-1-0-3-4 (2,6)	2,6	+
E 2017	2728	Persil	Parsley	S. Amsterdam Ad1767	Environmental sample	Seeding 48h 2- 8°C	/	5-1-0-3-4 (2,6)	2,6	+
E 2017	2729	Ciboulette	Chives	S. Typhimurium Ad1335	Environmental sample	Seeding 48h 2- 8°C	/	6-2-4-1-3 (3,2)	3,2	+
E 2017	3313	Tendres pousses (mâche, laitue, épinard)	Baby leaves	S. Livingstone Ad2566	Potatoes	Seeding 48h 2- 8°C	/	3-1-3-2-1 (2,0)	2,0	+
E 2017	3314	Pousse d'épinards	Baby spinach	S. Livingstone Ad2566	Potatoes	Seeding 48h 2- 8°C	/	3-1-3-2-1 (2,0)	2,0	+
E 2017	3315	Jeunes pousses (red chard, roquette, épinard)	Baby leaves	S. Virchow Ad2569	Zucchini	Seeding 48h 2- 8°C	/	0-4-0-1-1(1,2)	1,2	+
E 2017	3316	Pousses d'épinards	Baby spinach	S. Havana Ad2728	Sunflower	Seeding 48h 2- 8°C	/	2-1-1-7-4 (3,0)	3,0	+
E 2017	3317	Pâté pour chat au bœuf	Pâté for dog	S. Menston Ad2729	Feed stuff	Spiking HT 8min 56°C	0,37	5-3-2-4-5 (3,8)	3,8	+
E 2017	3322	Mayonnaise	Mayonnaise	S. Mbandaka Ad914	Mayonnaise	Spiking HT 8min 56°C	1,14	2-1-4-2-2 (2,2)	2,2	-

Year of study	N° Sample	Product (French name)	Product	Artificial contaminations (spiking protocol)						Global result
				Strain	Origin	Injury protocol	Injury measurement	Inoculation level (cfu/bag)		
E 2017	3323	Crème aux œufs	Egg cream	S. Mbandaka Ad914	Mayonnaise	Spiking HT 8min 56°C	1,14	2-1-4-2-2 (2,2)	2,2	+
E 2017	3324	Mélange 5 fruits (ananas, orange, pomme, kiwi, grenade)	Mix of 5 fruits (pineapple, orange, apple, kiwi, grenade)	S. Livingstone Ad2566	Potatoes	Seeding 48h 2- 8°C	/	3-1-3-2-1 (2,0)	2,0	+
E 2017	3325	5 fruits : ananas, orange, pomme, kiwi, grenade	5 fruits: orange, pineapple, apple, kiwi, grenade	S. Virchow Ad2569	Zucchini	Seeding 48h 2- 8°C	/	0-4-0-1-1(1,2)	1,2	+
E 2017	3326	Mélange pomme raisin	Mix apple and grape	S. Havana Ad2728	Sunflower	Seeding 48h 2- 8°C	/	2-1-1-7-4 (3,0)	3,0	+
E 2017	3327	Mélange pomme raisin	Mix apple and grape	S. Virchow Ad2569	Zucchini	Seeding 48h 2- 8°C	/	0-4-0-1-1(1,2)	1,2	+
E 2017	3328	Carottes rapées non assaisonnées	Grated carrots	S. Havana Ad2728	Sunflower	Seeding 48h 2- 8°C	/	2-1-1-7-4 (3,0)	3,0	+
E 2017	3329	Mélange chou blanc, carotte, céleri branche)	Mix of white cabbage, carrots, celery stick)	S. Havana Ad2728	Sunflower	Seeding 48h 2- 8°C	/	2-1-1-7-4 (3,0)	3,0	+
E 2017	3582	Hareng fumé doux	Smoked herring	S. Anatum Ad2727	Crab	Seeding 48h 2- 8°C	/	4-1-9-8-2 (4,8)	4,8	+
E 2017	3583	Thon blanc fumé	Smoked tuna	S. Anatum Ad2727	Crab	Seeding 2-8°C 48h	/	4-1-9-8-2 (4,8)	4,8	+
E 2017	3584	Saumon fumé	Smoked salmon	S. Indiana Ad1409	Marinated fish fillet	Seeding 2-8°C 48h	/	1-1-3-1-5 (2,2)	2,2	+
E 2017	3585	Truite fumée	Smoked trout	S. Indiana Ad1409	Marinated fish fillet	Seeding 2-8°C 48h	/	1-1-3-1-5 (2,2)	2,2	+
E 2017	3586	Maquereau fumé	Smoked maquerel	S. Derby Ad1093	Fish fillet	Seeding 2-8°C 48h	/	1-4-4-1-3 (2,6)	2,6	+
E 2017	3587	Cabillaud fumé	Smoked cod	S. Derby Ad1093	Fish fillet	Seeding 2-8°C 48h	/	1-4-4-1-3 (2,6)	2,6	+
E 2017	3588	Queues de crevettes marinées ail-persil	Marinated shrimps	S. Anatum Ad2727	Crab	Seeding 2-8°C 48h	/	4-1-9-8-2 (4,8)	4,8	+
E 2017	3589	Queues de crevettes marinées citron-basilic	Marinated shrimps	S. Anatum Ad2727	Crab	Seeding 2-8°C 48h	/	4-1-9-8-2 (4,8)	4,8	+
E 2017	3590	Seiche marinée ail-persil	Marinated cuttlefish	S. Indiana Ad1409	Marinated fish fillet	Seeding 48h 2- 8°C	/	1-1-3-1-5 (2,2)	2,2	+
E 2017	3591	Anchois marinés ail	Marinated Anchovy	S. Derby Ad1093	Fish fillet	Seeding 48h 2- 8°C	/	1-4-4-1-3 (2,6)	2,6	-

## Appendix D – Sensitivity study – Raw data

**Bold typing** : artificially inoculated samples

### ***Salmonella* detection results:**

- m: minority level of target analyte
- M : majoritary level of target analyte
- P: pure culture level of target analyte
- 1/2 : 50% level of target analyte
- : no typical colonies but presence of background microflora
- st: plate without any colony
- i: amplification inhibition
- PA: positive agreement
- NA: negative agreement
- ND: negative deviation
- PD: positive deviation
- PPNA: positive presumptive negative agreement
- PPND : positive presumptive negative deviation
- \*: ANSR result after dilution 1/5
- \*\* : ANSR result after dilution 1/10

COMPOSITE FOODS / READY-TO-EAT AND READY-TO-REHEAT																									
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>														Protocol	Category	Type
				RVS broth		MKTn broth		Final result	Incubation : 20 h										Incubation : 20 h + storage for 72 h at 5°C ± 3°C						
				XLD	ASAP	XLD	ASAP		ANSR test result	Subculture in RVS					Agreement 20H	ANSR test result	Subculture in RVS				Agreement 20 h +72h				
										XLD	ASAP	Latex	Reference method tests results	Final result			XLD	ASAP	Latex	Final result					
Initial	6103	Brocolis, carottes, fèves, semoule à l'aneth	Ready to cook (vegetables ground)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	a	
Initial	6467	Salade chou jambon comté	Deli salad (ham, cheese, cabbage)	+M	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	2	1	a	
Initial	6468	Macédoine	Deli salad (Vegetable mix with mayonnaise)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	a	
Initial	6469	Salade campagnarde	Deli salad (Vegetable mix with mayonnaise)	+M	+M	+m	+M	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	2	1	a	
Initial	6470	Salade surimi crudités	Deli salad (Vegetable mix, surimi)	+M	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	2	1	a	
Initial	6471	Salade crudités roquefort	Deli salad (Vegetable mix, cheese)	+M	+M	+M	+M	+	-/-	+M	+M	+	+	-	ND	-/-	+M	+M	+	-	ND	2	1	a	
Initial	6472	Sandwich thon crudités	Sandwich (tuna, vegetables)	+M	+M	+1/2	+M	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	2	1	a	
Initial	6473	Sandwich surimi crudités pamplemousse	Sandwich (surimi, vegetables, grape fruit)	+M	+M	+m	+M	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	2	1	a	
Initial	6553	Trio de chou jambon comté	Deli salad (ham, cheese, cabbage)	-	-	-	-	-	-	-	-	-	-	-	NA							2	1	a	
Initial	6554	Macédoine de légumes	Deli salad (Vegetable mix with mayonnaise)	-	-	-	-	-	-	-	-	-	-	-	NA							2	1	a	
Initial	6555	Salade campagnarde	Deli salad (Vegetable mix with mayonnaise)	-	-	-	-	-	-	-	-	-	-	-	NA							2	1	a	
Initial	6556	Salade surimi crudités	Deli salad (Vegetable mix, surimi)	-	-	-	-	-	-	-	-	-	-	-	NA							2	1	a	
Initial	6557	Salade poulet roti	Deli salad (chicken)	-	-	-	-	-	-	-	-	-	-	-	NA							2	1	a	
Initial	6558	Sandwich jambon cheddar	Sandwich (cheese, ham)	st	st	st	st	-	-	st	st			-	NA							2	1	a	
Initial	6559	Sandwich thon crudités	Sandwich (tuna vegetables)	-	-	-	-	-	-	-	-	-	-	-	NA							2	1	a	
Initial	6560	Sandwich duo saumon	Sandwich (salmon)	-	-	-	-	-	-	-	-	-	-	-	NA							2	1	a	
Initial	6561	Sandwich surimi crudités pamplemousse	Sandwich (vegetables surimi)	-	-	-	-	-	-	-	-	-	-	-	NA							2	1	a	
Initial	6562	Sandwich thon œuf	Sandwich (egg tuna)	st	st	st	st	-	-	st	st			-	NA							2	1	a	
Initial	1347	Tartare de tomate taboulé au poulet	Deli salad (vegetables)	+M	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+p	+M	+	+	PA	2	1	a	
Initial	1348	Salade de boulghour aux légumes	Deli salad (vegetables)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	a	
Initial	1349	Macédoine de légumes	Deli salad (Vegetable mix with mayonnaise)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	a	
Initial	1350	Coleslaw	Deli salad (vegetables)	+p	+p	+p	+p	+	-/+ (atypical curve)	+p	+p	+	+	-	ND	+/-	+p	+p	+	+	PA	2	1	a	
Initial	1376	Taboulé aux crevettes	Deli salad (fish)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	a	
Initial	1377	Pâtes aux surimi	Deli salad (surimi)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+M	+p	+	+	PA	2	1	a	



COMPOSITE FOODS / READY-TO-EAT AND READY-TO-REHEAT																									
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>														Protocol	Category	Type
				RVS broth		MKTTn broth		Final result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C											
				XLD	ASAP	XLD	ASAP		ANSR test result	Subculture in RVS				Agreement 20H	ANSR test result	Subculture in RVS				Agreement 20 h +72h					
										XLD	ASAP	Latex	Reference method tests results			Final result	XLD	ASAP	Latex		Final result				
Initial	6093	Saint-Jacques cuisinées	Ready to cook scallops	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6094	Gambas cuisinées	Ready to cook prawns	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6095	Saint-Jacques Noilly	Ready to cook scallops	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6096	Suprême de sandre	Ready to cook fish	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6097	Cabillaud sauce citron	Ready to cook fish(cod)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6098	Pavé de saumon et purée de brocolis	Ready to cook fish(salmon)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6099	Gratin d'endives au jambon	Ready to cook meal (endives and ham)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6100	Lasagnes chèvre, épinards	Ready to cook pasta (spinach and goat cheese)	-	-	-	-	-	-	-	-	-	-	-	NA							2	1	b	
Initial	6101	Moussaka à l'agneau	Ready to cook meat (moussaka)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6102	Feuilletés chèvre, épinards	Ready to cook (cheese, spinach)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6104	Gratin de légumes et porc cuisiné	Ready to cook (pork and vegetables)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6119	Saint Jacques cuisinées	Ready to cook scallops	st	st	st	st	-	-	st	st			-	NA							2	1	b	
Initial	6120	Gambas cuisinées	Ready to cook prawns	st	st	st	st	-	-	st	st			-	NA							2	1	b	
Initial	6121	Suprême de Sandre	Ready to cook fish	st	st	st	st	-	-	st	st			-	NA							2	1	b	
Initial	6122	Cabillaud sauce citron	Ready to cook fish(cod)	st	st	st	st	-	-	st	st			-	NA							2	1	b	
Initial	6123	Pavé de saumon et purée de brocolis	Ready to cook fish(salmon)	st	st	st	st	-	-	st	st			-	NA							2	1	b	
Initial	6124	Gratin d'endives au jambon	Ready to cook meal (endives and ham)	st	st	st	st	-	-	st	st			-	NA							2	1	b	
Initial	6125	Moussaka à l'agneau	Ready to cook meat (moussaka)	st	st	st	st	-	-	st	st			-	NA							2	1	b	
Initial	6126	Feuilletés chèvre, épinards	Ready to cook (cheese, spinach)	st	st	st	st	-	-	st	st			-	NA							2	1	b	
Initial	6127	Brocolis, carottes, fèves, semoule à l'aneth	Ready to cook (vegetables ground)	st	st	st	st	-	-	st	st			-	NA							2	1	b	
Initial	6292	Emincés de bœuf sauce forestière	Ready to cook (beef)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6293	Langue de bœuf sauce piquante	Ready to cook (beef)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6294	Veau marenco	Ready to cook (veal)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6295	Blanquette de veau à la crème	Ready to cook (veal)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	6296	Bœuf bourguignon	Ready to cook (beef)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	b	
Initial	1234	Escalope de poulet rôti riz et champignons	Ready to cook (chicken rice)	st	st	st	st	-	-	st	st			-	NA							2	1	b	

COMPOSITE FOODS / READY-TO-EAT AND READY-TO-REHEAT																								
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				RVS broth		MKTTn broth		Final result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C										
				XLD	ASAP	XLD	ASAP		ANSR test result	Subculture in RVS				Agreement 20H	ANSR test result	Subculture in RVS				Agreement 20 h +72h				
										XLD	ASAP	Latex	Reference method tests results			Final result	XLD	ASAP	Latex		Final result			
Initial	1235	Macaronis de boulettes de viande sauce tomate	Ready to cook (beef)	st	st	st	st	-	-	st	st			-	NA						2	1	b	
Initial	1236	Rognons de bœuf et purée	Ready to cook (beef)	st	st	st	st	-	-	st	st			-	NA						2	1	b	
Initial	1237	Blanquette de veau et riz blanc	Ready to cook (veal)	st	st	st	st	-	-	st	st			-	NA						2	1	b	
Initial	1238	Rognons de bœuf et purée	Ready to cook (beef)	st	st	st	st	-	-	st	st			-	NA						2	1	b	
Initial	1239	Blanquette de veau et riz blanc	Ready to cook (veal)	st	st	st	st	-	-	st	st			-	NA						2	1	b	
Initial	1240	Aiguillette de poulet sauce normande et riz	Ready to cook (chicken)	st	st	st	st	-	-	st	st			-	NA						2	1	b	
Initial	1241	Filet de poulet et pommes de terre	Ready to cook (chicken)	st	st	st	st	-	-	st	st			-	NA						2	1	b	
Initial	1242	Rôti de porc et purée	Ready to cook (pork)	st	st	st	st	-	-	st	st			-	NA						2	1	b	
Initial	1243	Bœuf bourguignon et tagliatelles	Ready to cook (beef)	st	st	st	st	-	-	st	st			-	NA						2	1	b	
Initial	1341	Filet de poulet et pommes de terre	Ready to cook (chicken)	+p	-	+p	-	+	+	+p	-	+	+	+	PA	+	+M	-	+	+	PA	2	1	b
Initial	1342	Bœuf bourguignon et tagliatelles	Ready to cook (beef)	+p	-	+p	-	+	+	+p	-	+	+	+	PA	+	+p	-	+	+	PA	2	1	b
Initial	1343	Rognons de bœuf et purée	Ready to cook (beef)	+p	-	+p	-	+	+	+p	-	+	+	+	PA	+	+M	-	+	+	PA	2	1	b
Initial	1344	Blanquette de veau et riz blanc	Ready to cook (veal)	+p	-	+p	-	+	+	+p	-	+	+	+	PA	+	+p	-	+	+	PA	2	1	b
Initial	1345	Escalope de poulet rôti riz et champignons	Ready to cook (chicken)	+p	-	+p	-	+	+	+p	-	+	+	+	PA	+	+p	-	+	+	PA	2	1	b
Initial	1346	Blanquette de veau et riz blanc	Ready to cook (veal)	+p	-	+p	-	+	+	+p	-	+	+	+	PA	+	+M	-	+	+	PA	2	1	b
Extension-2017	3582	Hareng fumé doux	Smoked herring	+M	+p	+M	+p	+	+	+M	+p	+	+	+	PA	+	+M	+p	+	+	PA	2	1	c
Extension-2017	3583	Thonc blanc fumé	Smoked tuna	+M	+p	+M	+p	+	+	+M	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	c
Extension-2017	3584	Saumon fumé	Smoked salmon	+M	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	2	1	c
Extension-2017	3585	Truite fumée	Smoked trout	+M	+p	+M	+M	+	+	+M	+p	+	+	+	PA	+	+M	+p	+	+	PA	2	1	c
Extension-2017	3586	Maquereau fumé	Smoked maquerel	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	c
Extension-2017	3587	Cabillaud fumé	Smoked cod	+p	+p	+M	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	c
Extension-2017	3588	Queues de crevettes marinées ail-persil	Marinated shrimps	+1/2	+M	+M	+M	+	+	+1/2	+M	+	+	+	PA	+	+1/2	+m	+	+	PA	2	1	c
Extension-2017	3589	Queues de crevettes marinées citron-basilic	Marinated shrimps	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	1	c
Extension-2017	3590	Seiche marinée ail-persil	Marinated cuttlefish	+M	+M	+p	+M	+	+	+M	+M	+	+	+	PA	+	+1/2	+M	+	+	PA	2	1	c
Extension-2017	3591	Anchois marinés ail	Marinated Anchovy	st	st	st	st	-	-	st	st			-	NA						2	1	c	
Extension-2017	4199	Magret de canard	Breast of duck	-	st	-	st	-	-	-	st			-	NA						2	1	c	

COMPOSITE FOODS / READY-TO-EAT AND READY-TO-REHEAT																							
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>											Pro- to- col	Cate- gory	Ty- pe	
				RVS broth		MKTTn broth		Final result	ANSR test result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C								
				XLD	ASAP	XLD	ASAP			Subculture in RVS				Agree- ment 20H	ANSR test result	Subculture in RVS							Agree- ment 20 h +72h
										XLD	ASAP	Latex	Reference method tests results			Final result	XLD	ASAP	Latex				
Extension-2017	4200	Filet de canard	Breast of duck	-	st	-	st	-	-	-	st			-	NA						2	1	c
Extension-2017	4201	Carpaccio au citron vert	Carpaccio	-	-	-	st	-	-	-	-			-	NA						2	1	c
Extension-2017	4202	Carpaccio au basilic	Carpaccio	st	st	-	-	-	-	st	st			-	NA						2	1	c
Extension-2017	4203	Bacon de dinde fumé	Turkey bacon	st	st	st	st	-	-	st	st			-	NA						2	1	c
Extension-2017	4204	Magret de canard	Breast of duck	st	st	-	st	-	-	st	st			-	NA						2	1	c
Extension-2017	4205	Hareng fumé	Smoked herring	st	st	st	st	-	-	st	st			-	NA						2	1	c
Extension-2017	4206	Truite fumée	Smoked trout	-	-	-	st	-	-	-	-			-	NA						2	1	c
Extension-2017	4207	Ailes de poulet à la mexicaine	Ready to eat chicken wings	-	-	-	-	-	-	-	-			-	NA						2	1	c
Extension-2017	4208	Ailes de poulet	Ready to eat chicken wings	-	-	-	st	-	-	-	-			-	NA						2	1	c

MEAT PRODUCTS																									
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>												Protocol	Category	Type		
				RVS broth		MKTTn broth		Final result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C											
				XLD	ASAP	XLD	ASAP		ANSR test result	Subculture in RVS				Agreement 20H	ANSR test result	Subculture in RVS				Agreement 20 h +72h					
										XLD	ASAP	Latex	Reference method tests results			Final result	XLD	ASAP	Latex					Final result	
Initial	5552	Rôti de porc	Pork meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	a	
Initial	5553	Brochettes viande et poivrons	Meat skewers with peppers	+/-1col (NC)	-	-	-	-	+	+M	+M	+	+	+	PD	+	+M	+M	+	+	+	PD	1	2	a
Initial	5554	Brochettes d'abats	Giblets skewers	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	a	
Initial	5555	Filet Ronne	Beef meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	a	
Initial	5556	Sauté de porc	Pork meat	-	-	-	-	-	+	+M	+M	+	+	+	PD	+	+M	+M	+	+	+	PD	1	2	a
Initial	5557	Maigre de porc	Pork meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	a	
Initial	5559	Bacon de cochon	Pork meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	a	
Initial	5560	Maigre de porc	Pork meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	a	
Initial	5565	Rôti filet	Pork meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	a	
Initial	5605	Onglet de cochon	Pork meat	-	-	-	+/-m	+	-	-	-	-	-	-	ND	-	-	-	-	-	-	ND	1	2	a
Initial	5606	Jambon de porc cru	Pork meat	-	-	-	-	-	+	+m	+m	+	+	+	PD	+	+m	+m	+	+	+	PD	1	2	a
Initial	5611	Épaule de porc	Pork meat	-	-	st	st	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	a	
Extension-2017	1979	Rôti de porc	Pork meat	-	-	st	st	-	+	+M	+p	+	+	+	PD	+	+M	+p	+	+	+	PD	1	2	a
Extension-2017	1980	VSM de porc	Mechanically deboned pork meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	a	
Extension-2017	1981	Rôti de porc	Pork meat	-	-	-	-	-	-	st	st	-	-	-	NA	-	st	st	-	-	-	NA	1	2	a
Extension-2017	2047	Onglet de cochon	Pork meat	-	+md/+	+M	+M	+	-	-	st	-	-	-	ND	-	-	-	-	-	-	ND	1	2	a
Extension-2017	2720	Steak de bœuf	Beef trim	+M	+M	+M	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	+	PA	1	2	a
Extension-2017	2721	Pavé en tournedos	Beef trim	+M	+M	+M	+M	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	+	PA	1	2	a
Extension-2017	2722	Bavette d'aloyau	Beef trim	+p	+p	+M	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	+	PA	1	2	a
Extension-2017	2723	Bavette de flancher	Beef trim	-	-	-	-	-	+	+p	+p	+	+	+	PD	+	+p	+p	+	+	+	PD	1	2	a
Extension-2017	2724	Pavé de rumsteck	Beef trim	+m	+1/2	+M	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	+	PA	1	2	a
Extension-2017	2725	Hampe	Beef trim	-	-	-	-	-	+	+M	+p	+	+	+	PD	+	+M	+p	+	+	+	PD	1	2	a
Extension-2017	3336	Steak haché	Ground beef	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	a	
Initial	5550	VSM de dinde	Turkey meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	b	
Initial	5551	Viande rouge avec peau	Poultry red meat with skin	+M	+M	+M	+M	+	+	+1/2	+1/2	+	+	+	PA	+	+M	+M	+	+	+	PA	1	2	b
Initial	5558	Brochette de volaille	Poultry skewer	-	-	+m ni/+ (Hafnia alvei)	+m ni/-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	NA	1	2	b
Initial	5561	Blanquette de poule	Hen meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	b	
Initial	5562	Sauté de dinde	Turkey meat	+M	+M	+M	+m	+	+	+m	+M	+	+	+	PA	+	+M	+M	+	+	+	PA	1	2	b
Initial	5563	Brochettes d'abats	Giblets skewers	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	b	
Initial	5599	Peau de cou de poulet	Chicken neck skin	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	2	b	
Initial	5601	Viande blanche de poulet	Poultry white meat	+/-nil	-	+/-	+m	+	+	+ni/+	+m	+	+	+	PA	+	+m ni/-	+m	+	+	+	PA	1	2	b

MEAT PRODUCTS																									
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>													Protocol	Category	Type	
				RVS broth		MKTTr broth			Final result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C										
				XLD	ASAP	XLD	ASAP	ANSR test result		Subculture in RVS				Agreement 20H	ANSR test result	Subculture in RVS				Agreement 20 h +72h					
										XLD	ASAP	Latex	Reference method tests results			Final result	XLD	ASAP	Latex		Final result				
Initial	5602	Viande broyée de poulet	Ground poultry meat	+/-ni/	-	+/-m	+/-m	+	+	+m	+m	+	+	+	PA	-	+m ni/+	+mni/+	+	-	ND	1	2	b	
Initial	5603	Viande broyée de poulet	Ground poultry meat	-	-	-	-	-	+	-	-	+	+	+	PD	+	-	+1col ni/-	+	+	+	PD	1	2	b
Initial	5607	Brochette de dinde	Turkey skewer	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	-	1	2	b
Initial	5608	Sauté de dinde	Turkey meat	+m	+m	+M	+M	+	+	+m	+1/2	+	+	+	PA	+	+m ni/+	+m	+	+	+	PA	1	2	b
Initial	5609	Viande de poulet broyée	Ground chicken meat	+/-ni/	+m	-	+m	+	+	+m	1/2	+	+	+	PA	+	+m	+1/2	+	+	+	PA	1	2	b
Initial	5610	Viande blanche de poulet	Chicken white meat	+/-m	+3col	+M	+1/2	+	+	d (2)	-	+	+	+	PA	+	+m ni/-	+m	+	+	+	PA	1	2	b
Extension-2017	1982	Viande de poulet	Chicken meat	-	-	-	+md/-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	NA	1	2	b
Extension-2017	1983	VSM de dinde	Mechanically deboned turkey meat	+m	+m/+	+M	+M	+	+	+m	+M	+	+	+	PA	+	+m	+m	+	+	+	PA	1	2	b
Extension-2017	2048	Viande d'aile de poulet	Chicken meat	-	-	-	-	-	+	+m	+m	+	+	+	PD	-	+m	+m	+	-	-	NA	1	2	b
Extension-2017	2054	Viande de dinde	Turkey meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	-	1	2	b
Extension-2017	2546	Viande de dinde	Turkey meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	-	1	2	b
Extension-2017	2550	Filet de poulet	Chicken meat	-	-	-	-	-	-	st	st	-	-	-	NA	-	-	-	-	-	-	-	1	2	b
Initial	5544	Farce	Stuff	+M	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	+	PA	1	2	c
Initial	5545	Gras de mouille	Pork fat	-	-	-	-	-	+	+M	+M	+	+	+	PD	+	+M	+M	+	+	+	PD	1	2	c
Initial	5546	Crépine	Crépine	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	-	1	2	c
Initial	5547	Saucisse	Sausage	-	-	-	-	-	+	+m	+m	+	+	+	PD	+	+M	+1/2	+	+	+	PD	1	2	c
Initial	5548	Chair à saucisse	Sausage meat	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	-	1	2	c
Initial	5549	Préparation chair à saucisse pour chou farci	Stuff	-	-	-	-	-	-	st	st	-	-	-	NA	-	-	-	-	-	-	-	1	2	c
Initial	5564	Travers de porc 1/2 sel	Salted pork meat	-	-	st	st	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	-	1	2	c
Initial	5600	Saucisse artisanale	Sausage	+m	+m	+1/2	+M	+	+	+m	+m	+	+	+	PA	+	+m	+m	+	+	+	PA	1	2	c
Initial	5604	Roulé saumuré	Cured pork meat	+m	+m	+M	+M	+	-	+m	+m	+	+	+	ND	-	+m	+m	+	-	+	ND	1	2	c
Initial	6278	Salami	Salami	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	+	PA	1	2	c
Initial	6279	Bâton de berger	Dehydrated sausage	+M	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	+	PA	1	2	c
Initial	6280	Rosette	Dehydrated sausage	+p	+p	+p	+p	+	+	+M	+p	+	+	+	PA	+	+P	+P	+	+	+	PA	1	2	c
Initial	1244	Coppa	Coppa (fermented meat)	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	-	1	2	c
Initial	1245	Rosette	Rosette (fermented meat)	st	st	st	st	-	-	st	st	-	-	-	NA	-	-	-	-	-	-	-	1	2	c
Initial	1246	Salami	Salami (fermented meat)	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	-	1	2	c
Initial	1247	Salami	Salami (fermented meat)	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	-	1	2	c
Initial	1248	Rosette	Rosette (fermented meat)	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	-	1	2	c
Initial	1249	Rosette	Rosette (fermented meat)	st	st	st	st	-	-	st	st	-	-	-	NA	-	-	-	-	-	-	-	1	2	c

MEAT PRODUCTS																								
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>													Pro- to- col	Cate- gory	Ty- pe
				RVS broth		MKTn broth		Final result	ANSR test result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C					Agree- ment 20 h +72h				
				XLD	ASAP	XLD	ASAP			XLD	ASAP	Latex	Reference method tests results	Final result	Agree- ment 20H	ANSR test result	XLD	ASAP	Latex		Final result			
Initial	1250	Coppa	Coppa (fermented meat)	st	st	st	st	-	-	st	st			-	NA							1	2	c
Initial	1251	Saucisse sèche	Dry sausage	-	-	-	-	-	-	-	-			-	NA							1	2	c
Initial	1252	Saucisson sec	Dry sausage	st	st	st	st	-	-	st	st			-	NA							1	2	c
Initial	1253	Saucisse sèche	Dry sausage	-	-	-	-	-	-	-	-			-	NA							1	2	c
Initial	1294	Coppa	Coppa (fermented meat)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	2	c
Initial	1295	Salami	Salami (fermented meat)	+M	+M	+M	+p	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	1	2	c
Renewal - 2017	1247	Saucisson sec	Low moisture sausage	+p	+p	+p	+p	+	+/(1)	+p	+	+	+	+	PA	+/(1)	+p	+p	+	+	PA	1	2	c
Renewal - 2017	1248	Rosette	Low moisture sausage	+p	+p	+p	+p	+	+/(1)	+p	+	+	+	+	PA	+/(1)	+M	+M	+	+	PA	1	2	c
Renewal - 2017	1249	Saucisson sec	Low moisture sausage	st	st	st	st	-	-/(1)	st			-	-	NA							1	2	c
Renewal - 2017	1250	Coppa	Low moisture ham	st	st	st	st	-	-/(1)	st			-	-	NA							1	2	c

MILK AND DAIRY PRODUCTS																								
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>													Pro- tocol	Cate- gory	Ty- pe
				RVS broth		MKTn broth		Final result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C										
				XLD	ASAP	XLD	ASAP		ANSR test result	Subculture in RVS				Agree- ment 20H	ANSR test result	Subculture in RVS				Agree- ment 20 h +72h				
										XLD	ASAP	Latex	Reference method tests results			Final result	XLD	ASAP	Latex		Final result			
Initial	6281	Gouda cumin lait pasteurisé	Pasteurized milk cheese	+p	+p	+p	+p	+	-	st	st			-	ND	-	st	st		-	ND	1	3	a1
Initial	6282	Etorki fromage de brebis au lait pasteurisé	Pasteurized ewe milk cheese	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	3	a1
Initial	6533	Lait pasteurisé entier	Pasteurize milk	st	st	st	st	-	-	st	st			-	NA							1	3	a1
Initial	6534	Bleu des causses au lait pasteurisé	Pasteurize cheese	-	st	st	st	-	-	st	st			-	NA							1	3	a1
Initial	6535	Bûche de chèvre au lait pasteurisé	Pasteurize cheese	st	st	st	st	-	-	st	st			-	NA							1	3	a1
Initial	1042	Fromage vieux pané pasteurisé	Pasteurize cheese	-	-	-	-	-	-	-	-			-	NA							1	3	a1
Initial	1043	Fromage des chaumes pasteurisé	Pasteurize cheese	+M	+M	+M	+M	+	+	+P	+P	+	+	+	PA	+	+P	+P	+	+	PA	1	3	a1
Initial	1052	Lou Perac pasteurisé	Pasteurize cheese	-	-	-	-	-	-	st	st			-	NA							1	3	a1
Initial	1053	Saint Albray pasteurisé	Pasteurize cheese	-	-	-	-	-	-	-	-			-	NA							1	3	a1
Initial	1054	Ossau d'Iraty de brebis pasteurisé	Pasteurize cheese	st	st	-	-	-	-	-	-			-	NA							1	3	a1
Extension-2017	2547	Lait pasteurisé demi écrémé	Pasteurized milk	st	st	st	st	-	-	st	st			-	NA							1	3	a1
Extension-2017	2737	Camembert au lait pasteurisé	Pasteurized milk cheese	-	-	-	-	-	-	st	st			-	NA							1	3	a1
Initial	6077	Poudre de lait entier	Whole milk powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	3	a2
Initial	6078	Poudre de lait 1/2 écrémé	Half skimmed milk powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	3	a2
Initial	6079	Poudre de lait écrémé	Skimmed milk powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	3	a2
Initial	6080	Poudre de lait entier	Milk powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	3	a2
Initial	6105	Poudre de lait entier	Whole milk powder	st	st	st	st	-	-	st	st			-	NA							2	3	a2
Initial	6106	Poudre de lait demi écrémé	Half skimmed milk powder	st	st	st	st	-	i/-	st	st			-	NA							2	3	a2
Initial	6107	Poudre de lait écrémé	Skimmed milk powder	st	st	st	st	-	-	st	st			-	NA							2	3	a2
Initial	6108	Poudre de lait entier	Whole milk powder	st	st	st	st	-	-	st	st			-	NA							2	3	a2
Initial	1352	Poudre de lait	Milk powder	+p	+p	+p	+p	+	-/-	+p	+p	+	+	-	ND	-/-	st	st	/	-	ND	2	3	a2
Initial	1353	Poudre de lait	Milk powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	3	a2
Initial	1354	Poudre de lait	Milk powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	3	a2
Initial	6427	Lait fermenté	Fermented milk	st	st	st	st	-	+	+p	+p	+	+	+	PD	+	+p	+p	+	+	PD	1	3	b
Initial	6428	Lait ribot tradition bretonne	Fermented milk	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	3	b
Initial	6429	Lait ribot maigre	Fermented milk	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	3	b
Initial	6230	Lait ribot entier	Fermented milk	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	3	b
Initial	6431	Faisselle Rians	Fermented milk	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	3	b
Initial	6528	Lait ribot	Fermented milk	st	st	st	st	-	-	st	st			-	NA							1	3	b
Initial	6529	Lait fermenté entier	Fermented milk	st	st	st	st	-	-	st	st			-	NA							1	3	b
Initial	6530	Lait fermenté maigre	Fermented milk	st	st	st	st	-	-	st	st			-	NA							1	3	b
Initial	6531	Lait fermenté	Fermented milk	st	st	st	st	-	-	st	st			-	NA							1	3	b
Initial	6532	Faisselle	Fermented milk	st	st	st	st	-	-	st	st			-	NA							1	3	b

MILK AND DAIRY PRODUCTS																								
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>													Protocol	Category	Type
				RVS broth		MKTTn broth		Final result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C										
				XLD	ASAP	XLD	ASAP		ANSR test result	Subculture in RVS				Agreement 20H	ANSR test result	Subculture in RVS				Agreement 20 h +72h				
										XLD	ASAP	Latex	Reference method tests results			Final result	XLD	ASAP	Latex		Final result			
Initial	1254	Gros lait fermier	Fermented milk	st	st	st	st	-	-	-	-	-	-	-	NA						1	3	b	
Initial	1255	Lait ribot fermenté maigre	Fermented milk	st	st	st	st	-	-	st	st			-	NA						1	3	b	
Initial	1256	Lait fermenté	Fermented milk	st	st	st	st	-	-	st	st			-	NA						1	3	b	
Initial	1257	Lait ribot fermenté entier	Fermented milk	st	st	st	st	-	-	st	st			-	NA						1	3	b	
Initial	1258	Lait ribot fermenté	Fermented milk	st	st	st	st	-	-	st	st			-	NA						1	3	b	
Initial	1298	Lait ribot fermenté maigre	Fermented milk	st	st	st	st	-	+	+p	-	+	+	+	PD	+	+p	-	+	+	PD	1	3	b
Initial	1299	Lait ribot fermenté entier	Fermented milk	+p	-	st	st	+	+	+p	-	+	+	+	PA	+	+p	-	+	+	PA	1	3	b
Initial	1300	Lait fermenté	Fermented milk	+p	-	+p	-	+	+	+p	-	+	+	+	PA	+	+p	-	+	+	PA	1	3	b
Initial	1301	Lait ribot fermenté	Fermented milk	+p	-	st	st	+	+	+p	-	+	+	+	PA	+	+p	-	+	+	PA	1	3	b
Initial	1302	Gros lait fermier	Fermented milk	st	st	st	st	-	+	+p	+M	+	+	+	PD	+	+M	+M	+	+	PD	1	3	b
Initial	1303	Lait ribot fermenté maigre	Fermented milk	st	st	st	st	-	+	+p	+M	+	+	+	PD	+	+p	+p	+	+	PD	1	3	b
Initial	1304	Lait ribot fermenté entier	Fermented milk	st	st	st	st	-	-	st	st			-	NA						1	3	b	
Initial	5543	Fromage au lait cru de vache	Raw milk cheese	-	-	-	-	-	-	-	-			-	NA						1	3	c	
Initial	5590	Lait cru	Raw milk	-	+m	+3col	+1/2	+	+	+m	+m	+	+	+	PA	+	+m	+m	+	+	PA	1	3	c
Initial	5591	Lait cru	Raw milk	+4col	+1/2	+m	+M	+	+	+M	+M	+	+	+	PA	+	+m	+1/2	+	+	PA	1	3	c
Initial	5592	Saint Félicien au lait cru	Raw milk cheese	+1/2	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+m	+M	+	+	PA	1	3	c
Initial	5593	Camembert au lait cru	Raw milk cheese	+m	+m	+M	+M	+	+	+m	+m	+	+	+	PA	+	+m	+M	+	+	PA	1	3	c
Initial	5594	Camembert au lait cru	Raw milk cheese	+1/2	+M	+m	+1/2	+	+	+M	+m	+	+	+	PA	+	+m	+m	+	+	PA	1	3	c
Initial	5595	Saint-Nectaire au lait cru	Raw milk cheese	+m	+M	+1col	+m	+	+	+M	+M	+	+	+	PA	+	+m	+M	+	+	PA	1	3	c
Initial	5596	Bethmale au lait cru	Raw milk cheese	+m	+m	+M	+M	+	+	+1/2	+1/2	+	+	+	PA	+	+m	+m	+	+	PA	1	3	c
Initial	5597	Reblochon au lait cru	Raw milk cheese	+M	+M	+m	+1/2	+	+	+M	+M	+	+	+	PA	+	+m	+M	+	+	PA	1	3	c
Initial	5598	Morbier au lait cru	Raw milk cheese	+M	+M	+m	+1/2	+	+	+M	+1/2	+	+	+	PA	+	+M	+M	+	+	PA	1	3	c
Initial	6536	Lait cru	Raw milk	-	-	-	-	-	-	-	-			-	NA						1	3	c	
Initial	6537	Lait cru fermier	Raw milk	-	-	-	-	-	-	-	-			-	NA						1	3	c	
Initial	6538	Beaufort au lait cru	Raw milk cheese	st	st	st	st	-	-	st	st			-	NA						1	3	c	
Initial	6539	Comté au lait cru	Raw milk cheese	st	st	st	st	-	-	st	st			-	NA						1	3	c	
Initial	6540	Comté au lait cru	Raw milk cheese	st	st	st	st	-	-	st	st			-	NA						1	3	c	
Initial	6541	Gruyère au lait cru	Raw milk cheese	st	st	st	st	-	-	st	st			-	NA						1	3	c	
Initial	1044	Brie de meaux au lait cru	Raw milk cheese	+P	-(white colonies)	+P	-(white colonies)	+	+	d (5)	-	+	+	+	PA	+	+m ni / +	-	+	+	PA	1	3	c
Initial	1051	Brie de Meaux au lait cru	Raw milk cheese	-	-	-	-	-	-	-	-			-	NA						1	3	c	
Initial	1339	Lait cru	Raw milk	-	-	-	-	-	-	-	-			-	NA						1	3	c	
Initial	1340	Lait cru	Raw milk	-	-	-	-	-	-	-	-			-	NA						1	3	c	
Initial	1370	Gruyère au lait cru	Raw milk cheese	+p	-	+p	-	+	+	+p	-	+	+	+	PA	+	+p	-	+	+	PA	1	3	c
Initial	1371	Comté au lait cru	Raw milk cheese	+p	-	+p	-	+	+	+p	-	+	+	+	PA	+	+M	-	+	+	PA	1	3	c
Extension-2017	2052	Camembert au lait cru	Raw milk cheese (camembert)	-	-	-	-	-	-	-	-			-	NA						1	3	c	
Extension-2017	3335	Lait cru	Raw milk	-	-	-	-	-	-	-	-			-	NA						1	3	c	



SEAFOOD AND VEGETABLES																								
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>													Protocol	Category	Type
				RVS broth		MKTn broth			Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C										
				XLD	ASAP	XLD	ASAP	Final result	ANSR test result	Subculture in RVS					Agreement 20H	ANSR test result	Subculture in RVS				Agreement 20 h +72h			
										XLD	ASAP	Latex	Reference method tests results	Final result			XLD	ASAP	Latex	Final result				
Initial	1046	Filet de sabre cru	Fish fillet	st	st	-	-	-	-	st	st			-	NA						1	4	a	
Initial	1049	Filet de colin surgelé cru	Raw frozen fish fillet	st	st	-	st	-	-	st	st			-	NA						1	4	a	
Initial	1050	Filet de cabillaud surgelé cru	Raw frozen cod fillet	st	-	-	-	-	-	st	st			-	NA						1	4	a	
Initial	1056	Filet de sabre cru	Raw fish fillet	st	st	-	+P(NC)	-	-	-	-			-	NA						1	4	a	
Initial	1057	Cabillaud surgelé	Frozen cod	st	st	-	st	-	-	-	-			-	NA						1	4	a	
Initial	1058	Colin surgelé	Frozen fish	st	st	-	-	-	-	st	st			-	NA						1	4	a	
Initial	1064	Colin d'Alaska	Fish fillet	st	st	st	st	-	-	st	st			-	NA						1	4	a	
Initial	1372	Coeurs de filets de cabillaud surgelé	Frozen cod fillet	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	4	a
Initial	1373	Filets de colin surgelés	Frozen fish fillet	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	4	a
Initial	1374	Filet de sabre surgelé	Frozen fish fillet	+p	+p	+p	+p	+	+	+M	+p	+	+	+	PA	+	+M	+M	+	+	PA	1	4	a
Initial	1375	Filet de cabillaud surgelé cru	Frozen cod fillet	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	4	a
Extension-2017	1985	Colin d'alaska surgelé	Frozen fish fillet	st	st	st	st	-	-	st	st			-	NA						1	4	a	
Extension-2017	2007	Filet de sardine	Pilchard fillet	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+M	+M	+	+	PA	1	4	a
Extension-2017	2008	Filet de vieille	Fish fillet	+M	+p	+M	+M	+	+	+p	+p	+	+	+	PA	+	+M	+M	+	+	PA	1	4	a
Extension-2017	2055	Fillet de vieille	Fish fillet	-	-	-	-	-	-	-	st			-	NA						1	4	a	
Extension-2017	2543	Filet de tacaud	Fish fillet	+M	+M	+M	+M	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	4	a
Extension-2017	2544	Pavé de saumon	Fish fillet	-	-	+md/-	+md	-	-	+p	+p	+	+	-	NA	-	+p	+p	+	-	NA	1	4	a
Extension-2017	2545	Filet de merlan	Fish fillet	+M	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	1	4	a
Extension-2017	2548	Filet de mulot	Fish fillet	-	-	-	-	-	-	st	st			-	NA						1	4	a	
Extension-2017	4187	Filet de julienne	Fish fillet	st	st	-	-	-	-	-	st			-	NA						1	4	a	
Initial	1045	Pousse d'épinard cru	Raw spinach	+M	+M	+M	+M	+	+	+1/2	+M	+	+	+	PA	+	+m	+M	+	+	PA	1	4	b
Initial	1055	Pousses d'épinards	Spinashes	-	-	-	-	-	-	+d ni / -	+d ni / +	-	-	-	NA	-	+m ni / -	+m ni / +/- (ox+)			NA	1	4	b
Extension-2017	1986	Tendres pousses (mâche, épinard, laitue verte et rouge)	Baby leaves	st	st	-	+md/+d (ox +)	-	-	st	st			-	NA						1	4	b	
Extension-2017	1987	Mélange jeunes pousses	Baby leaves	-	-	-	-	-	-	st	st			-	NA						1	4	b	
Extension-2017	1988	Graines germées (alfalfa/roquette)	Sprouts	-	-	-	-	-	-	-	-			-	NA						1	4	b	
Extension-2017	2003	Tendres pousses (mâche, épinard, laitue verte et rouge)	Baby leaves	-	-	-	-	-	+	-	+p	+	+	+	PD	+	-	+M	+	+	PD	1	4	b

## SEAFOOD AND VEGETABLES

Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>														Protocol	Category	Type
				RVS broth		MKTn broth		Final result	ANSR test result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C										
				XLD	ASAP	XLD	ASAP			Subculture in RVS					Agreement 20H	ANSR test result	Subculture in RVS				Agreement 20 h +72h				
										XLD	ASAP	Latex	Reference method tests results	Final result			XLD	ASAP	Latex	Final result					
Extension-2017	2004	Mélange jeunes pousses	Baby leaves	+p	+p	+M	+p	+	-/-	+p	+p	+	+	-	ND	-	+M	+M	+	-	ND	1	4	b	
Extension-2017	2549	Mélange de jeunes pousses	Baby leaves	-	-	-	-	-	-	st	st			-	NA							1	4	b	
Extension-2017	2726	Graines germées (Alfalfa)	Sprouts	-	-	-	+md/-	-	+	+M	+m	+	+	+	PD	+	+M	+m	+	+	PD	1	4	b	
Extension-2017	2727	Graines germées (Alfalfa et roquettes)	Sprouts	-	-	+m/+ (API= Citrobacter)	+md/-	-	+	+M	+M	+	+	+	PD	+	+M	+1/2	+	+	PD	1	4	b	
Extension-2017	2728	Persil	Parsley	+M	+M	+1/2	+M	+	+	+M	+M	+	+	+	PA	+	+M	+1/2	+	+	PA	1	4	b	
Extension-2017	2729	Ciboulette	Chives	+m	+M	+m	+m	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	1	4	b	
Extension-2017	2738	Mélange de jeunes pousses (laitue/roquette/épinard)	Baby leaves	-	-	-	-	-	-	st	st			-	NA							1	4	b	
Extension-2017	3313	Tendres pousses (mâche, laitue, épinard)	Baby leaves	+M	+M	+M	+M	+	+	+M	+p	+	+	+	PA	+	+M	+p	+	+	PA	1	4	b	
Extension-2017	3314	Pousse d'épinards	Baby spinach	+M	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+1/2	+m	+	+	PA	1	4	b	
Extension-2017	3315	Jeunes pousses (red chard, roquette, épinard)	Baby leaves	-	-	-	+md/-	-	+	+M	+M	+	+	+	PD	+	+M	+p	+	+	PD	1	4	b	
Extension-2017	3316	Pousses d'épinards	Baby spinach	+M	+p	+M	+p	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	1	4	b	
Extension-2017	3334	Ciboulette	Chives	-	-	-	-	-	-	-	-			-	NA							1	4	b	
Extension-2017	4188	Graines germées (radis)	Sprouts (radish)	-	-	-	-	-	-	-	-			-	NA							1	4	b	
Extension-2017	4189	Graines germées (poireau)	Sprouts (leek)	-	-	-	-	-	+	-	-			-	PPNA							1	4	b	
Initial	1047	Petits pois surgelés crus	Raw frozen peas	+M	+M	+M	+M	+	+	+M	+1/2	+	+	+	PA	+	+m	+m	+	+	PA	1	4	c	
Initial	1048	Haricots verts surgelés crus	Raw frozen beans	+M	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	1	4	c	
Initial	1059	Courgette surgelée	Frozen courgettes	+M	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+M	+M	+	+	PA	1	4	c	
Initial	1060	Poireaux surgelés	Frozen leeks	+M	+M	+M	+M	+	+	+1/2	+M	+	+	+	PA	+	+m	+M	+	+	PA	1	4	c	
Initial	1061	Épinards hâchés surgelés	Frozen spinashes	-	-	-	-	-	-	-	-			-	NA							1	4	c	
Initial	1062	Petits pois surgelés	Frozen peas	-	-	-	-	-	-	-	-			-	NA							1	4	c	
Initial	1063	Haricots	Beans	+P	+P	+M	+M	+	+	+M	+p	+	+	+	PA	+	+M	+p	+	+	PA	1	4	c	
Extension-2017	1989	Persil	Parsley	st	st	-	-	-	-	st	st			-	NA							1	4	c	
Extension-2017	1990	Ananas en morceaux	Pieces of pineapple	st	st	st	st	-	-	st	st			-	NA							1	4	c	
Extension-2017	2005	Ananas en morceaux	Pieces of pineapple	st	-	-	-	-	-	st	st			-	NA	-	-	st				1	4	c	
Extension-2017	2053	Ananas en morceaux	Pieces of pineapple	-	-	-	-	-	-	st	st			-	NA							1	4	c	
Extension-2017	2742	Carottes rapées non assaisonnées	Grated carrots	-	-	-	-	-	-	-	-			-	NA							1	4	c	

SEAFOOD AND VEGETABLES																								
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				RVS broth		MKTTn broth		Final result	ANSR test result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C									
				XLD	ASAP	XLD	ASAP			Subculture in RVS					Agree- ment 20H	ANSR test result	Subculture in RVS				Agree- ment 20 h +72h			
										XLD	ASAP	Latex	Reference method tests results	Final result			XLD	ASAP	Latex	Final result				
Extension- 2017	3324	Mélange 5 fruits (ananas, orange, pomme, kiwi, grenade)	Mix of 5 fruits (pineapple, orange, apple, kiwi, grenade)	+p	+p	+p	+p	+	-	st	st			-	ND	-	st	st		-	ND	1	4	c
Extension- 2017	3325	Mélange 5 fruits (ananas, orange, pomme, kiwi, grenade)	Mix of 5 fruits (pineapple, orange, apple, kiwi, grenade)	st	st	st	st	-	+	+p	+p	+	+	+	PD	+	+p	+p	+	+	PD	1	4	c
Extension- 2017	3326	Mélange pomme et raisin	Mix of apple and grape	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	4	c
Extension- 2017	3327	Mélange pomme et raisin	Mix of apple and grape	st	st	st	st	-	+	+p	+p	+	+	+	PD	+	+p	+p	+	+	PD	1	4	c
Extension- 2017	3328	Carottes rapées non assaisonnées	Grated carrots	+p	+p	+M	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	4	c
Extension- 2017	3329	Mélange chou blanc, carottes, céleri branche)	Mix of white cabbage, carrots, celery stick)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	4	c
Extension- 2017	4195	Courgette surgelée	Frozen zucchini	-	-	+M (Citrobacter youngae)	-	-	-	st	st			-	NA							1	4	c
Extension- 2017	4196	Epinards en branche surgelés	Frozen spinach	-	-	-	-	-	-	-	-			-	NA							1	4	c

EGG PRODUCTS																								
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				RVS broth		MKTTn broth		Final result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C					Agreement 20 h +72h					
				XLD	ASAP	XLD	ASAP		ANSR test result	Subculture in RVS				Agreement 20H	ANSR test result	Subculture in RVS								
										XLD	ASAP	Latex	Reference method tests results			Final result	XLD	ASAP		Latex	Final result			
Extension-Data 2013	6081	Poudre de jaune d'œuf	Egg yolk powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	a
Extension-Data 2013	6082	Poudre de jaune d'œuf	Egg yolk powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	a
Extension-Data 2013	6085	Poudre d'œuf entier	Whole egg powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	a
Extension-Data 2013	6086	Poudre d'œuf entier	Whole egg powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	a
Extension-Data 2013	6087	Poudre de blanc d'œuf	Egg white powder	+p	+p	+p	+p	+	i/+	+p	+p	+	+	+	PA	i/+	+p	+p	+	+	PA	2	5	a
Extension-Data 2013	6088	Poudre de blanc d'œuf	Egg white powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	a
Extension-Data 2013	6089	Poudre d'œuf entier	Whole egg powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	a
Extension-Data 2013	6090	Poudre d'œuf entier	Whole egg powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	a
Extension-Data 2013	6091	Poudre de jaune d'œuf	Egg yolk powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	a
Extension-Data 2013	6092	Poudre d'œuf entier	Whole egg powder	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	a
Extension-Data 2013	6109	Poudre de jaune d'œuf	Whole egg powder	st	st	st	st	-	-	st	st			-	NA							2	5	a
Extension-Data 2013	6110	Poudre de jaune d'œuf	Whole egg powder	st	st	st	st	-	-	st	st			-	NA							2	5	a
Extension-Data 2013	6111	Poudre de blanc d'œuf	Egg white powder	st	st	st	st	-	i/-	st	st			-	NA							2	5	a
Extension-Data 2013	6112	Poudre de blanc d'œuf	Egg white powder	st	st	st	st	-	-	st	st			-	NA							2	5	a
Extension-Data 2013	6113	Poudre d'œuf entier	Whole egg powder	st	st	st	st	-	-	st	st			-	NA							2	5	a
Extension-Data 2013	6114	Poudre d'œuf entier	Whole egg powder	st	st	st	st	-	-	st	st			-	NA							2	5	a
Extension-Data 2013	6115	Poudre de blanc d'œuf	Egg white powder	st	st	st	st	-	ii/-	st	st			-	NA							2	5	a
Extension-Data 2013	6116	Poudre de blanc d'œuf	Egg white powder	st	st	st	st	-	-	st	st			-	NA							2	5	a
Extension-Data 2013	6117	Poudre d'œuf entier	Whole egg powder	st	st	st	st	-	-	st	st			-	NA							2	5	a
Extension-Data 2013	6118	Poudre d'œuf entier	Whole egg powder	st	st	st	st	-	-	st	st			-	NA							2	5	a
Extension-Data 2013	6432	Coule œuf entier pasteurisée	Whole pasteurized egg product	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	b
Extension-Data 2013	6433	Coule œuf entier pasteurisée	Whole pasteurized egg product	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	b
Extension-Data 2013	6434	Coule œuf entier pasteurisée	Whole pasteurized egg product	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	b
Extension-Data 2013	6542	Coule d'œuf pasteurisée	Pasteurize whole egg	st	st	st	st	-	-	st	st			-	NA							2	5	b
Extension-Data 2013	1943	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	b

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				RVS broth		MKTTn broth		Final result	ANSR test result	Incubation : 20 h					Agree- ment 20H	ANSR test result	Incubation : 20 h + storage for 72 h at 5°C ± 3°C				Agree- ment 20 h +72h			
				XLD	ASAP	XLD	ASAP			Subculture in RVS				XLD			ASAP	Latex	Final result					
										Reference method tests results	XLD	ASAP	Latex							Final result				
Extension- Data 2013	1944	Coule de blanc d'œuf pasteurisée	Pasteurised white egg product	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	b
Extension- Data 2013	1945	Coule de jaune d'œuf pasteurisée	Pasteurised egg yolk product	+M	+p	+M	+p	+	+	+M	+p	+	+	+	PA	+	+M	+p	+	+	PA	2	5	b
Extension- Data 2013	1946	Coule de blanc d'œuf pasteurisée	Pasteurised white egg product	-	-	-	-	-	-	-	-	-	-	-	NA							2	5	b
Extension- Data 2013	1947	Coule de jaune d'œuf pasteurisée	Pasteurised egg yolk product	+M	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+m	+M	+	+	PA	2	5	b
Extension- Data 2013	1948	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	b
Extension- Data 2013	1949	Coule de blanc d'œuf pasteurisée	Pasteurised white egg product	+p	+M	+M	+M	+	+	+p	+M	+	+	+	PA	+	+p	+M	+	+	PA	2	5	b
Extension- Data 2013	1950	Jaune d'œuf sucré pasteurisé	Pasteurised egg yolk product with sugar	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	b
Extension- Data 2013	1951	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	+p	+p	+m	+p	+	+	+p	+p	+	+	+	PA	+	+M	+p	+	+	PA	2	5	b
Extension- Data 2013	1952	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	st	st	st	st	-	-	st	st			-	NA							2	5	b
Extension- Data 2013	1953	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	-	-	-	-	-	-	-	-			-	NA							2	5	b
Extension- Data 2013	1954	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	-	-	-	-	-	-	-	-			-	NA							2	5	b
Extension- Data 2013	1955	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	-	-	-	-	-	-	-	-			-	NA							2	5	b
Extension- Data 2013	1956	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	-	-	-	-	-	-	-	-			-	NA							2	5	b
Extension- Data 2013	1957	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	st	st	st	st	-	-	st	st			-	NA							2	5	b
Extension- Data 2013	1958	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	-	-	-	-	-	-	-	-			-	NA							2	5	b
Extension- Data 2013	1959	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	st	st	st	st	-	-	st	st			-	NA							2	5	b
Extension- Data 2013	1960	Coule d'œuf entier pasteurisée	Pasteurised whole egg product	-	-	-	-	-	-	-	-			-	NA							2	5	b
Extension- Data 2013	6435	Crème anglaise	English cream	+p	+p	+p	+p	+	i/i /i+	+p	+p	+	+	+	PA	i*/+	+p	+p	+	+	PA	2	5	c
Extension- Data 2013	6438	Crème aux œufs	Egg cream	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	c
Extension- Data 2013	6439	Ille flottante	Dairy and egg based dessert	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	c
Extension- Data 2013	6440	Crème brûlée	Dairy and egg based dessert	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	c
Extension- Data 2013	6441	Clafoutis	Clafoutis	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	c
Extension- Data 2013	6442	Mayonnaise tradition	Mayonnaise	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	c
Extension- Data 2013	6443	Mayonnaise citron	Mayonnaise with lemon	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	c
Extension- Data 2013	6444	Mayonnaise ancienne	Mayonnaise	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	c

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				RVS broth		MKTn broth		Final result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C										
				XLD	ASAP	XLD	ASAP		ANSR test result	Subculture in RVS				Agreement 20H	ANSR test result	Subculture in RVS							Agreement 20 h +72h	
										XLD	ASAP	Latex	Reference method tests results			Final result	XLD	ASAP	Latex					Final result
Extension-Data 2013	6544	Crème anglaise	Custard	st	st	st	st	-	i/*-	st	st			-	NA						2	5	c	
Extension-Data 2013	6545	Mayonnaise au citron	Lemon mayonnaise	st	st	st	st	-	-	st	st			-	NA						2	5	c	
Extension-Data 2013	6546	Mayonnaise	Mayonnaise	st	st	st	st	-	-	st	st			-	NA						2	5	c	
Extension-Data 2013	6547	Mayonnaise	Mayonnaise	st	st	st	st	-	-	st	st			-	NA						2	5	c	
Extension-Data 2013	6548	Crème brûlée	Egg based dessert	st	st	st	st	-	-	st	st			-	NA						2	5	c	
Extension-Data 2013	6549	Crème aux œufs saveur vanille	Egg based dessert	st	st	st	st	-	-	st	st			-	NA						2	5	c	
Extension-Data 2013	6551	Clafoutis cerises	Egg based dessert	st	st	st	st	-	-	st	st			-	NA						2	5	c	
Extension-Data 2013	6552	Ile flottante	Egg based dessert	st	st	st	st	-	-	st	st			-	NA						2	5	c	
Extension-2017	3322	Mayonnaise	Mayonnaise	st	st	st	st	-	-	st	st			-	NA						2	5	c	
Extension-2017	3323	Crème aux œufs	Egg cream	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	2	5	c
Extension-2017	4197	Crème pâtissière	Custard	st	st	st	st	-	-	st	st			-	NA						2	5	c	
Extension-2017	4198	Crème brûlée	Egg based dessert	st	st	st	st	-	-	st	st			-	NA						2	5	c	

FEED PRODUCTS																								
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>												Protocol	Category	Type	
				RVS broth		MKTn broth		Final result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C										
				XLD	ASAP	XLD	ASAP		ANSR test result	Subculture in RVS				Agreement 20H	ANSR test result	Subculture in RVS				Agreement 20 h +72h				
										XLD	ASAP	Latex	Reference method tests results			Final result	XLD	ASAP	Latex					Final result
Extension-Data 2013	5539	Maigre alimentation animale	Feed stuff raw material	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	1	6	a	
Extension-Data 2013	5540	Matière première alimentation animale (maigre de porc)	Feed stuff raw material	+m ni/+	+m	+m ni/+	+m	+	+	+m	+m	+	+	+	PA	+	+m ni/+	+m	+	+	PA	1	6	a
Extension-Data 2013	5541	Sang saignée	Blood	-	-	-	-	-	-	st	st	-	-	-	NA	-	-	-	-	-	1	6	a	
Extension-Data 2013	5542	Abats matière première alimentation animale	Feed stuff raw material	-	-	st	st	-	-	-	-	-	-	-	NA	-	-	-	-	-	1	6	a	
Extension-Data 2013	6285	Viande bovine pour animaux	Raw meat for pet	+p	+p	+M	+M	+	+	+M	+M	+	+	+	PA	+	+M	+p	+	+	PA	1	6	a
Extension-Data 2013	6286	Viande bovine pour animaux	Raw meat for pet	+m	+M	+M	+M	+	+	+M	+M	+	+	+	PA	+	+M	+p	+	+	PA	1	6	a
Extension-Data 2013	6287	Viande bovine pour animaux	Raw meat for pet	+M	+M	+M	+M	+	-/-	+m	+m	+	+	-	ND	-/-	+1/2	+M	+	-	ND	1	6	a
Extension-Data 2013	1259	Viande pour animaux	Raw beef meat for pet	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	1	6	a	
Extension-Data 2013	1260	Viande pour animaux	Raw beef meat for pet	-	-	+/-m ni / -	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	1	6	a	
Extension-Data 2013	1305	Viande pour animaux	Raw beef meat for pet	-	-	+m (C.youngae)	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	1	6	a	
Extension-Data 2013	1306	Viande pour animaux	Raw beef meat for pet	+mni / -	-	-	-	-	+	+M	+M	+	+	+	PD	+	+M	+m	+	+	PD	1	6	a
Extension-Data 2013	1307	Viande pour animaux	Raw beef meat for pet	-	-	-	+m ni / -	-	-	-	-	-	-	-	NA	-	-	-	-	-	1	6	a	
Extension-Data 2013	2234	Matière première animale (graisse fondue)	Raw material (fat)	+p	+p	+p	+p	+	-	-	-	-	-	ND	-	st	st	-	-	ND	1	6	a	
Extension-Data 2013	2506	Viande pour animaux	Raw meat for pet	-	-	-	-	-	+	-	+M	+	+	+	PD	+	-	+M	+	+	PD	1	6	a
Extension-Data 2013	2507	Viande pour animaux	Raw meat for pet	-	-	-	-	-	-/+	+(3)	+p	+	+	-	NA	+	+m	+M	+	+	PD	1	6	a
Extension-Data 2013	2508	Viande pour animaux	Raw meat for pet	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	NA	1	6	a
Extension-Data 2013	2966	Matière première alimentation animale (Sang industriel)	Raw material for feed (haemoglobin)	-	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	1	6	a	
Extension-Data 2013	2967	Viande pour animaux	Raw meat for pets	+M	+M	+M	+M	+	-/-	+mni/+	+1/2ni/+	+	+	-	ND	-/-	-	+M	+	-	ND	1	6	a
Extension-Data 2013	2968	Viande pour animaux	Raw meat for pets	-	-	-	-	-	+	+m	+M	+	+	+	PD	+	+1col/+	+M	+	+	PD	1	6	a
Extension-Data 2013	2969	Viande pour animaux	Raw meat for pets	st	st	st	st	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	6	a	
Extension-Data 2013	2970	Viande pour animaux	Raw meat for pets	-	-	-	-	-	-	-	-	-	-	NA	-	-	-	-	-	-	1	6	a	
Extension-Data 2013	2971	Matière première alimentation animale	Raw material for feed	+m	+1/2	+M	+M	+	-/-	+m	+M	+	+	-	ND	-/-	+mni/+	+M	+	-	ND	1	6	a
Extension-Data 2013	2972	Matière première alimentation animale	Raw material for feed	+M	+M	+M	+M	+	-/-	+M	+M	+	+	-	ND	-/-	+M	+M	+	-	ND	1	6	a

FEED PRODUCTS																								
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>													Protocol	Category	Type
				RVS broth		MKTTn broth		Final result	Incubation : 20 h					Incubation : 20 h + storage for 72 h at 5°C ± 3°C										
				XLD	ASAP	XLD	ASAP		ANSR test result	Subculture in RVS				Agreement 20H	ANSR test result	Subculture in RVS				Agreement 20 h +72h				
										XLD	ASAP	Latex	Reference method tests results			Final result	XLD	ASAP	Latex		Final result			
Extension-Data 2013	2973	Viande pour animaux	Raw meat for pets	-	-	-	-	-	-	-	-	-	-	-	NA						1	6	a	
Extension-Data 2013	2974	Viande pour animaux	Raw meat for pets	-	-	-	-	-	-	-	-	-	-	NA							1	6	a	
Extension-Data 2013	5536	Protéines poudre	Proteins powder	-	-	-	-	-	-	-	-	-	-	NA							1	6	b	
Extension-Data 2013	5537	Matière première alimentation animale déshydratée	Feed stuff raw material	st	st	st	st	-	-	-	-	-	-	NA							1	6	b	
Extension-Data 2013	5538	Matière première alimentation animale déshydratée	Feed stuff raw material	-	-	-	-	-	-	-	-	-	-	NA							1	6	b	
Extension-Data 2013	5616	Croquettes pour chats	Cat pellets	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	b
Extension-Data 2013	5617	Croquettes pour chiens	Dog pellets	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	b
Extension-Data 2013	5618	Croquettes pour chiens	Dog pellets	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	b
Extension-Data 2013	5619	Protéines poudre	Proteins powder	+m (Citrobacter youngae)	-	+p (Citrobacter youngae)	-	-	-	-	-	-	-	NA							1	6	b	
Extension-Data 2013	1309	Croquettes pour chats poulet et riz	Pellets for cat	-	-	-	-	-	+	+p	+p	+	+	+	PD	+	+p	+p	+	+	PD	1	6	b
Extension-Data 2013	1319	Matière première alimentation animale (Farine entrée sécheur)	Pet food powder	+/- m ni / +	+m	+1/2	+M	+	+	+mni / +	+m	+	+	+	PA	+	+m	+m	+	+	PA	1	6	b
Extension-Data 2013	1324	Matière première alimentation animale (Farine de sang)	Pet food powder	+M	+M	+M	+M	+	i/-	-	-	-	-	ND	-	-	-	-	-	-	ND	1	6	b
Extension-2017	2553	Croquettes pour chat (bœuf/volaillon/poisson)	Pellets for cats	st	st	st	st	-	-	st	st	-	-	NA							1	6	b	
Extension-2017	2739	Croquettes pour chat	Pellets for cats	st	st	st	st	-	+	-	-	-	-	PPNA							1	6	b	
Extension-2017	3331	Croquettes pour chien	Pellets for dog	st	st	st	st	-	-	st	st	-	-	NA							1	6	b	
Extension-2017	4046	Aliment poulet	Poultry feed	-	-	-	-	-	-	-	-	-	-	NA							1	6	b	
Extension-2017	4047	Aliment jeune coq	Poultry feed	-	-	-	-	-	-	-	-	-	-	NA							1	6	b	
Extension-2017	4048	Aliment pouleuse	Poultry feed	-	-	-	-	-	-	st	st	-	-	NA							1	6	b	
Extension-2017	4049	Protéines volaille	Dehydrated poultry proteins	-	-	-	-	-	-	-	-	-	-	NA							1	6	b	
Extension-2017	4050	Aliment truie	Sow feed	st	st	st	st	-	-	st	st	-	-	NA							1	6	b	
Extension-2017	4185	Aliment ruminant	Cattle feed	+p	+p	+p	+p	+	i/ii/++	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	b
Extension-2017	4186	Aliment porc	Pork feed	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	b
Extension-Data 2013	5612	Boulettes animaux saumon colin	Pet food balls (fish)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c
Extension-Data 2013	5613	Boulettes animaux colin sardine	Pet food balls (fish)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c



FEED PRODUCTS																								
Study	N° Sample	Product (French name)	Product	Reference method: ISO 6579 or ISO 6579-1					Alternative method: NEOGEN ANSR <i>Salmonella</i>													Protocol	Category	Type
				RVS broth		MKTTn broth		Final result	ANSR test result	Incubation : 20 h					Agreement 20H	ANSR test result	Incubation : 20 h + storage for 72 h at 5°C ± 3°C				Agreement 20 h +72h			
				XLD	ASAP	XLD	ASAP			Subculture in RVS							Subculture in RVS							
										XLD	ASAP	Latex	Reference method tests results	Final result			XLD	ASAP	Latex	Final result				
Extension-Data 2013	5614	Boulettes animaux thon cabillaud	Pet food balls (fish)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c
Extension-Data 2013	5615	Boulettes au poulet	Pet food balls (chicken)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	-	+p	+p	+	-	ND	1	6	c
Extension-Data 2013	6288	Saucisson pour chien viande et légumes	Sausage for dog	+p	+p	+p	+p	+	+	+M	+M	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c
Extension-Data 2013	6289	Terrine à l'agneau et aux légumes	Terrine for pet	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c
Extension-Data 2013	6290	Terrine à la volaille	Poultry Pâté	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c
Extension-Data 2013	6291	Terrine au canard	Duck pâté	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c
Extension-Data 2013	1311	Terrine pour chat au saumon	Terrine for cat (salmon)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c
Extension-Data 2013	1312	Terrine pour chat truite et cabillaud	Terrine for cat (truta)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c
Extension-Data 2013	1313	Terrine pour chien au saumon	Terrine for dog (salmon)	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c
Extension-Data 2013	1314	Saucisson pour chien	Sausages for dog	+p	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c
Extension-2017	2743	Terrine pour chien (boeuf/légumes)	Terrine for dog	st	st	st	st	-	-	st	st			-	NA							1	6	c
Extension-2017	3317	Pâté pour chat au boeuf	Pâté for dog	+M	+p	+p	+p	+	+	+p	+p	+	+	+	PA	+	+p	+p	+	+	PA	1	6	c
Extension-2017	3332	Terrine de saumon pour chat	Terrine for cat	st	st	st	st	-	-	st	st			-	NA							1	6	c
Extension-2017	4190	Terrine au lapin pour chat	Terrine for cat	st	st	st	st	-	-	st	st			-	NA							1	6	c
Extension-2017	4191	Terrine au boeuf pour chat	Terrine for cat	st	st	st	st	-	-	st	st			-	NA							1	6	c
Extension-2017	4192	Terrine au boeuf pour chien	Terrine for dog (salmon)	st	st	st	st	-	-	st	st			-	NA							1	6	c
Extension-2017	4193	Saucisson pour chien	Sausage for dog	st	st	st	st	-	-	st	st			-	NA							1	6	c
Extension-2017	4194	Saucisson pour chien	Sausage for dog	st	st	st	st	-	-	st	st			-	NA							1	6	c

**Appendix E – Relative level of detection**

Ready-to-reheat food (Moussaka)  
*Salmonella* Typhimurium 4874  
 Total viable count: 4 10<sup>5</sup> CFU/g

Protocol 2

Sample N°	Level	Inoculation level (cfu/25g)	Reference method: ISO 6579					Alternative method: NEOGEN ANSR <i>Salmonella</i>				
			RVS broth		MKTTn broth		Result	Positive Results/Total	Test result	Confirmation	Final result	Positive Results/Total
			XLD	ASAP	XLD	ASAP						
1516	0	/	-	-	-	-	-	0/6	-	/	-	0/6
1517			-	-	-	-	-		-	/	-	
1518			-	-	-	-	-		-	/	-	
1519			-	-	-	-	-		-	/	-	
1520			-	-	-	-	-		-	/	-	
1521			-	-	-	-	-		-	/	-	
1522	1	0.5	+p	+p	+p	+p	+	2/6	+	+	+	2/6
1523			+p	+p	+p	+p	+		+	+	+	
1524			-	-	-	-	-		-	/	-	
1525			-	-	-	-	-		-	/	-	
1526			-	-	-	-	-		-	/	-	
1527			-	-	-	-	-		-	/	-	
1528	2	1.0	+p	+p	+p	+p	+	4/6	+	+	+	4/6
1529			-	-	-	-	-		-	/	-	
1530			+p	+p	+p	+p	+		+	+	+	
1531			+p	+p	+p	+p	+		+	+	+	
1532			+p	+p	+p	+p	+		+	+	+	
1533			-	-	-	-	-		-	/	-	
1534	3	1.9	+p	+p	+p	+p	+	6/6	+	+	+	6/6
1535			+p	+p	+p	+p	+		+	+	+	
1536			+p	+p	+p	+p	+		+	+	+	
1537			+p	+p	+p	+p	+		+	+	+	
1538			+p	+p	+p	+p	+		+	+	+	
1539			+p	+p	+p	+p	+		+	+	+	
1540	4	3.7	+p	+p	+p	+p	+	6/6	+	+	+	6/6
1541			+p	+p	+p	+p	+		+	+	+	
1542			+p	+p	+p	+p	+		+	+	+	
1543			+p	+p	+p	+p	+		+	+	+	
1544			+p	+p	+p	+p	+		+	+	+	
1545			+p	+p	+p	+p	+		+	+	+	

Ground beef  
*Salmonella* Infantis 128

Protocol 1

Total viable count: 2.6 10<sup>3</sup> CFU/g (5885-5914); 2.0 10<sup>2</sup> CFU/g (6235-6246); 2.4 10<sup>3</sup> CFU/g (6379-6384)

Sample N°	Level	Inoculation level (cfu/25g)	Reference method: ISO 6579					Alternative method: NEOGEN ANSR <i>Salmonella</i>				
			RVS broth		MKTn broth		Result	Positive Results/Total	Test result	Confirmation	Final result	Positive Results/Total
			XLD	Chromagar salmonella	XLD	Chromagar salmonella						
5885	0	/	-	-	-	-	-	0/6	-	-	-	0/6
5886			-	-	-	-	-		-			
5887			-	st	-	-	-		-			
5888			-	-	-	-	-		-			
5889			-	-	-	-	-		-			
5890			-	-	-	-	-		-			
5891	1	0.2	-	-	-	-	-	0/6	-	-	-	0/6
5892			-	st	-	-	-		-			
5893			-	-	-	-	-		-			
5894			-	-	-	-	-		-			
5895			st	st	st	st	-		-			
5896			st	st	st	st	-		-			
5897	2	0.3	-	-	-	-	-	0/6	-	-	-	1/6
5898			-	-	-	-	-		-			
5899			-	st	-	-	-		-			
5900			-	-	-	-	-		-			
5901			st	st	-	-	-		-			
5902			-	-	-	-	-		-			
5903	3	0.6	+M	+p	+p	+p	+	4/6	+	+	+	1/6
5904			st	st	-	-	-		-			
5905			+p	+p	+p	+p	+		-			
5906			+M	+p	+m	+p	+		-			
5907			+p	+p	+p	+p	+		-			
5908			-	-	-	-	-		-			

Ground beef

Protocol 1

*Salmonella* Infantis 128

Total viable count: 2.6 10<sup>3</sup> CFU/g (5885-5914); 2.0 10<sup>2</sup> CFU/g (6235-6246); 2.4 10<sup>3</sup> CFU/g (6379-6384)

Sample N°	Level	Inoculation level (cfu/25g)	Reference method: ISO 6579					Alternative method: NEOGEN ANSR <i>Salmonella</i>				
			RVS broth		MKTTn broth		Result	Positive Results/Total	Test result	Confirmation	Final result	Positive Results/Total
			XLD	Chromagar salmonella	XLD	Chromagar salmonella						
6235	4	0.6	-	-	-	-	-	2/6	-	-	-	1/6
6236			+p	+p	+p	+p	+		+	+		
6237			st	st	st	st	-		-	-		
6238			+p	+p	+p	+p	+		-	-		
6239			st	st	st	st	-		-	-		
6240			st	st	st	st	-		-	-		
6241	5	1.5	-	st	-	st	-	3/6	+	+	+	4/6
6242			-	-	-	-	-		+	+	+	
6243			-	-	+m ni/+	-	+		+	+	+	
6244			+m	+m	+1/2	+m	+		-	-	-	
6245			-	-	-	-	-		+	+	+	
6246			+M	+m	+M	+m	+		-	-	-	
5909	6	3.1	-	st	-	-	-	3/6	+	+	+	6/6
5910			+p	+p	+p	+p	+		+	+	+	
5911			+p	+p	+p	+p	+		+	+	+	
5912			-	-	-	-	-		+	+	+	
5913			+1/2	+p	+m	+p	+		+	+	+	
5914			-	-	-	-	-		+	+	+	

Raw milk  
*Salmonella* Montevideo 510  
 Total viable count: 1.1 10<sup>4</sup> CFU/ml

Protocol 1

Sample N°	Level	Inoculation level (cfu/25g)	Reference method: ISO 6579					Alternative method: NEOGEN ANSR <i>Salmonella</i>				
			RVS broth		MKTTn broth		Result	Positive Results/Total	Test result	Confirmation	Final result	Positive Results/Total
			XLD	Chromagar salmonella	XLD	Chromagar salmonella						
5763	0	/	-	-	-	-	-	0/6	-	-	-	0/6
5764			-	-	-	-	-		-	-	-	
5765			-	-	-	-	-		-	-	-	
5766			-	-	-	-	-		-	-	-	
5767			-	-	-	-	-		-	-	-	
5768			-	-	-	-	-		-	-	-	
5769	1	0.3	+m ni/+	+M	+m	+M	+	3/6	+	+	+	2/6
5770			+m	+M	+m	+M	+		-	-	-	
5771			-	-	-	-	-		-	-	-	
5772			-	-	-	-	-		-	-	-	
5773			+m	+M	+M	+M	+		+	+	+	
5774			-	-	-	-	-		-	-	-	
5775	2	0.7	+m	+M	+M	+M	+	2/6	-	-	-	2/6
5776			-	-	-	-	-		-	-	-	
5777			-	-	-	-	-		-	-	-	
5778			+m	+M	+M	+M	+		+	+	+	
5779			-	-	-	-	-		-	-	-	
5780			-	-	-	-	-		-	+	+	
5781	3	1.3	+m	+M	+M	+M	+	5/6	-	-	-	2/6
5782			-	-	-	-	-		-	-	-	
5783			+m	+M	+M	+M	+		-	-	-	
5784			+m ni/+	+M	+M	+M	+		-/-/+	+	-	
5785			+m	+M	+M	+M	+		+	+	+	
5786			+m	+M	+M	+M	+		+	+	+	
5787	4	6.6	+m	+M	+M	+M	+	6/6	+	+	+	6/6
5788			+m	+M	+M	+M	+		+	+	+	
5789			+m	+M	+M	+M	+		+	+	+	
5790			+1/2	+M	+M	+M	+		+	+	+	
5791			+m	+M	+m	+M	+		+	+	+	
5792			+m	+M	+M	+M	+		+	+	+	

Whole egg product  
*Salmonella* Enteritidis 465  
 Total viable count:<200/g

Protocol 2

Sample N°	Level	Inoculation level (cfu/25g)	Reference method: ISO 6579					Alternative method: NEOGEN ANSR <i>Salmonella</i>				
			RVS broth		MKTTn broth		Result	Positive Results/Total	Test result	Confirmation	Final result	Positive Results/Total
			XLD	Chromagar salmonella	XLD	Chromagar salmonella						
5945	0	/	st	st	st	st	-	0/6	-	-	-	0/6
5946			st	st	st	st	-		-	-		
5947			st	st	st	st	-		-	-		
5948			st	st	st	st	-		-	-		
5949			st	st	st	st	-		-	-		
5950			st	st	st	st	-		-	-		
5951	1	0,3	st	st	st	st	-	2/6	-	-	-	2/6
5952			st	st	st	st	-		-	-		
5953			+p	+p	+p	+p	+		+	+		
5954			st	st	st	st	-		-	-		
5955			st	st	st	st	-		-	-		
5956			+p	+p	+p	+p	+		+	+		
5957	2	0,5	st	st	st	st	-	4/6	-	-	-	4/6
5958			+p	+p	+p	+p	+		+	+		
5959			+p	+p	+p	+p	+		+	+		
5960			+p	+p	+p	+p	+		+	+		
5961			+p	+p	+p	+p	+		+	+		
5962			st	st	st	st	-		-	-		
5963	3	1,0	+p	+p	+p	+p	+	6/6	+	+	+	6/6
5964			+p	+p	+p	+p	+		+	+		
5965			+p	+p	+p	+p	+		+	+		
5966			+p	+p	+p	+p	+		+	+		
5967			+p	+p	+p	+p	+		+	+		
5968			+p	+p	+p	+p	+		+	+		
5969	4	4,9	+p	+p	+p	+p	+	5/6	+	+	+	5/6
5970			+p	+p	+p	+p	+		+	+		
5971			+p	+p	+p	+p	+		+	+		
5972			st	st	st	st	-		-	-		
5973			+p	+p	+p	+p	+		+	+		
5974			+p	+p	+p	+p	+		+	+		

Spinach  
*Salmonella* Virchow F276  
 Total viable count: 1.5 10<sup>5</sup> CFU/g

Protocol 1

Sample N°	Level	Inoculation level (cfu/25g)	Reference method: ISO 6579					Alternative method: NEOGEN ANSR <i>Salmonella</i>				
			RVS broth		MKTTn broth		Result	Positive Results/Total	Test result	Confirmation	Final result	Positive Results/Total
			XLD	ASAP	XLD	ASAP						
982	0	/	-	-	-	-	-	0/6	-		-	0/6
983			-	-	-	-	-		-	-		
984			-	-	-	-	-		-	-		
985			-	-	-	-	-		-	-		
986			-	-	-	-	-		-	-		
987			-	-	-	-	-		-	-		
988	1	0.4	-	-	-	-	-	3/6	-		-	3/6
989			-	-	-	-	-		-	-		
990			+M	+M	+M	+M	+		-		-	
991			+M	+M	+1/2	+M	+		+	+	+	
992			+M	+M	+M	+M	+		+	+	+	
993			-	-	-	-	-		+	+	+	
994	2	0.9	+M	+M	+M	+M	+	4/6	+	+	+	4/6
995			-	-	-	-	-		-		-	
996			+M	+M	+M	+M	+		+	+	+	
997			+M	+M	+M	+M	+		-		-	
998			-	-	-	-	-		+	+	+	
999			+M	+M	+M	+M	+		+	+	+	
1000	3	1.7	+M	+M	+M	+M	+	5/6	-		-	5/6
1001			+M	+M	+M	+M	+		+	+	+	
1002			+M	+M	+M	+M	+		+	+	+	
1003			-	-	-	-	-		+	+	+	
1004			+m	+M	+M	+M	+		+	+	+	
1005			+M	+M	+M	+M	+		+	+	+	
1006	4	4.3	+M	+M	+M	+M	+	6/6	+	+	+	6/6
1007			+M	+M	+M	+M	+		+	+	+	
1008			+M	+M	+M	+M	+		+	+	+	
1009			+M	+M	+M	+M	+		+	+	+	
1010			+M	+M	+M	+M	+		+	+	+	
1011			+M	+M	+M	+M	+		+	+	+	

Feed stuff (pellets for dog)  
*Salmonella* Derby 630  
 Total viable count: <200 CFU/g

Protocol 1

Sample N°	Level	Inoculation level (cfu/25g)	Reference method: ISO 6579				Result	Positive Results/Total	Alternative method: NEOGEN ANSR <i>Salmonella</i>			
			RVS broth		MKTTn broth				Test result	Confirmation	Final result	Positive Results/Total
			XLD	ASAP	XLD	ASAP						
6175	0	/	st	st	st	st	-	0/6	-	-	-	0/6
6176			st	st	st	st	-		-	-		
6177			st	st	st	st	-		-	-		
6178			st	st	st	st	-		-	-		
6179			st	st	st	st	-		-	-		
6180			st	st	st	st	-		-	-		
6181	1	0,2	st	st	st	st	-	0/6	-	-	-	1/6
6182			st	st	st	st	-		-	-		
6183			st	st	st	st	-		-	-		
6184			st	st	st	st	-		+	+	+	
6185			st	st	st	st	-		-	-	-	
6186			st	st	st	st	-		-	-	-	
6187	2	0,4	+p	+p	+p	+p	+	4/6	-	-	-	0/6
6188			st	st	st	st	-		-	-		
6189			+p	+p	+p	+p	+		-	-	-	
6190			+p	+p	+p	+p	+		-	-	-	
6191			+p	+p	+p	+p	+		-	-	-	
6192			st	st	st	st	-		-	-	-	
6193	3	0,9	+p	+p	+p	+p	+	3/6	+	+	+	4/6
6194			+p	+p	+p	+p	+		-	-	-	
6195			st	st	st	st	-		-	-	-	
6196			st	st	st	st	-		+	+	+	
6197			st	st	st	st	-		+	+	+	
6198			+p	+p	+p	+p	+		+	+	+	
6199	4	2,2	st	st	st	st	-	4/6	+	+	+	6/6
6200			+p	+p	+p	+p	+		+	+	+	
6201			+p	+p	+p	+p	+		+	+	+	
6202			st	st	st	st	-		+	+	+	
6203			+p	+p	+p	+p	+		+	+	+	
6204			+p	+p	+p	+p	+		+	+	+	



## Appendix F – Inclusivity/Exclusivity

INCLUSIVITY – Initial validation study 2013									
Strain					inoculation level (cfu/225ml BPW + supplement)	NEOGEN ANSR <i>Salmonella</i> method	Confirmation		
#	Strain		Reference	Origin			RVS/ XLD	RVS/ ASAP	Latex
1	<i>Salmonella</i>	Agona	A00V38	Feedstuff	12	+	+	+	+
2	<i>Salmonella</i>	Anatum	6140	Bœuf Bourguignon	8	+	+	+	+
3	<i>Salmonella</i>	<i>arizonae</i> SIIIa 51:z4,z23:-	CIP 5523	Turkey	5	+	+	+	+
4	<i>Salmonella</i>	<i>arizonae</i> SIIIa 50 ;z4 ;z23	CIP 5526	Egg powder	6	-	-	-	/
					4 (+25ml milk)	+	+	+	+
5	<i>Salmonella</i>	<i>diarizonae</i> SIIIb 38:IV:z53	Ad451	Raw milk cheese	10	+	+	+	+
6	<i>Salmonella</i>	<i>diarizonae</i> SIIIb 61:- ; 1,5,7	Ad1280	Raw milk cheese	2	+	+	+	+
7	<i>Salmonella</i>	Blockley	Ad 923	Chicken	5	+	+	+	+
8	<i>Salmonella</i>	<i>bongori</i> 48:z35	Ad598	Environmental sample	8	+	+	White, pink colonies	+
9	<i>Salmonella</i>	Bovismorbificans	728	Agar	11	+	+	+	+
10	<i>Salmonella</i>	Braenderup	178	Food product	4	+	+	+	+
11	<i>Salmonella</i>	Brandenburg	Ad 351	Seafood	2	+	+	+	+
12	<i>Salmonella</i>	Bredeney	396	Ground beef	4	+	+	+	+
13	<i>Salmonella</i>	Cerro	Ad 689	Dehydrated proteins	8	+	+	+	+
14	<i>Salmonella</i>	Cremieu	230	Hare	4	+	+	+	+
15	<i>Salmonella</i>	Derby	Ad 1093	Frozen fish fillet	13	+	+	+	+
16	<i>Salmonella</i>	Dublin	Ad 528	Beef meat	9	+	+	White colonies	+
17	<i>Salmonella</i>	Enteritidis	Ad 926	Raw veal meat	6	+	+	+	+
18	<i>Salmonella</i>	Gallinarum	Ad 300	Poultry slaughterhouse	2	+	Small colourless colonies	Small pink colonies	+
19	<i>Salmonella</i>	Give	436		4	+	+	+	+
20	<i>Salmonella</i>	Hadar	35		18	+	+	+	+
21	<i>Salmonella</i>	Havana	Ad 930	Poultry	5	-	-	-	/
					8 (+ 25ml milk)	+	+	+	+
22	<i>Salmonella</i>	Heidelberg	A00E005	Dairy industry environmental sample	4	+	+	+	+
23	<i>Salmonella</i>	<i>houtenae</i> (sub-group IV) 43:z4z32	Ad 597	Fish	8	+	+	+	+
24	<i>Salmonella</i>	Indiana	2	Fish flour	2	+	+	+	+
25	<i>Salmonella</i>	<i>indica</i> (sub-group VI) 1,26,14,25:a:enx	Ad 600	Environmental sample	3	+	+	+	+
26	<i>Salmonella</i>	Infantis	12	Ready-to-eat	6	+	+	+	+
27	<i>Salmonella</i>	Kedougou	Ad 929	Environmental sample (slaughterhouse)	3	+	+	+	+
28	<i>Salmonella</i>	Kottbus	1	Environmental sample (slaughterhouse)	10	+	+	+	+
29	<i>Salmonella</i>	Livingstone	E1	Egg white powder	7	+	+	+	+
30	<i>Salmonella</i>	London	326	Ham	5	+	+	+	+

### INCLUSIVITY – Initial validation study 2013

INCLUSIVITY – Initial validation study 2013									
Strain					inoculation level (cfu/225ml BPW + supplement)	NEOGEN ANSR <i>Salmonella</i> method	Confirmation		
	Strain		Reference	Origin			RVS/ XLD	RVS/ ASAP	Latex
31	<i>Salmonella</i>	Manhattan	900	Dairy environmental sample	12	+	+	+	+
32	<i>Salmonella</i>	Mbandaka	Ad 914	Mayonnaise	8	+	+	+	+
33	<i>Salmonella</i>	Montevideo	Ad 912	Raw milk	3	+	+	+	+
34	<i>Salmonella</i>	Napoli	Ad 928	Bovine	2	+	+	+	+
35	<i>Salmonella</i>	Newport	540	Toulouse sausage	4	+	+	+	+
36	<i>Salmonella</i>	Panama	195	Ground beef	9	+	+	+	+
37	<i>Salmonella</i>	Paratyphi A	ATCC 9150		6	+	White colonies	+	+
38	<i>Salmonella</i>	Paratyphi B	Ad 301	Clinical	9	+	+	+	+
39	<i>Salmonella</i>	Paratyphi C	ATCC 13428		4	+	+	+	+
40	<i>Salmonella</i>	Regent	328	Duck	4	+	+	+	+
41	<i>Salmonella</i>	Rissen	39	Poultry	4	+	+	+	+
42	<i>Salmonella</i>	Saintpaul	F31	Pilchard fillet	4	+	+	+	+
43	<i>Salmonella</i>	<i>salamae</i> (sub-group II) 42:b:enxz	Ad 593	Cereals	3	+	+	+	+
44	<i>Salmonella</i>	Senftenberg	Ad 355	Seafood	3	+	+	+	+
45	<i>Salmonella</i>	Typhi	Ad 302	Clinical	5	+	+	+	+
46	<i>Salmonella</i>	Typhimurium	305	Paella	8	+	+	+	+
47	<i>Salmonella</i>	Typhimurium S1 1,4 [5], 12 :- :-	Ad 1333	Tiramisu	4	+	+	+	+
48	<i>Salmonella</i>	Typhimurium S1 1,4 [5], 12 : i : -	Ad 1334	Ready-to-eat meal (meat)	4	+	+	+	+
49	<i>Salmonella</i>	Typhimurium S1	Ad1335	Environmental sample	8	+	+	+	+
50	<i>Salmonella</i>	Urbana	Ad 501	Food product	6	-	-	-	/
					9 (+ 25ml milk)	+	+	+	+
51	<i>Salmonella</i>	Virchow	F276	Curry	5	+	+	+	+

**EXCLUSIVITY– Initial validation study 2013**

EXCLUSIVITY– Initial validation study 2013					
Strains				Inoculation level (cfu/ml)	NEOGEN ANSR Salmonella method
	Strain	Reference	Origin		
1.	<i>Citrobacter braakii</i>	Ad833	Raw beef meat	4.1x10 <sup>5</sup>	-
2.	<i>Citrobacter Diversus</i>	adria 140	Raw milk	3.7x10 <sup>5</sup>	-
3.	<i>Citrobacter freundii</i>	adria 23	Raw pork sausage	2.9x10 <sup>5</sup>	-
4.	<i>Citrobacter freundii</i>	adria 175	Raw duck meat	3.2x10 <sup>5</sup>	-
5.	<i>Citrobacter koseri</i>	adria 71	Frozen vegetables	4.6x10 <sup>5</sup>	-
6.	<i>Enterobacter agglomerans</i>	adria 11	Cheese	1.8x10 <sup>5</sup>	-
7.	<i>Enterobacter amnigenus</i>	A00C068	Raw poultry meat	1.6x10 <sup>5</sup>	-
8.	<i>Enterobacter cloacae</i>	adria 10	Raw milk	1.2x10 <sup>5</sup>	-
9.	<i>Enterobacter intermedius</i>	adria 60	Bean	9.2x10 <sup>4</sup>	-
10.	<i>Enterobacter kobei</i>	Ad 342	Ham	1.6x10 <sup>5</sup>	-
11.	<i>Enterobacter sakazakii</i>	adria 95	Fermented milk	3.6x10 <sup>5</sup>	-
12.	<i>Erwinia carotovora</i>	CIP 8283	Potatoes	1.2x10 <sup>4</sup>	-
13.	<i>Escherichia coli</i>	adria 19	Grated carrots	3.7x10 <sup>5</sup>	-
14.	<i>Escherichia hermanii</i>	Ad 461	Dessert	1.0x10 <sup>5</sup>	-
15.	<i>Escherichia vulneris</i>	adria 127	Raw milk	3.8x10 <sup>5</sup>	-
16.	<i>Hafnia alvei</i>	adria 167	Raw pork sausage	3.4x10 <sup>5</sup>	-
17.	<i>Klebsiella oxytoca</i>	57	Food product	3.4x10 <sup>5</sup>	-
18.	<i>Klebsiella pneumoniae</i>	47	Raw turkey meat	2.0x10 <sup>5</sup>	-
19.	<i>Kluyvera spp</i>	adria 41	Raw milk	1.3x10 <sup>5</sup>	-
20.	<i>Morganella morganii</i>	CIP A236	/	1.7x10 <sup>5</sup>	-
21.	<i>Pantoea agglomerans</i>	adria 86	Frozen vegetables	5.3x10 <sup>5</sup>	-
22.	<i>Proteus mirabilis</i>	Ad639	Mayonnaise	9.8x10 <sup>5</sup>	-
23.	<i>Proteus vulgaris</i>	adria 43	Sliced ham	5.0x10 <sup>4</sup>	-
24.	<i>Providencia rettgeri</i>	adria 112	White liquid egg	1.8x10 <sup>5</sup>	-
25.	<i>Rhanella aquatilis</i>	adria 69	Molluscs	4.3x10 <sup>4</sup>	-
26.	<i>Serratia liquefaciens</i>	26	Egg product	6.2x10 <sup>4</sup>	-
27.	<i>Serratia proteomaculans</i>	A00C056	Ham	5.6x10 <sup>4</sup>	-
28.	<i>Shigella flexneri</i>	CIP 8248	/	1.3x10 <sup>5</sup>	-
29.	<i>Shigella sonnei</i>	CIP 8249T (ATCC 29930)	/	1.7x10 <sup>5</sup>	-
30.	<i>Yersinia enterocolotica</i>	adria 32	Bacon	1.1x10 <sup>5</sup>	-

## INCLUSIVITY – Extension study 2017

Strain	Reference	Origin	Inoculation level (CFU/225mL)	ANSR result		Confirmation							
				Old version of the kit	New version of the kit	RVS / XLD		RVS / ASAP					
						Result	Latex	Result	Latex				
1	<i>Salmonella</i>	Abaetetuba	Ad2318	/	42	+	+	+	+	+	+		
2	<i>Salmonella</i>	Aberdeen	CIP 105618	Human	40	+	+	+	+	+	+		
3	<i>Salmonella</i>	Abortusequi	Ad2321	/	24	+	+	+	+	+	/		
4	<i>Salmonella</i>	Abortusovis	Ad2320	Ovine foetus	8	-	-	+	+	+	+	+ (blue colonies)	
					8 (with milk)	-	-	+	+	+	+	+	+ (blue colonies)
					21 (with milk)	-	-	st	/	st	/	st	/
					BHI	+	+	/	/	/	/	/	/
5	<i>Salmonella</i>	Adelaïde	Ad2319	Turkey breeding environment	67	+	+	+	+	+	+		
6	<i>Salmonella</i>	<i>arizonae</i> 48:z4,z23:-	Ad1850	Poultry environmental sample	40	+	+	+(yellow colonies)	+(low)	+	+		
7	<i>Salmonella</i>	Bardo	Adria 569	Meat for sausage	56	+	+	+	+	+	+		
8	<i>Salmonella</i>	Bareilly	Ad 1687	Chocolate industry	44	+	+	+	+	+	+		
9	<i>Salmonella</i>	<i>bongori</i> 66 :z35	Ad 599	Environmental sample	44	+	+	+	+	+	+(white colonies) + (weak)		
10	<i>Salmonella</i>	Caracas	Ad2322	Spice	59	+	+	+	+	+	+		
11	<i>Salmonella</i>	Chester	CIP 103543	/	37	+	+	+	+	+	+		
12	<i>Salmonella</i>	Cubana	Ad2323	Dust feed environment	52	+	+	+	+	+	+		
13	<i>Salmonella</i>	<i>diarizonae</i> 61:k:1,57	Ad 1300	Raw ewe milk	56	+	+	+	+	+	+		
14	<i>Salmonella</i>	Emek	Ad 333	Food	30	+	+	+	+	+	+		
15	<i>Salmonella</i>	Gaminara	Ad2324	Boar meat	53	+	+	+	+	+	+		
16	<i>Salmonella</i>	Guinea	29	Food	49	+	+	+	+(low)	+	+		
17	<i>Salmonella</i>	<i>houtenae</i> 50:g,z51	Ad 596	Dairy product	48	+	+	+	+(low)	+	+(weak)		
18	<i>Salmonella</i>	Hvittingfoss	Ad2325	Raw stuff	39	+	+	+	+	+	+		
19	<i>Salmonella</i>	<i>indica</i> 11:b:e,n,x	Ad2337	Chicken breeding environment	32	+	+	+	+	+	+		
20	<i>Salmonella</i>	Javiana	Ad2326	Turkey meat	39	+	+	+	+	+	+		
21	<i>Salmonella</i>	Kentucky	Ad1756	Poultry environmental sample	73	+	+	+	+	+	+		
22	<i>Salmonella</i>	Landau	Ad 499	Food	54	+	+	+	+	+	+		
23	<i>Salmonella</i>	Lille	Adria 37	Food product	70	+	+	+	+	+	+		
24	<i>Salmonella</i>	Luciana	CIP 105626	Food	36	+	+	+(yellow colonies with black center)	+(low)	+	+		
25	<i>Salmonella</i>	Maracaibo	CIP 54143	/	47	+	+	+	+	+	+		
26	<i>Salmonella</i>	Marseille	CIP105627	/	58	+	+	+	+	+	+		
27	<i>Salmonella</i>	Meleagridis	505	Raw milk	43	+	+	+	+	+	+		
28	<i>Salmonella</i>	Michigan	Ad2327	Low moisture sausage	68	+	+	+	+	+	+		

## INCLUSIVITY – Extension study 2017

INCLUSIVITY – Extension study 2017											
Strain		Reference	Origin	Inoculation level (CFU/225mL)	ANSR result		Confirmation				
					Old version of the kit	New version of the kit	RVS / XLD		RVS / ASAP		
							Result	Latex	Result	Latex	
29	<i>Salmonella</i>	Mikawasima	Ad1811	Raw ewe milk	56	+	+	+	+	+	+
30	<i>Salmonella</i>	Minnesota	Ad2328	Feed	51	+	+	+	+	+	+
31	<i>Salmonella</i>	Missisipi	Ad2329	Parakeet	41	+	+	+	+	+	+
32	<i>Salmonella</i>	Muenchen	CIP 106178	/	48	+	+	+	+	+	+
33	<i>Salmonella</i>	Norwich	Ad1172	/	28	+	+	+	+	+	+
34	<i>Salmonella</i>	Ohio	Ad1482	Raw cow milk	24	+	+	+	+	+	+
35	<i>Salmonella</i>	Orion	27	Food	44	+	+	+	+	+	+
36	<i>Salmonella</i>	Oranienburg	Ad1724	Cereals	43	+	+	+	+	+	+
37	<i>Salmonella</i>	Ouakam	Ad1647	Compost	17	+	+	+	+	+	+
38	<i>Salmonella</i>	Pomona	CIP105630	Poultry	21	+	+	+(white colonies with black center)	+	+	+
39	<i>Salmonella</i>	Poona	Ad2330	Poultry feed	24	+	+	+	+	+	+
40	<i>Salmonella</i>	Putten	Ad2331	Feed for chicken	30	+	+	+	+	+	+
41	<i>Salmonella</i>	Rubislaw	Ad2332	Shark cartilage	13	+	+	+	+	+	+
42	<i>Salmonella</i>	Schwarzengrund	Ad2333	Egg products environment	30	+	+	+	+	+	+
43	<i>Salmonella</i>	Stanley	Ad 1688	Chocolate industry	11	+	+	+	+	+	+
44	<i>Salmonella</i>	Stourbridge	Ad2297	Raw milk cheese	5	+	+	+	+	+	+
45	<i>Salmonella</i>	Strasbourg	CIP105632	Human	28	-	-	st	/	st	/
					35 (with milk)	+	+	+	+	+(blue colonies)	+
46	<i>Salmonella</i>	Tananarive	CIP54142	Pork meat	46	+	+	+	+	+	+
47	<i>Salmonella</i>	Tennessee	A00E006	Dusts from dairy industry	26	+	+	+	+	+	+
48	<i>Salmonella</i>	Thompson	AER301	Poultry	37	+	+	+	+	+	+
49	<i>Salmonella</i>	Veneziana	Adria 233	Food product	20	+	+	+	+	+	+
50	<i>Salmonella</i>	Wandworth	Ad2335	Fish fillet	43	+	+	+	+	+	+
51	<i>Salmonella</i>	Weltevreden	Ad2336	Treated water	48	+	+	+	+	+	+

## Appendix G – Interlaboratory study – Raw data

Results obtained by the Expert Laboratory (N° Q – ADRIA)

N° Sample	Reference method: ISO 6579						Alternative method: ANSR Salmonella				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
Q3	-	-	-	-	/	-	-	-	/	-	NA
Q9	-	-	-	-	/	-	-	-	/	-	NA
Q11	-	-	-	-	/	-	-	-	/	-	NA
Q12	-	-	-	-	/	-	-	-	/	-	NA
Q15	-	-	-	-	/	-	-	-	/	-	NA
Q19	-	-	-	-	/	-	-	-	/	-	NA
Q22	-	-	-	-	/	-	-	-	/	-	NA
Q24	-	-	-	-	/	-	-	-	/	-	NA
Q4	+	+	+	+	+	+	+	+	+	+	PA
Q7	+	+	+	+	+	+	+	+	+	+	PA
Q10	+	+	+	+	+	+	+	+	+	+	PA
Q13	+	+	+	+	+	+	+	+	+	+	PA
Q14	+	+	+	+	+	+	+	+	+	+	PA
Q20	+	+	+	+	+	+	+	+	+	+	PA
Q21	+	+	+	+	+	+	+	+	+	+	PA
Q23	+	+	+	+	+	+	+	+	+	+	PA
Q1	+	+	+	+	+	+	+	+	+	+	PA
Q2	+	+	+	+	+	+	+	+	+	+	PA
Q5	+	+	+	+	+	+	+	+	+	+	PA
Q6	+	+	+	+	+	+	+	+	+	+	PA
Q8	+	+	+	+	+	+	+	+	+	+	PA
Q16	+	+	+	+	+	+	+	+	+	+	PA
Q17	+	+	+	+	+	+	+	+	+	+	PA
Q18	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory A

Aerobic mesophilic flora:1,2.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
A3	-	-	-	-	/	-	-	-	/	-	NA
A9	-	-	-	-	/	-	-	-	/	-	NA
A11	-	-	-	-	/	-	-	-	/	-	NA
A12	-	-	-	-	/	-	-	-	/	-	NA
A15	-	-	-	-	/	-	+	-	/	-	PPNA
A19	-	-	-	-	/	-	-	-	/	-	NA
A22	-	-	-	-	/	-	-	-	/	-	NA
A24	-	-	-	-	/	-	-	-	/	-	NA
A4	+	+	+	+	+	+	+	+	+	+	PA
A7	+	+	+	+	+	+	+	+	+	+	PA
A10	+	+	+	+	+	+	+	+	+	+	PA
A13	+	+	+	+	+	+	+	+	+	+	PA
A14	+	+	+	+	+	+	+	+	+	+	PA
A20	+	+	+	+	+	+	+	+	+	+	PA
A21	+	+	+	+	+	+	+	+	+	+	PA
A23	+	+	+	+	+	+	+	+	+	+	PA
A1	+	+	+	+	+	+	+	+	+	+	PA
A2	+	+	+	+	+	+	+	+	+	+	PA
A5	+	+	+	+	+	+	+	+	+	+	PA
A6	+	+	+	+	+	+	+	+	+	+	PA
A8	+	+	+	+	+	+	+	+	+	+	PA
A16	+	+	+	+	+	+	+	+	+	+	PA
A17	+	+	+	+	+	+	+	+	+	+	PA
A18	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory B

Aerobic mesophilic flora:1,3.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
B3	-	-	-	-	/	-	-	-	/	-	NA
B9	-	-	-	-	/	-	-	-	/	-	NA
B11	-	-	-	-	/	-	-	-	/	-	NA
B12	-	-	-	-	/	-	-	-	/	-	NA
B15	-	-	-	-	/	-	-	-	/	-	NA
B19	-	-	-	-	/	-	-	-	/	-	NA
B22	-	-	-	-	/	-	-	-	/	-	NA
B24	-	-	-	-	/	-	-	-	/	-	NA
B4	+	+	+	+	+	+	+	+	+	+	PA
B7	+	+	+	+	+	+	+	+	+	+	PA
B10	+	+	+	+	+	+	+	+	+	+	PA
B13	+	+	+	+	+	+	+	+	+	+	PA
B14	+	+	+	+	+	+	+	+	+	+	PA
B20	+	+	+	+	+	+	+	+	+	+	PA
B21	+	+	+	+	+	+	+	+	+	+	PA
B23	+	+	+	+	+	+	+	+	+	+	PA
B1	+	+	+	+	+	+	+	+	+	+	PA
B2	+	+	+	+	+	+	+	+	+	+	PA
B5	+	+	+	+	+	+	+	+	+	+	PA
B6	+	+	+	+	+	+	+	+	+	+	PA
B8	+	+	+	+	+	+	+	+	+	+	PA
B16	+	+	+	+	+	+	+	+	+	+	PA
B17	+	+	+	+	+	+	+	+	+	+	PA
B18	+	+	+	+	+	+	+	+	+	+	PA



## Laboratory C

Aerobic mesophilic flora:1,5.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
C3	-	-	-	-	/	-	-	-	/	-	NA
C9	-	-	-	-	/	-	-	-	/	-	NA
C11	-	-	-	-	/	-	-	-	/	-	NA
C12	-	-	-	-	/	-	-	-	/	-	NA
C15	-	-	-	-	/	-	-	-	/	-	NA
C19	-	-	-	-	/	-	-	-	/	-	NA
C22	-	-	-	-	/	-	-	-	/	-	NA
C24	-	-	-	-	/	-	-	-	/	-	NA
C4	+	+	+	+	+	+	+	+	+	+	PA
C7	+	+	+	+	+	+	+	+	+	+	PA
C10	+	+	+	+	+	+	+	+	+	+	PA
C13	+	+	+	+	+	+	+	+	+	+	PA
C14	+	+	+	+	+	+	+	+	+	+	PA
C20	+	+	+	+	+	+	+	+	+	+	PA
C21	+	+	+	+	+	+	+	+	+	+	PA
C23	+	+	+	+	+	+	+	+	+	+	PA
C1	+	+	+	+	+	+	+	+	+	+	PA
C2	+	+	+	+	+	+	+	+	+	+	PA
C5	+	+	+	+	+	+	+	+	+	+	PA
C6	+	+	+	+	+	+	+	+	+	+	PA
C8	+	+	+	+	+	+	+	+	+	+	PA
C16	+	+	+	+	+	+	+	+	+	+	PA
C17	+	+	+	+	+	+	+	+	+	+	PA
C18	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory D

Aerobic mesophilic flora:1,3.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
D3	-	-	-	-	/	-	-	-	/	-	NA
D9	-	-	-	-	/	-	-	-	/	-	NA
D11	-	-	-	-	/	-	-	-	/	-	NA
D12	-	-	-	-	/	-	-	-	/	-	NA
D15	-	-	-	-	/	-	-	-	/	-	NA
D19	+	+	+	+	+	+	-	+	+	-	ND
D22	-	-	-	-	/	-	-	-	/	-	NA
D24	-	-	-	-	/	-	-	+	+	-	NA
D4	+	+	+	+	+	+	+	+	+	+	PA
D7	+	+	+	+	+	+	+	+	+	+	PA
D10	+	+	+	+	+	+	+	+	+	+	PA
D13	+	+	+	+	+	+	+	+	+	+	PA
D14	+	+	+	+	+	+	+	+	+	+	PA
D20	+	+	+	+	+	+	+	+	+	+	PA
D21	+	+	+	+	+	+	+	+	+	+	PA
D23	+	+	+	+	+	+	+	+	+	+	PA
D1	+	+	+	+	+	+	+	+	+	+	PA
D2	+	+	+	+	+	+	+	+	+	+	PA
D5	+	+	+	+	+	+	+	+	+	+	PA
D6	+	+	+	+	+	+	+	+	+	+	PA
D8	+	+	+	+	+	+	+	+	+	+	PA
D16	+	+	+	+	+	+	+	+	+	+	PA
D17	+	+	+	+	+	+	+	+	+	+	PA
D18	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory E

Aerobic mesophilic flora:  $1,3 \cdot 10^3/g$

Problem with the incubator: temperature fell to 37°C at incubation and took 14H30 to go back to 41.5°C.

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
E3	-	-	-	-	/	-	-	-	/	-	NA
E9	-	-	-	-	/	-	-	+	+	-	NA
E11	-	-	-	-	/	-	-	-	/	-	NA
E12	-	-	-	-	/	-	-	-	/	-	NA
E15	-	-	-	-	/	-	-	-	/	-	NA
E19	-	-	-	-	/	-	-	-	/	-	NA
E22	-	-	-	-	/	-	-	-	/	-	NA
E24	-	-	-	-	/	-	-	-	/	-	NA
E4	+	+	+	+	+	+	+	+	+	+	PA
E7	+	+	+	+	+	+	+	+	+	+	PA
E10	+	+	+	+	+	+	+	+	+	+	PA
E13	+	+	+	+	+	+	+	+	+	+	PA
E14	+	+	+	+	+	+	+	+	+	+	PA
E20	+	+	+	+	+	+	+	+	+	+	PA
E21	+	+	+	+	+	+	+	+	+	+	PA
E23	+	+	+	+	+	+	-	-	/	-	ND
E1	+	+	+	+	+	+	+	+	+	+	PA
E2	+	+	+	+	+	+	+	+	+	+	PA
E5	+	+	+	+	+	+	+	+	+	+	PA
E6	+	+	+	+	+	+	+	+	+	+	PA
E8	+	+	+	+	+	+	+	+	+	+	PA
E16	+	+	+	+	+	+	+	+	+	+	PA
E17	+	+	+	+	+	+	+	+	+	+	PA
E18	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory F

Aerobic mesophilic flora:1,0.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
F3	-	-	-	-	/	-	-	-	/	-	NA
F9	-	-	-	-	/	-	-	-	/	-	NA
F11	-	-	-	-	/	-	-	-	/	-	NA
F12	-	-	-	-	/	-	-	-	/	-	NA
F15	-	-	-	-	/	-	-	-	/	-	NA
F19	-	-	-	-	/	-	-	-	/	-	NA
F22	-	-	-	-	/	-	-	-	/	-	NA
F24	-	-	-	-	/	-	-	-	/	-	NA
F4	+	+	+	+	+	+	+	+	+	+	PA
F7	-	-	-	-	/	-	+	+	+	+	PD
F10	+	+	+	+	+	+	+	+	+	+	PA
F13	+	+	+	+	+	+	+	+	+	+	PA
F14	+	+	+	+	+	+	+	+	+	+	PA
F20	+	+	+	+	+	+	+	+	+	+	PA
F21	+	+	+	+	+	+	+	+	+	+	PA
F23	+	+	+	+	+	+	+	+	+	+	PA
F1	+	+	+	+	+	+	+	+	+	+	PA
F2	+	+	+	+	+	+	+	+	+	+	PA
F5	+	+	+	+	+	+	+	+	+	+	PA
F6	+	+	+	+	+	+	+	+	+	+	PA
F8	+	+	+	+	+	+	+	+	+	+	PA
F16	+	+	+	+	+	+	+	+	+	+	PA
F17	+	+	+	+	+	+	+	+	+	+	PA
F18	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory G

Aerobic mesophilic flora:1,8.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
G3	-	-	-	-	/	-	-	-	/	-	NA
G9	-	-	-	-	/	-	-	-	/	-	NA
G11	-	-	-	-	/	-	-	-	/	-	NA
G12	-	-	-	-	/	-	-	-	/	-	NA
G15	-	-	-	-	/	-	-	-	/	-	NA
G19	-	-	-	-	/	-	-	-	/	-	NA
G22	-	-	-	-	/	-	-	-	/	-	NA
G24	-	-	-	-	/	-	-	-	/	-	NA
G4	+	+	+	+	+	+	+	+	+	+	PA
G7	+	+	+	+	+	+	+	+	+	+	PA
G10	+	+	+	+	+	+	+	+	+	+	PA
G13	+	+	+	+	+	+	+	+	+	+	PA
G14	+	+	+	+	+	+	+	+	+	+	PA
G20	+	+	+	+	+	+	+	+	+	+	PA
G21	+	+	+	+	+	+	+	+	+	+	PA
G23	+	+	+	+	+	+	+	+	+	+	PA
G1	+	+	+	+	+	+	+	+	+	+	PA
G2	+	+	+	+	+	+	+	+	+	+	PA
G5	+	+	+	+	+	+	+	+	+	+	PA
G6	+	+	+	+	+	+	+	+	+	+	PA
G8	+	+	+	+	+	+	+	+	+	+	PA
G16	+	+	+	+	+	+	+	+	+	+	PA
G17	+	+	+	+	+	+	+	+	+	+	PA
G18	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory H

Aerobic mesophilic flora: 3,4.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
H3	-	-	-	-	/	-	-	-	/	-	NA
H9	-	-	-	-	/	-	-	-	/	-	NA
H11	-	-	-	-	/	-	-	-	/	-	NA
H12	-	-	-	-	/	-	-	-	/	-	NA
H15	-	-	-	-	/	-	-	-	/	-	NA
H19	-	-	-	-	/	-	-	-	/	-	NA
H22	-	-	-	-	/	-	-	-	/	-	NA
H24	-	-	-	-	/	-	-	-	/	-	NA
H4	+	+	+	+	+	+	+	+	+	+	PA
H7	+	+	+	+	+	+	+	+	+	+	PA
H10	+	+	+	+	+	+	+	+	+	+	PA
H13	+	+	+	+	+	+	+	+	+	+	PA
H14	+	+	+	+	+	+	+	+	+	+	PA
H20	+	+	+	+	+	+	+	+	+	+	PA
H21	+	+	+	+	+	+	+	+	+	+	PA
H23	+	+	+	+	+	+	+	+	+	+	PA
H1	+	+	+	+	+	+	+	+	+	+	PA
H2	+	+	+	+	+	+	+	+	+	+	PA
H5	+	+	+	+	+	+	+	+	+	+	PA
H6	+	+	+	+	+	+	+	+	+	+	PA
H8	+	+	+	+	+	+	+	+	+	+	PA
H16	+	+	+	+	+	+	+	+	+	+	PA
H17	+	+	+	+	+	+	+	+	+	+	PA
H18	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory J

Aerobic mesophilic flora: 1,4.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
J3	-	-	-	-	/	-	+	-	/	-	PPNA
J9	-	-	-	-	/	-	-	-	/	-	NA
J11	-	-	-	-	/	-	-	-	/	-	NA
J12	-	-	-	-	/	-	-	-	/	-	NA
J15	-	-	-	-	/	-	+	-	/	-	PPNA
J19	-	-	-	-	/	-	-	-	/	-	NA
J22	-	-	-	-	/	-	-	-	/	-	NA
J24	-	-	-	-	/	-	-	-	/	-	NA
J4	+	+	+	+	+	+	+	+	+	+	PA
J7	+	+	+	+	+	+	+	+	+	+	PA
J10	+	+	+	+	+	+	+	+	+	+	PA
J13	+	+	+	+	+	+	+	+	+	+	PA
J14	+	+	+	+	+	+	+	+	+	+	PA
J20	+	+	+	+	+	+	+	+	+	+	PA
J21	+	+	+	+	+	+	+	+	+	+	PA
J23	+	+	+	+	+	+	+	+	+	+	PA
J1	+	+	+	+	+	+	+	+	+	+	PA
J2	+	+	+	+	+	+	+	+	+	+	PA
J5	+	+	+	+	+	+	+	+	+	+	PA
J6	+	+	+	+	+	+	+	+	+	+	PA
J8	+	+	+	+	+	+	+	+	+	+	PA
J16	+	+	+	+	+	+	+	+	+	+	PA
J17	+	+	+	+	+	+	+	+	+	+	PA
J18	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory K

Aerobic mesophilic flora: 1,3.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
K3	-	-	-	-	/	-	-	/	/	-	NA
K9	-	-	-	-	/	-	-	/	/	-	NA
K11	-	-	-	-	/	-	-	/	/	-	NA
K12	-	-	-	-	/	-	-	/	/	-	NA
K15	-	-	-	-	/	-	-	/	/	-	NA
K19	-	-	-	-	/	-	-	/	/	-	NA
K22	-	-	-	-	/	-	-	/	/	-	NA
K24	-	-	-	-	/	-	-	/	/	-	NA
K4	+	+	+	+	+	+	+	+	+	+	PA
K7	+	+	+	+	+	+	+	+	+	+	PA
K10	+	+	+	+	+	+	+	+	+	+	PA
K13	+	+	+	+	+	+	+	+	+	+	PA
K14	+	+	+	+	+	+	+	+	+	+	PA
K20	+	+	+	+	+	+	+	+	+	+	PA
K21	+	+	+	+	+	+	+	+	+	+	PA
K23	+	+	+	+	+	+	+	+	+	+	PA
K1	+	+	+	+	+	+	+	+	+	+	PA
K2	+	+	+	+	+	+	+	+	+	+	PA
K5	+	+	+	+	+	+	+	+	+	+	PA
K6	+	+	+	+	+	+	+	+	+	+	PA
K8	+	+	+	+	+	+	+	+	+	+	PA
K16	+	+	+	+	+	+	+	+	+	+	PA
K17	+	+	+	+	+	+	+	+	+	+	PA
K18	+	+	+	+	+	+	+	+	+	+	PA



## Laboratory L

Aerobic mesophilic flora: 1,8.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
L3	-	-	-	-	/	-	-	/	/	-	NA
L9	-	-	-	-	/	-	-	/	/	-	NA
L11	-	-	-	-	/	-	-	/	/	-	NA
L12	-	-	-	-	/	-	-	/	/	-	NA
L15	-	-	-	-	/	-	-	/	/	-	NA
L19	-	-	-	-	/	-	-	/	/	-	NA
L22	-	-	-	-	/	-	-	/	/	-	NA
L24	-	-	+	+	+	+	-	/	/	-	ND
L4	+	+	+	+	+	+	+	+	+	+	PA
L7	+	+	+	+	+	+	+	+	+	+	PA
L10	+	+	+	+	+	+	+	+	+	+	PA
L13	+	+	+	+	+	+	+	+	+	+	PA
L14	+	+	+	+	+	+	+	+	+	+	PA
L20	+	+	+	+	+	+	+	+	+	+	PA
L21	+	+	+	+	+	+	+	+	+	+	PA
L23	+	+	+	+	+	+	+	+	+	+	PA
L1	+	+	+	+	+	+	+	+	+	+	PA
L2	+	+	+	+	+	+	+	+	+	+	PA
L5	+	+	+	+	+	+	+	+	+	+	PA
L6	+	+	+	+	+	+	+	+	+	+	PA
L8	+	+	+	+	+	+	+	+	+	+	PA
L16	+	+	+	+	+	+	+	+	+	+	PA
L17	+	+	+	+	+	+	+	+	+	+	PA
L18	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory M

Aerobic mesophilic flora: 3,8.10<sup>2</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
M3	-	-	-	-	/	-	-	/	/	-	NA
M9	-	-	-	-	/	-	-	/	/	-	NA
M11	-	-	-	-	/	-	-	/	/	-	NA
M12	-	-	-	-	/	-	-	/	/	-	NA
M15	-	-	-	-	/	-	-	/	/	-	NA
M19	-	-	-	-	/	-	+	-	/	-	PPNA
M22	-	-	-	-	/	-	-	/	/	-	NA
M24	-	-	-	-	/	-	-	/	/	-	NA
M4	+	+	+	+	+	+	+	+	+	+	PA
M7	-	+	-	+	-	-	+	+	+	+	PD
M10	+	+	+	+	-	-	+	+	+	+	PD
M13	+	+	+	+	+	+	+	+	+	+	PA
M14	+	+	+	+	+	+	+	+	+	+	PA
M20	+	+	+	+	+	+	+	+	+	+	PA
M21	+	+	+	+	+	+	+	+	+	+	PA
M23	+	+	+	+	+	+	+	+	+	+	PA
M1	+	+	+	+	-	-	+	-	/	-	PPNA
M2	+	+	+	+	+	+	+	-	/	-	PPND
M5	+	+	+	+	-	-	+	+	+	+	PD
M6	+	+	+	+	-	-	+	+	+	+	PD
M8	+	+	+	+	+	+	+	+	+	+	PA
M16	+	+	+	+	-	-	+	+	+	+	PD
M17	+	+	+	+	+	+	+	+	+	+	PA
M18	+	+	+	+	+	+	+	-	/	-	PPND

## Laboratory N

Aerobic mesophilic flora: 1,4.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
N3	-	-	-	-	/	-	-	-	/	-	NA
N9	-	-	-	-	/	-	-	-	/	-	NA
N11	-	-	-	-	/	-	-	-	/	-	NA
N12	-	-	-	-	/	-	-	-	/	-	NA
N15	-	-	-	-	/	-	-	-	/	-	NA
N19	-	-	-	-	/	-	-	-	/	-	NA
N22	-	-	-	-	/	-	-	-	/	-	NA
N24	-	-	-	-	/	-	-	-	/	-	NA
N4	+	+	+	+	+	+	+	+	+	+	PA
N7	+	+	+	+	+	+	+	+	+	+	PA
N10	+	+	+	+	+	+	+	+	+	+	PA
N13	+	+	+	+	+	+	+	+	+	+	PA
N14	+	+	+	+	+	+	+	+	+	+	PA
N20	+	+	+	+	+	+	+	+	+	+	PA
N21	+	+	+	+	+	+	+	+	+	+	PA
N23	+	+	+	+	+	+	+	+	+	+	PA
N1	+	+	+	+	+	+	+	+	+	+	PA
N2	+	+	+	+	+	+	+	+	+	+	PA
N5	+	+	+	+	+	+	+	+	+	+	PA
N6	+	+	+	+	+	+	+	+	+	+	PA
N8	+	+	+	+	+	+	+	+	+	+	PA
N16	+	+	+	+	+	+	+	+	+	+	PA
N17	+	+	+	+	+	+	+	+	+	+	PA
N18	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory O

Aerobic mesophilic flora: 2,1.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
03	-	-	-	-	/	-	-	/	/	-	NA
09	-	-	-	-	/	-	-	/	/	-	NA
011	-	-	-	-	/	-	-	/	/	-	NA
012	-	-	-	-	/	-	-	/	/	-	NA
015	+	+	+	+	+	+	-	-	/	-	ND
019	-	-	-	-	/	-	+ (curve between 2000 and 2500)	-	/	-	PPNA
022	-	-	-	-	/	-	-	/	/	-	NA
024	-	+/-	-	-	-	-	-	/	/	-	NA
04	+	+	+	+	+	+	+	+	+	+	PA
07	+	+	+	+	+	+	+	+	+	+	PA
010	+	+	+	+	+	+	+	+	+	+	PA
013	+	+	+	+	+	+	+	+	+	+	PA
014	+	+	+	+	+	+	+	+	+	+	PA
020	+	+	+	+	+	+	+	+	+	+	PA
021	+	+	+	+	+	+	+	+	+	+	PA
023	+	+	+	+	+	+	+	+	+	+	PA
01	+	+	+	+	+	+	+	+	+	+	PA
02	+	+	+	+	+	+	+	+	+	+	PA
05	+	+	+	+	+	+	+	+	+	+	PA
06	+	+	+	+	+	+	+	+	+	+	PA
08	+	+	+	+	+	+	+	+	+	+	PA
016	+	+	+	+	+	+	+	+	+	+	PA
017	+	+	+	+	+	+	+	+	+	+	PA
018	+	+	+	+	+	+	+	+	+	+	PA

## Laboratory P

Aerobic mesophilic flora: 1,4.10<sup>3</sup>/g

N° Sample	Reference method: ISO 6579						Alternative method: ANSR <i>Salmonella</i>				Agreement
	RVS		MKTTn		Latex	Final result	ANSR test result	RVS/XLD	Latex	Final result	
	XLD	Brilliance Salmonella	XLD	Brilliance Salmonella							
P3	-	-	-	-	/	-	-	/	/	-	NA
P9	-	-	-	-	/	-	-	/	/	-	NA
P11	-	-	-	-	/	-	-	/	/	-	NA
P12	-	-	-	-	/	-	-	/	/	-	NA
P15	-	-	-	-	/	-	-	/	/	-	NA
P19	-	-	-	-	/	-	-	/	/	-	NA
P22	-	-	-	-	/	-	-	/	/	-	NA
P24	-	-	-	-	/	-	-	/	/	-	NA
P4	+	+	+	+	+	+	+	+	+	+	PA
P7	+	+	+	+	+	+	+	+	+	+	PA
P10	+	+	+	+	+	+	+	+	+	+	PA
P13	+	+	+	+	+	+	+	+	+	+	PA
P14	+	+	+	+	+	+	+	+	+	+	PA
P20	+	+	+	+	+	+	+	+	+	+	PA
P21	+	+	+	+	+	+	+	+	+	+	PA
P23	+	+	+	+	+	+	+	+	+	+	PA
P1	+	+	+	+	+	+	+	+	+	+	PA
P2	+	+	+	+	+	+	+	+	+	+	PA
P5	+	+	+	+	+	+	+	+	+	+	PA
P6	+	+	+	+	+	+	+	+	+	+	PA
P8	+	+	+	+	+	+	+	+	+	+	PA
P16	+	+	+	+	+	+	+	+	+	+	PA
P17	+	+	+	+	+	+	+	+	+	+	PA
P18	+	+	+	+	+	+	+	+	+	+	PA