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NF VALIDATION
Validation of alternative analytical methods
Application in food microbiology

Summary report

Validation study according to the ISO 16140-2

Assurance® GDS MPX TOP 7 (screening), Assurance® GDS MPX ID (confirmation), Assurance® GDS EHEC ID (confirmation) for the detection of STEC from O26, O103, O111, O145 and O157 serogroups

(Certificate number: TRA 02/13-04/22)

in raw beef meat, raw and RTC meat products, Raw, RTC, RTRH and RTE poultry products, raw milk and dairy products and production environmental samples

Qualitative method

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This report consists of 183 pages, including 7 appendices.
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The results in this report relate only to the item(s) submitted for testing.
Competencies of the laboratory are certified by COFRAC accreditation for the analyses marked with the symbol◆.

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List of abbreviations 4

1 INTRODUCTION 6

2 METHOD PROTOCOLS 7

2.1 Alternative method 7

2.1.1 Principle 7

2.1.2 Protocol 8

2.2 Reference method 12

2.3 Study design 14

3 METHOD COMPARISON STUDY 14

3.1 Sensitivity study 14

3.1.1 Number and nature of samples 14

3.1.2 Artificial contamination of samples 16

3.1.3 Protocols applied during the validation study 17

3.1.4 Test results 20

3.1.5 Calculation of relative trueness (RT), sensitivity (SE), false positive ratio (FPR) and false negative ratio (FNR) for the alternative method 22

3.1.6 Analysis of discordant results 24

3.1.7 Enrichment broth storage at 5 ± 3 °C for 72 h 37

3.1.8 Confirmation 41

3.1.9 PCR inhibition 46

3.2 Relative level of detection 48

3.2.1 Experimental design 48

3.2.2 Calculation and interpretation of the RLOD 50

3.2.3 PPMX instrument evaluation 53

3.2.4 Conclusion 53

3.3 Inclusivity / exclusivity 53

3.3.1 Test protocol 54

3.3.2 Results 55

3.4 Practicability 56

4 INTER-LABORATORY STUDY 57

4.1 Study organisation 57

4.2 Experimental parameters controls 59

4.2.1 Strain stability and background microflora stability 59

4.2.2 Contamination levels 60

4.2.3 Logistic conditions 60

4.3 Results analysis 61

4.3.1 Expert laboratory results 61

4.3.2 Results observed by the collaborative laboratories 61

4.3.3 Results of the collaborators retained for interpretation 66

4.4 Calculation and interpretation 68

4.4.1 Calculation of the specificity percentage (SP) 68

4.4.2 Calculation of sensitivity (SE_{alt}), sensitivity for the reference method (SE_{ref}), relative trueness (RT, false positive ratio for the alternative method (FPR) and false negative ratio for the alternative method (FNR) 68

4.4.3 Interpretation of truesness data 69

4.4.4 Evaluation of the $LOD_{50\%}$ and RLOD between laboratories 72

5 CONCLUSION 73

- *Appendix 1 - Flow diagram of the alternative methods: Assurance® GDS MPX for Top 7 STEC, MPX ID for Top STEC and EHEC ID for E. coli O157:H7 75*
- *Appendix 2 – Flow diagram of the reference method: ISO/TS 13136 (November 2012): Microbiology of food and animal feed - Real-time polymerase chain reaction (PCR) based method for the detection of food-borne pathogens. Horizontal method for the detection of Shiga-toxin producing Escherichia coli (STEC) and the determination of O157, O111, O26, O103 and O145 serogroups 85*
- *Appendix 3 – Artificial contamination of samples 86*
- *Appendix 4 – Sensitivity study: raw data 95*
- *Appendix 5 – Relative level of detection study: raw data 153*
- *Appendix 6 – Inclusivity/exclusivity study: raw data 163*
- *Appendix 7 - Results obtained by the collaborative laboratories and the expert laboratory 168*

LIST OF ABBREVIATIONS

Method & protocol

CFU	Colony Forming Units
ILS	Interlaboratory Study
MCS	Method Comparison Study
RLOD	Relative Level of Detection
RT	Relative Trueness
RTC	Ready to cook
RTE	Ready to eat
RTRH	Ready to reheat
IC	Internal Control

Interpretation

AL	Acceptability Limit
Alt	Alternative method
$\overline{D}$	Average difference
FN	False Negative results
FNR	False Negative Ratio
FP	False Positive results
FPR	False Positive Ratio
LOD	Limit of Detection
NA	Negative agreement
$NA_{FN\ (alt)}$	Negative Agreement due to false negative alternative-method results
ND	Negative Deviation
$ND_{FN\ (alt)}$	Negative Deviation due to false negative alternative-method results
PA	Positive Agreement
$PA_{FP\ (alt)}$	Positive Agreement due to false positive alternative-method results
PD	Positive deviation
$PD_{FP(alt)}$	Positive Deviation due to false positive alternative-method results
SE	Relative Sensitivity
SP	Relative Specificity
Ref	Reference method
TNA	Total Negative Agreement
TND	Total Negative Deviation

Raw data

-	No typical colonies but presence of background microflora
-A	No typical colonies but presence of high level of background microflora
-B	No typical colonies but presence of medium level of background microflora
-C	No typical colonies but presence of low level of background microflora
(x)	Number of colonies in the plate
1/2	50% level of target analyte
d	Doubtful result
ne	New DNA extraction
NC	Non-characteristic colony
NI	No identification
ni	Not isolated colony
No amp	No Amplification – Inhibited sample
m	Minority level of target analyte
M	Majority level of target analyte
p	Pure culture level of target analyte
st	Plate without any colony
w	Weak reaction
Bold typing	**artificially inoculated samples**

Quality Assurance documents related to this study can be consulted upon request from **MILLIPORE SAS**.

The technical protocol and the result interpretation were carried out according to the ISO 16140-2:2016, ISO 16140-2/A1:2024 and the AFNOR technical rules (Revision 12).

Validation protocols	▪ ISO 16140-1:2016: Microbiology of the food chain - Method validation — *Part 1: Vocabulary* ▪ ISO 16140-2:2016 & ISO 16140-2/A1:2024: Microbiology of the food chain - Method validation — *Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method* ▪ AFNOR technical rules (Revision 12)
Reference method ♦	**ADRIA internal method based on ISO/TS 13136 (November 2012)**: Microbiology of food and animal feed - Real-time polymerase chain reaction (PCR) based method for the detection of food-borne pathogens. Horizontal method for the detection of Shiga-toxin producing *Escherichia coli* (STEC) and the determination of O157, O111, O26, O103 and O145 serogroups
Alternative methods	▪ **Assurance® GDS MPX TOP 7 (screening)** ▪ **Assurance® GDS MPX ID (confirmation)** ▪ **Assurance® GDS EHEC ID (confirmation)**
Scope	> **Raw beef meat** *(up to 25 g)* > **Raw beef meat** *(excluding seasoned meat (up to 375 g)* > **Raw and ready-to-cook meat** *(up to 25 g)* > **Raw, RTC, RTRH and RTE poultry** *(up to 25 g* > **Raw milk and dairy products** *(up to 25 g* > **Production environmental samples** *(up to 25 g/ml or sampling device)*
Certification organism	AFNOR Certification (http://nf-validation.afnor.org/)

1 INTRODUCTION

The Assurance® GDS MPX for Top 7 STEC, MPX ID for Top STEC and EHEC ID for *E. coli* O157:H7 method was validated in April 2022 (certificate number: TRA 02/13-04/22) for the detection and confirmation of Shiga-toxin-producing *Escherichia coli* (STEC) from O26, O103, O111, O145 and O157 serogroups in raw beef meat (25 g and 375 g test portion) and raw milk and dairy products (25 g test portion). The history of validation process is described in the table below:

Date	Description	Reference method	Validation standard	Conducted by
April 2022	**Initial validation for** the detection and confirmation of Shiga-toxin-producing *Escherichia coli* (STEC) from O26, O103, O111, O145 and O157 serogroups in: ▪ raw beef meat (up to 25 g and 375 g test portion) ▪ raw milk and dairy products (up to 25 g test portion)	ADRIA internal method based on ISO/TS 13136	ISO 16140-2:2016	ADRIA
May 2025	**Extension for new protocols and categories:** ▪ Raw and RTC meats (up to 25 g) and Raw milk and Dairy products (up to 25 g) with a new protocol (shortened enrichment time). ▪ Addition of Raw, RTC, RTRH and RTE poultry (up to 25 g) and production environmental samples (up to 25 g/ml or sample devices) in the scope of the method.	ADRIA internal method based on ISO/TS 13136	ISO 16140-2:2016 & ISO 16140-2/A1:2024	ADRIA
July 2025	**Extension for the use of the PPMX instrument for the first screening using MPX Top 7 Assurance® GDS**	/	/	Internal data from Millipore SAS
January 2026	**Renewal study**	ADRIA internal method based on ISO/TS 13136	ISO 16140-2:2016 & ISO 16140-2/A1:2024	ADRIA

2 METHOD PROTOCOLS

2.1 Alternative method

2.1.1 Principle

The Assurance GDS® are automated nucleic acid amplification system for the detection of pathogens in foods samples. The samples are prepared for analysis following an IMS concentration procedure using the PickPen® II device.

The detection of STEC is performed using (up to) three kits:

- **Assurance® GDS MPX for Top 7 STEC** assay for detection of *stx*1 , *stx*2, *eae* and O157:H7 targets.
- **Assurance® GDS MPX ID for Top STEC** assay for detection of O103, O111, O121, O145, O26, and O45 serogroups (O45 and O121 are not in the scope of the NF validation study). There are two amplification tubes utilized per sample. The MPX Group 1 STEC Amplification is dedicated to detection of O103, O121 and O45 serogroups. The MPX Group 2 STEC Amplification is dedicated to detection of O111, O145 and O26 serogroups. The results of both amplification tubes are combined together by the GDS software.
- **Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq** assay for detection of O157:H7 serotype.

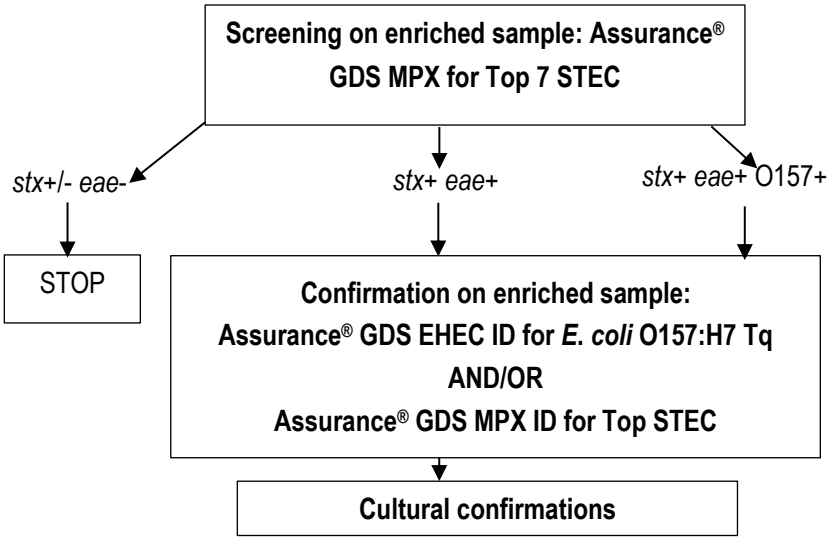
The targets detected with each test kit are listed in Table 1.

Table 1 -Targets detected with each kit

Target	Screening	Confirmation		
	Assurance® GDS MPX for Top 7 STEC	Assurance® GDS MPX ID for Top STEC		Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq
		Group 1	Group 2	
***stx*1**	X			X
***stx*2**	X			X
eae	X	X	X	
O157 *eae**	X			
O157				X
H7				X
O26			X	
O103		X		
O111			X	
O145			X	
O45**		X		
O121**		X		

* Some strains of STEC belonging to O145 may also be indicated as *E. coli* O157
** Not in the scope of the validation study

The use of the different kits is done according to the following scheme:



The GDS PickPen® PIPETMAX® (PPMX), an automated magnetic particles and liquid handler, can be used for the first screening test using MPX Top 7 Assurance® GDS assay. This automate reproduces the manual workflow to facilitate the extraction and preparation of the reagents.

2.1.2 Protocol

The protocols evaluated during the validation studies are described in the table 2 below. Detailed flow diagrams are available in **Appendix 1**.

Table 2 – Protocols for Detection of Top 7 STEC

Initial validation

Protocol steps			Protocol ① Raw beef meat	Protocol ② Raw beef meat excluding seasoned meat	Protocol ③ Raw milk	Protocol ④ Raw milk cheese
Test portion			25 g	375 g	25 g	25 g
Enrichment broth			Pre-warmed (41.5°C) mEHEC®	Pre-warmed (41.5°C) mEHEC®	Pre-warmed (41.5°C) mEHEC®	Pre-warmed (41.5°C) mEHEC®
Volume of enrichment broth			225 mL (d 1/10)	1500 mL (d 1/5)	225 mL (d 1/10)	225 mL (d 1/10)
Enrichment condition			8 - 16 h at 41.5°C ± 1°C	10 - 18 h at 41.5°C ± 1°C	18 - 24 h at 41.5°C ± 1°C	18 - 24 h at 41.5°C ± 1°C
Subculture			/	/	/	BHI for 2 - 4 h at 36.0°C ± 1°C
Immuno-concentration Lysis PCR (Screening and confirmation)	Screening: *stx, eae*, *eae* O157:H7		Assurance® GDS MPX for Top 7 STEC on 30 µL IMS sample from: - mEHEC® (except raw milk cheese) - BHI subculture for raw milk cheese			
	Confirmation	O26, O45 (1), O103, O111, O121 (1), O145	Assurance® GDS MPX ID for Top STEC on 30 µL IMS sample from mEHEC® (MPX Group 1 and MPX Group 2)			
		O157	Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq on 30 µL IMS sample from mEHEC®			
Cultural confirmation on enrichment broth	O26, O45 (1) O103, O111 O121 (1), O145		• **For Top 4 non-O157** - On 1 ml enriched sample (**mEHEC®**) using concentration reagent (MPX ID) and streak IMS beads (20 µL) onto CHROMagar™ STEC **AND** either Rainbow® agar with novobiocin and cefixime (RANC) **or** ChromID™ EHEC **or** Tryptone Bile X-Glucuronide (TBX) - Or using the remaining beads for MPX ID from resuspension plate: Streak IMS beads (20 µL) onto selective agar plates, as described above			
	O157		• **For O157**: Streak 10 µL enriched sample (**mEHEC®**) onto CHROMagar™ O157 **or** Sorbitol MacConkey agar containing cefixime and tellurite (CT-SMAC) **or** EC O157:H7 ChromoSelect agar modified			
Confirmation of isolated colonies	Colonies testing (up to 5 colonies)		• **For Top 4 non-O157:** - Assurance® GDS MPX for Top 7 STEC **AND** Assurance® GDS MPX ID for Top STEC • **For O157**: - Assurance® GDS MPX for Top 7 STEC **AND** Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq			

(1): not in the scope of the validation study

Extension study in 2025

Protocol steps			Protocol ⑤ Raw meat and RTC meat (except poultry)	Protocol ⑥ Raw, RTC, RTRH and RTE poultry	Protocol ⑦ Raw milk and dairy products Production environmental samples
Test portion			Up to 25 g	Up to 25 g	Up to 25 g / ml Or sampling device
Enrichment broth			Pre-warmed (41.5°C) mEHEC® + Tween 80 for high fat content (>20%)	Pre-warmed (37°C) mEHEC®+ Tween 80 for high fat content (>20%)	Pre-warmed (41.5°C) mEHEC® + Tween 80 for high fat content (>20%)
Volume of enrichment broth			225 mL (d 1/10)	225 mL (d 1/10)	225 mL (d 1/10) or volume adapted to the sampling device
Enrichment condition			6 - 24 h at 41.5°C ± 1°C	8 - 24 h at 41.5°C ± 1°C	10 - 24 h at 41.5°C ± 1°C
Immuno-concentration Lysis - PCR (Screening and confirmation)	Screening: *stx, eae*, *eae* O157:H7		Assurance® GDS MPX for Top 7 STEC on 30 µL IMS sample from mEHEC®		
	Confir-mation	O26, O45 (1), O103, O111, O121 (1), O145	Assurance® GDS MPX ID for Top STEC on 30 µL IMS sample from mEHEC® (MPX Group 1 and MPX Group 2)		
		O157	Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq on 30 µL IMS sample from mEHEC®		
Cultural confirmation	O26, O45 (1) O103, O111 O121 (1), O145		• **For Top 4 non-O157** - On 1 mL enriched sample (**mEHEC®**) using concentration reagent (MPX ID) and streak IMS beads (20 µL) onto CHROMagar™ STEC **AND** ChromID™ EHEC **or** Tryptone Bile X-Glucuronide (TBX) - Or using the remaining beads for MPX ID from resuspension plate: streak IMS beads (20 µL) onto selective agar plates, as described above		
	O157		• **For O157**: - Streak 10 µL enriched sample (**mEHEC®**) onto CHROMagar™ O157 **or** Sorbitol MacConkey agar containing cefixime and tellurite (CT-SMAC) **or** EC O157:H7 ChromoSelect agar modified - Or using the remaining beads for MPX ID from resuspension plate: streak IMS beads (20 µL) onto selective agar plates, as described above		
Confirmation of isolated colonies	Colonies testing (up to 5 colonies)		• **For Top 4 non-O157:** - Assurance® GDS MPX for Top 7 STEC **AND** Assurance® GDS MPX ID for Top STEC • **For O157**: - Assurance® GDS MPX for Top 7 STEC **AND** Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq		

(1): not in the scope of the validation study

The interpretation of the results is done as follows:

Table 3 - Interpretation for the Assurance GDS method for STEC detection

PCR Screening			PCR confirmation					Confirmation on colony	Results
PCR MPX Top 7			PCR MPX ID		PCR EHEC ID				
stx 1 or stx 2	*eae*	*eae* O157	*eae* 1 or *eae* 2 or *eae* 3	O26 or O103 or O11 or O145	*stx*	O157	H7		
-	- or +	- or +	/	/	/	/	/	/	-
+	-	- or +	/	/	/	/	/	/	-
+	+	-	- or +	-	/	/	/	/	-
		-	- or +	+	/	/	/	+	+
		-	- or +	+	/	/	/	-	-
		+	/	/	+	-	- or +	/	Unconclusive, test MPX ID
		+	/	/	+	+	- or +	+	+
		+	/	/	+	+	- or +	-	Inconclusive, test MPX ID

2.2 Reference method ♦

The reference method corresponds to **ADRIA internal method based on ISO/TS 13136 (November 2012)**: Microbiology of food and animal feed - Real-time polymerase chain reaction (PCR) based method for the detection of food-borne pathogens. Horizontal method for the detection of Shiga-toxin producing *Escherichia coli* (STEC) and the determination of O157, O111, O26, O103 and O145 serogroups.

The flow diagram of the reference method is given in **Appendix 2**.

The decision tree for the ISO/TS 13136 reference method is the following (See Figure 1):

Figure 1 - Decision tree for the reference method

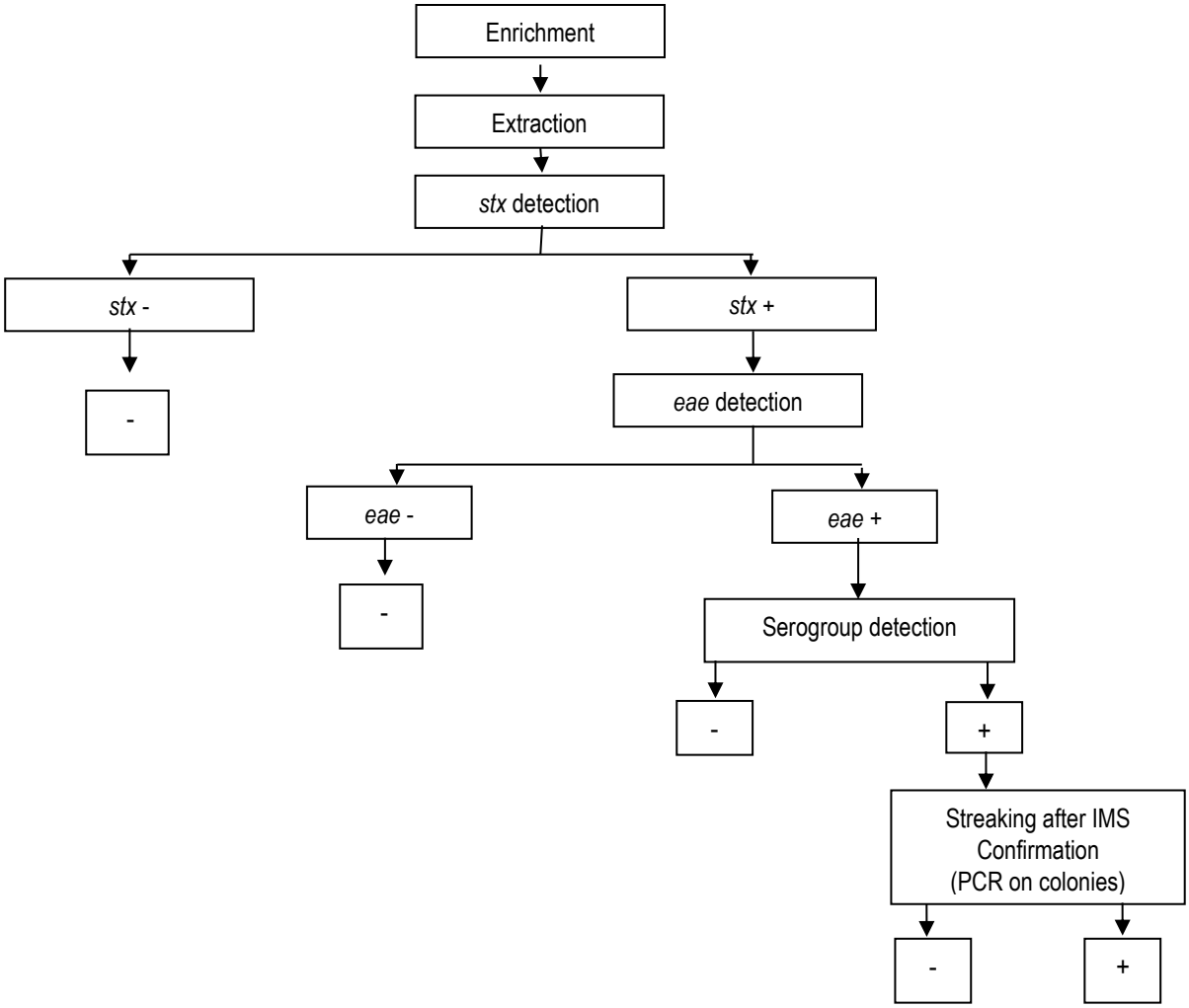


Table 4 describes the different possibilities of conclusions according to the ISO/TS 13136 method. As the target of the alternative method concerns the positive *stx*1 or/and *stx*2 and *eae* and serogroup, the results are interpreted as described in the last column in Table 4.

Table 4 - Interpretation for the ISO/TS 13136 method

PCR *stx*	PCR *eae*	PCR Serogroup	Confirmation on colony	Conclusion	Final result in the report
-	/	/	/	STEC not detected	-
+	-	/	-	Presumptive detection of STEC	-
	-	/	+	STEC detected	-
+	+	-	-	Presumptive detection of STEC associated with attaching-effacing activity	-
			+	Detection of STEC associated with attaching-effacing activity	-
		+	-	Presumptive detection of STEC from serogroup XXX	-
			+	STEC from serogroup XXX detected	+

The environmental production samples category is part of the scope of the ISO/TS 13136 but is not in the scope of accreditation of the ADRIA internal method. To demonstrate the capacity of the method to correctly detect the Shiga-toxin *E. coli* in this category of product, it was agreed with the technical committee to perform three different LOD_{50} evaluation. The matrices strain pairs tested are described in Table 5 with the calculated LOD_{50}.

Table 5 – LOD_{50} of the ISO/TS 13136 internal ADRIA method on production environmental samples

Category	(Strain / matrix) pair	Level of detection at 50% (CFU / sample size) according to Wilrich & Wilrich[1]
Production environmental samples	Process water (milk industry) / *E. coli* O26 Ad2826	0.69 [0.39;1.24]
	Vegetable waste / *E. coli* O103 Ad3318	0.57 [0.33; 0.97]
	Wipe (meat industry) / *E. coli* O157 Ad489	0.80 [0.46; 1.39]

Following those results, the Technical Committee agreed, in October 2024, that ADRIA is capable to conduct NF certification testing using ADRIA internal method based on ISO/TS 13136 on production environmental samples. These assays were performed outside COFRAC accreditation.

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

2.3 Study design

The study is **an unpaired study design**.

For the initial validation and the extension study, the same test portion was used between the reference and the alternative method (25g or 375g) but different enrichment procedures (broths, incubation times, incubation temperatures).

3 METHOD COMPARISON STUDY

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

The study was carried out on a diversity of samples and strains representative of agri-food products. This does not constitute an exhaustive list of the different matrices included in the scope.
For any comment on the alternative method, please contact AFNOR Certification at http://nf-validation.afnor.org/contact-2/.

3.1 Sensitivity study

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

3.1.1 Number and nature of samples

Combining the initial validation and the extension, 506 samples were tested. The distribution per tested category and type is given in Table 6.

Table 6 – Distribution per tested category and type

		Category	Test portion	Protocol		Type	Positive samples	Negative samples	Total
Initial validation	1	Raw beef meat	Up to 25g	Protocol ① 8h 41.5°C	a	Fresh meats (ground beef, beef trim)	10	10	20
					b	Frozen and thawed meats (ground beef, beef trim)	11	13	24
					c	Meats with seasonings (carpaccio's, tartars, seasoned ground beef)	10	10	20
						Total	31	33	64
			Up to 375g	Protocol ② 10h 41.5°C	a	Fresh meats (ground beef, beef trim)	17	13	30
					b	Frozen and thawed meats (ground beef, beef trim)	14	17	31
						Total	31	30	61
	2	Raw milk and dairy products	Up to 25g	Protocol ③ 18h 41.5°C	a	Raw milk (cow, goat, ewe)	35	38	73
						Total	35	38	73
				Protocol ④ 18h 41.5°C +BHI	b	Hard cheese (cow, goat, ewe)	16	14	30
					c	Soft cheese (cow, goat, ewe)	14	22	36
						Total	30	36	66
Extension study 2025	3	Raw and RTC meats (except poultry)	Up to 25g	Protocol ⑤ 6h 41.5°C	a	Fresh meats (beef, pork, lamb, veal), unprocessed (ground meat, trim, pork, lamb)	11	10	21
					b	Meat (beef, pork, lamb, veal), with seasonings (beef tartare, carpaccio, brochette)	10	10	20
					c	Frozen raw meats	11	9	20
						Total	32	29	61
				Protocol ⑤ 24h 41.5°C	a	Fresh meats (beef, pork, lamb, veal), unprocessed (ground meat, trim, pork, lamb)	12	9	21
					b	Meat (beef, pork, lamb, veal), with seasonings (beef tartare, carpaccio, brochette)	10	10	20
					c	Frozen raw meats	11	9	20
						Total	33	28	61
	4	**Raw, RTC, RTRH and RTE poultry**	Up to 25g	Protocol ⑥ 8 h 41.5°C	a	Raw poultry (fresh or frozen)	10	10	20
					b	Raw delicatessen and seasoned poultry	11	9	20
					c	Heat-treated and RTE poultry product (including cooked delicatessen)	11	9	20
						Total	32	28	60
				Protocol ⑥ 24 h 41.5°C	a	Raw poultry (fresh or frozen)	10	10	20
					b	Raw delicatessen and seasoned poultry	11	9	20
					c	Heat-treated and RTE poultry product (including cooked delicatessen)	11	9	20
						Total	32	28	60
	5	Raw milk and dairy products	Up to 25g	Protocol ⑦ 10 h 41.5°C	a	Raw milk (raw milk)	17	13	30
					b	Raw milk-based products (soft and semi-hard cheeses)	13	18	31
						Total	30	31	61
				Protocol ⑦ 24 h 41.5°C	a	Raw milk (raw milk)	17	13	30
					b	Raw milk-based products (soft and semi-hard cheeses)	12	19	31
						Total	29	32	61

	Category		Test portion	Protocol	Type		Positive samples	Negative samples	Total
Extension study 2025	6	Production environmental samples	Up to 25g or sample device	Protocol ⑦ 10 h 41.5°C	a	Surfaces	11	9	20
					b	Dust and wastes	10	10	20
					c	Process water	11	9	20
						Total	32	28	60
				Protocol ⑦ 24 h 41.5°C	a	Surfaces	12	8	20
					b	Dust and wastes	10	10	20
					c	Process water	11	9	20
						Total	33	27	60
	All categories and protocols - Short incubation time for categories 3, 4, 5 and 6						253	253	506
	All categories and protocols - Long incubation time for categories 3, 4, 5 and 6						254	252	506

3.1.2 *Artificial contamination of samples*

A total of seven samples were found naturally contaminated (six during the original validation and one during the extension). All coming from meat and dairy products.

Artificial contaminations were all done by seeding protocol with a large majority of positive samples inoculated below 3 CFU/test portion (82%).
During the initial validation, 153 samples were artificially contaminated, using 52 different strains. 121 gave a positive result.
During the extension, 150 samples were artificially contaminated, using 50 different strains. 127 gave a positive result.
The repartition of the positive samples per inoculation protocol and inoculation level combining all the studies is given in Table 7.

Table 7 - Repartition of the positive samples per inoculation protocol and inoculation level

Category	Naturally contaminated	Seeding protocol		Total positive samples
		≤ 3 CFU	3 < x ≤ 5.6 CFU	
1	3	39	20	62
2	3	51	11	65
3	1	32	0	33
4	0	28	4	32
5	0	25	5	30
6	0	33	0	33
All samples	7	208	40	255
%	3%	82%	16%	100%

As required in the AFNOR technical rules (Revision 12), the meat and poultry products were mainly contaminated with strains belonging to O145 serogroup (5 to 8 samples per category and protocol tested) and O157 serogroup (7 to 19 samples per category tested), the dairy products with O26 serogroup (10 to 19 samples per category tested) and O103 serogroup (10 to 18 samples per category tested). A variety of strains were used for the production environmental category (see Table 8).

Table 8 – Distribution of positive samples per serogroup detected per category

Category			O26	O103	O111	O145	O157	Mix	Total
1	Raw beef meat	Up to 25 g	4	6	3	8	9	1	31
		Up to 375 g	5	3	6	8	7	2	31
2	Raw milk and dairy products	Up to 25 g	19	18	8	9	9	2	65
3	Raw and RTC meats (except poultry)	Up to 25 g	5	4	0	5	19	0	33
4	Raw, RTC, RTRH and RTE poultry	Up to 25 g	5	8	0	8	11	0	32
5	Raw milk and dairy products	Up to 25 g	10	10	3	2	5	0	30
6	Production environmental samples	Up to 25 g/ml or sampling devices	4	7	3	6	13	0	33
All categories			52	56	23	46	73	5	255

Considering the initial validation and the extension, 3% of the positive samples were naturally contaminated. A variety of strains from different O-group were evaluated during the study.

3.1.3 *Protocols applied during the validation study*

> *Incubation times*

During the initial validation, the minimum times were applied.
For the extension study, as the new protocols propose a wide incubation time range, maximum incubation times were also tested. The table below summarize the time evaluated during the study:

Category	Test portion	Protocol	Incubation time for Assurance® GDS MPX for Top 7 STEC (Screening on enriched samples)	Incubation time for Assurance® GDS MPX ID AND Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq (confirmation on enriched samples)
Raw beef meat	25 g	①	8 h	10 h
	375 g *(excluding seasoned meat)*	②	10 h	12 h
Raw milk and dairy products	25 g	③	18 h (raw milk)	20 h (raw milk)
		④	18 h with subculture for 2 h in BHI (raw milk cheese)	22 h (raw milk cheese)
Raw and RTC meats (except poultry)	25 g	⑤	6h and 24h	8h and 26h

Category	Test portion	Protocol	Incubation time for Assurance® GDS MPX for Top 7 STEC (Screening on enriched samples)	Incubation time for Assurance® GDS MPX ID AND Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq (confirmation on enriched samples)
Raw, RTC, RTRH and RTE poultry	25 g	⑥	8h and 24h	10h and 26h
Raw milk and dairy products	25 g	⑦	10h and 24h	12h and 26h
Production environmental samples	25 g	⑦	10h and 24h	12h and 26h

For the extension study, as the new protocols propose a wide incubation time range, the minimum and maximum incubation times were tested as described below:

- ***Sample preparation protocol***

During the sensitivity study, for initial validation study and extension study, the manual workflow was used.
During the extension study, the PPMX was evaluated in parallel to the manual workflow for two RLOD (Raw, RTC, RTRH and RTE poultry and Raw milk and dairy products). Only the screening part using MPX Top 7 was tested in the instrument.

- ***Instrument***

Samples were analysed on the GDS Rotor-Gene Q Thermocycler and Assurance® GDS Rotor-Gene® software.

- ***PCR inhibition***

In case of inhibition, a new extraction from the enrichment broth was performed.

- ***Confirmation***

Sample with positive O157 results using the kit MPX was tested with both MPX ID and EHEC ID in parallel.
During the validation study (initial and extension studies), the cultural confirmation tests were run as described in Table 9 at minimum incubation time only. Maximum time was tested in case of discordant results.

Table 9 - Confirmation protocols for Assurance GDS STEC method

	Direct streaking	Cultural confirmation on enrichment broth with STEC concentration reagent	Cultural confirmation from Assurance® GDS MPX ID or EHEC ID resuspension plate	Selective agar plate
Top 4 non-O157	/	*For initial validation study only:* ***For all categories****: using* Assurance® GDS MPX ID Concentration Reagent (IMS beads) on 1 ml (mEHEC) enriched sample (positive samples): streak beads (20 µL) onto selective agar plates	**For all categories**: using the remaining IMS beads from Assurance® GDS MPX ID resuspension plates: suspend beads and streak (20 µL) onto selective agar plates	- CHROMagar™ STEC - ChromID™ EHEC - Tryptone Bile X-Glucuronide (TBX) - Rainbow® agar with novobiocin and cefixime (RANC) – *for initial validation study only*
O157	**For all categories**: streak 10 µL onto selective agar plates	/	*For raw dairy category during the initial validation and for all categories during the extension study:* By using the remaining IMS beads from Assurance® GDS MPX EHEC ID for *E. coli* O157:H7 Tq resuspension plates: suspend beads and streak (20 µL) onto selective agar plates	- CHROMagar™ O157 - Sorbitol MacConkey agar containing cefixime and tellurite (CT-SMAC) - EC O157:H7 ChromoSelect Agar Modified

During the extension study, it was proposed to evaluate only one of the confirmation protocols using the IMS beads (remaining beads) additionally to the direct streaking for O157 as both protocols are similar and the concentration reagent protocol has been evaluated on other categories.

When using remaining beads, several selective agar plates are listed in the kit insert but only two of them were tested per sample (20 µL beads suspension required for streaking on each plate and only 40 µL beads suspension available for streaking onto selective agar plates). It was proposed to test all the positive samples using the CHROMagar™ STEC or CHROMagar™ O157, and to distribute the samples over the different categories and with a minimum of 2 or 3 samples tested per agar and per category.

The incubation of the agar plates was done per manufacturer's instructions.

- **Confirmation of isolated colonies** (test up to 5 colonies): typical colonies from CHROMagar™ STEC or CHROMagar™ O157 were tested and if only non-typical colonies or no colonies was present on first plate choice, colonies from the other plates were used for the following PCR tests:

  - **For Top 4 non-O157**
    - Assurance® GDS MPX for Top 7 STEC
    - **AND** Assurance® GDS MPX ID for Top STEC
  - **For O157**
    - Assurance® GDS MPX for Top 7 STEC
    - **AND** Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq

In case of presumptive detection of more than one Top 5 STEC serotype in a sample, confirmation of only one serotype is required.

> ***Enrichment broth storage***

The enrichment broths of the alternative method from positive and discordant samples were stored for 72h at 5 ± 3°C and tested again (PCR and confirmatory tests).

3.1.4 Test results

Raw data per category are given in **Appendix 4**. The results are given in Table 10.

Table 10 – Summary of results obtained with the reference and alternative methods (after confirmation) of all samples for each category

	Category		Test portion	Protocol	PA	PD	TND	TNA	Total
Initial validation	1	Raw beef meat	Up to 25g	Protocol ① 8h 41.5°C	23	6	2	33	64
			Up to 375g	Protocol ② 10h 41.5°C	16	14	1	30	61
	2	Raw milk and dairy products	Up to 25g	Protocol ③ 18h 41.5°C	20	8	7	38	73
				Protocol ④ 18h 41.5°C +BHI	14	14	2	36	66
Extension study 2025	3	Raw and RTC meats (except poultry)	Up to 25g	Protocol ⑤ 6h 41.5°C	15	11	6	29	61
				Protocol ⑤ 24h 41.5°C	15	12	6	28	61
	4	Raw, RTC, RTRH and RTE poultry	Up to 25g	Protocol ⑥ 8 h 41.5°C	21	5	6	28	60
				Protocol ⑥ 24 h 41.5°C	22	5	5	28	60
	5	Raw milk and dairy products	Up to 25g	Protocol ⑦ 10 h 41.5°C	13	11	6	31	61
				Protocol ⑦ 24 h 41.5°C	14	10	5	32	61
	6	Production environmental samples	Up to 25g/ml or sample device	Protocol ⑦ 10 h 41.5°C	21	4	7	28	60
				Protocol ⑦ 24 h 41.5°C	21	5	7	27	60
All categories and protocols - Short incubation time for categories 3, 4, 5 and 6					143	73	37	253	506
All categories and protocols - Long incubation time for categories 3, 4, 5 and 6					145	74	35	252	506

Unpaired evaluation: $TND = ND + ND_{FN(alt)} + PA_{FP(alt)}$ $TNA = NA + NA_{FN(alt)} + PD_{FP(alt)}$

3.1.5 Calculation of relative trueness (RT), sensitivity (SE), false positive ratio (FPR) and false negative ratio (FNR) for the alternative method

The calculations are presented in Table 11.

Table 11 – Calculation of relative trueness (RT), sensitivity (SE), false positive ratio (FPR) and false negative ratio (FNR) for the alternative method

	Category		Test portion	Protocol	Type		PA	$PA_{FP(alt)}$	NA	$NA_{FN(alt)}$	PD	ND	$ND_{FN(alt)}$	$PD_{FP(alt)}$	TND	TNA	SE_{alt} %	SE_{ref} %	RT %	FPR %	FNR%
Initial validation	1	Raw beef meat	Up to 25g	Protocol ① 8h 41.5°C	A	Fresh meats (ground beef, beef trim)	6	0	10	0	3	1	0	0	1	10	90.0	70.0	80.0	0.0	0.0
					B	Frozen and thawed meats (ground beef, beef trim)	7	0	13	0	3	1	0	0	1	13	90.9	72.7	83.3	0.0	0.0
					C	Meats with seasonings (carpaccio's, tartars, seasoned ground beef)	10	0	10	0	0	0	0	0	0	10	100.0	100.0	100.0	0.0	0.0
						Total	23	0	33	0	6	2	0	0	2	33	93.5	80.6	87.5	0.0	0.0
			Up to 375g	Protocol ② 10h 41.5°C	A	Fresh meats (ground beef, beef trim)	10	0	13	0	7	0	0	0	0	13	100.0	58.8	76.7	0.0	0.0
					B	Frozen and thawed meats (ground beef, beef trim)	6	0	17	0	7	1	0	0	1	17	92.9	50.0	74.2	0.0	0.0
						Total	16	0	30	0	14	1	0	0	1	30	96.8	54.8	75.4	0.0	0.0
	2	Raw milk and dairy products	Up to 25g	Protocol ③ 18h 41.5°C	A	Raw milk (cow, goat, ewe)	20	1	34	2	8	6	0	2	7	38	80.0	77.1	79.5	7.9	5.7
						Total	20	1	34	2	8	6	0	2	7	38	80.0	77.1	79.5	7.9	5.7
				Protocol ④ 18h 41.5°C +BHI	B	Hard cheese (cow, goat, ewe)	7	0	13	1	8	1	0	0	1	14	93.8	50.0	70.0	0.0	6.3
					C	Soft cheese (cow, goat, ewe)	7	0	21	1	6	1	0	0	1	22	92.9	57.1	80.6	0.0	7.1
						Total	14	0	34	2	14	2	0	0	2	36	93.3	53.3	75.8	0.0	6.7
Extension study 2025	3	Raw and RTC meats (except poultry)	Up to 25g	Protocol ⑤ 6h 41.5°C	a	Fresh meats (beef, pork, lamb, veal), unprocessed (ground meat, trim, pork, lamb)	4	0	10	0	7	0	0	0	0	10	100.0	36.4	66.7	0.0	0.0
					b	Meat (beef, pork, lamb, veal), with seasonings (beef tartare, carpaccio, brochette)	6	0	10	0	1	2	1	0	3	10	70.0	90.0	80.0	0.0	10.0
					c	Frozen raw meats	5	0	9	0	3	3	0	0	3	9	72.7	72.7	70.0	0.0	0.0
						Total	15	0	29	0	11	5	1	0	6	29	81.3	65.6	72.1	0.0	3.1
				Protocol ⑤ 24h 41.5°C	a	Fresh meats (beef, pork, lamb, veal), unprocessed (ground meat, trim, pork, lamb)	4	0	9	0	8	0	0	0	0	9	100.0	33.3	61.9	0.0	0.0
					b	Meat (beef, pork, lamb, veal), with seasonings (beef tartare, carpaccio, brochette)	7	0	10	0	1	2	0	0	2	10	80.0	90.0	85.0	0.0	0.0
					c	Frozen raw meats	4	0	9	0	3	3	1	0	4	9	63.6	72.7	65.0	0.0	9.1
						Total	15	0	28	0	12	5	1	0	6	28	81.8	63.6	70.5	0.0	3.0
	4	Raw, RTC, RTRH and RTE poultry	Up to 25g	Protocol ⑥ 8 h 41.5°C	a	Raw poultry (fresh or frozen)	7	0	10	0	2	1	0	0	1	10	90.0	80.0	85.0	0.0	0.0
					b	Raw delicatessen and seasoned poultry	5	0	9	0	3	1	2	0	3	9	72.7	72.7	70.0	0.0	18.2
					c	Heat-treated and RTE poultry product (including cooked delicatessen)	9	0	9	0	0	2	0	0	2	9	81.8	100.0	90.0	0.0	0.0
						Total	21	0	28	0	5	4	2	0	6	28	81.3	84.4	81.7	0.0	6.3
				Protocol ⑥ 24 h 41.5°C	a	Raw poultry (fresh or frozen)	7	0	10	0	2	1	0	0	1	10	90.0	80.0	85.0	0.0	0.0
					b	Raw delicatessen and seasoned poultry	6	0	9	0	3	1	1	0	2	9	81.8	72.7	75.0	0.0	9.1
					c	Heat-treated and RTE poultry product (including cooked delicatessen)	9	0	9	0	0	2	0	0	2	9	81.8	100.0	90.0	0.0	0.0
						Total	22	0	28	0	5	4	1	0	5	28	84.4	84.4	83.3	0.0	3.1
	5	Raw milk and dairy products	Up to 25g	Protocol ⑦ 10 h 41.5°C	a	Raw milk (raw milk)	10	1	13	0	3	3	0	0	4	13	76.5	82.4	76.7	7.7	0.0
					b	Raw milk-based products (soft and semi-hard cheeses)	3	0	18	0	8	0	2	0	2	18	84.6	38.5	67.7	0.0	15.4
						Total	13	1	31	0	11	3	2	0	6	31	80.0	63.3	72.1	3.2	6.7
				Protocol ⑦ 24 h 41.5°C	a	Raw milk (raw milk)	10	1	13	0	3	3	0	0	4	13	76.5	82.4	76.7	7.7	0.0
					b	Raw milk-based products (soft and semi-hard cheeses)	4	0	19	0	7	1	0	0	1	19	91.7	41.7	74.2	0.0	0.0
						Total	14	1	32	0	10	4	0	0	5	32	82.8	65.5	75.4	3.1	0.0
	6	Production environmental samples	Up to 25g or sample device	Protocol ⑦ 10 h 41.5°C	a	Surfaces	6	0	8	0	1	4	0	1	4	9	63.6	90.9	75.0	11.1	0.0
					b	Dust and wastes	6	0	10	0	2	2	0	0	2	10	80.0	80.0	80.0	0.0	0.0
					c	Process water	9	0	9	0	1	1	0	0	1	9	90.9	90.9	90.0	0.0	0.0
						Total	21	0	27	0	4	7	0	1	7	28	78.1	87.5	81.7	3.6	0.0
				Protocol ⑦ 24 h 41.5°C	a	Surfaces	6	0	8	0	2	4	0	0	4	8	66.7	83.3	70.0	0.0	0.0
					b	Dust and wastes	6	0	10	0	2	2	0	0	2	10	80.0	80.0	80.0	0.0	0.0
					c	Process water	9	0	9	0	1	1	0	0	1	9	90.9	90.9	90.0	0.0	0.0
						Total	21	0	27	0	5	7	0	0	7	27	78.8	84.8	80.0	0.0	0.0
	All categories and protocols - Short incubation time for categories 3, 4, 5 and 6						**143**	**2**	**246**	**4**	**73**	**30**	**5**	**3**	**37**	**253**	**85.4**	**71.1**	**78.3**	**2.0**	**3.6**
	All categories and protocols - Long incubation time for categories 3, 4, 5 and 6						**145**	**2**	**246**	**4**	**74**	**31**	**2**	**2**	**35**	**252**	**86.2**	**70.9**	**78.5**	**1.6**	**2.4**

A summary of the results is given in Table 12.

Table 12 – Summary of results

		All categories and protocols	
		Short incubation time	Long incubation time
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} x\ 100\ \%$	85.4%	86.2%
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} x\ 100\ \%$	71.1%	70.9%
Relative trueness	$RT = \frac{(PA + TNA)}{N} x100\ \%$	78.3%	78.5%
False positive ratio for the alternative method (unpaired evaluation)	$FPR = \frac{PA_{FP(alt)} + PD_{FP\ (alt)}}{TNA} x\ 100\ \%$	2.0%	1.6%
False negative ratio for the alternative method (unpaired evaluation)	$FNR = \frac{NA_{FN(alt)} + ND_{FN(alt)}}{PA+TND+PD} x\ 100\ \%$	3.6%	2.4%

3.1.6 Analysis of discordant results

The negative deviations are given in Table 13 and the positive deviations in Table 14.

> ***Negative deviations***

During **the initial validation**, combining all the categories and test portions, 12 negative deviations were observed for this unpaired study design. The presence of STEC was not confirmed in any of these samples.
All samples in negative deviations were artificially contaminated.
Four samples in negative agreement (NA) were confirmed with the presence of Shiga-toxin producing *E. coli* in the enrichment broth ($NA_{FN(alt)} = 4$). Both came from the Raw Milk and Dairy products category.

During the **extension study in 2025**, a total of 25 negative deviations were observed for the short incubation time and 23 for the long incubation time. The negative deviations are distributed among all categories.
The presence of Shiga-toxin producing *E. coli* was confirmed in the enrichment broth for 5 samples at the short incubation time and 2 samples at the long incubation time ($ND_{FN(alt)} = 5$ and 2). For three samples, the confirmation was only possible after 24h incubation time or 72h of storage, showing a growth probably close to the limit of detection of the method.
Among the $ND_{FN(alt)}$, two samples at the short incubation time and two at the long incubation time showed negative MPX Top 7 results while a positive O-group was

found using the EHEC ID or MPX ID for TOP STEC. This difference could be explained by the two additional hours of incubation required prior to O-group analysis. For one sample (1268: raw cow milk), a positive PCR results were obtained with both PCR assays, but it was impossible to confirm the results at the short and long incubation time, despite several pooling performed ($PA_{FP(alt)}$ = 1). The same results were obtained after 72h of storage.

No samples in negative agreement (NA) were confirmed with the presence of Shiga-toxin producing *E. coli* in the enrichment broth ($NA_{FN(alt)}$ = 0).

> *Positive deviations*

During the initial validation, 42 positive deviations were obtained; one concerns a naturally contaminated sample (6131: Raw cow milk cheese). This sample was contaminated with an *E. coli* O26.

During the extension study, between 31 (short incubation time) and 32 (long incubation time) positive deviations were observed; all tested categories and o-group are concerned.

The analyses of discordant results according to the ISO 16140-2 is the following table (See Table 15).

Table 13 - Negative deviations

Initial validation study	Raw beef meat - 25 g sample size																																				
					Artificial contaminations			Final result ISO/TS 13136♦		Assurance® GDS STEC - Protocol ① (25 g + 225 ml (d1/10) PW mEHEC®) 8 h at 41.5°C																												
	Date	Sample N°	Product (French name)	Product	Strain	Inoculation level/ sample	Global result	Global result	Serogroup	PW mEHEC® 8h at 41.5°C Screening	PW mEHEC® 10h at 41.5°C Confirmation		Final result PCR	PW mEHEC® 10h at 41.5°C Cultural confirmation			Final result Assurance® GDS STEC		Agreement	ISO require-ments		PW mEHEC® 8 h at 41.5°C AFTER STORAGE Screening	PW mEHEC® 10 h at 41.5°C AFTER STORAGE Confirmation		Final result PCR after storage	PW mEHEC® 10 h at 41.5°C AFTER STORAGE Cultural confirmation			Final result Assurance® GDS STEC after storage		Agreement	Category	Type
										Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		Final confirmation result		Final confir-matory tests	Result	Serogroup			Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		Final confir-mation result		Final confirmatory tests after storage	Result	Serogroup				
														non-O157	O157					Result	Serogroup					non-O157	O157								
	2021	**2277**	**Viande bovine bavette d'Aloyau**	**Beef trim meat**	*E. coli* O157:H7 769	2,6	+	+	O157	-	/	-	-	/	-	-	-	/	ND	-	/	-	/	-	-	/	-	-	-	/	ND	1	a
	2021	**2569**	**Effeuillés charolais surgelé**	**Frozen beef trim**	*E. coli* O103 Ad3113	3,0	+	+	O103	-	-	/	-	-	/	-	-	/	ND	-	/	-	-	/	-	-	/	-	-	/	ND	1	b

Initial validation study	Raw beef meat - 375 g sample size																																				
					Artificial contaminations			Final result ISO/TS 13136♦		Assurance® GDS STEC - Protocol ② (375 g + 1500 ml (d1/5) PW mEHEC®) 10 h at 41.5°C																												
	Date	Sample N°	Product (French name)	Product	Strain	Inoculation level/ sample	Global result	Global result	Serogroup	PW mEHEC® 10h at 41.5°C Screening	PW mEHEC® 12h at 41.5°C Confirmation		Final result PCR	PW mEHEC® 12h at 41.5°C Cultural confirmation			Final result Assurance® GDS STEC		Agreement	ISO require-ments		PW mEHEC® 10 h at 41.5°C AFTER STORAGE Screening	PW mEHEC® 12 h at 41.5°C AFTER STORAGE Confirmation		Final result PCR after storage	PW mEHEC® 12 h at 41.5°C AFTER STORAGE Cultural confirmation			Final result Assurance® GDS STEC after storage		Agreement	Category	Type
										Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		Final confirmation result		Final confirmation result	Result	Serogroup			Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		Final confirmation result		Final confirmatory tests after storage	Result	Serogroup				
														non-O157	O157					Result	Serogroup					non-O157	O157								
	2021	**4110**	**Viande hachée pur bœuf 20% MG surgelée**	**Frozen ground beef meat**	*E. coli* O26:H11 12-62	1,2	+	+	O26	-	-	-	-	-	/	-	-	/	ND	-	/	-	-		-	-	/	-	-	/	ND	1	b

Raw milk

Initial validation study	Date	Sample N°	Product (French name)	Product	Artificial contaminations: Strain	Artificial contaminations: Inoculation level/sample	Global result	Final result ISO/TS 13136♦: Global result	Final result ISO/TS 13136♦: Serogroup	Assurance® GDS STEC - Protocol ③ 3 (25 g + 225 ml (d1/10) PW mEHEC®) 18h at41.5°C: PW mEHEC® 18h at 41.5°C Screening: Final result MPX TOP 7 STEC	PW mEHEC® 20h at 41.5°C Confirmation: Final result MPX ID	PW mEHEC® 20h at 41.5°C Confirmation: Final result EHEC ID	Final result PCR	PW mEHEC® 20h at 41.5°C Cultural confirmation: Final confirmation result: non-O157	PW mEHEC® 20h at 41.5°C Cultural confirmation: Final confirmation result: O157	PW mEHEC® 20h at 41.5°C Cultural confirmation: Final confirmatory tests	Final result Assurance® GDS STEC: Result	Final result Assurance® GDS STEC: Serogroup	Agreement	ISO requirements: Result	ISO requirements: Serogroup	PW mEHEC® 18h at 41.5°C AFTER STORAGE Screening: Final result MPX TOP 7 STEC	PW mEHEC® 20h at 41.5°C AFTER STORAGE Confirmation: Final result MPX ID	PW mEHEC® 20h at 41.5°C AFTER STORAGE Confirmation: Final result EHEC ID	Final result PCR after storage	PW mEHEC® 20 h at 41.5°C AFTER STORAGE Cultural confirmation: Final confirmation result: non-O157	PW mEHEC® 20 h at 41.5°C AFTER STORAGE Cultural confirmation: Final confirmation result: O157	PW mEHEC® 20 h at 41.5°C AFTER STORAGE Cultural confirmation: Final confirmatory tests after storage	Final result Assurance® GDS STEC after storage: Result	Final result Assurance® GDS STEC after storage: Serogroup	Agreement	Category	Type
Initial validation study	2021	**5584**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O26:H11 Ad3098	1,2	+	+	O26	-	-	/	-	/	/	-(18h)	-	/	**ND**	-	/	-	O45	/	-	-	/	-	-	/	**ND**	2	a
Initial validation study	2021	**5587**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O103 Ad3157	0,8	+	+	O157	-	-	/	-	/	/	-(18h)	-	/	**ND**	-	/	-	-	/	-	-	/	-	-	/	**ND**	2	a
Initial validation study	2021	**5598**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O26:H11 Ad3098	1,2	+	+	O26	-	-	/	-	/	/	-(18h)	-	/	**ND**	-	/	-	-	/	-	-	/	-	-	/	**ND**	2	a
Initial validation study	2021	**5911**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O111 Ad3161	1,4	+	+	O111	+	O111	/	O111	-	/	- (-ISO method)	-	/	**PA** FP(alt)	-	/	+	O111	/	O111	-	/	- (-ISO method)	-	/	**PA** FP(alt)	2	a
Initial validation study	2021	**5917**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O26 Ad2632	0,6	+	+	O26	-	-	/	-	-	/	-	-	/	**ND**	-	/	-	-	/	-	-	/	-	-	/	**ND**	2	a
Initial validation study	2021	**5920**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O103 Ad3244	1,6	+	+	O103	-	-	/	-	-	/	-	-	/	**ND**	-	/	-	-	/	-	-	/	-	-	/	**ND**	2	a
Initial validation study	2021	**5921**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O26 Ad1741	0,6	+	+	O26	-	-	/	-	-	/	-	-	/	**ND**	-	/	-	-	/	-	-	/	-	-	/	**ND**	2	a

Raw milk cheese

Initial validation study	Date	Sample N°	Product (French name)	Product	Artificial contaminations: Strain	Artificial contaminations: Inoculation level/sample	Global result	Final result ISO/TS 13136♦: Global result	Final result ISO/TS 13136♦: Serogroup	Assurance® GDS STEC - Protocol ④ (25 g + 225 ml (d1/10) PW mEHEC®) 18h at41.5°C: PW mEHEC® 18h at 41.5°C + 2 h subculture in BHI Screening: Final result MPX TOP 7 STEC	PW mEHEC® 22h at 41.5°C Confirmation: Final result MPX ID	PW mEHEC® 22h at 41.5°C Confirmation: Final result EHEC ID	Final result PCR	PW mEHEC® 22h at 41.5°C Cultural confirmation: Final confirmation result: non-O157	PW mEHEC® 22h at 41.5°C Cultural confirmation: Final confirmation result: O157	PW mEHEC® 22h at 41.5°C Cultural confirmation: Final confirmatory tests	Final result Assurance® GDS STEC: Result	Final result Assurance® GDS STEC: Serogroup	Agreement	ISO requirements: Result	ISO requirements: Serogroup	PW mEHEC® 18h at 41.5°C + 2 h subculture in BHI AFTER STORAGE Screening: Final result MPX TOP 7 STEC	PW mEHEC® 22h at 41.5°C AFTER STORAGE Confirmation: Final result MPX ID	PW mEHEC® 22h at 41.5°C AFTER STORAGE Confirmation: Final result EHEC ID	Final result PCR after storage	PW mEHEC® 20 h at 41.5°C AFTER STORAGE Confirmations on colonies: Final confirmation result: non-O157	PW mEHEC® 20 h at 41.5°C AFTER STORAGE Confirmations on colonies: Final confirmation result: O157	PW mEHEC® 20 h at 41.5°C AFTER STORAGE: Final confirmatory tests after storage	Final result Assurance® GDS STEC after storage: Result	Final result Assurance® GDS STEC after storage: Serogroup	Agreement	Category	Type
Initial validation study	2021	**4771**	**Ossau Iraty lait cru de brebis**	**Hard raw ewe milk cheese**	*E. coli* O26 Ad3036	1,4	+	+	O26	-	-	/	-	-	/	-	-	/	**ND**	-	/	-	-		-			-	-	/	**ND**	2	b
Initial validation study	2021	**5119**	**Fromage au lait cru de chèvre (Picodon)**	**Soft raw goat milk cheese**	*E. coli* O157 Ad3185	2,2	+	+	O157	-	/	/	-	/	/	-(18h)	-	/	**ND**	-	/	-	-		-			-	-	/	**ND**	2	c

	Year	Sample N°	Product	Artificial contaminations		Reference method: ISO/TS 13136♦		Alternative method: Assurance® GDS STEC - 25g +225ml pre-warmed (41.5°C) mEHEC																							
								Short incubation time (6/8/10h)												Long incubation time (24h)											
								PCR result				Confirmations				Final result short time		Agreement Ref/Alt short time		PCR result				Confirmations				Final result long time		Agreement Ref/Alt long time		
				Strain	Inoculation level/sample	Final result stx/eae	Sero-group	MPX TOP 7 STEC	MPX ID FOR TOP STEC	EHEC ID	Final PCR result	Beads from resuspension plate (non-O157 and O157)	Concentration reagent protocol	Direct streaking (O157)	Final Confirmation result	Final result	Sero-group		MPX TOP 7 STEC	MPX ID FOR TOP STEC	EHEC ID	Final PCR result	Beads from resuspension plate (non-O157 and O157)	Concentration reagent protocol	Direct streaking (O157)	Final Confirmation result	Final result	Sero-group		Category	Type
Extension study	2024	**679**	**Marinated beef carpaccio**	*E.* coli O157:H7 Ad485	1.2	+	O157	'	/	+O157	- (O157)	+O157	/	+O157	+	-	/	$ND_{FN(alt)}$	+	/	+O157	+O157	+O157	/	+O157	+	+	O157	PA	3	b
	2024	**1509**	**Marinated mutton belly**	*E.* coli O145:H28 2305-1	1	+	O145	-	-	-	-	-	-	-	-	-	/	ND	-	/	/	-	-	-	/	-	-	/	ND	3	b
	2024	**3315**	**Mexican pork chop**	*E.* coli O157:H7 Ad1071	2.6	+	O157	-	-	-	-	-	/	-	-	-	/	ND	-	-	-	-	-	/	-	-	-	/	ND	3	b
	2024	**3526**	**Frozen rump steak**	*E.* coli O157:H7 Ad976	2	+	O157	-	-	/	-	-	/	-	-	-	/	ND	-	-	-	-	-	/	-	-	-	/	ND	3	c
	2024	**3529**	**Frozen pork chop**	*E.* coli O26 Ad3320	0.8	+	O26	-	-	/	-	-	/	/	-	-	/	ND	-	-	/	-	-	/	/	-	-	/	ND	3	c
	2024	**3530**	**Frozen pork belly**	*E.* coli O157:H7 Ad976	2	+	O157	-	-	/	-	-	/	-	-	-	/	ND	-	-	-	-	-	/	-	-	-	/	ND	3	c
	2024	**3531**	**Frozen pork stir-fry**	E. coli O157:H7 Ad1174	1.2	+	O157	+	-	+O157	+O157	+O157	/	+O157	+	+	O157	PA	- /+/+	-	+O157	- (O157)	+O157	/	+O157	+	-	/	$ND_{FN(alt)}$	3	c
	2024	**2827**	**Turkey escalope**	*E.* coli O157:H7 B177	2.6	+	O157	-	+O145	+O157	-	-	/	-	-	-	/	ND	-	+O145	-	-	-	-	-	-	-	/	ND	4	a
	2024	**2829**	**Chicken thighs with paprika**	*E.* coli O157:H7 Ad3397	3.6	+	O157	+	O26/ O45/ O103/ O111/ O145	+O157	O26/ O45/ O103/ O111/ O145/ O157	+O157	/	+O157	+	+	O157	PA	-	+O45/ O103	+O157	-(O45/ O103/ O157)	+O157	/	-	+	-	/	$ND_{FN(alt)}$	4	b
	2024	**2953**	**Chicken sausage**	*E.* coli O103 Ad3257	2.2	+	O103	-	-	/	-	-	-	/	-	-	/	ND	-	-	/	-	-	-	/	-	-	/	ND	4	b
	2024	**4100**	**Smoked duck breast**	*E.* coli O103:H2 56-12	2.4	+	O103	-	+O103 +O145	/	-	-	/	/	- (+24h)	-	/	$ND_{FN(alt)}$	+	+O103	/	+O103	+	/	/	+ (O103)	+	+O103	PA	4	b
	2024	**4101**	**Poultry sausage**	*E.* coli O157:H7 435	2.4	+	O157	-	-	-	-	-	/	-	- (+24h)	-	/	$ND_{FN(alt)}$	+	-	+O157	+O157	+	/	+	+	+	+O157	PA	4	b
	2024	**2836**	**Duck mousse**	*E.* coli O157:H7 Ad3397	3.6	+	O157	-	-	-	-	-	/	-	-	-	/	ND	-	-	-	-	-	/	-	-	-	/	ND	4	c
	2024	**4107**	**Chopped cooked chicken**	*E.* coli O157:H7 435	2.4	+	O157	-	-	-	-	-	/	-	-	-	/	ND	-	-	-	-	-	/	-	-	-	/	ND	4	c
	2024	**868**	**Raw goat milk**	*E.* coli O103 Ad3153	1	+	O103	-	-	/	-	-	-	/	-	-	/	ND	-	-	/	-	-	-	/	-	-	/	ND	5	a

	Year	Sample N°	Product	Artificial contaminations		Reference method: ISO/TS 13136♦		Alternative method: Assurance® GDS STEC - 25g +225ml pre-warmed (41.5°C) mEHEC																		Category	Type
								Short incubation time (6/8/10h)												Long incubation time (24h)									
								PCR result				Confirmations				Final result short time		Agreement Ref/Alt short time	PCR result				Confirmations				Final result long time		Agreement Ref/Alt long time		
				Strain	Inoculation level/sample	Final result stx/eae	Sero-group	MPX TOP 7 STEC	MPX ID FOR TOP STEC	EHEC ID	Final PCR result	Beads from resuspension plate (non-O157 and O157)	Concentration reagent protocol	Direct streaking (O157)	Final Confirmation result	Final result	Sero-group		MPX TOP 7 STEC	MPX ID FOR TOP STEC	EHEC ID	Final PCR result	Beads from resuspension plate (non-O157 and O157)	Concentration reagent protocol	Direct streaking (O157)	Final Confirmation result	Final result	Sero-group			
Extension study	2024	**1268**	**Row cow milk**	*E.* coli O103 Ad3019	4.2	+	O103	+	+O103	/	+O103	-	-	/	-	-	/	$PA_{FP(alt)}$	+	+O103	/	+O103	-	-	/	-	-	/	$PA_{FP(alt)}$	5	a
	2025	**116646**	**Ribot milk**	*E.* coli O26 Ad3034	1.6	+	O26	-	-	-	-	-	/	/	-	-	/	ND	-	-	-	-	-	/	/	-	-	/	ND	5	a
	2025	**116647**	**Raw milk kefir**	*E.* coli O111 Ad3179	0.6	+	O111	-	-	-	-	-	/	/	-	-	/	ND	-	-	-	-	-	/	/	-	-	/	ND	5	a
	2025	**114578**	**Raw goat milk cheese**	*E.* coli O157:H7 Ad1745	1	+	O157	-	-		-	-	/	/	- (+72h)	-	/	$ND_{FN(alt)}$	-	-	/	-	-	/	-	-	/	ND	5	b
	2025	**114580**	**Raw ewe milk cheese**	*E.* coli O26 Ad2669	2	+	O26	+	-/-/-	-	-	+	/	/	+	-	/	$ND_{FN(alt)}$	+	+O26	-	+O26	+	/	/	+	+		PA	5	b
	2024	**2573**	**Swape before cleaning (dairy industry)**	*E.* coli O111 Ad3170	1.6	+	O111	-	-	/	-	-	-	/	-	-	/	ND	-	-	/	-	-	-	/	-	-	/	ND	6	a
	2024	**2627**	**Swape (poultry industry)**	*E.* coli O157:H7 Ad685	2.2	+	O157	-	-	-	-	-	/	-	-	-	/	ND	-	-	-	-	-	/	-	-	-	/	ND	6	a
	2025	**115723**	**Swape before cleaning (dairy industry)**	*E.* coli O157 Ad3322	1.6	+	O157	-	-	/	-	-	/	-	-	-	/	ND	-	-	-	-	-	-	-	-	-	/	ND	6	a
	2025	**115724**	**Swape after cleaning (pork industry)**	*E.* coli O103:H2 Ad3027	0.8	+	O103	-	-	/	-	-	/	/	-	-	/	ND	-	-	-	-	-	/	/	-	-	/	ND	6	a
	2024	**2626**	**Pork meat waste**	*E.* coli O157:H7 Ad686	1	+	O157	-	-	-	-	-	/	-	-	-	/	ND	-	-	-	-	-	/	-	-	-	/	ND	6	b
	2025	**115727**	**Liver mousse waste**	*E.* coli O157:H7 Ad567	0.8	+	O157	-	-	/	-	-	/	-	-	-	/	ND	-	-		-	-	-	-	-	-	/	ND	6	b
	2024	**2562**	**Washing water (dairy industry)**	*E.* coli O26 Ad3160	1.2	+	O26	-	-	/	-	-	-	/	-	-	/	ND	-	-	/	-	-	-	/	-	-	/	ND	6	c

Table 14 - Positive deviations

Initial validation study	Raw beef meat - 25 g sample size																																				
									Assurance® GDS STEC - Protocol ① (25 g + 225 ml (d1/10) PW mEHEC®) 8 h at 41.5°C																													
	Date	Sample N°	Product (French name)	Product	Artificial contaminations		Global result	Final result ISO/TS 13136♦		PW mEHEC® 8h at 41.5°C	PW mEHEC® 10h at 41.5°C		Final result PCR	PW mEHEC® 10h at 41.5°C Cultural confirmation			Final result Assurance® GDS STEC		Agreement	PW mEHEC® 8 h at 41.5°C AFTER STORAGE	PW mEHEC® 10 h at 41.5°C AFTER STORAGE		Final result PCR after storage	PW mEHEC® 10 h at 41.5°C AFTER STORAGE Cultural confirmation			Final result Assurance® GDS STEC after storage		Agreement	Category	Type
										Screening	Confirmation			Final confirmation result						Screening	Confirmation			Final confirmation result									
					Strain	Inoculation level/ sample		Global result	Serogroup	Final result MPX TOP 7 STEC	Final result MPX ♦	Final result EHEC ID		non-O157	O157	Final confir-matory tests	Result	Serogroup		Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		non-O157	O157	Final confirmatory tests after storage	Result	Serogroup					
	2021	**2278**	**Viande bovine faux filet**	**Beef trim meat**	*E. coli* O157:H7 Ad587	3,6	+	-	/	+(O157)	/	O157:H7	O157	/	O157	O157	+	O157	PD	+(O157)		O157:H7	O157		O157	O157	+	O157	PD	1	a
	2021	**2279**	**Viande bovine faux filet**	**Beef trim meat**	*E. coli* O157:H7 769	2,6	+	-	/	+(O157)	/	O157:H7	O157	/	O157	O157	+	O157	PD	+(O157)		O157:H7	O157		O157	O158	+	O158	PD	1	a
	2021	**2546**	**Steak de bœuf à griller**	**Ground beef meat**	*E. coli* O111:H8 Ad3021	3,4	+	-	/	+	O111	/	O111	O111	/	O111	+	O111	PD	+	O111		O111	O111		O111	+	O111	PD	1	a
	2021	**2566**	**Bavette d'Aloyau surgelée**	**Frozen beef trim**	*E. coli* O26:H11 Ad1507	2,4	+	-	/	+	O26	/	O26	O26	/	O26	+	O26	PD	+	O26		O26	O26		O26	+	O26	PD	1	b
	2021	**2571**	**Steak haché de bœuf surgelé**	**Frozen ground beef**	*E. coli* O103 Ad3113	3,0	+	-	/	+	O103	/	O103	O103	/	O103	+	O103	PD	+	O103		O103	O103		O103	+	O103	PD	1	b
	2021	**2574**	**Viande hachée de bœuf surgelée**	**Frozen ground beef**	*E. coli* O111 Ad3037	2,0	+	-	/	+	O111	/	O111	O111	/	O111	+	O111	PD	+	O111		O111	O111		O111	+	O111	PD	1	b

Initial validation study	Raw beef meat - 375 g sample size																																			
									Assurance® GDS STEC - Protocol ② (375 g + 1500 ml (d1/5) PW mEHEC®)																												
	Date	Sample N°	Product (French name)	Product	Artificial contaminations		Global result	Final result ISO/TS 13136♦		PW mEHEC® 10h at 41.5°C	PW mEHEC® 12h at 41.5°C		Final result PCR	PW mEHEC® 12h at 41.5°C Cultural confirmation			Final result Assurance® GDS STEC			Agreement	PW mEHEC® 10 h at 41.5°C AFTER STORAGE	PW mEHEC® 12 h at 41.5°C AFTER STORAGE		Final result PCR after storage	PW mEHEC® 12 h at 41.5°C AFTER STORAGE Cultural confirmation			Final result Assurance® GDS STEC after storage			Agreement	Category	Type
										Screening	Confirmation			Final confirmation result							Screening	Confirmation			Final confirmation result									
					Strain	Inoculation level/ sample		Global result	Serogroup	Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		non-O157	O157	Final confirmatory tests	Result	Serogroup		Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		non-O157	O157	Final confirmatory tests after storage	Result	Serogroup						
	2021	**3251**	**Paleron de bœuf à mijoter**	**Fresh beef trim meat**	*E. coli* O157:H7 Ad562	6,0	+	-	/	+(O157)	-	O157:H7	O157	/	O157	O157	+	O157	PD	+(O157)	-	O157:H7	O157		O157	O157	+	O157	PD	1	a
	2021	**3259**	**Haché pur bœuf 5% MG**	**Fresh ground beef meat**	*E. coli* O145:H28 1867-177	4,2	+	-	/	+(O157)	O145	-	O145	O145	-	O145	+	O145	PD	+(O157)	O145	-	O145	O145		O145	+	O145	PD	1	a
	2021	**3260**	**Steak haché pur bœuf 15% MG**	**Fresh ground beef meat**	*E. coli* O145:H28 1867-177	4,2	+	-	/	+(O157)	O145	-	O145	O145	-	O145	+	O145	PD	+(O157)	O145	-	O145	O145		O145	+	O145	PD	1	a
	2021	**3261**	**Bourguignon à mijoter**	**Fresh beef trim meat**	*E. coli* O145:H28 1867-177	4,2	+	-	/	+(O157)	O145	O157:H7/ -	O145/ O157	O145	-	O145	+	O145	PD	+(O157)	O145	-	O145	O145		O145	+	O145	PD	1	a
	2021	**5453**	**Steak de boeuf à griller**	**Fresh ground beef meat**	*E. coli* O157:H7 Ad561	5,0	+	-	/	+(O157)	-	+	O157	/	O157	O157	+	O157	PD	+(O157)	-	O157:H7	O157		O157	O157	+	O157	PD	1	a
	2021	**5454**	**Paleron de bœuf tranché**	**Fresh beef trim meat**	*E. coli* O145:H28 092-4	3,0	+	-	/	+(O157)	O145	-	O145	O145	/	O145	+	O145	PD	+(O157)	O145	-	O145	O145		O145	+	O145	PD	1	a
	2021	**5455**	**Steak haché de bœuf 5%MG**	**Fresh ground beef meat**	*E. coli* O157:H7 Ad925	6,2	+	-	/	+(O157)	-	+	O157	/	O157	O157	+	O157	PD	+(O157)	-	O157:H7	O157		O157	O157	+	O157	PD	1	a
	2021	**4111**	**Egréné de Bœuf 15% MG surgelé**	**Frozen ground beef meat**	*E. coli* O103 Ad3113	2,0	+	-	/	+	O26/ O103	-	O103/ O26	O103	/	O103	+	O103	PD	+	O103		O103	O103		O103	+	O103	PD	1	b
	2021	**4113**	**Parfait de Charolais surgelé**	**Frozen beef trim meat**	*E. coli* O103 Ad3113	2,0	+	-	/	+	O103	-	O103	O103	/	O103	+	O103	PD	+	O103		O103	O103		O103	+	O103	PD	1	b
	2021	**4117**	**Noix-joue de bœuf à mijoter surgelée**	**Frozen beef trim meat**	*E. coli* O111 Ad3042	1,2	+	-	/	+	O111		O111	O111	/	O111	+	O111	PD	+	O111		O111	O111		O111	+	O111	PD	1	b
	2021	**4119**	**Egréné de Bœuf 20% MG surgelé**	**Frozen ground beef meat**	*E. coli* O111 Ad3042	1,2	+	-	/	+	O111		O111	O111	/	O111	+	O111	PD	+	O111		O111	O111		O111	+	O111	PD	1	b
	2021	**4267**	**Faux filet charolais surgelé**	**Frozen beef trim meat**	*E. coli* O26:H11 12-62	1,8	+	-	/	+	O26/ O103		O26/ O103	O26	/	O26	+	O26	PD	+	O26/ O103		O26/ O103	O26		O26	+	O26	PD	1	b
	2021	**4269**	**Tournedos bœuf surgelé**	**Frozen beef trim meat**	*E. coli* O26:H11 12-62	1,8	+	-	/	+	O26		O26	O26	/	O26	+	O26	PD	+	O26		O26	O26		O26	+	O26	PD	1	b
	2021	**4273**	**Viande hachée égrénée surgelée**	**Frozen ground beef meat**	*E. coli* O111 Ad3042	1,0	+	-	/	+	O111		O111	O111	/	O111	+	O111	PD	+	O111		O111	O111		O111	+	O111	PD	1	b

	Raw milk																																			
									Assurance® GDS STEC - Protocol ③ (25 g + 225 ml (d1/10) PW mEHEC®) 18h at41.5°C																													
	Date	Sample N°	Product (French name)	Product	Artificial contaminations		Global result	Final result ISO/TS 13136♦		PW mEHEC® 18h at 41.5°C	PW mEHEC® 20h at 41.5°C		Final result PCR	PW mEHEC® 20h at 41.5°C Cultural confirmation			Final result Assurance® GDS STEC		Agreement	PW mEHEC® 18h at 41.5°C AFTER STORAGE	PW mEHEC® 20h at 41.5°C AFTER STORAGE		Final result PCR after storage	PW mEHEC® 20 h at 41.5°C AFTER STORAGE Cultural confirmation			Final result Assurance® GDS STEC after storage		Agreement	Category	Type
										Screening	Confirmation									Screening	Confirmation															
					Strain	Inoculation level/ sample		Global result	Serogroup	Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		Final confirmation result		Final confir-matory tests	Result	Serogroup		Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		Final confirmation result		Final confirmatory tests after storage	Result	Serogroup								
														non-O157	O157									non-O157	O157											
Initial validation study	2021	**5589**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O145 Ad3173	1,6	+	-	/	+(O157)	O103/ O145	-	O145/ O103	O145/ O103	/	O145/ O103	+	O145/ O103	PD	+(O157)	O145	-	O145	O145		O145	+	O1 45	PD	2	a
	2021	**5592**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O26:H11 Ad3098	1,2	+	-	/	-	O26		O26	O26	/	O26	+	O26	PD	+	O26		O26	O26		O26	+	O2 6	PD	2	a
	2021	**5593**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O26:H11 375-122	1,8	+	-	/	+	O26/ O103		O26/ O103	O26/ O103	/	O26/O103	+	O26/ O103	PD	+	O26		O26	O26		O26	+	O2 6	PD	2	a
	2021	**5594**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O103 Ad2984	2,2	+	-	/	+	O103		O103	O103	/	O103	+	O103	PD	+	O103		O103	O103		O103	+	O1 03	PD	2	a
	2021	**5600**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O103 Ad3157	0,8	+	-	/	+(O157)	-	O157:H7	O157	/	O157	O157	+	O157	PD	+(O157)	-	O157:H7	O157		O157	O157	+	O1 57	PD	2	a
	2021	**5907**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O103 Ad3051	1,4	+	-	/	+	O103		O103	-	/	O103 (72h)	+	O103	PD	+	O103		O103	O103		O103	+	O1 03	PD	2	a
	2021	**5919**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O111 Ad3042	0,6	+	-	/	+	O111		O111	O111	/	O111	+	O111	PD	+	O111		O111	O111		O111	+	O1 11	PD	2	a
	2021	**6565**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O103 Ad3165	3,4	+	-	/	+	O103		O103	O103	/	O103	+	O103	PD	+	O103		O103			O103	+	O1 03	PD	2	a

Initial validation study

Raw milk cheese																																			
								Assurance® GDS STEC - Protocol ④ (25 g + 225 ml (d1/10) PW mEHEC®) 18h at41.5°C																												
Date	Sample N°	Product (French name)	Product	Artificial contaminations		Global result	Final result ISO/TS 13136♦		PW mEHEC® 18h at 41.5°C + 2 h subculture in BHI	PW mEHEC® 22h at 41.5°C		Final result PCR	PW mEHEC® 22h at 41.5°C Cultural confirmation			Final result Assurance® GDS STEC		Agreement	PW mEHEC® 18h at 41.5°C + 2 h subculture in BHI AFTER STORAGE	PW mEHEC® 22h at 41.5°C AFTER STORAGE		Final result PCR after storage	PW mEHEC® 20 h at 41.5°C AFTER STORAGE			Final confirmatory tests after storage	Final result Assurance® GDS STEC after storage		Agreement	Category	Type
									Screening	Confirmation			Final confirmation result						Screening	Confirmation			Confirmations on colonies										
				Strain	Inoculation level/sample		Global result	Serogroup	Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		non-O157	O157	Final confir-matory tests	Result	Serogroup		Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		Final confirmation result				Result	Serogroup			
2021	**4770**	**Ossau iraty lait cru de brebis**	**Hard raw ewe milk cheese**	*E. coli* O26 Ad2831	1,8	+	-	/	+	O26		O26	O26		O26	+	O26	PD	+	O26		O26	O26		O26	+	O26	PD	2	b
2021	**4772**	**Tomme de brebis au lait cru**	**Hard raw ewe milk cheese**	*E. coli* O103 Ad2847	2,8	+	-	/	+	O103		O103	O103		O103	+	O103	PD	+	O103		O103	O103		O103	+	O103	PD	2	b
2021	**5115**	**Fromage au lait cru de brebis (tomme)**	**Hard raw ewe milk cheese**	*E. coli* O157 Ad3185	2,2	+	-	/	+(O157)	-	O157:H7	O157		O157	O157	+	O157	PD	+(O157)	-	O157: H7	O157		O157	+	O157	PD	2	b
2021	**5118**	**Fromage au lait cru de brebis (Pecorino)**	**Hard raw ewe milk cheese**	*E. coli* O145 Ad3181	3,2	+	-	/	+(O157)	O145	-	O145	O145		O145	+	O145	PD	+(O157)	O145	-	O145	O145		O145	+	O145	PD	2	b
2021	**5604**	**Tomme chèvre cru**	**Hard raw goat milk cheese**	*E. coli* O26:H11 Ad3098	1,2	+	-	/	+	O26		O26	O26		O26	+	O26	PD	+	O26		O26	O26		O26	+	O26	PD	2	b
2021	**5607**	**Laguiole lait cru**	**Hard raw cow milk cheese**	*E. coli* O103 Ad3157	0,8	+	-	/	+(O157)	O103	-	O103	O103	O157	O103/ O157	+	O103/ O157	PD	+(O157)	-	O157: H7	O157		O157	+	O157	PD	2	b
2021	**6120**	**Tommette de chèvre au lait cru**	**Hard raw ewe milk cheese**	*E. coli* O103 Ad2977	2,2	+	-	/	+	O103		O103	O103		O103	+	O103	PD	+	O103		O103	O103		O103	+	O103	PD	2	b
2021	6131	Abondance au lait cru de vache	Hard raw cow milk cheese			+	-	/	+	O26/ O103		O26/ O103	O26		O26	+	O26	PD	+	O26/ O103		O26/ O103	O26		O26	+	O26	PD	2	b
2021	**4766**	**Le chevrot lait cru chèvre**	**Soft raw goat milk cheese**	*E. coli* O26 Ad2831	1,8	-	-	/	+	O26		O26	O26		O26	+	O26	PD	+	-/-/-		-/-/-	O26		O26	-	/	NA	2	c
2021	**4777**	**Roquefort lait cru brebis**	**Soft raw ewe milk cheese**	*E. coli* O26 Ad2831	1,8	+	-	/	+	O26		O26	O26		O26	+	O26	PD	+	O26		O26	O26		O26	+	O26	PD	2	c
2021	**5612**	**Reblochon lait cru**	**Soft raw cow milk cheese**	*E. coli* O145 Ad3173	1,6	+	-	/	+(O157)	O145	-	O145	O145		O145	+	O145	PD	+(O157)	O145	-	O145	O103/ O145		O103/ O145	+	O145	PD	2	c
2021	**5613**	**Le chevrot lait cru chèvre**	**Soft raw goat milk cheese**	*E. coli* O157:H7 Ad3038	2,4	+	-	/	+(O157)	-	O157:H7	O157		O157	O157	+	O157	PD	+(O157)	-	O157: H7	O157		O157	+	O157	PD	2	c
2021	**6124**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	*E. coli* O26 Ad3034	1,8	+	-	/	+	O26		O26	O26		O26	+	O26	PD	+	O26		O26	O26		O26	+	O26	PD	2	c
2021	**6125**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	*E. coli* O103 Ad2977	2,2	+	-	/	+	O103		O103	O103		O103	+	O103	PD	+	O103		O103	O103		O103	+	O103	PD	2	c

	Year	Sample N°	Product	Artificial contaminations		Reference method : ISO/TS 13136♦		Alternative method: Assurance® GDS STEC - 25g +225ml pre-warmed (41,5°C) mEHEC																							
								Short incubation time (6/8/10h)											Long incubation time (24h)												
								PCR result				Confirmations				Final result short time		Agreement Ref/Alt short time	PCR result				Confirmations				Final result long time		Agreement Ref/Alt long time	Category	Type
				Strain	Inoculation level/sample	Final result stx/eae	Sero-group	MPX TOP 7 STEC	MPX ID FOR TOP STEC	EHEC ID	Final PCR result	Beads from resuspension plate	Concentration reagent protocol	Direct streaking (O157)	Final Confirmation result	Final result	Sero-group		MPX TOP 7 STEC	MPX ID FOR TOP STEC	EHEC ID	Final PCR result	Beads from resuspension plate	Concentration reagent protocol	Direct streaking (O157)	Final Confirmation result	Final result	Sero-group			
Extension study	2024	**676**	**Veal chop**	*E.* coli O145:H28 1331-100	1.8	-	/	+	+O145	-	+O145	+	+	/	+	+	O145	PD	+	O145	-	+O145	+	+	-	+	+	O145	PD	3	a
	2024	**677**	**Pork chop**	*E.* coli O145:H28 1502-105	1.8	-	/	+	+O145	-	+O145	+	+	/	+	+	O145	PD	+	O145	-	+O145	+	+	-	+	+	O145	PD	3	a
	2024	**678**	**Lamb chop**	*E.* coli O26 Ad3203	2	-	/	+	+O26	/	+O26	+	+	/	+	+	O26	PD	+	O26	/	+O26	+	+	/	+	+	O26	PD	3	a
	2024	**1507**	**Pork chop**	*E.* coli O157:H7 Ad486	2.4	-	/	+	-	+	+O157	+	/	+	+	+	O157	PD	+	-	+O157	+O157	+	/	+	+	+	O157	PD	3	a
	2024	**3309**	**Veal escalope**	*E.* coli O157:H7 Ad1248	2.6	-	/	+	-	+O157	+O157	+	/	+	+	+	O157	PD	+	-	+O157	+O157	+	/	+	+	+	O157	PD	3	a
	2024	**3310**	**Pork fillet**	*E.* coli O157:H7 Ad1248	2.6	-	/	-	-	-	-	-	/	-	-	-	/	NA	+	-	+O157	+O157	+	/	+	+	+	O157	PD	3	a
	2024	**3311**	**Leg of lamb**	*E.* coli O145:H28 1502-105	2.8	-	/	+	+O145	-	+O145	+	/	/	+	+	O145	PD	+	+O145	-	+O145	+	/	/	+	+	O145	PD	3	a
	2025	117756	Raw beef meat	/		-	/	+	-	/	+O103	+	/	/	+	+	O103	PD	+	+	/	+O103	+	/	/	+	+	O103	PD	3	a
	2024	**3318**	**Blanquette of veal**	*E.* coli O157:H7 Ad1071	2.6	-	/	+	-	+O157	+O157	+	/	+	+	+	O157	PD	+	-	+O157	+O157	+	/	+	+	+	O157	PD	3	b
	2024	**3525**	**Frozen sirloin steak**	*E.* coli O26 Ad3320	0.8	-	/	+	+O26	/	+O26	+	/	/	+	+	O103	PD	+	+O26	/	+O26	+	/	/	+	+	O103	PD	3	c
	2024	**3534**	**Frozen lamb mice**	*E.* coli O157:H7 Ad976	2.0	-	/	+	-	+O157	+O157	+	/	+	+	+	O157	PD	+	-	+O157	+O157	+	/	+	+	+	O157	PD	3	c
	2024	**3535**	**Frozen lamb mice**	*E.* coli O157:H7 Ad1174	1.2	-	/	+	-	+O157	+O157	+	/	+	+	+	O157	PD	+	-	+O157	+O157	+	/	+	+	+	O157	PD	3	c
	2024	**2826**	**Chicken thighs**	*E.* coli O157:H7 Ad485	2.2	-	/	+	-	+O157	+O157	+	/	+	+	+	O157	PD	+	-	+	+O157	+	/	+	+	+	O157	PD	4	a
	2024	**2945**	**Rabbit leg**	*E.* coli O103 Ad3257	2.2	-	/	+	+O103	/	+O103	+	+	/	+	+	O103	PD	+	+O103	/	+O103	+	+	/	+	+	O103	PD	4	a
	2024	**2832**	**Honey/barbecue chicken drumstick**	E. coli O157:H7 B177	2.6	-	/	+	-	+O157	+O157	+	/	+	+	+	O157	PD	+	-	+	+O157	+	/	+	+	+	O157	PD	4	b
	2024	**2835**	**Chicken sausage**	E. coli O157:H7 B177	2.6	-	/	+	-	+O157	+O157	+	/	+	+	+	O157	PD	+	-	+	+O157	+	/	+	+	+	O157	PD	4	b
	2024	**4104**	**Marinated duck leg**	*E.* coli O157:H7 435	2.4	-	/	+	-	+O157	+O157	+	/	+	+	+	O157	PD	+	-	+O157	+O157	+	/	+	+	+	O157	PD	4	b
	2024	**1274**	**Kefir**	*E.* coli O103 Ad2977	3.6	-	/	+	+O103	/	+O103	+	+	/	+	+	O103	PD	+	+O103	/	+O103	+	+	+	+	+	O103	PD	5	a
	2025	**114568**	**Raw goat milk**	*E.* coli O26 Ad2669	2	-	/	+	+O26		+O26	+	/	/	+	+	O26	PD	+	+O26	/	+O26	+	/	/	+	+	O26	PD	5	a
	2025	**114570**	**Raw ewe milk**	*E.* coli O157:H7 Ad1745	1	-	/	+	-	+	+O157	+	/	/	+	+	O157	PD	+	-	+	+O157	+	/	+	+	+	O157	PD	5	a
	2024	**878**	**raw milk faisselle cheese**	*E.* coli O103 Ad3153	1.0	-	/	+	+O103	/	+O103	+	+	/	+	+	O103	PD	+	+O103	/	+O103	+	+	/	+	+	O103	PD	5	b
	2025	**114575**	**Raw cow milk cheese**	*E.* coli O103 Ad2839	2.8	-	/	+	+O103		+O103	+	/	/	+	+	O103	PD	+	+O103	/	+O103	+	/	/	+	+	O103	PD	5	b
	2025	**114577**	**Raw goat milk cheese**	*E.* coli O111 Ad3179	1.8	-	/	+	+O111		+O111	+	/	/	+	+	O111	PD	-	-	/	-	-	/	/	-	-	/	NA	5	b
	2025	**114579**	**Raw ewe milk cheese**	*E.* coli O103 Ad2839	2.8	-	/	+	+O103		+O103	+	/	/	+	+	O103	PD	+	+O103	/	+O103	+	/	/	+	+	O103	PD	5	b
	2025	**116652**	**Raw ewe milk cheese**	*E.* coli O145 Ad3176	1	-	/	+	+O145	-	+O145	+	/	/	+	+	O145	PD	+	+O145	-	+O145	+	/	/	+	+	O145	PD	5	b
	2025	**116653**	**Raw ewe milk cheese**	*E.* coli O26 Ad3034	1.6	-	/	+	+O26	-	+O26	+	/	/	+	+	O26	PD	+	+O26	-	+O26	+	/	/	+	+	O26	PD	5	b

Year	Sample N°	Product	Artificial contaminations		Reference method : ISO/TS 13136♦		Alternative method: Assurance® GDS STEC - 25g +225ml pre-warmed (41,5°C) mEHEC											Category	Type
							Short incubation time (6/8/10h)									Long incubation time (24h)										
							PCR result				Confirmations				Final result short time		Agreement Ref/Alt short time	PCR result				Confirmations				Final result long time		Agreement Ref/Alt long time		
			Strain	Inoculation level/sample	Final result stx/eae	Sero-group	MPX TOP 7 STEC	MPX ID FOR TOP STEC	EHEC ID	Final PCR result	Beads from resuspension plate	Concentration reagent protocol	Direct streaking (O157)	Final Confirmation result	Final result	Sero-group		MPX TOP 7 STEC	MPX ID FOR TOP STEC	EHEC ID	Final PCR result	Beads from resuspension plate	Concentration reagent protocol	Direct streaking (O157)	Final Confirmation result	Final result	Sero-group			
	2025	**116654**	**Raw goat milk cheese**	*E.* coli O111 Ad3179	0.6	-	/	+	+O111	-	+O111	+	/	/	+	+	O111	PD	+	+O111	-	+O111	+	/	/	+	+	O111	PD	5	b
	2025	**116655**	**Raw goat milk cheese**	*E.* coli O145 Ad3176	1	-	/	+	+O145	-	+O145	+	/	/	+	+	O145	PD	+	+O145	-	+O145	+	/	/	+	+	O145	PD	5	b
	2024	**2575**	**Swape before cleaning (dairy industry)**	*E.* coli O26 Ad2675	1.4	-	/	+	+O26	/	+O26	+	+	/	+	+	O26	PD	+	+O26	/	+O26	+	+	/	+	+	O26	PD	6	a
	2025	**115726**	**Swape after cleaning (dairy industry)**	*E.* coli O145 Ad3181	1.2	-	/	+	+O145	-	+O145	-	-	/	-	-	/	$PD_{FP(alt)}$	+	+O145	-	+O145	+	/	/	+	+	O145	PD	6	a
	2024	**2624**	**Beef meat waste**	*E.* coli O145:H28 1867-177	2.0	-	/	+	+O145	-	+O145	+	+	/	+	+	O145	PD	+	+O145	-	+O145	+	+	/	+	+	O145	PD	6	b
	2025	**115730**	**Beef waste**	*E.* coli O145 Ad3181	1.2	-	/	+	+O145	/	+O145	+	/	/	+	+	O145	PD	+	+O145	-	+O145	+	/	/	+	+	O145	PD	6	b
	2024	**2566**	**Circuit rinsing water (dairy industry)**	E. coli O103 Ad2981	2.2	-	/	+	+O103	/	+O103	+	+	/	+	+	O103	PD	+	+O103	/	+O103	+	+	/	+	+	O103	PD	6	c

Table 15 - Analyses of discordant results

	Category		Test portion	Protocol	Type		N+	TND	PD	TND-PD	AL
Initial validation	1	Raw beef meat	Up to 25g	Protocol ① 8h 41.5°C	a	Fresh meats (ground beef, beef trim)	10	1	3	-2	
					b	Frozen and thawed meats (ground beef, beef trim)	11	1	3	-2	
					c	Meats with seasonings (carpaccio's, tartars, seasoned ground beef)	10	0	0	0	
						Total	31	2	6	-4	3
			Up to 375g	Protocol ② 10h 41.5°C	a	Fresh meats (ground beef, beef trim)	17	0	7	-7	
					b	Frozen and thawed meats (ground beef, beef trim)	14	1	7	-6	
						Total	31	1	14	-13	3
	2	Raw milk and dairy products	Up to 25g	Protocol ③ 18h 41.5°C	a	Raw milk (cow, goat, ewe)	35	7	8	-1	
						Total	35	7	8	-1	3
				Protocol ④ 18h 41.5°C +BHI	b	Hard cheese (cow, goat, ewe)	16	1	8	-7	
					c	Soft cheese (cow, goat, ewe)	14	1	6	-5	
						Total	30	2	14	-12	3
Extension study 2025	3	Raw and RTC meats (except poultry)	Up to 25g	Protocol ⑤ 6h 41.5°C	a	Fresh meats (beef, pork, lamb, veal), unprocessed (ground meat, trim, pork, lamb)	11	0	7	-7	
					b	Meat (beef, pork, lamb, veal), with seasonings (beef tartare, carpaccio, brochette)	10	3	1	2	
					c	Frozen raw meats	11	3	3	0	
						Total	32	6	11	-5	3
				Protocol ⑤ 24h 41.5°C	a	Fresh meats (beef, pork, lamb, veal), unprocessed (ground meat, trim, pork, lamb)	12	0	8	-8	
					b	Meat (beef, pork, lamb, veal), with seasonings (beef tartare, carpaccio, brochette)	10	2	1	1	
					c	Frozen raw meats	11	4	3	1	
						Total	33	6	12	-6	3
	4	Raw, RTC, RTRH and RTE poultry	Up to 25g	Protocol ⑥ 8 h 41.5°C	a	Raw poultry (fresh or frozen)	10	1	2	-1	
					b	Raw delicatessen and seasoned poultry	11	3	3	0	
					c	Heat-treated and RTE poultry product (including cooked delicatessen)	11	2	0	2	
						Total	32	6	5	1	3
				Protocol ⑥ 24 h 41.5°C	a	Raw poultry (fresh or frozen)	10	1	2	-1	
					b	Raw delicatessen and seasoned poultry	11	2	3	-1	
					c	Heat-treated and RTE poultry product (including cooked delicatessen)	11	2	0	2	
						Total	32	5	5	0	3
	5	Raw milk and dairy products	Up to 25g	Protocol ⑦ 10 h 41.5°C	a	Raw milk (raw milk)	17	4	3	1	
					b	Raw milk-based products (soft and semi-hard cheeses)	13	2	8	-6	
						Total	30	6	11	-5	3
		Raw milk and dairy products		Protocol ⑦ 24 h 41.5°C	a	Raw milk (raw milk)	17	4	3	1	
					b	Raw milk-based products (soft and semi-hard cheeses)	12	1	7	-6	
						Total	29	5	10	-5	3
	6	Production environmental samples	Up to 25g/ml or sample device	Protocol ⑦ 10 h 41.5°C	a	Surfaces	11	4	1	3	
					b	Dust and wastes	10	2	2	0	
					c	Process water	11	1	1	0	
						Total	32	7	4	3	3
		Production environmental samples		Protocol ⑦ 24 h 41.5°C	a	Surfaces	12	4	2	2	
					b	Dust and wastes	10	2	2	0	
					c	Process water	11	1	1	0	
						Total	33	7	5	2	3
All categories and protocols - short incubation time for category 3, 4, 5 and 6							**253**	**37**	**73**	**-36**	**7**
All categories and protocols - long incubation time for category 3, 4, 5 and 6							**254**	**35**	**74**	**-39**	**7**

The observed values for (TND - PD) meet the acceptability limit for each individual category and for the three combined categories (calculated values ≤ AL).

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

The following changes were observed (See Table 16).

During the extension in 2025, most of the changes (12 samples) concerned samples that became false positive after 72h storage of the short incubation time. This was due to difficulties to recover the bacteria using the confirmation protocols after storage. This phenomenon has been observed mainly for Raw and RTC meats (6 samples) and Raw, RTC, RTRH and RTE poultry (6 samples), but one production environmental sample was also impacted. For poultry products, difficulties to confirm the reference method have been observed as well.

Fewer differences were obtained before and after storage for the long incubation time the time demonstrating a better correlation between the PCR and the confirmation step at these time point.

The analyses of discordant results become (See Table 17).

Table 16 - Enrichment broth storage

	Sample N°	Product	Result before storage			Result after storage		
			PCR	Confirmation	Agreement	PCR	Confirmation	Agreement
Initial validation	5601	Raw goat milk	-/O111/-	O111	$NA_{FN(alt)}$	O111	O111	PD
	4766	Soft raw goat milk cheese	O26	O26	PD	-/-/-	O26	NA

	Year	Sample N°	Product	Reference method : ISO/TS 13136♦		Assurance® GDS STEC				Category	Type
						Before storage		After storage			
				Final result stx/eae	Serogroup	Agreement Ref/Alt Short time	Agreement Ref/Alt Long time	Agreement Ref/Alt Short time	Agreement Ref/Alt Long time		
Extension study	2024	676	Veal chop	-	/	PD	PD	$PD_{FP(alt)}$	PD	3	a
	2024	1508	Stewed mutton belly	+	O157	PA	PA	$PA_{FP(alt)}$	PA	3	a
	2024	3310	Pork fillet	-	/	NA	PD	NA	$NA_{FN(alt)}$	3	a
	2024	679	Marinated beef carpaccio	+	O157	$ND_{FN(alt)}$	PA	PA	PA	3	b
	2024	4110	Seasoned veal	+	O157	PA	PA	$PA_{FP(alt)}$	PA	3	b
	2024	4111	Garlic lamb	+	O26	PA	PA	$PA_{FP(alt)}$	PA	3	b
	2024	3528	Frozen minced pork	+	O103	PA	PA	$PA_{FP(alt)}$	PA	3	c
	2024	3531	Frozen pork stir-fry	+	O157	PA	$ND_{FN(alt)}$	$PA_{FP(alt)}$	PA	3	c
	2024	2832	Honey/barbecue chicken drumstick	-	/	PD	PD	$PD_{FP(alt)}$	PD	4	b
	2024	2835	Chicken sausage	-	/	PD	PD	$PD_{FP(alt)}$	PD	4	b
	2024	4102	Sliced marinated chicken	+	O26	PA	PA	ND	PA	4	b
	2024	4103	Seasoned turkey	+	O103	PA	PA	$PA_{FP(alt)}$	PA	4	b
	2024	4104	Marinated duck leg	-	/	PD	PD	$PD_{FP(alt)}$	PD	4	b
	2024	4105	Cooked turkey breast	+	O26	PA	PA	$PA_{FP(alt)}$	PA	4	c
	2024	4106	Cooked chicken breast	+	O103	PA	PA	$PA_{FP(alt)}$	PA	4	c
	2024	4108	Roast chicken aiguillettes	+	O26	PA	PA	$PA_{FP(alt)}$	PA	4	c
	2024	4109	Cooked chicken allumette	+	O103	PA	PA	$PA_{FP(alt)}$	PA	4	c
	2025	114566	Raw cow milk	+	O157	PA	PA	PA	ND	5	a
	2024	878	Raw milk faisselle cheese	-	/	PD	PD	$NA_{FN(alt)}$	PD	5	b
	2025	114577	Raw goat milk cheese	-	/	PD	NA	$NA_{FN(alt)}$	NA	5	b
	2025	114578	Raw goat milk cheese	+	O157	$ND_{FN(alt)}$	ND	$ND_{FN(alt)}$	ND	5	b
	2025	115725	Swape before cleaning (pork industry)	+	O157	PA	PA	$PA_{FP(alt)}$	PA	6	a

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

		Category	Test portion	Protocol	Type		N+	TND	PD	TND-PD	AL
Initial validation	1	Raw beef meat	Up to 25g	Protocol ① 8h 41.5°C	a	Fresh meats (ground beef, beef trim)	10	1	3	-2	
					b	Frozen and thawed meats (ground beef, beef trim)	11	1	3	-2	
					c	Meats with seasonings (carpaccio's, tartars, seasoned ground beef)	10	0	0	0	
					Total		31	2	6	-4	3
			Up to 375g	Protocol ② 10h 41.5°C	a	Fresh meats (ground beef, beef trim)	17	0	7	-7	
					b	Frozen and thawed meats (ground beef, beef trim)	14	1	7	-6	
					Total		31	1	14	-13	3
	2	Raw milk and dairy products	Up to 25g	Protocol ③ 18h 41.5°C	a	Raw milk (cow, goat, ewe)	36	7	9	-2	
					Total		36	7	9	-2	3
				Protocol ④ 18h 41.5°C +BHI	b	Hard cheese (cow, goat, ewe)	16	1	8	-7	
					c	Soft cheese (cow, goat, ewe)	13	1	5	-4	
					Total		29	2	13	-11	3
Extension study 2025	3	Raw and RTC meats (except poultry) 25g	Up to 25g	Protocol ⑤ 6h 41.5°C	a	Fresh meats (beef, pork, lamb, veal), unprocessed (ground meat, trim, pork, lamb)	10	1	6	-5	
					b	Meat (beef, pork, lamb, veal), with seasonings (beef tartare, carpaccio, brochette)	10	4	1	3	
					c	Frozen raw meats	11	5	3	2	
					Total		31	10	10	0	3
				Protocol ⑤ 24h 41.5°C	a	Fresh meats (beef, pork, lamb, veal), unprocessed (ground meat, trim, pork, lamb)	11	0	7	-7	
					b	Meat (beef, pork, lamb, veal), with seasonings (beef tartare, carpaccio, brochette)	10	2	1	1	
					c	Frozen raw meats	11	3	3	0	
					Total		32	5	11	-6	3
	4	Raw, RTC, RTRH and RTE poultry	Up to 25g	Protocol ⑥ 8 h 41.5°C	a	Raw poultry (fresh or frozen)	10	1	2	-1	
					b	Raw delicatessen and seasoned poultry	8	5	0	5	
					c	Heat-treated and RTE poultry product (including cooked delicatessen)	11	6	0	6	
					Total		29	12	2	10	3
				Protocol ⑥ 24 h 41.5°C	a	Raw poultry (fresh or frozen)	10	1	2	-1	
					b	Raw delicatessen and seasoned poultry	11	2	3	-1	
					c	Heat-treated and RTE poultry product (including cooked delicatessen)	11	2	0	2	
					Total		32	5	5	0	3

	Category		Test portion	Protocol	Type		N+	TND	PD	TND-PD	AL
Extension study 2025	5	Raw milk and dairy products	Up to 25g	Protocol ⑦ 10 h 41.5°C	a	Raw milk (raw milk)	17	4	3	1	
					b	Raw milk-based products (soft and semi-hard cheeses)	11	2	6	-4	
					Total		28	6	9	-3	3
				Protocol ⑦ 24 h 41.5°C	a	Raw milk (raw milk)	17	5	3	2	
					b	Raw milk-based products (soft and semi-hard cheeses)	12	1	7	-6	
					Total		29	6	10	-4	3
	6	Production environmental samples	25g or sample device	Protocol ⑦ 10 h 41.5°C	a	Surfaces	11	5	1	4	
					b	Dust and wastes	10	2	2	0	
					c	Process water	11	1	1	0	
					Total		32	8	4	4	3
				Protocol ⑦ 24 h 41.5°C	a	Surfaces	12	4	2	2	
					b	Dust and wastes	10	2	2	0	
					c	Process water	11	1	1	0	
					Total		33	7	5	2	3
All categories and protocols - Short incubation time							**247**	**48**	**67**	**-19**	**6**
All categories and protocols - Long incubation time							**253**	**35**	**73**	**-38**	**6**

The observed values for (TND - PD) meet the acceptability limit for each individual category except for Raw, RTC, RTRH and RTE poultry and production environmental samples at the short incubation time due to the difficulties to confirm the PCR result on plates. Overall, it is not recommended to store the enrichment for the short incubation time due to confirmation difficulties.

3.1.8 Confirmation

Two confirmation protocols were used during the study:

> **For Top 4 non-O157**:

- Using the remaining beads of the resuspension plate following the IMS step for PCR detection
- Using the GDS concentration reagent protocol (new IMS) – *only during the initial validation study*
- The IMS beads were streaked onto:
    - CHROMagar™ STEC (CH)
    - Rainbow® agar with novobiocin and cefixime (RANC) – *only during the initial validation study*
    - ChromID™ EHEC (EHEC)
    - Tryptone Bile X-Glucuronide (TBX)

> **For O157**:

- Direct streaking 10 µl of the enriched sample onto selective agar plates
- Using the remaining beads of the resuspension plate following the IMS step for PCR detection
- Enriched sample or beads were streaked onto:
    - CHROMagar™ O157 (CHO)
    - Sorbitol MacConkey agar containing cefixime and tellurite (CT-SMAC)
    - EC O157:H7 ChromoSelect (CS)

For the remaining beads, as it was not possible to streak the beads on all agar, the samples were tested on either CHROMagar™ STEC or CHROMagar™ O157 depending on the strain inoculated and on one of the other plates. A repartition between the two other plate was evaluated during the study.
The number of samples tested per selective agar plate and per incubation time is given in Table 18 below:

Table 18 – Number of samples tested for each selective agar plate
Short incubation time

Selective agar plates		Category or type								
		Initial validation study				Extension study				
Target to confirm	Media	Raw meat 25 g	Raw meat (excluding seasoned meat) 375 g	Raw milk 25 g	Raw milk cheese 25 g	Raw and RTC meats (except poultry)	Raw, RTC, RTRH and RTE poultry	Raw milk and dairy products	Production environmental samples	**Total**
Top 4	CHROMagar STEC	23	24	39	33	/	/	/	/	**119**
non-O157 using the remaining beads protocol	CHROMagar™ STEC	/	/	/	/	40	49	55	47	**191**
	RANC	8	6	15	10	/	/	/	/	**39**
	ChromID EHEC	8	11	15	11	18	22	25	24	**134**
	TBX	7	7	9	12	23	27	30	23	**138**
O157 using the remaining beads protocol	CHROMagar™ O157	/	/	5	4	21	11	6	13	**60**
	CT-SMAC	/	/	4	0	17	6	4	6	**37**
	EC O157:H7	/	/	1	4	4	5	2	6	**22**
Total number of samples tested per category		**46**	**48**	**88**	**74**	**123**	**120**	**122**	**119**	**740**

Typical colonies were tested first from CHROMagar™ STEC or CHROMagar™ O157 and if the results were not confirmed or non-typical colonies or no colonies were present on first plate choice, colonies from the other plates were used.
A summary of the results is given in Table 19.

The legend of the table is given below:

Top 4 non-O157		O157	
CHROMagar STEC:	**CH**	CHROMagar O157:	**CHO**
ChromID EHEC:	**EHEC**	CT-SMAC:	**CTS**
Rainbow Agar:	**RANC**	EC O157:H7 ChromoSelect	**CS**
TBX:	**TBX**		

Table 19 – Number of samples confirmed per protocol and selective agar plate

Initial validation study															
Category	After incubation time								After enriched sample storage						
	Number of positives PCR	Non-O157				O157			Number of positives PCR	Non-O157			O157		
		Remaining beads	Concentration Reagent (IMS)	Confirmed after 72 h storage	PPN	Direct streaking (O157)	Remaining beads	PPN		Remaining beads	Concentration Reagent (IMS)	PPN	Direct streaking (O157)	Remaining beads	PPN
Raw beef meat (25 g)	29	CH:20	CH:20	CH:1	0	CHO:7 CT:1	/	**0**	29	CH:20	CH:21	0	CHO:7 CT:1	/	**0**
Raw beef meat (375 g)	30	CH:23	CH:23	0	0	CHO:6 CT:1	/	**0**	30	CH:23	CH:23	0	CHO:6 CTS:1	/	**0**
Raw milk	31	CH:19 EHEC:3 TBX:1 RANC:1	CH:22 TBX:2	0	3	CHO:4	CHO:4	**0**	33	CH:21 EHEC:2 TBX:1 RANC:1	CH:20 TBX:4	4	CHO:4	CHO: 4	**0**
Raw milk cheese	28	CH:25	CH:25	0	0	CHO:3	CHO:3	**0**	27	CH:23	CH:23	0	CHO:2 CTS:1	CHO: 4	**0**
Total	**118**	CH:87 EHEC:3 TBX:1 RANC:1 **Total:92**	CH:90 TBX:2 **Total:92**	CH:1 **Total :1**	3	CHO:20 CTS:2 **Total:22**	CHO:7 **Total: 7**	**0**	**119**	CH:87 EHEC:2 TBX:1 RANC:1 **Total:91**	CH:87 TBX:4 **Total:91**	4	CHO:19 CTS:3 **Total:22**	CHO **Total: 8**	**0**

Extension study – Short incubation time												
Category	After incubation time						After enriched sample storage					
	Number of positives PCR	Non-O157		O157			Number of positives PCR	Non-O157		O157		
		Remaining beads	PPN	Direct streaking	Remaining beads	PPN		Remaining beads	PPN	Direct streaking	Remaining beads	PPN
Raw and RTC meats (except poultry)	26	CH: 11 EHEC: 1	0	CHO:10 CTS:4	CHO:11 CTS:3	0	27	CH: 9	3	CHO:5 CTS: 1 CS : 1	CHO:6 CTS:4	3
Raw, RTC, RTRH and RTE poultry	26	CH:15 EHEC: 2 TBX: 2	0	CTS: 6	CHO: 2 CTS: 4 CS: 1	0	25	CH:10 TBX: 2	5	CTS: 1	CHO:3 CTS: 2	3
Raw milk and dairy products	25	CH:21	1	CHO: 3 CTS: 1	CHO: 3 CTS: 1	0	23	CH:18	1	CHO:3	CHO: 4	0
Production environmental samples	26	CH: 13 TBX: 3	1	CTS: 7	CHO:4 CTS: 2 CS: 2	0 (1 +72h)	26	CH:12 TBX : 3 +1(ne)	1	CHO: 3 CTS: 4 EC: 1	CHO: 8	1
Total	**103**	CH: 60 EHEC:3 TBX:5 **Total: 68**	**2**	CHO: 13 CTS: 18 **Total: 31**	CHO: 20 CTS: 10 CS: 3 **Total: 33**	**0**	**101**	CH: 49 TBX: 6 **Total: 55**	**10**	CHO: 11 CTS: 6 CS: 1 EC: 1 **Total: 19**	CHO: 21 CTS: 6 **Total: 27**	**7**

Extension study – Long incubation time												
Category	After incubation time						After enriched sample storage					
	Number of positives PCR	Non-O157		O157			Number of positives PCR	Non-O157		O157		
		Remaining beads	PPN	Direct streaking	Remaining beads	PPN		Remaining beads	PPN	Direct streaking	Remaining beads	PPN
Raw and RTC meats (except poultry)	27	CH: 11 EHEC:1	0	CHO: 7 CTS: 7	CHO: 10 CTS:5	0	27	CH: 12	0	CHO:7 CTS: 8	CHO:11 CTS:4	0
Raw, RTC, RTRH and RTE poultry	27	CH:16 EHEC:2 TBX: 2	0	CHO: 2 CTS: 4	CHO: 4 CTS: 3	0	28	CH:11 TBX: 5 EHEC: 4	0	CHO: 3 CTS: 1	CHO: 2 CTS: 4 CS: 2	0
Raw milk and dairy products	25	CH: 20	1	CHO: 2 CTS: 1	CHO: 3 CTS: 1	0	24	CH: 19	1	CHO: 3	CHO: 1	0
Production environmental samples	26	CH: 14 TBX:3	0	CTS: 7	CHO: 8	0 (1 +72h)	26	CH:12 TBX : 3 EHEC: 1	0	CHO: 8 CTS: 1	CHO: 8	0
Total	**105**	CH: 61 EHEC: 3 TBX : 5 **Total: 69**	**1**	CHO: 11 CTS: 19 **Total: 30**	CHO: 25 CTS: 9 **Total: 34**	**0**	**105**	CH: 54 TBX: 8 EHEC:5 **Total:67**	**1**	CHO: 21 CTS: 10 **Total: 31**	CHO: 22 CTS: 8 CS: 2 **Total: 32**	**0**

During initial validation study, for the Top 4 non-O157 serogroups confirmation, the same number of samples was confirmed using the remainder beads and the concentration reagent protocols (92 samples before storage and 91 samples after storage). For the O157 serogroup confirmation, the direct streaking protocol allowed confirmation of 22 samples before or after storage of the enrichment broths. The remainder beads protocol, applied only for the dairy category, allowed to confirm all the positive O157 PCR tests obtained before or after storage of the enriched samples. Note that one additional sample was confirmed using the remainder beads protocol after storage.

Seven samples (3 after incubation time and 4 after storage) were not confirmed irrespective of the alternative method protocol applied (PPN samples). Additional confirmation protocols were applied (IMS and diluted IMS before streaking) but still did not confirm the positive PCR results.

For the extension study, for the non-O157 serogroups confirmation, a large majority of samples were confirmed using CHROMagar™ STEC. For the O157 confirmation, a mix between CHROMagar™ O157 and CT-SMAC was used to confirm the samples. The remaining bead showed a higher recovery rate, especially after storage for meat and poultry products.
Few positives PCR remained unconfirmed before storage (2 at short incubation time and 1 at long incubation time). However, it can be noticed for the short incubation time that the number of unconfirmed samples increased significantly after the storage (2 PPN before storage and 17 after storage). This is particularly true for meat and poultry products. No increase of the number of false positives is observed for the long incubation time.
For poultry samples, additional confirmation protocols were applied (direct streaking from the broth for non-O157) but it was not possible to recover the positive PCR results. The level of background flora in this type of product was high and could explain the difficulties to confirm the positive PCR results after storage.

3.1.9 PCR inhibition

> **On enriched samples**

A total of 409 PCR (initial) and 740 PCR (extension) tests were performed using the Assurance® GDS MPX for Top 7 STEC, 294 (initial) and 710 (extension) tests with the Assurance® MPX ID for Top STEC and 108 (initial) and 482 (extension) tests with the Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq, considering the two incubation times and the test before and after storage of enrichment broth.
For five samples (initial) and 2 samples (extension), 0.25% of the PCR results, a “No Amplification” result was observed; they occurred only with raw milk cheese samples (See Table 20).

Table 20 – Samples with No amplification result

	N° Sample	Product	Assurance® GDS kit	PCR Result N°1	PCR Result N°2	PCR Result N°3	PCR Result N°4	PCR Result with adding wash step
Initial validation study	4779	Soft raw cow milk cheese	MPX ID (mEHEC)	NoAmp	O103	/	/	/
	4779 after storage		MPX ID (mEHEC)	NoAmp	O103	/	/	/
	4780	Soft raw cow milk cheese	Top 7 (BHI)	NoAmp	NoAmp	NoAmp	/	-
			MPX ID (mEHEC)	NoAmp	-	/	/	/
	4780 after storage		MPX ID (mEHEC)	NoAmp	NoAmp	NoAmp	/	-
	5117	Hard raw cow milk cheese	MPX ID (mEHEC)	NoAmp	NoAmp	NoAmp	/	NoAmp
	5117 after storage		Top 7 (BHI)	NoAmp	NoAmp	+ (O157)	/	/
	5118	Hard raw sheep milk cheese	EHEC ID (mEHEC)	NoAmp	-	/	/	/
	5123	Soft raw goat milk cheese	Top 7 (BHI)	NoAmp	-	/	/	/
Extension study	116650 – 10h	Raw cow milk cheese (Camembert)	Top 7 (mEHEC)	NoAmp	-	NoAmp	/	/
	116650 – 24h	Raw cow milk cheese (Camembert)	MPX ID (mEHEC)	NoAmp	-	/	/	/
	114576-24h	Raw cow milk cheese (Camembert)	Top 7 (mEHEC)	NoAmp	NoAmp	NoAmp	-	/
			MPX ID (mEHEC)	NoAmp	NoAmp	NoAmp	-	/

In a majority of cases (4779, 5118, 5123, 11650), a new test (new sample preparation without any dilution) allowed to remove the “No Amplification” result. For three samples (4780, 5117 and 114576), the No Amplification result remained after three re-tests.

For sample 4780 (Assurance® GDS MPX for Top 7 STEC and Assurance® MPX ID for Top STEC), an additional wash step was added, allowing to remove the No Amplification result.

For sample 5117 (Assurance® MPX ID for Top STEC), even with an additional wash step, the No Amplification result remained. Note, as the upfront Assurance® GDS MPX for Top 7 STEC assay test was presumptive positive for O157, and the Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq confirmed the presence of O157, the additional result for the Assurance® MPX ID for Top STEC assay was not required for this sample.

For sample 114576 (Assurance® GDS MPX for Top 7 STEC and Assurance® MPX ID for Top STEC), a fourth extraction was required to obtain an interpretable result.

- **On colony**

Some “No Amplification” results were also observed when testing the colonies. This was linked to an excess of material. PCR tests were performed again with less material and allowed to obtain a result. The kit insert also mentions to avoid excess colony material for analysis.

3.2 Relative level of detection

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

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

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

The relative detection level is the smallest number of culturable micro-organisms that can be detected in the sample in 50% of occasions by the alternative and reference methods.

3.2.1 Experimental design

Eight (matrix/strain) pairs were analysed by the reference method and by the alternative method (See Table 21):

The following protocol was applied:

- A negative control: 5 samples,
- A low contamination level providing fractional recovery data, with 20 replicates,
- A high contamination level, with 5 replicates.

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

Table 21 - Defined (matrix/strain) pairs for the RLOD determination

Category			Test portion	Matrix	Strain	Origin	Inoculation and storage condition	Protocol
Initial validation study	1	**Raw beef meat**	25 g	Seasoned beef meat	*E. coli* O157:H7 Ad683 (*stx*$_1$+, *stx*$_2$+, *eae*+)	Beef meat	48 h at 3°C ± 2°C	①
			375 g *(excluding seasoned meat)*	Frozen raw ground beef	*E. coli* O145:H28 1502-105 (*stx*$_1$-, *stx*$_2$+, *eae*+)	Meat	2 weeks at -20°C	②
	2	**Raw milk and dairy products**	25 g	Raw cow milk	*E. coli* O103:H2 Ad3027 (*stx*$_1$+, *stx*$_2$-, *eae*+)	Dairy industry environmental sample	48 h at 5°C ± 3°C	③
			25 g	Soft cheese	*E. coli* O26:H11 Ad3098 (*stx*$_1$+, *stx*$_2$-, *eae*+)	Raw goat milk	48 h at 3°C ± 2°C	④
Extension study	3	**Raw and RTC meats (except poultry)**	25 g	Raw ground beef	*E. coli* O145:H28 1502-105 (stx$_2$/eae)	Meat	Liquid suspension 48-72 h at 3 ± 2°C	⑤
	4	**Raw, RTC, RTRH and RTE poultry**	25 g	Raw turkey filet	*E. coli* O103 Ad3284 (*stx*$_1$/*stx*$_2$/*eae*)	Veal	Liquid suspension 48-72 h at 3 ± 2°C	⑥
	5	**Raw milk and dairy products**	25 g	Raw milk cheese	*E. coli* O111 Ad3179 (*stx1/eae*)	Raw milk cheese	Liquid suspension 48-72 h at 3 ± 2°C	⑦
	6	**Production environmental samples**	25 ml	Process water from milk industry	*E. coli* O26 Ad2826 (*stx*$_1$, *eae*)	Raw milk	Liquid suspension 48-72 h at 3 ± 2°C	⑦

3.2.2 Calculation and interpretation of the RLOD

The raw data are given in **Appendix 5**.

The RLOD calculations were performed using the Excel spreadsheet available at http://standards.iso.org/iso/16140 - RLOD version 4 (2024-01-10). The RLOD are given in Table 22.

The LOD_{50} calculations were done using the Excel spreadsheet available at http://standards.iso.org/iso/16140 POD-LOD calculation program - version 12, 2024-03-05. The tests are given in Table 23.

During the extension, difficulties was observed on raw milk cheese using the MPX ID for TOP STEC kit for which up to 11 false negatives (low and high level) results were obtained at the short enrichment time and 5 at the long incubation time. This matrix (brie de Meaux) is known to be quite challenging, and a high level of background microflora was found (1.18×10^8 CFU/g). Despite those results, the criteria of the ISO 16140-2 and 16140-2/A1 are met in comparison to the reference method.

Table 22 – Presentation of RLOD before and after confirmation of the alternative method results

	Category		Matrix / strain pair	AL	RLOD [95% confidence limit]	
					Short time protocol	Long time protocol
Initial validation	1	Raw beef meat	Raw beef meat (25g) *E. coli* O157:H7 Ad683	2.5	0.873 [0.379; 2.008]	
			Frozen raw ground beef (375 g) *E. coli* O145:H28 1502-105		1.515 [0.636; 3.608]	
	2	Raw milk and dairy products	Raw cow milk *E. coli* O103:H2 Ad3027		1.146 [0.498; 2.636]	
			Soft cheese *E. coli* O26:H11 Ad3098		1.429 [0.632; 3.231]	
Extension study 2025	3	Raw and RTC meats (except poultry)	Raw Ground beef *E. coli* O145:H28 1502-105		0.871 [0.369; 2.061]	0.871 [0.369; 2.061]
	4	Raw, seasoned and heat-treated poultry (combined)	Raw turkey filet *E. coli* O103		2.357 [0.946; 5.871]	2.357 [0.946; 5.871]
	5	Raw milk and dairy products	Raw milk cheese E. coli O111 Ad3179		2.110 [0.800; 5.567]	0.918 [0.405; 2.079]
	6	Production environmental samples	Process water *E.coli* O26 Ad2826		1.406 [0.607; 3.254]	1.009 [0.441; 2.307]
Combined					**1.355 [1.001; 1.835]**	**1.182 [0.0878; 1.590]**

Table 23 - LOD_{50} and LOD_{95} results

	Category		(Strain / matrix) pair	Level of detection at 50% (CFU / sample size)			Level of detection at 95% (CFU / sample size)		
				Reference method	Alternative method Short time	Alternative method Long time	Reference method	Alternative method Short time	Alternative method Long time
Initial validation	1	Raw beef meat	Raw beef meat (25g) *E. coli* O157:H7 Ad683	0.6 [0.3; 1]	0.5 [0.3; 0.9]		2.6 [1.4; 4.7]	2.3 [1.3; 4.1]	
			Frozen raw ground beef (375 g) *E. coli* O145:H28 1502-105	0.4 [0.2; 0.7]	0.6 [0.3; 1]		1.7 [1.0; 3.1]	2.6 [1.4; 5.0]	
	2	Raw milk and dairy products	Raw cow milk *E. coli* O103:H2 Ad3027	1.0 [0.6; 1.8]	1.2 [0.7; 2.0]		4.4 [2.6; 7.8]	5.1 [2.9; 8.9]	
			Soft cheese *E. coli* O26:H11 Ad3098	1.0 [0.6; 1.8]	1.5 [0.8; 2.7]		4.4 [2.6; 7.6]	6.4 [3.6; 11.6]	
Extension study 2025	3	Raw and RTC meats (except poultry)	Raw Ground beef *E. coli* O145:H28 1502-105	0.6 [0.3; 1.0]	0.5 [0.3; 0.9]	0.5 [0.3; 1.0]	2.5 [1.4; 4.4]	2.2 [1.3; 3.9]	2.2 [1.3; 3.9]
	4	Raw, seasoned and heat-treated poultry (combined)	Raw turkey filet *E. coli* O103	0.3 [0.2; 0.6]	0.7 [0.4; 1.3]	0.7 [0.4; 1.3]	1.5 [0.9; 2.6]	3.1 [1.7; 5.7]	3.1 [1.7; 5.7]
	5	Raw milk and dairy products	Raw milk cheese *E. coli* O111 Ad3179	2.5 [1.4; 4.5]	5.1 [2.4; 11.0]	1.5 [0.9; 2.6]	10.8 [6.0; 19.5]	22.2 [10.4; 47.4]	6.7 [4.0; 11.3]
	6	Production environmental samples	Process water *E.coli* O26 Ad2826	0.7 [0.4; 1.2]	1.0 [0.5; 1.8]	0.7 [0.4; 1.3]	3.0 [1.7; 5.4]	4.2 [2.2; 7.9]	3.0 [1.7; 5.4]
Combined				**0.9 [0.7; 1.0]**	**1.2 [0.9; 1.4]**	**0.9 [0.7; 1.1]**	**3.7 [3.0; 4.5]**	**5.0 [4.0; 6.2]**	**3.9 [3.2; 4.8]**

3.2.3 PPMX instrument evaluation

During the extension study, The GDS PickPen® PIPETMAX® (PPMX) was evaluated in parallel to the manual workflow for two RLOD (on raw poultry meat and raw milk cheese). Raw data are available in **Appendix 5.**

Identical results were observed during the RLOD on poultry meat with the manual and the PPMX workflow.

For the RLOD on soft raw milk cheese (brie de Meaux), few differences (1 or 2) were observed at the short and long incubation time with false negative results found either with one or the other protocol. The final RLOD and LOD50 calculation remained identical to the manual workflow (see Tables 23 and 24).

Additionally, internal data, from MILLIPORE, have demonstrated the equivalence of the Assurance GDS sample preparation method comparing manual processing with the new automated system, Assurance GDS PPMX, for a growing number of difficult food matrices and surfaces. Results, presented during AFNOR Technical board of July 2025, have shown similar performances between the automated and manual workflow. This modification has no impact on the performance of the certified alternative methods concerned (no algorithm and interpretation results change).

3.2.4 Conclusion

The RLOD values (using the confirmed alternative method results) meet the acceptability limit of 2.5 for unpaired studies, for all matrix/strain pairs tested.

The LOD_{50} varies from 0.3 to 2.5 CFU/test portion for the reference method and from 0.5 to 5.1 CFU/test portion for the alternative method (short incubation time).

The PPMX instrument showed similar performances in comparison to the manual workflow.

3.3 Inclusivity / exclusivity

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

3.3.1 Test protocol

Inclusivity

- **Initial validation study:**

E. coli strain cultures were performed in BHI medium at 37°C. Dilutions were done in order to inoculate 10 - 100 cells/225 mL of mEHEC®. The broth was incubated for **8 h at 41.5°C** (for Assurance® GDS MPX for Top 7 STEC) or **10 h** (for Assurance® GDS MPX ID for Top STEC or Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq). The protocols of the alternative method were applied (MPX for Top 7 STEC, MPX ID, EHEC ID). The confirmations were made using the appropriate MPX ID/EHEC ID protocol.
As the scope of the validation is Shiga-toxin-producing *Escherichia coli* (STEC) including TOP 5 STEC, 50 strains covering the following targets: *stx*+, *eae*+, serogroup+ (O26, O103, O111, O145, O157) were evaluated. The repartition was the following (See Table 24).

Table 24 - Repartition of the strains per serogroup

Number of strains evaluated						
Genes	O26	O103	O111	O145	O157	Total
stx+, *eae*+ serogroup+	**12**	**10**	**7**	**7**	**14**	**50**

- **Extension study:**

STEC strain cultures were performed in BHI medium at 37°C. Dilutions were done in order to inoculate 10 - 100 cells/225 ml of mEHEC broth. The broth was incubated for **6 h at 41,5°C** before performing the alternative method protocol (shortest incubation time). Direct streaking or remaining beads protocol was performed with CHROMagar STEC and TBX for non-O157 strains and CHROMagar O157 and CT-SMAC for O157 strains. No PCR on colonies was performed except in case of discrepancies as it has already been proven during extension study that all the strain are correctly confirmed on these agars.

Exclusivity

The non-target strains (30) were grown in BHI medium. Dilutions were done in order to inoculate 10^5 cells/ml of BPW. The broths were incubated for 24 h at 37°C. The alternative protocols were then performed (MPX for Top 7, MPX ID for Top STEC, EHEC ID for *E. coli* O157:H7).

3.3.2 Results

Raw data are given in **Appendix 6**.

- **Inclusivity**
    - **Initial validation study:**

The 50 tested target strains gave the expected results.

- **Extension study:**

All strains were found positive by PCR (MPX Top 7 and MPX ID or EHEC ID) with the appropriate O-group characterisation.

Similarly, it was possible to recover the strain on either one of the confirmation plates. Four strains were found negative on CHROMagar STEC and five on ChromID EHEC, but all those strains were found positive by streaking on TBX.

- **Exclusivity**

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

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 utilisation after first use	The storage temperature is of 5±3°C. Kit expiration is provided on the product box label.			
Time to result	Steps	**Reference method**	**Alternative method**	
			Short incubation time	**Long incubation time**
	Negative samples			
	Sampling	Day 0	Day 0	Day 0
	Extraction and PCR	Day 1	Day 0 (protocol 6, 8 or 10 h)	Day 1
	Final result	Day1	Day 0	Day1
	Presumptive positive or positive results			
	Sampling	Day 0	Day 0	Day 0
	Extraction and PCR	Day 1	Day 0 (protocol 6, 8 or 10 h)	Day 1
	Cultural confirmation	Day 1	Day 0	Day 1
	Reading plates	Day 2	Day 1	Day 2
	Confirmation on typical colony	Day 2	Day 1	Day 2
	Final result	Day 2	Day 1	Day 2
Common step with the reference method	No common step with the reference method			

The negative results are available the day of initiating the analyses for the protocols with a short incubation time (6, 8 h or 10 h incubation time) and the confirmed positive results in one day.

For the long incubation time, the negative results are available in one day and the confirmed positive results in two days.

The alternative method protocol is less time consuming and significantly easier to perform than the reference method.

4 INTER-LABORATORY STUDY

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

4.1 Study organisation

Collaborators number

Fifteen laboratories participated in the inter-laboratory study with one collaborator per site. Therefore, fifteen collaborators participated in the study in January 2022.

Matrix and strain used

Chilled ground beef was inoculated with *Escherichia coli* O26:H11 12-62, (*stx*1+, *stx*2-, *eae*+) isolated from raw meat.

Samples

Samples were prepared and inoculated on Monday 24 January 2022, as described below:

- 24 blind coded samples (25 g) for Shiga toxin-producing *Escherichia coli* (STEC) from O26, O103, O111, O145 and O157 serotypes detection by **the internal ADRIA method based on ISO/TS 13136** reference method.

- 24 blind coded samples (25 g) for Shiga toxin-producing *Escherichia coli* (STEC) from O26, O103, O111, O145 and O157 serotypes detection by the:
  - **Assurance® GDS MPX for Top 7 STEC**
  - **Assurance® GDS MPX ID for Top STEC**

  Note: The Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq assay was not analyzed by participants in this multi-laboratory validation.

- 1 sample for aerobic mesophilic flora enumeration by ISO 4833-1 method

- 1 water flask labelled “Temperature Control” with a temperature probe.

Inoculation

The targeted inoculation levels were the following:

- Level: 0 CFU/25 g,
- Level 1: 1,0 CFU/25 g, inoculation level providing fractional positive recovery data,
- Level 2: 8,0 CFU/25 g.

Labelling and shipping

Blind coded samples were placed in isothermal boxes, which contained cooling blocks, and express-shipped to the different laboratories (48 h maximum), in isothermal packages using the UN2814 transport.

A temperature control flask containing a sensor was added to the package to register the temperature profiles for samples:
- During the transport
- At receipt
- During storage until analyses
- During the enrichment broth incubation for the alternative method.

Samples were shipped in 24 h to 48 h to the laboratories involved. The temperature conditions had to stay lower, or equal, to 8°C during transport, and between 0°C – 8°C in the labs.

Analyses

Collaborative study laboratories and the expert laboratory conducted the analyses on Tuesday 25th January 2022 or Wednesday 26th of January 2022 with the alternative and reference methods. **The analysis by the reference method and the alternative method were performed on the same day.**

For the alternative method, the protocol ① (Table 2) for raw beef meat products (25 g test portion) was used during the study with the incubation times of 8 h and 10 h at 41.5°C ± 1°C. The confirmation of positive results was performed (after 10 h incubation time) by direct streaking of remainder IMS concentration reagent in resuspension plate onto CHROMagar STEC and TBX selective agar plates.

For the reference method, the collaborators analysed the samples by the internal method of ADRIA Développement based on the ISO/TS 13136. They proceeded, on all samples, to:

- Enrichment step,
- Extraction of DNA on enriched samples,
- Isolation method using the direct streaking protocol onto TBX and CHROMagar STEC selective agar plates,
- Extraction of DNA from typical colonies isolated on TSA.

The DNA extracts from enriched samples and typical colonies were sent to ADRIA Développement in frozen condition.
The Expert Laboratory performed the analysis on the DNA extracts from enriched samples prepared by the collaborators. ADRIA Développement utilized their internal method based on the ISO/TS 13136 and method PCR tests (*eae*, *stx*, O26). The DNA extracts from typical colonies were evaluated only in case of discordance between the result of PCR analysis of an enrichment and its cultural confirmation result.

4.2 Experimental parameters controls

4.2.1 Strain stability and background microflora stability

Strain stability was checked by inoculating the matrix at 1 CFU/test portion and 10^3 CFU/g. Enumerations were performed for the high contamination level and detection analyses were performed for the low contamination level after 24 h, 48 h and 72 h storage at 3 ± 2°C. *Triplicate samples* were analyzed. The aerobic mesophilic flora was also enumerated; the results are given in Table 25.

Table 25 – *E. coli* O26 and aerobic mesophilic flora stability

Day	STEC detection (low contamination level)						*E. coli* enumeration (high contamination level) (CFU/g)			Aerobic mesophilic flora (CFU/g)
	Reference method			Alternative method						
	Sample 1	Sample 2	Sample 3	Sample 1	Sample 2	Sample 3	Sample 1	Sample 2	Sample 3	
Day 0	+	+	-	+	-	-	450	640	770	$1.0\ 10^3$
Day 1	-	+	-	-	+	+	900	740	500	$2.5\ 10^4$
Day 2	+	+	-	+	-	+	610	550	740	$1.0\ 10^5$
Day 3	-	-	-	-	-	+	780	930	800	$1.0\ 10^6$

No increase was observed for the *E. coli* O26 enumeration after 3 days storage at 3 ± 2°C. For the detection methods, after 2 days storage, no increase in recovery was observed for both methods. After 3 days storage, no positive results were obtained for the reference method while one positive result was observed for the alternative method. This difference is probably a matter of random distribution.
An increase of three log growth was observed for the aerobic mesophilic enumeration between Day 0 and Day 3.

4.2.2 Contamination levels

The contamination levels and the sample codification were the following (see Table 26).

Table 26 – Contamination levels

Level	Samples	Theoretical target level (CFU/test portion)	True level (CFU/test portion)	Low limit (CFU/test portion)	High limit (CFU/test portion)
Level 0	4-7-8-12-15-16-21-23	0.0	/	/	/
Level 1	1-2-6-11-13-14-18-24	1.0	0.8	0.6	1.1
Level 2	3-5-9-10-17-19-20-22	8.0	6.7	5.3	8.5

4.2.3 Logistic conditions

Temperature conditions are given in Table 27.

Table 27 – Sample temperatures at receipt

Collaborators	Temperature measured by the probe (°C)	Temperature measured at receipt (°C)	Receipt date and time		State of the package and samples at receipt	Analysis date
A	1.0	2.6	25/01/2022	11h15	OK	26/01/2022
B	2.5	1.8	25/01/2022	14h15	OK	26/01/2022
C	1.5	3.9	25/01/2022	15h00	OK	26/01/2022
D	1.5	2.5	25/01/2022	14h10	OK	26/01/2022
E	2.5	1.8	25/01/2022	16h50	OK	26/01/2022
F	0.5	2.0	25/01/2022	17h30	OK	**27/01/2022**
G	0.5	0.9	25/01/2022	8h40	OK	26/01/2022
H	0.0	4.5	25/01/2022	8h00	OK	26/01/2022
I	0.5	0.9	25/01/2022	8h15	OK	26/01/2022
J	6.5	2.3	24/01/2022	14h00	OK	25/01//2022
K	0.0	3.0	25/01/2022	10h45	OK	26/01/2022
L	2.0	3.4	25/01/2022	8h35	OK	26/01/2022
M	3.5	2.0	26/01/2022	7h30	OK	26/01/2022
N	0.5	0.9	26/01/2022	8h10	OK	26/01/2022
O	0.5	2.0	25/01/2022	9h	OK	25/01//2022

No problems were encountered during the transport or receipt of samples for the 15 collaborators. All the samples were delivered on time and in appropriate conditions. All temperatures maintained during shipment and receipt were correct.
All the collaborators initiated the analysis on Day 1 or 2, except Lab F, which initiated the analysis on Day 3.

4.3 Results analysis

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

4.3.1 Expert laboratory results

The results obtained by the expert laboratory are given in Table 28.

Table 28 – Results obtained by the expert Lab.

Level	Reference method	Alternative method
L0	0/8	0/8
L1	5/8	4/8
L2	8/8	8/8

Fractional positive results were observed for the reference and the alternative methods for the inoculation Level 1. All the samples gave positive results by both methods at Level 2.

4.3.2 Results observed by the collaborative laboratories

4.3.2.1 Aerobic mesophilic flora enumeration

The results are provided in Table 29.

Table 29 – Aerobic mesophilic flora enumeration

Collaborators	Mesophilic flora enumeration (CFU/g)
A	$7.6\ 10^4$
B	$1.9\ 10^4$
C	$2.5\ 10^4$
D	$7.1\ 10^4$
E	$2.1\ 10^4$
F	$6.2\ 10^4$
G	$6.7x10^3$ (incubation at 37°C)
H	$3.1\ 10^4$
I	$5.2\ 10^6$
J	$3.1\ 10^2$
K	$4.7\ 10^3$
L	$2.6\ 10^4$
M	$3.4\ 10^5$
N	$4.2\ 10^3$
O	$5.7\ 10^3$
ADRIA	$5.7\ 10^3$

Lab G incubated the plates at 37.0°C instead of 30.0°C.
Depending on the Lab results, the enumeration levels varied from $3.1x10^2$ CFU/g to $5.2x10^6$ CFU/g.

4.3.2.2 Shiga toxin-producing *E. coli* detection

Fifteen (15) collaborators participated in the study. All the collaborators performed the analysis for the reference and the alternative methods the same day (Tuesday 25th January or Wednesday 26th annuary 2022), except Lab F which carried on the analysis on Thursday 27th January 2022.Moreover, during the strain stability study, no increase of recovery was observed during the storage (enumeration) at 3°C ± 2°C for the inoculated strain (*E. coli* O26:H11, 12-62).

All the collaborators incubated the enrichment broths from the alternative method for 8 h (PCR screening, Assurance® GDS MPX for Top 7 STEC) and 10 h (PCR confirmation, Assurance® GDS MPX ID) at 41.5°C, except Lab L, which incubated the enrichment broths of the alternative method for 10 h only. For this lab, both GDS assays (Assurance® GDS MPX for Top 7 STEC and Assurance® GDS MPX ID) were performed after 10 h incubation time.

Lab O did not incubate the temperature probe with the enrichment broths. The temperature curve of the incubator was sent to ADRIA and confirmed the correct incubation time.

The results obtained are provided in Table 30 (reference method) and Table 31 (alternative method).

Table 30 – Positive results ((before and after confirmation) by the reference method (ALL collaborators)

Collaborators	Contamination level								
	L0			L1			L2		
	PCR result	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*
A	0	0	0	4	4	4	8	8	8
B	0	0	0	5	5	5	8	8	8
C	0	0	0	5	5	5	8	8	8
D	5	0	0	5	5	5	8	8	8
E	8	0	0	8	7	7	8	8	8
F	0	0	0	2	2	2	8	8	8
G	6	0	0	7	7	7	8	8	8
H	6	1	1	7	3	3	8	8	8
I	8	0	0	8	4	4	8	8	8
J	0	0	0	3	3	3	8	8	8
K	0	0	0	6	6	6	8	8	8
L	0	0	0	3	4	1	8	8	8
M	0	0	0	5	5	5	8	8	8
N	0	0	0	5	6	5	8	8	8
O	1	0	0	4	4	4	8	8	8
Total	**P_0=34**	**C_0=1**	**CP_0=1**	**P_1=77**	**C_1=70**	**C_1=66**	**CP_2=120**	**C_2=120**	**CP_2=120**

Table 31 – Positive results (before and after confirmation) by the alternative method (ALL collaborators)

Collaborators	Contamination level								
	L0			L1			L2		
	PCR result	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*
A	0	0	0	4	4	4	8	8	8
B	0	0	0	4	6	4	6	8	6
C	0	0	0	5	5	5	8	8	8
D	0	0	0	4	4	4	8	8	8
E	0	0	0	4	4	4	8	8	8
F	0	0	0	4	4	4	8	8	8
G	0	0	0	3	3	3	8	8	8
H	0	0	0	5	5	5	8	8	8
I	0	0	0	7	8	7	8	8	8
J	0	0	0	5	5	5	8	8	8
K	0	0	0	7	7	7	8	8	8
L	0	0	0	4	6	4	8	8	8
M	0	0	0	5	5	5	8	8	8
N	0	0	0	4	4	4	8	8	8
O	0	1	0	5	5	5	8	8	8
Total	**P_0=0**	**C_0=1**	**CP_0=0**	**P_1=70**	**C_1=75**	**CP_1=70**	**P_2=118**	**C_2=120**	**CP_2=118**

4.3.2.3 Results observed with the reference method

> ***PCR results***

For 33 samples of Level 0 and nine (9) samples of Level 1, positive PCR results from analysis of the enrichments were observed, while the cultural confirmation gave negative results. Complexity of the sample preparation (DNA extraction in column) for the reference method could lead to cross-contamination. These false-positive samples are listed in Table 32.

Also, Lab D performed its own ISO/TS 13136 method (extraction and PCR) and found an agreement between upfront PCR and confirmation results for all their samples. This supports that the lack of training on the DNA extraction protocol on the enrichments may have led to PCR results with cross-contamination.
Finally, Lab G and Lab I performed on the reference enrichments an upfront IMS concentration using O26-magnetic particles before streaking onto selective agar plates and the confirmation results were still negative.

Table 32 – Samples showing positive PCR results for enrichments and negative cultural confirmation results

Collaborator	Samples	
	Level	
	0	1
D	12-15-16-21-23	/
E	4-7-8-12-15-16-21-23	6
G	4-7-8-12-21-23	/
H	4-7-8-15-23	2-13-14-24
I	4-7-8-12-15-16-21-23	11-13-14
O	12	/

> ***Confirmation results***

It was asked that the collaborators confirm all the samples for the reference method, although this is not required in ISO 16140-2 or in the AFNOR Technical rules. The PCR results on the analysis of the enrichment broths were not available when participants conducted the confirmation procedures. As the DNA extracts were sent to ADRIA to perform the PCR tests few days later, the collaborators thus needed to confirm all the enriched samples by direct streaking protocol onto CHROMagar STEC and TBX selective agar plates. All typical colonies were agglutinated with the SLIDEX® O26 latex test.

For 2 samples of Level 0 (H16 and H21) and 5 samples of Level 1 (L2, L6, L11 and N14), the presence of Shiga toxin-producing *E. coli* was confirmed in the enrichment broth while the upfront PCR results were negative (See Table 33).
Labs H and N performed again the confirmation of these reference samples by direct streaking and all confirmation results were negative. For Lab L, as they did not correctly perform the alternative method protocol (GDS analysis time), they were not asked to perform these additional confirmatory tests.

For one sample of Level 1 (L24), the upfront positive PCR result was not confirmed with the direct streaking protocol. Again, this Lab was not asked to repeat additional confirmatory tests.

Lab H obtained an upfront positive PCR result for one uninoculated sample of Level 0 (H12), which was confirmed by direct streaking. The SLIDEX® O26 latex test, the indole test and the PCR test gave positive results on typical colonies. Lab H performed again the cultural confirmation of this reference sample by direct streaking and the result was negative. Nonetheless, original confirmation data for this sample was retained.

It was proposed to keep the data from all the labs (except Lab L, see below) even if unexpected positive upfront PCR results (with late Ct values) were observed (34 samples distributed across 6 collaborators). The ISO/TS 13136 DNA extraction protocol is a complex protocol involving several steps not always utilized by collaborating laboratories. The combined results of the cultural confirmations and PCR analysis allowed us to give a result without any doubt.

4.3.2.4 Results observed with the alternative method

The results from Lab L were excluded as they incubated the enrichment broth of the alternative method for 10 h only. Both PCR tests (Assurance® GDS MPX for Top 7 STEC and Assurance® GDS MPX ID for Top STEC) were performed after 10 h incubation time.

Four (4) collaborators obtained a positive confirmatory test result while the upfront GDS STEC tests were negative:

- Lab B (samples B1, B13, B3 and B9), the initial PCR analysis gave negative results (inconsistent results for Assurance® GDS MPX for Top 7 STEC and Assurance® GDS MPX ID for Top STEC). Testing of these 4 samples by both GDS assays was repeated and positive PCR results were obtained for all the samples.

- Lab I: sample I14 gave a negative result for Assurance® GDS MPX for Top 7 STEC, but a positive result for the secondary Assurance® GDS MPX ID for Top STEC. Cultural confirmation of the sample was positive. Analyses by both GDS assays, each repeated in duplicate, gave negative PCR results for both second and third tests. Repeat cultural confirmation of this sample was also negative. A contamination event was suspected occurring during the first Assurance® GDS MPX ID for Top STEC analysis, leading to positive result for cultural confirmation.

- Lab L: samples L1 and L2 gave positive cultural confirmation results while Assurance® GDS MPX for Top 7 STEC and Assurance® GDS MPX ID for Top STEC tests were negative. As this lab did not perform GDS testing at the correct timepoint, no further analyses were requested.

- Lab O: sample O15 gave a positive cultural confirmation result while the Assurance® GDS MPX for Top 7 STEC and Assurance® GDS MPX ID for Top STEC tests were negative. The collaborator performed twice again the cultural confirmation on this sample and results for both confirmations were negative. A contamination event was suspected during initial confirmation of this sample.

4.3.3 Results of the collaborators retained for interpretation

According to the AFNOR technical rules, it is possible to include the results from a collaborator with maximum one cross contamination at Level 0 (which is the case for Lab H). This means that finally only one collaborator, Lab L, was excluded for interpretation.

The results obtained with the 14 labs kept for interpretation are presented in Table 33 (reference method) and Table 34 (alternative method).

Table 33 – Positive results (before and after confirmation) by the reference method (Without Lab L)

Collaborators	Contamination level								
	L0			L1			L2		
	PCR result	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*
A	0	0	0	4	4	4	8	8	8
B	0	0	0	5	5	5	8	8	8
C	0	0	0	5	5	5	8	8	8
D	5	0	0	5	5	5	8	8	8
E	8	0	0	8	7	7	8	8	8
F	0	0	0	2	2	2	8	8	8
G	6	0	0	7	7	7	8	8	8
H	6	1	1	7	3	3	8	8	8
I	8	0	0	8	4	4	8	8	8
J	0	0	0	3	3	3	8	8	8
K	0	0	0	6	6	6	8	8	8
M	0	0	0	5	5	5	8	8	8
N	0	0	0	5	6	5	8	8	8
O	1	0	0	4	4	4	8	8	8
Total	**P_0=34**	**C_0=1**	**CP_0=1**	**P1=74**	**C_1=66**	**CP_1=65**	**P_2=112**	**C_2=112**	**CP_2=112**

Table 34 – Positive results (before and after confirmation) by the alternative method (Without Lab L)

Collaborators	Contamination level								
	L0			L1			L2		
	PCR result	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*	*PCR result*	*Confirmation result*	*Final result*
A	0	0	0	4	4	4	8	8	8
B	0	0	0	4	6	4	6	8	6
C	0	0	0	5	5	5	8	8	8
D	0	0	0	4	4	4	8	8	8
E	0	0	0	4	4	4	8	8	8
F	0	0	0	4	4	4	8	8	8
G	0	0	0	3	3	3	8	8	8
H	0	0	0	5	5	5	8	8	8
I	0	0	0	7	8	7	8	8	8
J	0	0	0	5	5	5	8	8	8
K	0	0	0	7	7	7	8	8	8
M	0	0	0	5	5	5	8	8	8
N	0	0	0	4	4	4	8	8	8
O	0	1	0	5	5	5	8	8	8
Total	**P_0=0**	**C_0=1**	**CP_0=0**	**P_1=66**	**C_1=69**	**CP_1=66**	**P_2=110**	**C_2=112**	**CP_2=110**

4.4 Calculation and interpretation

4.4.1 Calculation of the specificity percentage (SP)

The Specificity percentage (SP) of the reference method and of the alternative method, using the data after confirmation of level L0, are presented in Table 35.

Table 35 – Specificity percentage

Specificity for the reference method	$SP_{ref} = \left(1 - \left(\frac{P_0}{N_}\right)\right) x\ 100\ \% =$	99.1%
Specificity for the reference method – *before confirmation*	$SP_{ref} = \left(1 - \left(\frac{P_0}{N_}\right)\right) x\ 100\ \% =$	69.6%
Specificity for the final alternative method	$SP_{alt} = \left(1 - \left(\frac{CP_0}{N_}\right)\right) x\ 100\ \% =$	100.0%

N: number of all L0 tests
P_0 = total number of false-positive results obtained with the blank samples before confirmation
CP_0 = total number of false-positive results obtained with the blank samples

4.4.2 Calculation of sensitivity (SE_{alt}), sensitivity for the reference method (SE_{ref}), relative trueness (RT, false positive ratio for the alternative method (FPR) and false negative ratio for the alternative method (FNR)

Fractional positive results were obtained for the low (58.9% positive results) and the high (98.2% positive results) inoculation levels (L1 + L2). The low inoculation level (L1) was retained for calculation.

A summary of the results of the collaborators, retained for interpretation, obtained with the reference and the alternative methods for Level 1 and Level 2 is provided in Table 36.

Table 36 – Summary of results for all collaborators obtained with the reference and alternative methods for Level 1

Level	Response	Reference method positive (R+)	Reference method negative (R-)
1	Alternative method positive (A+)	Positive agreement (A+/R+) **PA = 41**	Positive deviation (R-/A+) **PD = 26**
	Alternative method negative (A-)	Total Negative deviation (A-/R+) **TND = 22 (2 $ND_{FN(alt)}$)**	Total Negative agreement (A-/R-) **TNA = 20 (1 $NA_{FN(alt)}$)**

Based on the data summarized in Table 36, the calculated values of the sensitivity of the alternative and reference methods, as well as the relative trueness, false positive ratio, and false negative ratio for the alternative method (taking account the confirmations), are presented in Table 37.

Table 37 – Sensitivity, relative trueness, false positive and false negative ratio percentages

		Level L1
Sensitivity for the alternative method	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)}\ x\ 100\ \%$	73.6%
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)}\ x\ 100\ \%$	71.4%
Relative trueness	$RT = \frac{(PA + TNA)}{N} x100\ \%$	55.4%
False positive ratio for the alternative method (unpaired evaluation)	$FPR = \frac{PA_{FP(alt)} + PD_{FP\ (alt)}}{TNA}\ x\ 100\ \%$	0.0%
False negative ratio for the alternative method (unpaired evaluation)	$FNR = \frac{NA_{FN(alt)} + ND_{FN(alt)}}{PA+TND+PD}$ x 100%	3.0%

4.4.3 *Interpretation of truesness data*

The negative deviations are listed in Table 38 for Level 1. The positive deviations are listed in Table 39 for Level 1.

Table 38 – Negative deviations for Level 1

Collaborator	Sample N°	GDS STEC result (including repeat)	Confirmation
A	14	-	-
B	1	- + (1)	+
	13	- +(1)	+
	14	-	-
C	11	-	-
D	11	-	-
	24	-	-
E	1	-	-
	13	-	-
	18	-	-
F	13	-	-
G	1	-	-
	6	-	-
	14	-	-
	24	-	-
H	6	-	-
	11	-	-
J	18	-	-
K	24	-	-
M	1	-	-
	13	-	-
N	2	-	-
O	2	-	-
	18	-	-

(1) : repeat analysis

Table 39 – Positive deviations for Level 1

Collaborator	Sample N°
A	24
B	2, 18
C	1
D	2
F	1, 6, 11, 24
H	1, 2, 13, 14
I	1, 11, 13
J	2, 6, 11
K	2, 13
M	2, 24
O	11, 13, 24

For an **unpaired study design**, the difference between (TND – PD) is calculated for the level(s) where fractional recovery is obtained (so L_1 and possibly L_2). The observed value found for (TND – PD) shall not be higher than the AL. The AL is defined as [$(TND - PD)_{max}$] and calculated per level where fractional recovery is obtained as described below using the following three parameters:

$$(p+)_{ref} = \frac{P_{x\,(ref)}}{N_{x\,(ref)}}$$

where

$P_{x(ref)}$ = is number of samples with a positive result obtained with the reference method at level x (L_1 or L_2) for all laboratories

$N_{x(ref)}$ = is number of samples tested at level x (L_1 or L_2) with the reference method by all laboratories

$$(p+)_{alt} = \frac{CP_{x\,(alt)}}{N_{x\,(alt)}}$$

where

$CP_{x(alt)}$ = is number of samples with a confirmed positive result obtained with the alternative method at level x (L_1 or L_2) for all laboratories

$N_{x(alt)}$ = is number of samples tested at level x (L_1 or L_2) with the alternative method by all laboratories

$$(TND - PD)_{max} = \sqrt{3N_{x\,(ref)}\; x\; ((p+)_{ref} + (p+)_{alt} - 2((p+)_{ref}\; x\; (p+)_{alt}))}$$

where

$N_{x(ref)}$ = is number of samples tested for level x (L_1 or L_2) with the reference method by all laboratories.

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

In this study, fractional recovery was observed at Level 1. The calculations are the following, according to the ISO 16140-2:2016 and ISO 16140-2/A1:2024 (See Table 40).

Table 40 – Calculations

	Level 1
N_X	112
$(p+)_{ref}$	0,58
$(p+)_{alt}$	0,59
AL = (TND - PD) max	12,77
TND - PD	-2
Conclusion	ND-PD ≤ AL

The ISO 16140-2:2016 & ISO 16140-2/A1:2024 requirements are fulfilled as (TND - PD) and (TND + PD) meet the AL for Level L1.

4.4.4 *Evaluation of the LOD $_{50\%}$ and RLOD between laboratories*

The LOD $_{50\%}$, was calculated using the EN ISO 16140-2 Excel spreadsheet available at https://standards.iso.org/iso/16140/-2/ed-1/en/amd/1/PODLOD-interlab_ver2.xlsm.

The RLOD is defined as the ratio of the LODs of the alternative method and the reference method: **RLOD = LOD_{alt}/LOD_{ref}.** The results are given in Table 41.

Table 41 – LOD $_{50\%}$ and RLOD

Method	LOD 50%	RLOD
Reference	0.8 [0.6 ; 1.0]	1.3 [0.9 ; 1.7]
Alternative	1.0 [0.7 ; 1.2]	

5 CONCLUSION

The **method comparison study conclusions** are:

☒ In the sensitivity study, two food categories were evaluated during the initial validation study and 3 food categories and the production environmental samples during the extension study. One category contained two test portion sizes (25 g and 375 g) for the raw beef meat. The raw milk and raw dairy products category contain separate protocols for analysis of raw milk (25 mL) and analysis of raw dairy products (25 g). Categories tested during the extension study were evaluated with two incubation times (short and long).

☒ The TND - PD meets the acceptability limits (AL) for all categories, protocols and for all the combined samples.

☒ It is possible to store the primary enrichment broth for 72 h at 5 ± 3°C except for categories 3, 4, 5 and 6 at the short incubation time (6h, 8h and 10h) due to difficulties confirming the positive PCR results.

☒ The Relative Levels of Detection (RLOD) are all below the AL fixed at 2.5 for the unpaired data study, irrespective of the matrix/strain pairs.

☒ The inclusivity and exclusivity testing gave the expected results for the 50 target strains with both protocols and the 30 non-target strains.

☒ Negative results are available on the day of initiating the analyses for all categories when using the short incubation time, (6, 8 or 10 h). Positive results are obtained in two days. With longer incubation time, results are available in one day and positive results are obtained in two days.

☒ Internal and expert lab data have demonstrated the equivalence of the Assurance GDS sample preparation method comparing manual processing with the new automated system, Assurance GDS PPMX for the first screening part using MPX Top 7 Assurance® GDS. The Assurance® GDS PickPen® PipetMax® instrument is registered in the context of NF VALIDATION mark for this method

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

☒ These data and interpretations comply with the EN ISO 16140-2:2016, ISO 16140-2/A1:2024 requirements. The alternative methods are considered equivalent to the ISO standard method.

The alternative method fulfils all the ISO 16140-2:2016, ISO 16140-2/A1:2024 requirements and AFNOR technical rules (Revision 12).

Quimper, 18 February 2026

Astrid CARIOU
Manager
Method performance in food microbiology

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

Appendix 1 - Flow diagram of the alternative methods: Assurance® GDS MPX for Top 7 STEC, MPX ID for Top STEC and EHEC ID for *E. coli* O157:H7

Protocol ①	Protocol ②	Protocol ③	Protocol ④
Raw beef meat **25 g** + 225 ml d 1:10 mEHEC®* 8 h - 16 h at 41.5°C	Raw beef meat *(excluding seasoned meat)* **375 g** + 1500 ml d 1:5 mEHEC®* 10 h -18 h at 41.5°C	Raw milk **25 g** + 225 ml d 1:10 mEHEC®* 18 h - 24 h at 41.5°C	Raw milk cheese **25 g** + 225 ml d 1:10 mEHEC®* 18 h - 24 h at 41.5°C + Subculture in BHI for 2 - 4 h at 35 - 37°C

Protocol ⑤	Protocol ⑥	Protocol ⑦
Raw and RTC meats **Up to 25 g** d 1/10 pre-warmed mEHEC® (41.5°C) 6h - 24 h at 41.5°C + Tween 80 for fat > 20%	Raw, RTC, RTRH and RTE poultry **Up to 25 g** d 1/10 pre-warmed mEHEC® (37°C) 8 h - 24 h at 41.5°C + Tween 80 for fat > 20%	Raw milk and dairy products Production environmental samples **Up to 25 g/ml** d 1/10 pre-warmed mEHEC® (41.5°C) 10 h - 24 h at 41.5°C + Tween 80 for fat > 20%

Possibility to store for 72 h at 5°C ± 3°C (except for protocols 5, 6 and 7 at the short incubation time)

Sample test

*Re-incubation of enriched samples until having the MPX PCR results **(+ 2 h)***

Assurance® GDS MPX for Top 7 STEC
(IMS 1ml enrichment broth) on:
- mEHEC® for all, except raw cheese
- BHI raw milk cheese (protocol ④)

Lysate

PCR (30 µl lysate)

Assurance® GDS MPX for Top 7 STEC
(*stx*, *eae* and O157)

\- / + → +2H re-incubation

Stop

If Top 6 non-O157 STEC

Assurance® GDS MPX ID for Top STEC
(IMS 1 ml enrichment broth) on:
mEHEC® for all foods

Lysate

PCR (30 µl lysate)

AND/OR

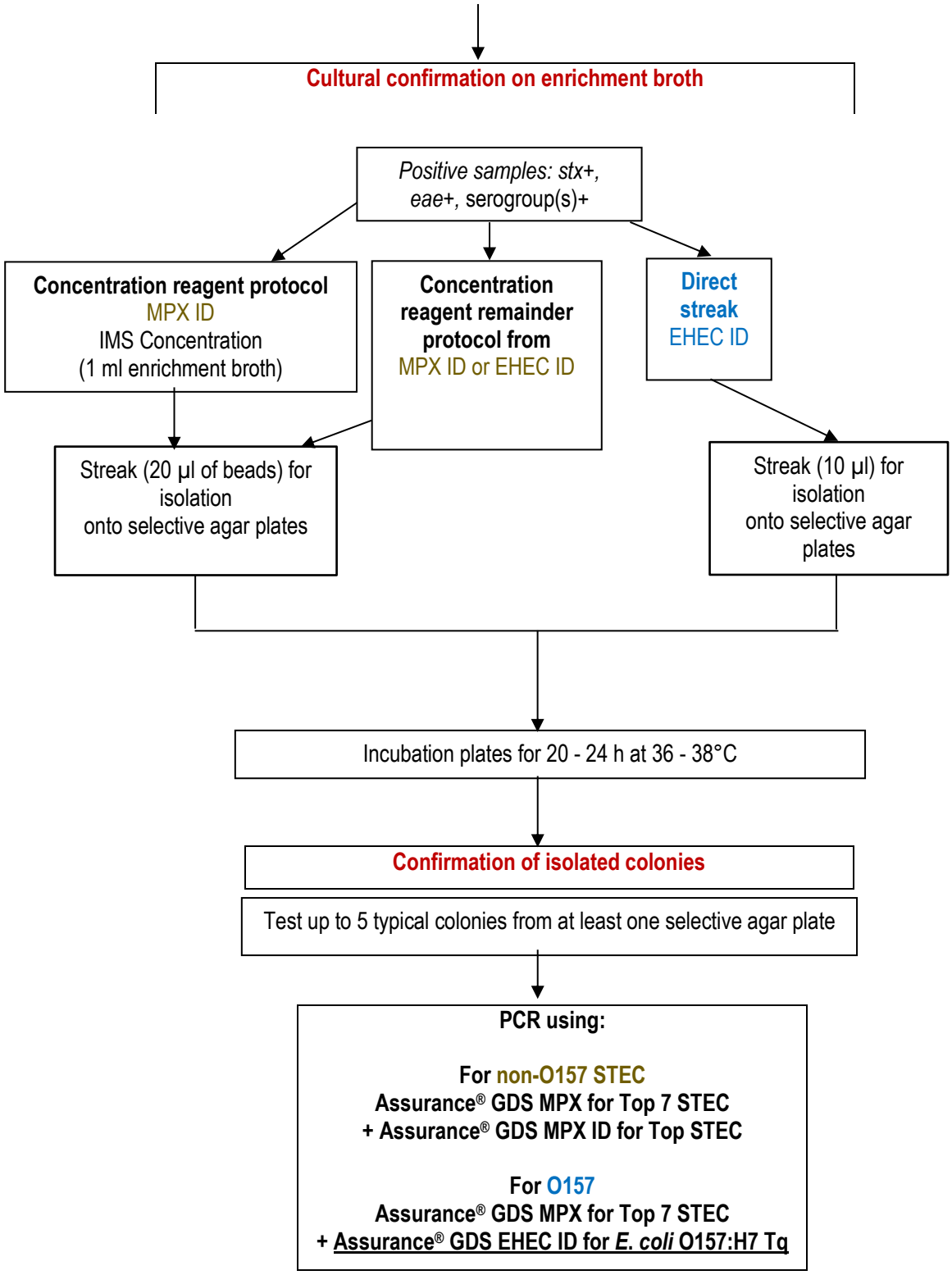
If O157 EHEC

Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq
(IMS 1 ml enrichment broth) on:
mEHEC for all foods

Lysate

PCR (30 µl lysate)

* Pre-warm mEHEC to 41.5°C



Protocol applied only during the validation study

1 – Screening and confirmation on enriched samples

For all samples except raw milk cheese with protocol ④

Reagent preparation

- **Assurance® GDS MPX for Top 7 STEC**
  - Transfer 20 µl of Top 7 STEC Concentration reagent into 1 GDS sample well
  - Transfer 1 ml of Top STEC Wash Solution into 2 GDS sample wells
  - Transfer 45 µl of resuspension buffer in a sample well of a resuspension plate

- **Assurance® GDS MPX ID for Top STEC**
  - Transfer 40 µl of Top 6 STEC Concentration reagent in 1 GDS sample well
  - Transfer 1 ml of Top STEC Wash Solution into 2 GDS sample wells
  - Transfer 80 µl of resuspension buffer in a sample well of a resuspension plate

- **Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq**
  - Transfer 20 µl of O157 Concentration reagent in 1 GDS sample well
  - Transfer 1 ml of Wash Solution into 1 GDS sample well
  - Transfer 45 µl of resuspension buffer in a sample well of a resuspension plate

Protocol for the three kits, No Subculture

Add 1 ml of enriched sample to a GDS sample well containing Concentration reagent

↓

Agitation at 900 rpm for 10 - 20 min MPX Top 7 and **MPX ID** (adjust rpm if liquid contact adhesive film)
For 5-15 min only for **EHEC ID**

↓

Extend the magnet. Stir tips gently 30 sec in sample.

For MPX Top 7 and **MPX ID**: Transfer into Wash Solution using the Pick-Pen™ X2: release beads into in 1st GDS sample well, change tips and stir tips for 30 sec, followed by stir tips for 10 sec in 2nd GDS sample well (no release in 2nd)

Or **EHEC ID**: Stir tips in Wash Solution for 10 sec

↓

Transfer the beads into the resuspension plate well using the Pick-Pen™ device

↓

Go to PCR Analysis

Sample test for raw milk cheese (protocol④)

Reagent preparation

Assurance® GDS MPX for Top 7 STEC

- Transfer 20 µl of Top 7 STEC Concentration reagent in 1 GDS Sample well
- Transfer 1 ml of Top STEC Wash Solution into 2 GDS sample wells
- Dispense 0.5 ml of BHI in 1 GDS sample well
- Transfer 45 µl of resuspension buffer into a sample well of a resuspension plate

Assurance® GDS MPX ID for Top STEC

- Transfer 40 µl of Top 6 STEC Concentration reagent in 1 GDS sample well
- Transfer 1 ml of Top STEC Wash Solution into 2 GDS sample wells
- Transfer 80 µl of resuspension buffer into a sample well of a resuspension plate

Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq

- Transfer 20 µl of O157 Concentration reagent into 1 GDS sample well
- Transfer 1 ml of Wash Solution into 1 GDS sample well
- Transfer 45 µl of resuspension buffer into a sample well of a resuspension plate

Protocol for the MPX Top 7 kit only, With BHI subculture

Add 1 ml of enriched sample to a GDS sample well containing the Concentration reagent

↓

Agitation at 900 rpm for 10 - 20 min (adjust rpm if liquid contact adhesive film)

↓

Stir tips gently 30 sec in sample.
Dip wash in Wash Solution using the Pick-Pen™ device:
Stir tips for 10 sec in 1st GDS sample well. Do not release beads.

↓

Transfer to BHI using the Pick-Pen™ (release beads)

↓

Incubate BHI for 2 - 4 h at 35 - 37°C

↓

Extend magnets and stir tips gently for 30 sec in BHI.
Dip wash in Wash Solution using the Pick-Pen™ device:
Stir tips for 10 sec in 2nd GDS sample well

↓

Transfer the beads into the resuspension plate well using the Pick-Pen™ device

↓

Go to PCR Analysis

Protocol for the MPX ID and EHEC ID, See No Subculture, above

↓

Transfer the beads into the resuspension plate well using the Pick-Pen™ device

↓

Go to PCR Analysis

PCR ANALYSIS

↓

PCR tests on 30 µl of resuspension buffer using the Assurance® Rotor Gene®:

For **non-O157 STEC**
Assurance® GDS MPX for Top 7 STEC
+
Assurance® GDS **MPX ID** for Top STEC

Or for **O157:H7**
Assurance® GDS MPX for Top 7 STEC
+
Assurance® GDS **EHEC ID** for *E. coli* O157:H7 Tq

2 – Cultural confirmation
on enrichment broth
with STEC Concentration reagent and PickPen™ device

(Objective: to capture *stx*+ and *eae*+- containing Top 4 Non-O157 STEC strains)

Reagent preparation

For **non-O157 STEC**:

- Add 40 µl **Top 6 STEC Concentration Reagent (from MPX ID kit)**
- Transfer 1 ml of Wash Solution into 2 GDS sample wells
- Transfer 50 µl of Wash Solution in a resuspension plate well

Protocol for Isolation of STEC

Add 1 ml of enriched sample to a sample well containing the Concentration reagent

↓

Agitation at 900 rpm for 10 - 20 min for **MPX ID** (adjust rpm if liquid contact adhesive film)

↓

Extend the magnet. Stir tips gently 30 sec in sample.
Transfer into Wash Solution (1 mL) using the Pick-Pen™ X2: release beads into in 1st GDS sample well containing Wash solution.
change tips and stir tips for 30 sec, followed by 10 sec stir tips in 2nd GDS sample well (no release beads in 2nd)

↓

Transfer the beads into the resuspension plate well containing 50 µL Wash Solution using the Pick-Pen™ device

↓

Add 20 µl resuspended beads on selective agar plates and streak:

↓

CHROMagar™ STEC
choice of 1 of the following 3 plates:
Rainbow® agar with novobiocin and cefixime (RANC),
ChromID™ EHEC,
Tryptone Bile X-Glucuronide (TBX)

Cultural confirmation from MPX ID or EHEC ID from Remainder beads in resuspension plate

Protocol for Isolation of STEC

From the resuspension plate from **MPX ID** or **EHEC ID**:
transfer 15 µl of remaining beads into new Wash solution (30 µl).
Streak 20 µl remaining beads (resuspended) for isolation on each selective agar plates:

For **non-O157 STEC**	For **O157 STEC**
CHROMagar™ STEC + choice of 1 of the following 2 plates: ChromID™ EHEC, Tryptone Bile X-Glucuronide (TBX)	CHROMagar™ O157 + choice of 1 of the following 2 plates: Sorbitol MacConkey agar containing cefixime and tellurite (CT-SMAC) **or** EC O157:H7 ChromoSelect agar modified

Cultural confirmation from enrichment broth: Direct streaking

(Objective: to capture *stx*+ and *eae*+ containing O157 STEC strains)

Protocol for Isolation of STEC

Streak 10 µl of enrichment broth onto:
CHROMagar™ O157
+
Choice of 1 of the 2 following plates:
Sorbitol MacConkey agar containing cefixime and tellurite (CT-SMAC)
or EC O157:H7 ChromoSelect agar modified

3 - Confirmation on isolated colonies

Reagent preparation

Transfer Wash Solution to a GDS sample well
For **non-O157 STEC**: add 500 µl of Top STEC Wash solution
For **O157:H7**: add 500 µl of Wash solution

↓

Add resuspension buffer to a resuspension plate well
For **non-O157 STEC**: add 120 µl of resuspension buffer
For **O157:H7**: add 100 µl of resuspension buffer

Protocol

Typical colonies
↓
Transfer 1 isolated colony with a 1 µl sterile loop in the GDS sample well containing the Wash solution. Mix well to suspend.
↓
PCR tests on 30 µl of resuspension buffer using the Assurance® Rotor Gene®:

For **non-O157 STEC positive samples**:
Assurance® GDS MPX for Top 7 STEC
+ Assurance® GDS **MPX ID** for Top STEC

Or

For **O157 positive samples**:
Assurance® GDS MPX for Top 7 STEC
+ Assurance® GDS **EHEC ID** for *E. coli* O157:H7 Tq

Initial validation study categories															
Category	Sub-category	Test portion (g)	PCR on enriched Samples						Top 4 non O157				O157	Confirmation of isolated colonies (first choice of media for colonies testing)	
									Cultural confirmation on enrichment broth (*stx* and *eae*) with STEC concentration reagent		**Cultural confirmation from** Assurance® GDS MPX ID for Top STEC **resuspension plate**		**Cultural confirmation: by direct streaking or cultural confirmation from** Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq resuspension plate		
			Assurance® GDS MPX for Top 7 STEC			Assurance® GDS MPX ID for Top STEC Or Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq			Media	Streak 20 µl of beads suspension	Media	Streak 20 µl of beads	Streak 10 µl of enrichment broth or streak 20 µl of beads	Selective agar plates for non-O157 STEC	Selective agar plates for O157:H7
			Media	*Tested Media*	*Incubation time (h)*	*Media*	*Tested Media*	*Incubation time (h)*		*Selective agar plates for non-O157 STEC*		*Selective agar plates for non-O157 STEC*	*Selective agar plates for O157 STEC*		
Raw beef meat	/	25	mEHEC®	mEHEC®	8	mEHEC®	mEHEC®	10*	mEHEC®	A +B + C + D	mEHEC®	A + (B, C, or D)	E + F + G	A	E
	/	375 [2]	mEHEC®	mEHEC®	10	mEHEC®	mEHEC®	12*	mEHEC®	A +B + C + D	mEHEC®	A + (B, C, or D)	E + F + G	A	E
Raw milk and dairy products	Raw milk	25	mEHEC®	mEHEC®	18	mEHEC®	mEHEC®	20*	mEHEC®	A +B + C + D	mEHEC®	A + (B, C, or D)	E + F + G	A	E
	Raw milk cheese	25	mEHEC® + BHI	BHI	18 + 2 = 20	mEHEC®	mEHEC®	22*	mEHEC®	A +B + C + D	mEHEC®	A + (B, C, or D)	E + F + G	A	E

*: re-incubation of the samples until Assurance® GDS MPX for Top 7 STEC result is complete

Selective agar plates		
Confirmation	**Code**	**Media**
Top 4 non-O157	A	CHROMagar STEC
	B	RANC
	C	ChromID EHEC
	D	TBX
O157:H7	E	CHROMagar O157
	F	CT-SMAC
	G	EC O157:H7 ChromoSelect Agar Modified

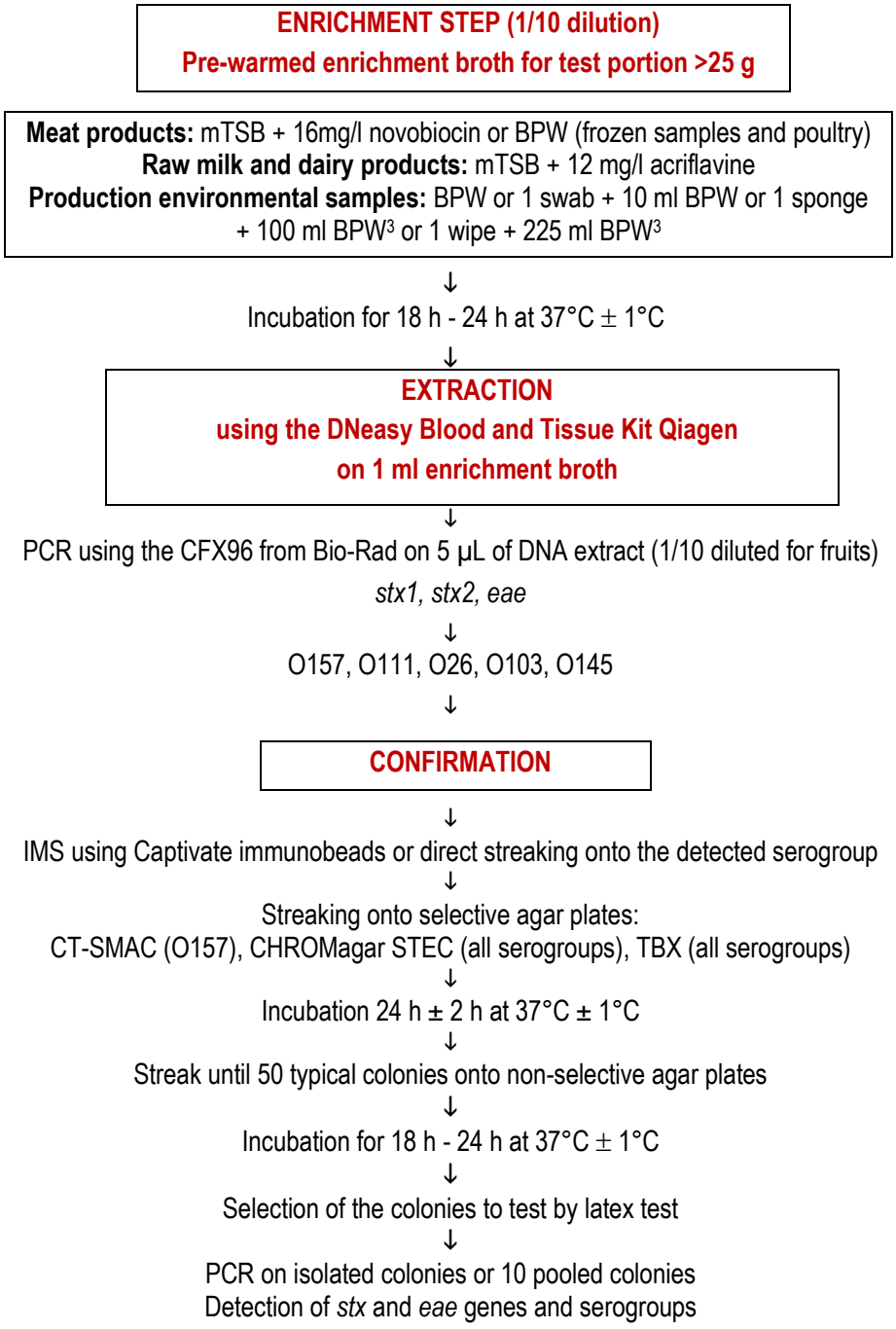
[2] *(excluding seasoned meat)*

Extension study categories													
Category	Test portion (g)	PCR on enriched Samples				Top 4 non O157		O157				Confirmation of isolated colonies (first choice of media for colonies testing)	
						Cultural confirmation from Assurance® GDS MPX ID for Top STEC resuspension plate		Cultural confirmation: by direct streaking		Cultural confirmation from Assurance® GDS MPX ID for Top STEC resuspension plate			
		Assurance® GDS MPX for Top 7 STEC		Assurance® GDS MPX ID for Top STEC Or Assurance® GDS EHEC ID for *E. coli* O157:H7 Tq		Media	Streak 20 µl of beads	Media	Streak 10 µl of enrichment broth	Media	Streak 20 µl of beads (2 extractions)	Selective agar plates for non-O157 STEC	Selective agar plates for O157
		Tested Media	*Incubation time (h)*	*Tested Media*	*Incubation on time (h)*		*Selective agar plates for non-O157 STEC*		*Selective agar plates for O157 STEC*		*Selective agar plates for O157 STEC*		
Raw and RTC meats	Up to 25	mEHEC®	6 – 24h	mEHEC®	8 – 26h*	mEHEC®	A (B or C)	mEHEC®	E+F+G	mEHEC®	E (F or G)	A	E
Raw, RTC, RTRH and RTE poultry	Up to 25	mEHEC®	8 – 24h	mEHEC®	10 – 26h*	mEHEC®	A (B or C)	mEHEC®	E+F+G	mEHEC®	E (F or G)	A	E
Raw milk and dairy products	Up to 25	mEHEC®	10 – 24h	mEHEC®	12 – 26h*	mEHEC®	A (B or C)	mEHEC®	E+F+G	mEHEC®	E (F or G)	A	E
Production environmental samples	Up to 25	mEHEC®	10 – 24h	mEHEC®	12 – 26h*	mEHEC®	A (B or C)	mEHEC®	E+F+G	mEHEC®	E (F or G)	A	E

*: re-incubation of the samples until Assurance® GDS MPX for Top 7 STEC result is complete

Selective agar plates		
Confirmation	**Code**	**Media**
Top 4 non-O157	A	CHROMagar STEC
	B	ChromID EHEC
	C	TBX
O157:H7	E	CHROMagar O157
	F	CT-SMAC
	G	EC O157:H7 ChromoSelect Agar Modified

Appendix 2 – Flow diagram of the reference method: ISO/TS 13136 (November 2012): Microbiology of food and animal feed - Real-time polymerase chain reaction (PCR) based method for the detection of food-borne pathogens. Horizontal method for the detection of Shiga-toxin producing *Escherichia coli* (STEC) and the determination of O157, O111, O26, O103 and O145 serogroups



[3] For sampling before cleaning process, BPW is used. After cleaning process, the following protocol is applied to premoisten the sampling device:

- 1 swab + 1 ml neutralizing broth
- 1 sponge + 10 ml neutralizing broth
- 1 wipe + BPW + 10 % neutralizing broth

Note: Neutralizing agent is composed of phosphate disodique, Thiosulfate de sodium, Lecithin, Tween® 80, - L – Histidine

Appendix 3 – Artificial contamination of samples

Protocol ①														
Date	Sample N°	Product (French name)	Product	Artificial contaminations							Global result	Category	Type
				Strain	Virulence genes			Origin	Injury protocol	Inoculation level/sample				
					*stx*1	*stx*2	*eae*			Enumeration	Mean			
2021	**2277**	**Viande bovine bavette d'Aloyau**	**Beef trim meat**	*E. coli* O157:H7 769	-	+	+	Ground beef	Seeding 48h at 3±2°C	5-1-3-3-1	2.6	+	1	a
2021	**2278**	**Viande bovine faux filet**	**Beef trim meat**	*E. coli* O157:H7 Ad587	+	+	+	Ground beef	Seeding 48h at 3±2°C	4-1-3-5-5	3.6	+	1	a
2021	**2279**	**Viande bovine faux filet**	**Beef trim meat**	*E. coli* O157:H7 769	-	+	+	Ground beef	Seeding 48h at 3±2°C	5-1-3-3-1	2.6	+	1	a
2021	**2280**	**Viande bovine steak**	**Beef trim meat**	*E. coli* O157:H7 Ad1248	-	+	+	Ground beef	Seeding 48h at 3±2°C	2-2-3-1-2	2.0	+	1	a
2021	**2281**	**Viande bovine steak**	**Beef trim meat**	*E. coli* O157:H7 769	-	+	+	Ground beef	Seeding 48h at 3±2°C	5-1-3-3-1	2.6	+	1	a
2021	**2543**	**Steak haché de bœuf frais**	**Ground beef meat**	*E. coli* O26:H11 14-53	+	-	+	Meat product	Seeding 48h at 3±2°C	2-4-1-1-1	1.8	+	1	a
2021	**2544**	**Steak haché de bœuf frais**	**Ground beef meat**	*E. coli* O103:H2 V92-362	+	-	+	Meat product	Seeding 48h at 3±2°C	6-3-6-7-8	6.0	+	1	a
2021	**2545**	**Steak de bœuf à griller**	**Ground beef meat**	*E. coli* O145:H28 2305-1	+	-	+	Meat product	Seeding 48h at 3±2°C	3-8-5-3-3	4.4	+	1	a
2021	**2546**	**Steak de bœuf à griller**	**Ground beef meat**	*E. coli* O111:H8 Ad3021	+	-	+	Unknown	Seeding 48h at 3±2°C	4-4-2-3-4	3.4	+	1	a
2021	**2547**	**Filet de bœuf à griller**	**Beef trim meat**	*E. coli* O145:H28 2305-1	+	-	+	Meat product	Seeding 48h at 3±2°C	3-8-5-3-3	4.4	+	1	a
2021	**2565**	**Bavette d'Aloyau surgelée**	**Frozen beef trim**	*E. coli* O145:H281502-105	-	+	+	Meat product	Seeding 2 weeks at -20°C	1-0-2-1-1	1.0	+	1	b
2021	**2566**	**Bavette d'Aloyau surgelée**	**Frozen beef trim**	*E. coli* O26:H11 Ad1507	+	+	+	Unknown	Seeding 2 weeks at -20°C	3-2-1-4-2	2.4	+	1	b
2021	**2567**	**Tournedos de bœuf surgelé**	**Frozen beef trim**	*E. coli* O26:H11 Ad1507	+	+	+	Unknown	Seeding 2 weeks at -20°C	3-2-1-4-2	2.4	+	1	b
2021	**2568**	**Tournedos de bœuf surgelé**	**Frozen beef trim**	*E. coli* O103 Ad3113	+	+	+	Veal meat	Seeding 2 weeks at -20°C	5-3-1-3-3	3.0	+	1	b
2021	**2569**	**Effeuillés charolais surgelé**	**Frozen beef trim**	*E. coli* O103 Ad3113	+	+	+	Veal meat	Seeding 2 weeks at -20°C	5-3-1-3-3	3.0	+	1	b
2021	**2570**	**Effeuillés charolais surgelé**	**Frozen beef trim**	*E. coli* O145:H281502-105	-	+	+	Meat product	Seeding 2 weeks at -20°C	1-0-2-1-1	1.0	+	1	b
2021	**2571**	**Steak haché de bœuf surgelé**	**Frozen ground beef**	*E. coli* O103 Ad3113	+	+	+	Veal meat	Seeding 2 weeks at -20°C	5-3-1-3-3	3.0	+	1	b
2021	**2572**	**Steak haché de bœuf surgelé**	**Frozen ground beef**	*E. coli* O145:H281502-105	-	+	+	Meat product	Seeding 2 weeks at -20°C	1-0-2-1-1	1.0	+	1	b
2021	**2573**	**Viande hachée de bœuf surgelée**	**Frozen ground beef**	*E. coli* O145:H281502-105	-	+	+	Meat product	Seeding 2 weeks at -20°C	1-0-2-1-1	1.0	+	1	b
2021	**2574**	**Viande hachée de bœuf surgelée**	**Frozen ground beef**	*E. coli* O111 Ad3037	+	-	+	Unknown	Seeding 2 weeks at -20°C	3-5-0-1-1	2.0	+	1	b
2021	**2273**	**Pavé de rumsteak à l'échalotte**	**Seasoned beef meat**	*E. coli* O157:H7 Ad587	+	+	+	Ground beef	Seeding 48h at 3±2°C	4-1-3-5-5	3.6	+	1	c
2021	**2274**	**Pavé de rumsteak à l'échalotte**	**Seasoned beef meat**	*E. coli* O157:H7 Ad1248	-	+	+	Ground beef	Seeding 48h at 3±2°C	2-2-3-1-2	2.0	+	1	c
2021	**2275**	**Viande hachée de bœuf à la bolognaise**	**Seasoned beef meat**	*E. coli* O157:H7 Ad587	+	+	+	Ground beef	Seeding 48h at 3±2°C	4-1-3-5-5	3.6	+	1	c
2021	**2276**	**Viande hachée de bœuf à la bolognaise**	**Seasoned beef meat**	*E. coli* O157:H7 Ad1248	-	+	+	Ground beef	Seeding 48h at 3±2°C	2-2-3-1-2	2.0	+	1	c
2021	**2548**	**Brochette de bœuf tomates paprika**	**Seasoned beef meat**	*E. coli* O26:H11 14-53	+	-	+	Meat product	Seeding 48h at 3±2°C	2-2-1-2-1	1.6	+	1	c
2021	**2549**	**Brochette de bœuf tomates paprika**	**Seasoned beef meat**	*E. coli* O103:H2 V92-362	+	-	+	Meat product	Seeding 48h at 3±2°C	4-3-3-4-1	3.0	+	1	c
2021	**2550**	**Pavé de bœuf à la mexicaine**	**Seasoned beef meat**	*E. coli* O103:H2 V92-362	+	-	+	Meat product	Seeding 48h at 3±2°C	4-3-3-4-1	3.0	+	1	c
2021	**2551**	**Pavé de bœuf à la mexicaine**	**Seasoned beef meat**	*E. coli* O145 Ad983	-	+	+	Clinic	Seeding 48h at 3±2°C	7-4-0-0-4	3.0	+	1	c
2021	**2552**	**Emincés de bœuf à l'andalouse**	**Seasoned beef meat**	*E. coli* O145 Ad983	-	+	+	Clinic	Seeding 48h at 3±2°C	7-4-0-0-4	3.0	+	1	c
2021	**2553**	**Emincés de bœuf à l'andalouse**	**Seasoned beef meat**	*E. coli* O111:H8 Ad3021	+	-	+	Unknown	Seeding 48h at 3±2°C	1-3-1-2-0	1.4	+	1	c

Protocol ②														
Date	Sample N°	Product (French name)	Product	Artificial contaminations							Global result	Category	Type
				Strain	Virulence genes			Origin	Injury protocol	Inoculation level/sample				
					*stx*1	*stx*2	*eae*			Enumeration	Mean			
2021	**3249**	**Rôti de bœuf**	**Fresh beef trim meat**	*E. coli* O157:H7 Ad562	-	+	+	Bovine	Seeding 72h at 3±2°C	5-7-9-2-7	6.0	+	1	a
2021	**3250**	**Steak de bœuf**	**Fresh beef trim meat**	*E. coli* O157:H7 Ad562	-	+	+	Bovine	Seeding 72h at 3±2°C	5-7-9-2-7	6.0	+	1	a
2021	**3251**	**Paleron de bœuf à mijoter**	**Fresh beef trim meat**	*E. coli* O157:H7 Ad562	-	+	+	Bovine	Seeding 72h at 3±2°C	5-7-9-2-7	6.0	+	1	a
2021	**3252**	**Haché de bœuf 20% MG**	**Fresh ground beef meat**	*E. coli* O157:H7 Ad684	-	+	+	Bovine	Seeding 72h at 3±2°C	3-7-8-8-10	7.2	-	1	a
2021	**3253**	**Haché de bœuf 15% MG**	**Fresh ground beef meat**	*E. coli* O157:H7 Ad684	-	+	+	Bovine	Seeding 72h at 3±2°C	3-7-8-8-10	7.2	-	1	a
2021	**3254**	**Viande de Bœuf à fondue**	**Fresh beef trim meat**	*E. coli* O157:H7 Ad684	-	+	+	Bovine	Seeding 72h at 3±2°C	3-7-8-8-10	7.2	-	1	a
2021	**3258**	**Steak haché 15% MG**	**Fresh ground beef meat**	*E. coli* O145:H28 1867-177	-	+	+	Meat product	Seeding 72h at 3±2°C	1-4-7-7-2	4.2	+	1	a
2021	**3259**	**Haché pur bœuf 5% MG**	**Fresh ground beef meat**	*E. coli* O145:H28 1867-177	-	+	+	Meat product	Seeding 72h at 3±2°C	1-4-7-7-2	4.2	+	1	a
2021	**3260**	**Steak haché pur bœuf 15% MG**	**Fresh ground beef meat**	*E. coli* O145:H28 1867-177	-	+	+	Meat product	Seeding 72h at 3±2°C	1-4-7-7-2	4.2	+	1	a
2021	**3261**	**Bourguignon à mijoter**	**Fresh beef trim meat**	*E. coli* O145:H28 1867-177	-	+	+	Meat product	Seeding 72h at 3±2°C	1-4-7-7-2	4.2	+	1	a
2021	**3262**	**Côte de bœuf à griller**	**Fresh beef trim meat**	*E. coli* O145:H28 1867-177	-	+	+	Meat product	Seeding 72h at 3±2°C	1-4-7-7-2	4.2	+	1	a
2021	**5453**	**Steak de boeuf à griller**	**Fresh ground beef meat**	*E. coli* O157:H7 Ad561	+	+	+	Ground beef	Seeding 72h at 3±2°C	4-6-3-10-2	5.0	+	1	a
2021	**5454**	**Paleron de bœuf tranché**	**Fresh beef trim meat**	*E. coli* O145:H28 092-4	-	+	+	Meat product	Seeding 72h at 3±2°C	2-3-2-1-6	3.0	+	1	a
2021	**5455**	**Steak haché de bœuf 5%MG**	**Fresh ground beef meat**	*E. coli* O157:H7 Ad925	-	+	+	Ground beef	Seeding 72h at 3±2°C	9-7-5-5-5	6.2	+	1	a
2021	**5456**	**Steak haché de bœuf 15%MG**	**Fresh ground beef meat**	*E. coli* O157:H7 Ad925	-	+	+	Ground beef	Seeding 72h at 3±2°C	9-7-5-5-5	6.2	+	1	a
2021	**5457**	**Steak haché de bœuf 15%MG**	**Fresh ground beef meat**	*E. coli* O157:H7 Ad561	+	+	+	Ground beef	Seeding 72h at 3±2°C	4-6-3-10-2	5.0	+	1	a
2021	**5458**	**Steak haché de bœuf 5%MG**	**Fresh ground beef meat**	*E. coli* O145:H28 092-4	-	+	+	Meat product	Seeding 72h at 3±2°C	2-3-2-1-6	3.0	+	1	a
2021	**5459**	**Steak haché de bœuf 15%MG**	**Fresh ground beef meat**	*E. coli* O145:H28 1331-100	-	+	+	Meat product	Seeding 72h at 3±2°C	4-6-1-3-4	3.6	+	1	a
2021	**4110**	**Viande hachée pur Bœuf 20% MG surgelée**	**Frozen ground beef meat**	*E. coli* O26:H11 12-62	+	-	+	Meat product	Seeding 2 weeks at -20°C	0-1-1-1-3	1.2	+	1	b
2021	**4111**	**Egréné de Bœuf 15% MG surgelé**	**Frozen ground beef meat**	*E. coli* O103 Ad3113	+	-	+	Veal	Seeding 2 weeks at -20°C	0-3-2-4-1	2.0	+	1	b
2021	**4112**	**Bavette d'Aloyau surgelée**	**Frozen beef trim meat**	*E. coli* O26:H11 12-62	+	-	+	Meat product	Seeding 2 weeks at -20°C	0-1-1-1-3	1.2	+	1	b
2021	**4113**	**Parfait de Charolais surgelé**	**Frozen beef trim meat**	*E. coli* O103 Ad3113	+	-	+	Veal	Seeding 2 weeks at -20°C	0-3-2-4-1	2.0	+	1	b
2021	**4116**	**Steak haché 15% MG surgelé**	**Frozen ground beef meat**	*E. coli* O111 Ad3042	+	-	+	Raw milk cheese	Seeding 2 weeks at -20°C	1-3-1-1-0	1.2	+	1	b
2021	**4117**	**Noix-joue de bœuf à mijoter surgelée**	**Frozen beef trim meat**	*E. coli* O111 Ad3042	+	-	+	Raw milk cheese	Seeding 2 weeks at -20°C	1-3-1-1-0	1.2	+	1	b
2021	**4118**	**Steak de bœuf à griller surgelé**	**Frozen beef trim meat**	*E. coli* O111 Ad3042	+	-	+	Raw milk cheese	Seeding 2 weeks at -20°C	1-3-1-1-0	1.2	+	1	b
2021	**4119**	**Egréné de Bœuf 20% MG surgelé**	**Frozen ground beef meat**	*E. coli* O111 Ad3042	+	-	+	Raw milk cheese	Seeding 2 weeks at -20°C	1-3-1-1-0	1.2	+	1	b
2021	**4267**	**Faux filet charolais surgelé**	**Frozen beef trim meat**	*E. coli* O26:H11 12-62	-	+	+	Meat product	Seeding 2 weeks at -20°C	3-4-1-0-1	1.8	+	1	b
2021	**4268**	**Filet de bœuf surgelé**	**Frozen beef trim meat**	*E. coli* O26:H11 12-62	-	+	+	Meat product	Seeding 2 weeks at -20°C	3-4-1-0-1	1.8	+	1	b
2021	**4269**	**Tournedos bœuf surgelé**	**Frozen beef trim meat**	*E. coli* O26:H11 12-62	-	+	+	Meat product	Seeding 2 weeks at -20°C	3-4-1-0-1	1.8	+	1	b
2021	**4270**	**Bavette d'Aloyau surgelée**	**Frozen beef trim meat**	*E. coli* O103 Ad3113	+	-	+	Veal	Seeding 2 weeks at -20°C	1-2-4-0-2	1.8	+	1	b
2021	**4273**	**Viande hachée égrénée surgelée**	**Frozen ground beef meat**	*E. coli* O111 Ad3042	+	-	+	Raw milk cheese	Seeding 2 weeks at -20°C	1-1-1-2-0	1.0	+	1	b
2021	**4274**	**Steak haché 15% %G surgelé**	**Frozen ground beef meat**	*E. coli* O111 Ad3042	+	-	+	Raw milk cheese	Seeding 2 weeks at -20°C	1-1-1-2-0	1.0	+	1	b

Protocol ③														
Date	Sample N°	Product (French name)	Product	Artificial contaminations								Global result	Category	Type
				Strain	Virulence genes			Origin	Injury protocol	Inoculation level/sample				
					*stx*1	*stx*2	*eae*			Enumeration	Mean			
2021	**5584**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O26:H11 Ad3098	+	-	+	Milk	Seeding 48h at 3±2°C	3-1-1-1-0	1.2	+	2	a
2021	**5585**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O26:H11 375-122	+	+	+	Cheese	Seeding 48h at 3±2°C	3-2-2-0-2	1.8	-	2	a
2021	**5586**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O103 Ad2984	+	-	+	Raw milk cheese	Seeding 48h at 3±2°C	2-1-2-2-4	2.2	+	2	a
2021	**5587**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O103 Ad3157	-	+	+	Dairy products	Seeding 48h at 3±2°C	1-1-0-2-0	0.8	+	2	a
2021	**5588**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O111:H8 622-4	+	+	+	Dairy products	Seeding 48h at 3±2°C	1-1-3-2-4	2.2	-	2	a
2021	**5589**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O145 Ad3173	-	+	+	Dairy products	Seeding 48h at 3±2°C	1-0-0-3-4	1.6	+	2	a
2021	**5590**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O157:H7 Ad3038	-	+	+	Cheese	Seeding 48h at 3±2°C	4-2-3-3-0	2.4	+	2	a
2021	**5591**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O157:H7 Ad3038	-	+	+	Cheese	Seeding 48h at 3±2°C	4-2-3-3-0	2.4	+	2	a
2021	**5592**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O26:H11 Ad3098	+	-	+	Milk	Seeding 48h at 3±2°C	3-1-1-1-0	1.2	+	2	a
2021	**5593**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O26:H11 375-122	+	+	+	Cheese	Seeding 48h at 3±2°C	3-2-2-0-2	1.8	+	2	a
2021	**5594**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O103 Ad2984	+	-	+	Raw milk cheese	Seeding 48h at 3±2°C	2-1-2-2-4	2.2	+	2	a
2021	**5595**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O103 Ad3157	-	+	+	Dairy products	Seeding 48h at 3±2°C	1-1-0-2-0	0.8	+	2	a
2021	**5596**	**Lait cru de brebis**	**Raw ewe milk cheese**	*E. coli* O111:H8 622-4	+	+	+	Dairy products	Seeding 48h at 3±2°C	1-1-3-2-4	2.2	-	2	a
2021	**5597**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O145 Ad3173	-	+	+	Dairy products	Seeding 48h at 3±2°C	1-0-0-3-4	1.6	+	2	a
2021	**5598**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O26:H11 Ad3098	+	-	+	Milk	Seeding 48h at 3±2°C	3-1-1-1-0	1.2	+	2	a
2021	**5599**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O103 Ad2984	+	-	+	Raw milk cheese	Seeding 48h at 3±2°C	2-1-2-2-4	2.2	+	2	a
2021	**5600**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O103 Ad3157	-	+	+	Dairy products	Seeding 48h at 3±2°C	1-1-0-2-0	0.8	+	2	a
2021	**5601**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O111:H8 622-4	+	+	+	Dairy products	Seeding 48h at 3±2°C	1-1-3-2-4	2.2	-	2	a
2021	**5602**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O145 Ad3173	-	+	+	Dairy products	Seeding 48h at 3±2°C	1-0-0-3-4	1.6	+	2	a
2021	**5603**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O157:H7 Ad3038	-	+	+	Cheese	Seeding 48h at 3±2°C	4-2-3-3-0	2.4	-	2	a
2021	**5906**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O103 Ad3244	+	+	+	Dairy products	Seeding 48h at 3±2°C	2-2-1-3-0	1.6	+	2	a
2021	**5907**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O103 Ad3051	+	-	+	Milk raw material	Seeding 48h at 3±2°C	2-3-1-0-1	1.4	+	2	a
2021	**5908**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O26 Ad1741	+	-	+	Raw milk cheese	Seeding 48h at 3±2°C	0-0-0-1-2	0.6	-	2	a
2021	**5909**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O26 Ad2299	+	-	+	Cheese	Seeding 48h at 3±2°C	0-0-0-1-2	0.6	-	2	a
2021	**5910**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O26 Ad2632	+	-	+	Dairy products	Seeding 48h at 3±2°C	1-0-2-0-0	0.6	-	2	a
2021	**5911**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O111 Ad3161	+	-	+	Dairy products	Seeding 48h at 3±2°C	3-1-2-1-0	1.4	+	2	a
2021	**5912**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O111 Ad3042	+	+	+	Raw milk cheese	Seeding 48h at 3±2°C	1-1-0-1-0	0.6	-	2	a
2021	**5913**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O103 Ad3244	+	+	+	Dairy products	Seeding 48h at 3±2°C	2-2-1-3-0	1.6	-	2	a
2021	**5914**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O103 Ad3051	+	-	+	Milk raw material	Seeding 48h at 3±2°C	2-3-1-0-1	1.4	-	2	a
2021	**5915**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O26 Ad1741	+	-	+	Raw milk cheese	Seeding 48h at 3±2°C	0-0-0-1-2	0.6	-	2	a
2021	**5916**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O26 Ad2299	+	-	+	Cheese	Seeding 48h at 3±2°C	0-0-0-1-2	0.6	+	2	a
2021	**5917**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O26 Ad2632	+	-	+	Dairy products	Seeding 48h at 3±2°C	1-0-2-0-0	0.6	+	2	a
2021	**5918**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O111 Ad3161	+	-	+	Dairy products	Seeding 48h at 3±2°C	3-1-2-1-0	1.4	-	2	a
2021	**5919**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O111 Ad3042	+	+	+	Raw milk cheese	Seeding 48h at 3±2°C	1-1-0-1-0	0.6	+	2	a
2021	**5920**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O103 Ad3244	+	+	+	Dairy products	Seeding 48h at 3±2°C	2-2-1-3-0	1.6	+	2	a
2021	**5921**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O26 Ad1741	+	-	+	Raw milk cheese	Seeding 48h at 3±2°C	0-0-0-1-2	0.6	+	2	a
2021	**6554**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O26 Ad2670	+	-	+	Dairy products	Seeding 48h at 3±2°C	6-2-4-2-4	3.6	+	2	a
2021	**6555**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O103 Ad3165	+	-	+	Raw material	Seeding 48h at 3±2°C	3-6-2-3-3	3.4	+	2	a
2021	**6556**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O111 Ad3171	+	-	+	Raw material	Seeding 48h at 3±2°C	3-7-3-5-3	4.2	+	2	a
2021	**6557**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O145 Ad3176	+	-	+	Raw material	Seeding 48h at 3±2°C	0-3-6-1-1	2.2	+	2	a
2021	**6558**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O26 Ad2670	+	-	+	Dairy products	Seeding 48h at 3±2°C	6-2-4-2-4	3.6	+	2	a
2021	**6559**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O103 Ad3165	+	-	+	Raw material	Seeding 48h at 3±2°C	3-6-2-3-3	3.4	+	2	a
2021	**6560**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O111 Ad3171	+	-	+	Raw material	Seeding 48h at 3±2°C	3-7-3-5-3	4.2	+	2	a
2021	**6561**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O103 Ad3165	+	-	+	Raw material	Seeding 48h at 3±2°C	3-6-2-3-3	3.4	+	2	a
2021	**6562**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O145 Ad3176	+	-	+	Raw material	Seeding 48h at 3±2°C	0-3-6-1-1	2.2	+	2	a
2021	**6563**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O26 Ad2670	+	-	+	Dairy products	Seeding 48h at 3±2°C	6-2-4-2-4	3.6	+	2	a
2021	**6564**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O26 Ad2670	+	-	+	Dairy products	Seeding 48h at 3±2°C	6-2-4-2-4	3.6	+	2	a
2021	**6565**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O103 Ad3165	+	-	+	Raw material	Seeding 48h at 3±2°C	3-6-2-3-3	3.4	+	2	a

Protocol ④														
Date	Sample N°	Product (french name)	Product	Artificial contaminations								Global result	Category	Type
				Strain	Virulence genes			Origin	Injury protocol	Inoculation level/sample				
					*stx*1	*stx*2	*eae*			Enumeration	Mean			
2021	**4770**	**Ossau iraty lait cru de brebis**	**Hard raw ewe milk cheese**	*E. coli* O26 Ad2831	-	+	+	Reblochon	Seeding 48h at 3±2°C	3-2-2-1-1	1.8	+	2	b
2021	**4771**	**Ossau iraty lait cru de brebis**	**Hard raw ewe milk cheese**	*E. coli* O26 Ad3036	-	+	+	Raw milk	Seeding 48h at 3±2°C	0-1-1-4-1	1.4	+	2	b
2021	**4772**	**Tomme de brebis au lait cru**	**Hard raw ewe milk cheese**	*E. coli* O103 Ad2847	-	+	+	Rotten milk	Seeding 48h at 3±2°C	7-2-2-0-3	2.8	+	2	b
2021	**4773**	**Tomme de brebis au lait cru**	**Hard raw ewe milk cheese**	*E. coli* O111 Ad3172	+	-	+	Dairy product	Seeding 48h at 3±2°C	2-1-3-5-1	2.4	+	2	b
2021	**4774**	**Beaufort lait cru vache**	**Hard raw cow milk cheese**	*E. coli* O26 Ad2831	-	+	+	Reblochon	Seeding 48h at 3±2°C	3-2-2-1-1	1.8	+	2	b
2021	**4775**	**Beaufort lait cru vache**	**Hard raw cow milk cheese**	*E. coli* O103 Ad2847	-	+	+	Rotten milk	Seeding 48h at 3±2°C	7-2-2-0-3	2.8	+	2	b
2021	**4776**	**Comté lait cru vache**	**Hard raw cow milk cheese**	*E. coli* O103 Ad2847	-	+	+	Rotten milk	Seeding 48h at 3±2°C	7-2-2-0-3	2.8	-	2	b
2021	**5115**	**Fromage au lait cru de brebis (tomme)**	**Hard raw ewe milk cheese**	*E. coli* O157 Ad3185	-	+	+	Raw milk cheese	Seeding 48h at 3±2°C	0-1-4-4-2	2.2	+	2	b
2021	**5116**	**Fromage au lait cru de vache (gruyère)**	**Hard raw cow milk cheese**	*E. coli* O145 Ad3158	-	+	+	Raw milk cheese	Seeding 48h at 3±2°C	5-2-1-4-1	2.6	+	2	b
2021	**5117**	**Fromage au lait cru de vache (comté)**	**Hard raw cow milk cheese**	*E. coli* O157 Ad2846	-	+	+	Cheese	Seeding 48h at 3±2°C	4-3-3-2-1	2.6	+	2	b
2021	**5118**	**Fromage au lait cru de brebis (Pecorino)**	**Hard raw ewe milk cheese**	*E. coli* O145 Ad3181	+	+	+	Dairy raw material	Seeding 48h at 3±2°C	2-4-5-1-4	3.2	+	2	b
2021	**5604**	**Tomme chèvre cru**	**Hard raw goat milk cheese**	*E. coli* O26:H11 Ad3098	+	-	+	Milk	Seeding 48h at 3±2°C	3-1-1-1-0	1.2	+	2	b
2021	**5605**	**Tomme chèvre cru**	**Hard raw goat milk cheese**	*E. coli* O26:H11 375-122	+	+	+	Cheese	Seeding 48h at 3±2°C	3-2-2-0-2	1.8	-	2	b
2021	**5606**	**Cantal lait cru**	**Hard raw cow milk cheese**	*E. coli* O103 Ad2984	+	-	+	Raw milk cheese	Seeding 48h at 3±2°C	2-1-2-2-4	2.2	+	2	b
2021	**5607**	**Laguiole lait cru**	**Hard raw cow milk cheese**	*E. coli* O103 Ad3157	-	+	+	Dairy products	Seeding 48h at 3±2°C	1-1-0-2-0	0.8	+	2	b
2021	**6119**	**Tomme de chèvre au lait cru**	**Hard raw ewe milk cheese**	*E. coli* O26 Ad3012	+	+	+	Goat cheese	Seeding 48h at 3±2°C	1-3-1-0-1	1.2	-	2	b
2021	**6120**	**Tommette de chèvre au lait cru**	**Hard raw ewe milk cheese**	*E. coli* O103 Ad2977	+	-	+	Cow milk	Seeding 48h at 3±2°C	1-3-1-3-3	2.2	+	2	b
2021	**6121**	**Tomme de chèvre au lait cru**	**Hard raw ewe milk cheese**	*E. coli* O103 Ad3166	+	-	+	Raw materials	Seeding 48h at 3±2°C	0-3-2-3-2	2.0	-	2	b
2021	**6122**	**Tommette de chèvre au lait cru**	**Hard raw ewe milk cheese**	*E. coli* O111:H8 593-95	+	+	+	Dairy product	Seeding 48h at 3±2°C	2-2-3-2-1	2.0	+	2	b
2021	**4766**	**Le chevrot lait cru chèvre**	**Soft raw goat milk cheese**	*E. coli* O26 Ad2831	-	+	+	Reblochon	Seeding 48h at 3±2°C	3-2-2-1-1	1.8	+	2	c
2021	**4767**	**Le chevrot lait cru chèvre**	**Soft raw goat milk cheese**	*E. coli* O26 Ad3036	-	+	+	Raw milk	Seeding 48h at 3±2°C	0-1-1-4-1	1.4	+	2	c
2021	**4768**	**Chevrot affiné lait cru chèvre**	**Soft raw goat milk cheese**	*E. coli* O103 Ad2847	-	+	+	Rotten milk	Seeding 48h at 3±2°C	7-2-2-0-3	2.8	+	2	c
2021	**4769**	**Chevrot affiné lait cru chèvre**	**Soft raw goat milk cheese**	*E. coli* O111 Ad3172	+	-	+	Dairy product	Seeding 48h at 3±2°C	2-1-3-5-1	2.4	+	2	c
2021	**4777**	**Roquefort lait cru brebis**	**Soft raw ewe milk cheese**	*E. coli* O26 Ad2831	-	+	+	Reblochon	Seeding 48h at 3±2°C	3-2-2-1-1	1.8	+	2	c
2021	**4778**	**Roquefort lait cru brebis**	**Soft raw ewe milk cheese**	*E. coli* O103 Ad2847	-	+	+	Rotten milk	Seeding 48h at 3±2°C	7-2-2-0-3	2.8	+	2	c
2021	**4779**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	*E. coli* O26 Ad3036	-	+	+	Raw milk	Seeding 48h at 3±2°C	0-1-1-4-1	1.4	-	2	c
2021	**4780**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	*E. coli* O111 Ad3172	+	-	+	Dairy product	Seeding 48h at 3±2°C	2-1-3-5-1	2.4	-	2	c
2021	**5112**	**Fromage au lait cru de vache (Reblochon)**	**Soft raw cow milk cheese**	*E. coli* O145 Ad3158	-	+	+	Raw milk cheese	Seeding 48h at 3±2°C	5-2-1-4-1	2.6	-	2	c
2021	**5113**	**Fromage au lait cru de vache (camembert)**	**Soft raw cow milk cheese**	*E. coli* O157 Ad2846	-	+	+	Cheese	Seeding 48h at 3±2°C	4-3-3-2-1	2.6	-	2	c
2021	**5114**	**Fromage au lait cru de brebis (Roquefort)**	**Soft raw ewe milk cheese**	*E. coli* O145 Ad3181	+	+	+	Dairy raw material	Seeding 48h at 3±2°C	2-4-5-1-4	3.2	+	2	c
2021	**5119**	**Fromage au lait cru de chèvre (Picodon)**	**Soft raw goat milk cheese**	*E. coli* O157 Ad3185	-	+	+	Raw milk cheese	Seeding 48h at 3±2°C	0-1-4-4-2	2.2	+	2	c
2021	**5608**	**Pont l'évêque lait cru**	**Soft raw cow milk cheese**	*E. coli* O26:H11 375-122	+	+	+	Cheese	Seeding 48h at 3±2°C	3-2-2-0-2	1.8	-	2	c
2021	**5609**	**Roquefort lait cru brebis**	**Soft raw ewe milk cheese**	*E. coli* O103 Ad2984	+	-	+	Raw milk cheese	Seeding 48h at 3±2°C	2-1-2-2-4	2.2	+	2	c
2021	**5610**	**Livarot lait cru**	**Soft raw cow milk cheese**	*E. coli* O103 Ad3157	-	+	+	Dairy products	Seeding 48h at 3±2°C	1-1-0-2-0	0.8	-	2	c
2021	**5611**	**Livarot lait cru**	**Soft raw cow milk cheese**	*E. coli* O111:H8 622-4	+	+	+	Dairy products	Seeding 48h at 3±2°C	1-1-3-2-4	2.2	-	2	c
2021	**5612**	**Reblochon lait cru**	**Soft raw cow milk cheese**	*E. coli* O145 Ad3173	-	+	+	Dairy products	Seeding 48h at 3±2°C	1-0-0-3-4	1.6	+	2	c
2021	**5613**	**Le chevrot lait cru chèvre**	**Soft raw goat milk cheese**	*E. coli* O157:H7 Ad3038	-	+	+	Cheese	Seeding 48h at 3±2°C	4-2-3-3-0	2.4	+	2	c
2021	**6123**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	*E. coli* O26 Ad3012	+	+	+	Goat cheese	Seeding 48h at 3±2°C	1-3-1-0-1	1.2	-	2	c
2021	**6124**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	*E. coli* O26 Ad3034	+	-	+	Goat milk	Seeding 48h at 3±2°C	1-2-4-2-0	1.8	+	2	c
2021	**6125**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	*E. coli* O103 Ad2977	+	-	+	Cow milk	Seeding 48h at 3±2°C	1-3-1-3-3	2.2	+	2	c
2021	**6126**	**Maroilles**	**Soft raw cow milk cheese**	*E. coli* O103 Ad3166	+	-	+	Raw materials	Seeding 48h at 3±2°C	0-3-2-3-2	2.0	-	2	c
2021	**6127**	**Fourme de Montbrison**	**Soft raw cow milk cheese**	*E. coli* O111:H8 593-95	+	+	+	Dairy product	Seeding 48h at 3±2°C	2-2-3-2-1	2.0	-	2	c
2021	**6128**	**Perail au lait cru de brebis**	**Soft raw ewe milk cheese**	*E. coli* O103 Ad2977	+	-	+	Cow milk	Seeding 48h at 3±2°C	1-3-1-3-3	2.2	+	2	c

Year	Sample N°	Product (French name)	Product	Artificial contaminations									Test portion	Global result		Category	Type
				Strain	Virulence genes			Origin	Injury protocol	Injury measurement	Inoculation level/sample			Short time	Long time		
					stx1	stx2	eae				Enumeration	Mean					
2024	674	Bavette d'aloyau	Sirloin steak	*E. coli* O157:H7 Ad485	+	+	+	Ground beef steak	Seeding 48h 3±2°C	/	2-2-1-0-1	1.2	25g	+	+	3	a
2024	675	Steak haché	Ground beef	*E. coli* O157:H7 Ad975	+	+	+	Beef meat	Seeding 48h 3±2°C	/	6-2-2-4-3	3.4	25g	+	+	3	a
2024	676	Côte de veau	Veal chop	*E. coli* O145:H28 1331-100	-	+	+	Meat product	Seeding 48h 3±2°C	/	3-1-14-0	1.8	25g	+	+	3	a
2024	677	Côte de porc	Pork chop	*E. coli* O145:H28 1502-105	-	+	+	Meat product	Seeding 48h 3±2°C	/	2-3-0-2-2-	1.8	25g	+	+	3	a
2024	678	Côte d'agneau	Lamb chop	*E. coli* O26 Ad3203	+	-	+	Oriental meatball	Seeding 48h 3±2°C	/	2-2-4-0-2	2	25g	+	+	3	a
2024	1507	Côte de porc	Pork chop	*E. coli* O157:H7 Ad486	+	+	+	Ground beef	Seeding 48h 3±2°C	/	2-2-1-1-6	2.4	25g	+	+	3	a
2024	1508	Poitrine de mouton à ragout	Stewed mutton belly	*E. coli* O157:H7 Ad687	-	+	+	Beef meat	Seeding 48h 3±2°C	/	0-1-2-9-0	2.4	25g	+	+	3	a
2024	3309	Escalope de veau	Veal escalope	*E. coli* O157:H7 Ad1248	-	+	+	Ground beef	Seeding 48h 3±2°C	/	1-5-3-4-0	2.6	25g	+	+	3	a
2024	3310	Filet de porc	Pork fillet	*E. coli* O157:H7 Ad1248	-	+	+	Ground beef	Seeding 48h 3±2°C	/	1-5-3-4-0	2.6	25g	-	+	3	a
2024	3311	Gigot d'agneau	Leg of lamb	*E. coli* O145:H28 1502-105	-	+	+	Beef meat	Seeding 48h 3±2°C	/	3-3-3-5-0	2.8	25g	+	+	3	a
2024	3312	Steak haché charolais	Charolais minced steak	*E. coli* O157:H7 Ad1071	-	+	+	Ground beef	Seeding 48h 3±2°C	/	3-6-3-0-1	2.6	25g	+	+	3	a
2024	679	Carpaccio de bœuf mariné	Marinated beef carpaccio	*E. coli* O157:H7 Ad485	+	+	+	Ground beef steak	Seeding 48h 3±2°C	/	2-2-1-0-1	1.2	25g	+	+	3	b
2024	680	Pavé de bœuf au poivre	Peppered beef steak	*E. coli* O157:H7 Ad975	+	+	+	Beef meat	Seeding 48h 3±2°C	/	6-2-2-4-3	3.4	25g	+	+	3	b
2024	1509	Poitrine de mouton mariné	Marinated mutton belly	*E. coli* O145:H28 2305-1	-	+	+	Meat product	Seeding 48h 3±2°C	/	0-1-2-1-1	1	25g	+	+	3	b
2024	3313	Pavé de boeuf à l'échalote	Beef steak with shallots	*E. coli* O157:H7 Ad1248	-	+	+	Ground beef	Seeding 48h 3±2°C	/	1-5-3-4-0	2.6	25g	+	+	3	b
2024	3314	Emincé de bœuf andalouse	Sliced Andalusian beef	*E. coli* O145:H28 1502-105	-	+	+	Beef meat	Seeding 48h 3±2°C	/	3-3-3-5-0	2.8	25g	+	+	3	b
2024	3315	Côte de porc mexicaine	Mexican pork chop	*E. coli* O157:H7 Ad1071	-	+	+	Ground beef	Seeding 48h 3±2°C	/	3-6-3-0-1	2.6	25g	+	+	3	b
2024	3316	Poitrine de porc mariné	Marinated pork belly	*E. coli* O157:H7 Ad1248	-	+	+	Ground beef	Seeding 48h 3±2°C	/	1-5-3-4-0	2.6	25g	+	+	3	b
2024	3317	Agneau à l'ail	Garlic lamb	*E. coli* O157:H7 Ad1071	-	+	+	Ground beef	Seeding 48h 3±2°C	/	3-6-3-0-1	2.6	25g	-	-	3	b
2024	3318	Blanquette de veau	Blanquette of veal	*E. coli* O157:H7 Ad1071	-	+	+	Ground beef	Seeding 48h 3±2°C	/	3-6-3-0-1	2.6	25g	+	+	3	b
2024	4110	Viande de veau assaisonnée	Seasoned veal	*E. coli* O157:H7 435	-	+	+	Ground beef	Seeding 48h 3±2°C	/	3-2-2-3-2	2.4	25g	+	+	3	b
2024	4111	Agneau à l'ail	Garlic lamb	*E. coli* O26 Ad3109	+	-	+	Ground beef	Seeding 48h 3±2°C	/	2-1-0-3-2	1.6	25g	+	+	3	b
2024	3524	steak haché de bœuf congelé	Frozen minced beef steak	*E. coli* O103 Ad3113	+	-	+	Escalope	Seeding 2 weeks at -20°C	/	0-1-4-1-2	1.6	25g	+	+	3	c
2024	3525	Bavette d'aloyau congelé	Frozen sirloin steak	*E. coli* O26 Ad3320	+	-	+	Frozen ground beef	Seeding 2 weeks at -20°C	/	1-0-2-1-0	0.8	25g	+	+	3	c
2024	3526	Pavé de rumsteck congelé	Frozen rump steak	*E. coli* O157:H7 Ad976	+	+	+	Beef meat	Seeding 2 weeks at -20°C	/	2-4-0-3-1	2.0	25g	+	+	3	c
2024	3527	Effeuillé de charolais congelé	Frozen Charolais strip loin	*E. coli* O157:H7 Ad1174	-	+	+	Frozen ground beef	Seeding 2 weeks at -20°C	/	0-2-0-1-3	1.2	25g	-	-	3	c
2024	3528	Haché pur porc congelé	Frozen minced pork	*E. coli* O103 Ad3113	+	-	+	Escalope	Seeding 2 weeks at -20°C	/	0-1-4-1-2	1.6	25g	+	+	3	c
2024	3529	Côte de porc congelé	Frozen pork chop	*E. coli* O26 Ad3320	+	-	+	Frozen ground beef	Seeding 2 weeks at -20°C	/	1-0-2-1-0	0.8	25g	+	+	3	c
2024	3530	Poitrine de porc congelé	Frozen pork belly	*E. coli* O157:H7 Ad976	+	+	+	Beef meat	Seeding 2 weeks at -20°C	/	2-4-0-3-1	2.0	25g	+	+	3	c
2024	3531	Sauté de porc congelé	Frozen pork stir-fry	*E. coli* O157:H7 Ad1174	-	+	+	Frozen ground beef	Seeding 2 weeks at -20°C	/	0-2-0-1-3	1.2	25g	+	+	3	c
2024	3532	Veau sauté congelé	Frozen sauteed veal	*E. coli* O103 Ad3113	+	-	+	Escalope	Seeding 2 weeks at -20°C	/	0-1-4-1-2	1.6	25g	+	+	3	c
2024	3533	Escalope de veau hachée congelé	Frozen minced veal escalope	*E. coli* O26 Ad3320	+	-	+	Frozen ground beef	Seeding 2 weeks at -20°C	/	1-0-2-1-0	0.8	25g	+	+	3	c
2024	3534	Souris d'agneau congelé	Frozen lamb mice	*E. coli* O157:H7 Ad976	+	+	+	Beef meat	Seeding 2 weeks at -20°C	/	2-4-0-3-1	2.0	25g	+	+	3	c
2024	3535	Souris d'agneau congelé	Frozen lamb mice	*E. coli* O157:H7 Ad1174	-	+	+	Frozen ground beef	Seeding 2 weeks at -20°C	/	0-2-0-1-3	1.2	25g	+	+	3	c

Year	Sample N°	Product (French name)	Product	Artificial contaminations									Test portion	Global result		Category	Type
				Strain	Virulence genes			Origin	Injury protocol	Injury measurement	Inoculation level/sample			Short time	Long time		
					stx1	stx2	eae				Enumeration	Mean					
2024	**2824**	**Filet de dinde**	**Turkey filet**	*E. coli* O157:H7 Ad3397	-	+	+	Meat product	Seeding 48h 3±2°C	/	5-2-3-2-6	3.6	25g	+	+	4	a
2024	**2825**	**Aiguillette de poulet**	**Chicken aiguillette**	*E. coli* O145:H28 092-4	-	+	+	Meat product	Seeding 48h 3±2°C	/	3-3-2-3-4	3.0	25g	+	+	4	a
2024	**2826**	**Cuisses de poulet**	**Chicken thighs**	*E. coli* O157:H7 Ad485	+	+	+	Ground beef	Seeding 48h 3±2°C	/	6-0-2-1-2	2.2	25g	+	+	4	a
2024	**2827**	**Escalope de dinde**	**Turkey escalope**	*E. coli* O157:H7 B177	-	+	+	Slaughterhouse	Seeding 48h 3±2°C	/	1-3-3-4-2	2.6	25g	+	+	4	a
2024	**2828**	**Aiguillette de canard**	**Duck aiguillette**	*E. coli* O145:H28 1331-100	-	+	+	Meat product	Seeding 48h 3±2°C	/	3-1-1-4-5	2.8	25g	+	+	4	a
2024	**2945**	**Cuisse de lapin**	**Rabbit leg**	*E. coli* O103 Ad3257	+	-	+	Beef meat	Seeding 48h 3±2°C	/	2-1-2-3-1	2.2	25g	+	+	4	a
2024	**2946**	**Magret de canard cru**	**Raw duck breast**	*E. coli* O26 IPL213	+	-	+	Meat carcass	Seeding 48h 3±2°C	/	3-4-1-1-2	2.2	25g	+	+	4	a
2024	**2947**	**Pintade fermière**	**Farm guinea fowl**	*E. coli* O26 Ad3203	+	-	+	Spicy oriental meatballs	Seeding 48h 3±2°C	/	1-1-3-2-1	1.6	25g	-	-	4	a
2025	**115331**	**Viande de dinde pour Osso bucco**	**Turkey meat**	*E. coli* O145:H28 2305-1	-	+	+	Meat product	Seeding 48h 3±2°C	/	0-1-2-2-1	1.2	25g	+	+	4	a
2025	**115332**	**Aiguillettes de canard**	**Duck aiguillettes**	*E. coli* O145:H28 2305-1	-	+	+	Meat product	Seeding 48h 3±2°C	/	0-1-2-2-1	1.2	25g	+	+	4	a
2025	**115333**	**Steak haché de poulet**	**Ground chicken steak**	*E. coli* O145:H28 2305-1	-	+	+	Meat product	Seeding 48h 3±2°C	/	0-1-2-2-1	1.2	25g	+	+	4	a
2024	**2829**	**Cuisses de poulet au paprika**	**Chicken thighs with paprika**	*E. coli* O157:H7 Ad3397	-	+	+	Meat product	Seeding 48h 3±2°C	/	5-2-3-2-6	3.6	25g	+	+	4	b
2024	**2830**	**Ailes de poulet au paprika**	**Chicken wings with paprika**	*E. coli* O157:H7 Ad3397	-	+	+	Meat product	Seeding 48h 3±2°C	/	5-2-3-2-6	3.6	25g	+	+	4	b
2024	**2831**	**Aiguillette de dinde à la mexicaine**	**Mexican turkey tenderloin**	*E. coli* O157:H7 Ad485	+	+	+	Ground beef	Seeding 48h 3±2°C	/	6-0-2-1-2	2.2	25g	-	-	4	b
2024	**2832**	**Pilon de poulet miel/barbecue**	**Honey/barbecue chicken drumstick**	*E. coli* O157:H7 B177	-	+	+	Slaughterhouse	Seeding 48h 3±2°C	/	1-3-3-4-2	2.6	25g	+	+	4	b
2024	**2833**	**Magret de canard fumé**	**Smoked duck breast**	*E. coli* O145:H28 092-4	-	+	+	Meat product	Seeding 48h 3±2°C	/	3-3-2-3-4	3.0	25g	+	+	4	b
2024	**2834**	**Saucisson de volaille**	**Chicken sausage**	*E. coli* O157:H7 Ad485	+	+	+	Ground beef	Seeding 48h 3±2°C	/	6-0-2-1-2	2.2	25g	-	-	4	b
2024	**2835**	**Saucisson de poulet**	**Chicken sausage**	*E. coli* O157:H7 B177	-	+	+	Slaughterhouse	Seeding 48h 3±2°C	/	1-3-3-4-2	2.6	25g	+	+	4	b
2024	**2953**	**Saucisson de poulet**	**Chicken sausage**	*E. coli* O103 Ad3257	+	-	+	Beef meat	Seeding 48h 3±2°C	/	2-1-2-3-1	2.2	25g	+	+	4	b
2024	**4100**	**Magret de canard fumé**	**Smoked duck breast**	*E. coli* O103:H2 56-12	+	-	+	Meat product	Seeding 48h 3±2°C	/	1-4-2-2-3	2.4	25g	+	+	4	b
2024	**4101**	**Saucisson de volaille**	**Poultry sausage**	*E. coli* O157:H7 435	-	+	+	Ground beef	Seeding 48h 3±2°C	/	3-2-2-3-2	2.4	25g	+	+	4	b
2024	**4102**	**Emincé de poulet mariné**	**Sliced marinated chicken**	*E. coli* O26 Ad3109	+	-	+	Ground beef	Seeding 48h 3±2°C	/	2-1-0-3-2	1.6	25g	+	+	4	b
2024	**4103**	**Dinde assaisonnée**	**Seasoned turkey**	*E. coli* O103:H2 56-12	+	-	+	Meat product	Seeding 48h 3±2°C	/	1-4-2-2-3	2.4	25g	+	+	4	b
2024	**4104**	**Cuisse de canard mariné**	**Marinated duck leg**	*E. coli* O157:H7 435	-	+	+	Ground beef	Seeding 48h 3±2°C	/	3-2-2-3-2	2.4	25g	+	+	4	b
2024	**2836**	**Mousse de canard**	**Duck mousse**	*E. coli* O157:H7 Ad3397	-	+	+	Meat product	Seeding 48h 3±2°C	/	5-2-3-2-6	3.6	25g	+	+	4	c
2024	**2837**	**Blanc de dinde**	**Cooked turkey breast**	*E. coli* O145:H28 1331-100	-	+	+	Meat product	Seeding 48h 3±2°C	/	3-1-1-4-5	2.8	25g	+	+	4	c
2024	**2838**	**Blanc de poulet**	**Cooked chicken breast**	*E. coli* O145:H28 092-4	-	+	+	Meat product	Seeding 48h 3±2°C	/	3-3-2-3-4	3.0	25g	+	+	4	c
2024	**2948**	**Confit de canard**	**Duck confit**	*E. coli* O103 Ad3257	+	-	+	Beef meat	Seeding 48h 3±2°C	/	2-1-2-3-1	2.2	25g	+	+	4	c
2024	**2949**	**Wings de poulet rôti**	**Roast chicken wings**	*E. coli* O26 IPL213	+	-	+	Meat carcass	Seeding 48h 3±2°C	/	3-4-1-1-2	2.2	25g	-	-	4	c
2024	**2950**	**Filet de poulet rôti**	**Roast chicken fillet**	*E. coli* O26 Ad3203	+	-	+	Spicy oriental meatballs	Seeding 48h 3±2°C	/	1-1-3-2-1	1.6	25g	-	-	4	c
2024	**2951**	**Terrine de lapin**	**Rabbit terrine**	*E. coli* O103 Ad3257	+	-	+	Beef meat	Seeding 48h 3±2°C	/	2-1-2-3-1	2.2	25g	+	+	4	c
2024	**2952**	**Rillettes de poulet rôti**	**Roast chicken rillettes**	*E. coli* O26 IPL213	+	-	+	Meat carcass	Seeding 48h 3±2°C	/	3-4-1-1-2	2.2	25g	+	+	4	c
2024	**4105**	**Blanc de dinde cuit**	**Cooked turkey breast**	*E. coli* O26 Ad3109	+	-	+	Ground beef	Seeding 48h 3±2°C	/	2-1-0-3-2	1.6	25g	+	+	4	c
2024	**4106**	**Blanc de poulet cuit**	**Cooked chicken breast**	*E. coli* O103:H2 56-12	+	-	+	Meat product	Seeding 48h 3±2°C	/	1-4-2-2-3	2.4	25g	+	+	4	c
2024	**4107**	**Haché de poulet cuit**	**Chopped cooked chicken**	*E. coli* O157:H7 435	-	+	+	Ground beef	Seeding 48h 3±2°C	/	3-2-2-3-2	2.4	25g	+	+	4	c
2024	**4108**	**Aiguillettes de poule rôti**	**Roast chicken aiguillettes**	*E. coli* O26 Ad3109	+	-	+	Ground beef	Seeding 48h 3±2°C	/	2-1-0-3-2	1.6	25g	+	+	4	c
2024	**4109**	**Allumette de poulet cuit**	**Cooked chicken allumette**	*E. coli* O103:H2 56-12	+	-	+	Meat product	Seeding 48h 3±2°C	/	1-4-2-2-3	2.4	25g	+	+	4	c
2024	**865**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O157:H7 Ad3398	-	+	+	Raw milk cheese	Seeding 48h 3±2°C	/	0-2-0-2-1	1.0	25g	-	-	5	a
2024	**866**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O157:H7 Ad3391	-	+	+	Raw milk cheese	Seeding 48h 3±2°C	/	2-2-1-1-1	1.4	25g	+	+	5	a
2024	**867**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O103 Ad2984	+	-	+	Raw milk cheese	Seeding 48h 3±2°C	/	2-2-3-0-3	2.0	25g	+	+	5	a
2024	**868**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O103 Ad3153	+	-	+	Raw goat milk	Seeding 48h 3±2°C	/	0-0-2-3-0	1.0	25g	+	+	5	a

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					stx1	stx2	eae				Enumeration	Mean					
2024	**879**	**Lait cru fermenté**	**Fermented raw milk**	*E. coli* O26 Ad2827	+	-	+	Raw milk	Seeding 48h 3±2°C	/	3-1-1-2-0	1.4	25g	+	+	5	a
2024	**1267**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O103 Ad2977	+	-	+	Raw cow milk	Seeding 48h 3±2°C	/	2-1-6-6-3	3.6	25g	+	+	5	a
2024	**1268**	**Lait cru de vache**	**Row cow milk**	*E. coli* O103 Ad3019	+	-	+	Goat cheese	Seeding 48h 3±2°C	/	4-5-2-6-4	4.2	25g	+	+	5	a
2024	**1269**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O26Ad3043	+	-	+	Cheese	Seeding 48h 3±2°C	/	3-3-2-3-1	2.4	25g	+	+	5	a
2024	**1270**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O26 Ad3033	+	-	+	Cheese	Seeding 48h 3±2°C	/	3-7-4-4-2	4.0	25g	+	+	5	a
2024	**1273**	**Lait fermenté**	**Fermented raw milk**	*E. coli* O26 Ad3033	+	-	+	Cheese	Seeding 48h 3±2°C	/	3-7-4-4-2	4.0	25g	+	+	5	a
2024	**1274**	**Kéfir au lait cru**	**Kefir**	*E. coli* O103 Ad2977	+	-	+	Raw cow milk	Seeding 48h 3±2°C	/	2-1-6-6-3	3.6	25g	+	+	5	a
2025	**114566**	**Lait cru de vache**	**Raw cow milk**	*E. coli* O157:H7 Ad1745	-	+	+	Cheese	Seeding 48h 3±2°C	/	0-2-1-0-2	1	25g	+	+	5	a
2025	**114567**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O103 Ad2839	+	-	+	Raw goat milk	Seeding 48h 3±2°C	/	3-5-4-2-0	2.8	25g	+	+	5	a
2025	**114568**	**Lait cru de chèvre**	**Raw goat milk**	*E. coli* O26 Ad2669	+	-	+	Dairy product	Seeding 48h 3±2°C	/	3-2-1-1-3	2	25g	+	+	5	a
2025	**114569**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O111 Ad3179	+	-	+	Raw cow milk cheese	Seeding 48h 3±2°C	/	1-1-3-2-2	1.8	25g	-	-	5	a
2025	**114570**	**Lait cru de brebis**	**Raw ewe milk**	*E. coli* O157:H7 Ad1745	-	+	+	Cheese	Seeding 48h 3±2°C	/	0-2-1-0-2	1	25g	+	+	5	a
2025	**114571**	**Crème au lait cru**	**Raw milk cream**	*E. coli* O103 Ad2839	+	-	+	Raw goat milk	Seeding 48h 3±2°C	/	3-5-4-2-0	2.8	25g	-	-	5	a
2025	**116645**	**Faisselle au lait cru**	**Raw milk faisselle cheese**	*E. coli* O26 Ad1741	+	-	+	Raw milk cheese	Seeding 48h 3±2°C	/	3-1-1-3-1	1.6	25g	+	+	5	a
2025	**116646**	**Lait Ribot**	**Ribot milk**	*E. coli* O26 Ad3034	+	-	+	Raw goat milk	Seeding 48h 3±2°C	/	0-1-4-1-2	1.6	25g	+	+	5	a
2025	**116647**	**Kéfir au lait cru**	**Raw milk kefir**	*E. coli* O111 Ad3179	+	-	+	Raw cow milk cheese	Seeding 48h 3±2°C	/	1-1-1-0-0	0.6	25g	+	+	5	a
2024	**878**	**Faisselle au lait cru**	**Raw milk faisselle cheese**	*E. coli* O103 Ad3153	+	-	+	Raw goat milk	Seeding 48h 3±2°C	/	0-0-2-3-0	1.0	25g	+	+	5	b
2024	**1275**	**Faisselle au lait cru**	**Raw milk faisselle cheese**	*E. coli* O103 Ad2977	+	-	+	Raw cow milk	Seeding 48h 3±2°C	/	2-1-6-6-3	3.6	25g	+	+	5	b
2025	**114572**	**Beurre de baratte au lait cru**	**Raw milk churn butter**	*E. coli* O26 Ad2669	+	-	+	Dairy product	Seeding 48h 3±2°C	/	3-2-1-1-3	2	25g	-	-	5	b
2025	**114573**	**Fromage au lait cru de vache (Reblochon)**	**Raw cow milk cheese**	*E. coli* O111 Ad3179	+	-	+	Raw cow milk cheese	Seeding 48h 3±2°C	/	1-1-3-2-2	1.8	25g	-	-	5	b
2025	**114574**	**Fromage au lait cru de vache (Morbier)**	**Raw cow milk cheese**	*E. coli* O157:H7 Ad1745	-	+	+	Cheese	Seeding 48h 3±2°C	/	0-2-1-0-2	1	25g	+	+	5	b
2025	**114575**	**Fromage au lait cru de vache (Brie de Meaux)**	**Raw cow milk cheese**	*E. coli* O103 Ad2839	+	-	+	Raw goat milk	Seeding 48h 3±2°C	/	3-5-4-2-0	2.8	25g	+	+	5	b
2025	**114576**	**Fromage au lait cru de vache (Camembert)**	**Raw cow milk cheese**	*E. coli* O26 Ad2669	+	-	+	Dairy product	Seeding 48h 3±2°C	/	3-2-1-1-3	2	25g	-	-	5	b
2025	**114577**	**Fromage au lait cru de chèvre (Crottin)**	**Raw goat milk cheese**	*E. coli* O111 Ad3179	+	-	+	Raw cow milk cheese	Seeding 48h 3±2°C	/	1-1-3-2-2	1.8	25g	+	-	5	b
2025	**114578**	**Fromage au lait cru de chèvre (Rocamadour)**	**Raw goat milk cheese**	*E. coli* O157:H7 Ad1745	-	+	+	Cheese	Seeding 48h 3±2°C	/	0-2-1-0-2	1	25g	+	+	5	b
2025	**114579**	**Fromage au lait cru de brebis (Roquefort)**	**Raw ewe milk cheese**	*E. coli* O103 Ad2839	+	-	+	Raw goat milk	Seeding 48h 3±2°C	/	3-5-4-2-0	2.8	25g	+	+	5	b
2025	**114580**	**Fromage au lait cru de brebis (Pérail les buissières)**	**Raw ewe milk cheese**	*E. coli* O26 Ad2669	+	-	+	Dairy product	Seeding 48h 3±2°C	/	3-2-1-1-3	2	25g	+	+	5	b
2025	**116648**	**Crème au lait cru**	**Raw milk cream**	*E. coli* O145 Ad3176	+	-	+	Dairy product	Seeding 48h 3±2°C	/	1-1-1-2-0	1	25g	-	-	5	b
2025	**116649**	**Beurre au lait cru**	**Raw milk butter**	*E. coli* O26 Ad1741	+	-	+	Raw milk cheese	Seeding 48h 3±2°C	/	3-1-1-3-1	1.6	25g	+	+	5	b
2025	**116650**	**Fromage au lait cru de vache (Camembert)**	**Raw cow milk cheese**	*E. coli* O26 Ad3034	+	-	+	Raw goat milk	Seeding 48h 3±2°C	/	0-1-4-1-2	1.6	25g	-	-	5	b
2025	**116651**	**Fromage au lait cru de vache (reblochon)**	**Raw cow milk cheese**	*E. coli* O111 Ad3179	+	-	+	Raw cow milk cheese	Seeding 48h 3±2°C	/	1-1-1-0-0	0.6	25g	-	-	5	b
2025	**116652**	**Fromage au lait cru de brebis (Roquefort)**	**Raw ewe milk cheese**	*E. coli* O145 Ad3176	+	-	+	Dairy product	Seeding 48h 3±2°C	/	1-1-1-2-0	1	25g	+	+	5	b
2025	**116653**	**Fromage au lait cru de brebis (Ossau Iraty)**	**Raw ewe milk cheese**	*E. coli* O26 Ad3034	+	-	+	Raw goat milk	Seeding 48h 3±2°C	/	0-1-4-1-2	1.6	25g	+	+	5	b

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2025	**116654**	**Fromage au lait cru de chèvre (Picodon)**	**Raw goat milk cheese**	*E. coli* O111 Ad3179	+	-	+	Raw cow milk cheese	Seeding 48h 3±2°C	/	1-1-1-0-0	0.6	25g	+	+	5	b
2025	**116655**	**Fromage au lait cru de chèvre (Rocamadour)**	**Raw goat milk cheese**	*E. coli* O145 Ad3176	+	-	+	Dairy product	Seeding 48h 3±2°C	/	1-1-1-2-0	1	25g	+	+	5	b
2024	**2572**	**Chiffonnette sol atomiseur avant nettoyage (industie laitère)**	**Swape before cleaning (dairy industry)**	*E. coli* O26 Ad3160	+	-	+	Raw material dairy product	Seeding 48h 3±2°C	/	0-1-1-3-1	1.2	25g	-	-	6	a
2024	**2573**	**Chiffonnette sol virole avant nettoyage (indutrie laitère)**	**Swape before cleaning (dairy industry)**	*E. coli* O111 Ad3170	+	-	+	Raw milk cheese	Seeding 48h 3±2°C	/	2-1-2-1-2	1.6	25g	+	+	6	a
2024	**2574**	**Chiffonnette porte sal fabrication avant nettoyage (fromagerie)**	**Swape before cleaning (dairy industry)**	*E. coli* O103 Ad3169	+	-	+	Dairy factory	Seeding 48h 3±2°C	/	3-1-2-3-1	2.0	25g	+	+	6	a
2024	**2575**	**Chiffonnette moule emmental avant nettoyage (fromagerie)**	**Swape before cleaning (dairy industry)**	*E. coli* O26 Ad2675	-	+	+	Milk product	Seeding 48h 3±2°C	/	0-2-0-3-2	1.4	25g	+	+	6	a
2024	**2576**	**Chiffonnette préparation crème glacée après nettoyage (industrie laitière)**	**Swape after cleaning (dairy industry)**	*E. coli* O103 Ad2981	+	+	+	Raw milk cheese	Seeding 48h 3±2°C	/	1-3-2-1-4	2.2	25g	-	-	6	a
2024	**2627**	**Chiffonnette sol local electronarcose (industrie aviaire)**	**Swape (poultry industry)**	*E. coli* O157:H7 Ad685	-	+	+	Slaughterhouse	Seeding 48h 3±2°C	/	3-2-3-1-2	2.2	25g	+	+	6	a
2024	**2628**	**Chiffonnette cutter après nettoyage (industrie porc)**	**Swape after cleaning (pork industry)**	*E. coli* O145:H28 1867-177	-	+	+	Meat product	Seeding 48h 3±2°C	/	0-3-6-0-1	2.0	25g	+	+	6	a
2024	**2629**	**Chiffonnette plan de travail production mousse de foie avant nettoyage (industrie porc)**	**Swape after cleaning (pork industry)**	*E. coli* O145:H28 092-4	-	+	+	Meat product	Seeding 48h 3±2°C	/	1-2-0-2-5	2.0	25g	+	+	6	a
2025	**115721**	**Filtre à lait**	**Milk filter**	*E. coli* O157 Ad3322	-	+	+	Dairy environment	Seeding 48h 3±2°C	/	3-1-1-2-1	1.6	25g	+	+	6	a
2025	**115722**	**Filtre à lait**	**Milk filter**	*E. coli* O103:H2 Ad3027	+	-	+	Wipa goat farming	Seeding 48h 3±2°C	/	1-0-2-0-1	0.8	25g	+	+	6	a
2025	**115723**	**Chiffonnette mur avant nettoyage (industrie laitier)**	**Swape before cleaning (dairy industry)**	*E. coli* O157 Ad3322	-	+	+	Dairy environment	Seeding 48h 3±2°C	/	3-1-1-2-1	1.6	25g	+	+	6	a
2025	**115724**	**Chiffonnette cutter après nettoyage (industrie porc)**	**Swape after cleaning (pork industry)**	*E. coli* O103:H2 Ad3027	+	-	+	Wipa goat farming	Seeding 48h 3±2°C	/	1-0-2-0-1	0.8	25g	+	+	6	a
2025	**115725**	**Chiffonnette cutter avant nettoyage (industrie porc)**	**Swape before cleaning (pork industry)**	*E. coli* O157:H7 Ad567	-	+	+	Slaughter environment	Seeding 48h 3±2°C	/	0-2-0-2-0	0.8	25g	+	+	6	a
2025	**115726**	**Chiffonnette sol après nettoyage (industrie laitier)**	**Swape after cleaning (dairy industry)**	*E. coli* O145 Ad3181	+	+	+	Dairy product	Seeding 48h 3±2°C	/	1-0-1-0-4	1.2	25g	-	+	6	a
2024	**2569**	**Déchet essais fromage**	**Cheese waste**	*E. coli* O103 Ad3169	+	-	+	Dairy factory	Seeding 48h 3±2°C	/	3-1-2-3-1	2.0	25g	-	-	6	b
2024	**2570**	**Dechet fromage Brie tombé au sol**	**Cheese waste**	*E. coli* O26 Ad2675	-	+	+	Milk product	Seeding 48h 3±2°C	/	0-2-0-3-2	1.4	25g	+	+	6	b
2024	**2571**	**Déchet poduction fromage pâte persillée**	**Cheese waste**	*E. coli* O103 Ad2981	+	+	+	Raw milk cheese	Seeding 48h 3±2°C	/	1-3-2-1-4	2.2	25g	-	-	6	b
2024	**2623**	**Déchet effiloché de bœuf au sol**	**Beef meat waste**	*E. coli* O157:H7 Ad686	+	+	+	Slaughterhouse	Seeding 48h 3±2°C	/	2-0-1-1-1	1.0	25g	+	+	6	b
2024	**2624**	**Déchet haché de bœuf**	**Beef meat waste**	*E. coli* O145:H28 1867-177	-	+	+	Meat product	Seeding 48h 3±2°C	/	0-3-6-0-1	2.0	25g	+	+	6	b
2024	**2625**	**Déchet découpe de bœuf au sol**	**Beef meat waste**	*E. coli* O145:H28 092-4	-	+	+	Meat product	Seeding 48h 3±2°C	/	1-2-0-2-5	2.0	25g	+	+	6	b
2024	**2626**	**Déchet découpe de porc tombé au sol**	**Pork meat waste**	*E. coli* O157:H7 Ad686	+	+	+	Slaughterhouse	Seeding 48h 3±2°C	/	2-0-1-1-1	1.0	25g	+	+	6	b
2025	**115727**	**Déchet mousse de foie**	**Liver mousse waste**	*E. coli* O157:H7 Ad567	-	+	+	Slaughter environment	Seeding 48h 3±2°C	/	0-2-0-2-0	0.8	25g	+	+	6	b
2025	**115728**	**Déchet porc saumuré**	**Pickled pork waste**	*E. coli* O145 Ad3181	+	+	+	Dairy product	Seeding 48h 3±2°C	/	1-0-1-0-4	1.2	25g	+	+	6	b
2025	**115729**	**Déchet chipolatas**	**Chipolatas waste**	*E. coli* O157:H7 Ad567	-	+	+	Slaughter environment	Seeding 48h 3±2°C	/	0-2-0-2-0	0.8	25g	+	+	6	b
2025	**115730**	**Déchet effiloché de bœuf**	**Beef waste**	*E. coli* O145 Ad3181	+	+	+	Dairy product	Seeding 48h 3±2°C	/	1-0-1-0-4	1.2	25g	+	+	6	b

Year	Sample N°	Product (French name)	Product	Artificial contaminations									Test portion	Global result		Category	Type
				Strain	Virulence genes			Origin	Injury protocol	Injury measurement	Inoculation level/sample			Short time	Long time		
					stx1	stx2	eae				Enumeration	Mean					
2025	**115731**	**Déchet chipolatas**	**Chipolatas waste**	*E. coli* O157:H7 Ad567	-	+	+	Slaughter environment	Seeding 48h 3±2°C	/	0-2-0-2-0	0.8	25g	+	+	6	b
2025	**115732**	**Déchet viande de bœuf**	**Waste beef**	*E. coli* O145 Ad3181	+	+	+	Dairy product	Seeding 48h 3±2°C	/	1-0-1-0-4	1.2	25g	-	-	6	b
2024	**2562**	**Eau de siphon salle de fabrication (fromagerie)**	**Washing water (dairy industry)**	*E. coli* O26 Ad3160	+	-	+	Raw material dairy product	Seeding 48h 3±2°C	/	0-1-1-3-1	1.2	25g	+	+	6	c
2024	**2563**	**Eau de lavage (fromagerie)**	**Washing water (dairy industry)**	*E. coli* O111 Ad3170	+	-	+	Raw milk cheese	Seeding 48h 3±2°C	/	2-1-2-1-2	1.6	25g	+	+	6	c
2024	**2564**	**Eau de process (fromagerie)**	**Process water (dairy industry)**	*E. coli* O103 Ad3169	+	-	+	Dairy factory	Seeding 48h 3±2°C	/	3-1-2-3-1	2.0	25g	+	+	6	c
2024	**2565**	**Eau de nettoyage (fromagerie)**	**Cleaning water (dairy industry)**	*E. coli* O26 Ad2675	-	+	+	Milk product	Seeding 48h 3±2°C	/	0-2-0-3-2	1.4	25g	-	-	6	c
2024	**2566**	**Eau de rinçage circuit (industrie laitière)**	**Circuit rinsing water (dairy industry)**	*E. coli* O103 Ad2981	+	+	+	Raw milk cheese	Seeding 48h 3±2°C	/	1-3-2-1-4	2.2	25g	+	+	6	c
2024	**2567**	**Eau de lavage (industrie laitière)**	**Washing water (dairy industry)**	*E. coli* O26 Ad3160	+	-	+	Raw material dairy product	Seeding 48h 3±2°C	/	0-1-1-3-1	1.2	25g	+	+	6	c
2024	**2568**	**Eau de lavage (industrie laitière)**	**Washing water (dairy industry)**	*E. coli* O111 Ad3170	+	-	+	Raw milk cheese	Seeding 48h 3±2°C	/	2-1-2-1-2	1.6	25g	+	+	6	c
2024	**2620**	**Eau de process rinçe bottes (industrie carné)**	**Process water (meat industry)**	*E. coli* O157:H7 Ad685	-	+	+	Slaughterhouse	Seeding 48h 3±2°C	/	3-2-3-1-2	2.2	25g	-	-	6	c
2024	**2621**	**Eau de lavage (industrie carné)**	**Washing water (meat industry)**	*E. coli* O157:H7 Ad686	+	+	+	Slaughterhouse	Seeding 48h 3±2°C	/	2-0-1-1-1	1.0	25g	+	+	6	c
2024	**2622**	**Déchet de porc saumuré**	**Pork meat waste**	*E. coli* O157:H7 Ad685	-	+	+	Slaughterhouse	Seeding 48h 3±2°C	/	3-2-3-1-2	2.2	25g	+	+	6	c
2025	**115718**	**Eau de process (industrie porc)**	**Process water (pork industry)**	*E. coli* O103:H2 Ad3027	+	-	+	Wipa goat farming	Seeding 48h 3±2°C	/	1-0-2-0-1	0.8	25g	+	+	6	c
2025	**115719**	**Eau de process (industrie porc)**	**Process water (pork industry)**	*E. coli* O157 Ad3322	-	+	+	Dairy environment	Seeding 48h 3±2°C	/	3-1-1-2-1	1.6	25g	+	+	6	c
2025	**115720**	**Eau de process (environnement laitier)**	**Process water (dairy industry)**	*E. coli* O103:H2 Ad3027	+	-	+	Wipa goat farming	Seeding 48h 3±2°C	/	1-0-2-0-1	0.8	25g	+	+	6	c

Appendix 4 – Sensitivity study: raw data

RAW BEEF MEAT (up to 25 g)																								
Date	Sample No	Product (French name)	Product	Global result	Reference method: ISO/TS 13136♦					Assurance® GDS STEC - Protocol ① (25 g + 225 ml (d1/10) PW mEHEC®)												Category	Type
										Before storage							After storage for 72 h at 5°C ±3°C						
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	ISO requirements Confirmation after 18h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	**2277**	**Viande bovine bavette d'Aloyau**	**Beef trim meat**	+	O157	+	O157	+	O157	-	-	-	/	ND	-	/	-	-	-	/	ND	1	a
2021	**2278**	**Viande bovine faux filet**	**Beef trim meat**	+	-			-	/	O157	O157	+	O157	PD			O157	O157	+	O157	PD	1	a
2021	**2279**	**Viande bovine faux filet**	**Beef trim meat**	+	-			-	/	O157	O157	+	O157	PD			O157	O158	+	O158	PD	1	a
2021	**2280**	**Viande bovine steak**	**Beef trim meat**	+	O157	+	O157	+	O157	O157	O157	+	O157	PA			O157	O157	+	O157	PA	1	a
2021	**2281**	**Viande bovine steak**	**Beef trim meat**	+	O157	+	O157	+	O157	O157	O157	+	O157	PA			O157	O157	+	O157	PA	1	a
2021	**2543**	**Steak haché de bœuf frais**	**Ground beef meat**	+	O26	+	O26	+	O26	O26	O26	+	O26	PA			O26	O26	+	O26	PA	1	a
2021	**2544**	**Steak haché de bœuf frais**	**Ground beef meat**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	1	a
2021	**2545**	**Steak de bœuf à griller**	**Ground beef meat**	+	O145	+	O145	+	O145	O145	O145	+	O145	PA			O145	O145	+	O145	PA	1	a
2021	**2546**	**Steak de bœuf à griller**	**Ground beef meat**	+	O26	-	/	-	/	O111	O111	+	O111	PD			O111	O111	+	O111	PD	1	a
2021	**2547**	**Filet de bœuf à griller**	**Beef trim meat**	+	O145	+	O145	+	O145	O145	O145	+	O145	PA			O145	O145	+	O145	PA	1	a
2021	2713	Viande bovine basse côte	Beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	2714	Faux filet de bœuf	Beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	2715	Paleron de bœuf	Beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	2716	Viande à bourguignon	Beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	2717	Steak haché de bœuf	Ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	2718	Steak de bœuf	Ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	3034	Steak haché de bœuf 5% MG	Ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	3035	Steak Charolais	Beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	3036	Faux filet de bœuf	Beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	3037	Filet de bœuf	Beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	**2565**	**Bavette d'Aloyau surgelée**	**Frozen beef trim**	+	O145	+	O145	+	O145	O111	O145	+	O145	PA			O145	O145	+	O145	PA	1	b
2021	**2566**	**Bavette d'Aloyau surgelée**	**Frozen beef trim**	+	-			-	/	O26	O26	+	O26	PD			O26	O26	+	O26	PD	1	b
2021	**2567**	**Tournedos de bœuf surgelé**	**Frozen beef trim**	+	O26	+	O26	+	O26	O26	O26	+	O26	PA			O26	O26	+	O26	PA	1	b
2021	**2568**	**Tournedos de bœuf surgelé**	**Frozen beef trim**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	1	b
2021	**2569**	**Effeuillé charolais surgelé**	**Frozen beef trim**	+	O103	+	O103	+	O103	-	-	-	/	ND	-	/	-	-	-	/	ND	1	b
2021	**2570**	**Effeuillé charolais surgelé**	**Frozen beef trim**	+	O145	+	O145	+	O145	O145	O145	+	O145	PA			O145	O145	+	O145	PA	1	b
2021	**2571**	**Steak haché de bœuf surgelé**	**Frozen ground beef**	+	-			-	/	O103	O103	+	O103	PD			O103	O103	+	O103	PD	1	b
2021	**2572**	**Steak haché de bœuf surgelé**	**Frozen ground beef**	+	O145	+	O145	+	O145	O145	O145	+	O145	PA			O145	O145	+	O145	PA	1	b
2021	**2573**	**Viande hachée de bœuf surgelée**	**Frozen ground beef**	+	O145	+	O145	+	O145	O145	O145	+	O145	PA			O145	O145	+	O145	PA	1	b
2021	**2574**	**Viande hachée de bœuf surgelée**	**Frozen ground beef**	+	-			-	/	O111	O111	+	O111	PD			O111	O111	+	O111	PD	1	b
2021	3038	Bavette d'Aloyau surgelée	Frozen beef trim	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b

RAW BEEF MEAT (up to 25 g)																								
Date	Sample No	Product (French name)	Product	Global result	Reference method: ISO/TS 13136♦					Assurance® GDS STEC - Protocol ① (25 g + 225 ml (d1/10) PW mEHEC®)												Category	Type
										Before storage						After storage for 72 h at 5°C ±3°C							
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	ISO requirements Confirmation after 18h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	3039	Tournedos de bœuf surgelé	Frozen beef trim	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	3040	Effeuillés charolais surgelé	Frozen beef trim	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	3041	Biftecks hachés surgelés	Frozen ground beef	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	3042	Biftecks hachés bio surgelés	Frozen ground beef	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	3043	Steak hachés 15%MG surgelé	Frozen ground beef	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	3044	Viande hachée de bœuf surgelée	Frozen ground beef	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	3045	Steak haché de bœuf 15%MG surgelé	Frozen ground beef	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	3046	Steak haché de bœuf 5%MG surgelé	Frozen ground beef	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	3047	Steak haché de bœuf 15%MG surgelé	Frozen ground beef	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	4259	VPH bœuf congelé 25% VBF	Frozen ground beef	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	4260	VPH bœuf congelé 10% halal	Frozen ground beef	+	O157/ O103	+	O157	+	O157	O26/ O103	O103 (72h)	+	O103	PA	-	/	O26/ O103	O103	+	O103	PA	1	b
2021	4261	VPH bœuf congelé 10% halal	Frozen ground beef	-	STEC	-	/	-	/	-	-	-	/	NA	-	/	-	-	-	/	NA	1	b
2021	4262	Egréné de bœuf 25% MG	Frozen ground beef	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	**2273**	**Pavé de rumsteak à l'échalotte**	**Seasoned beef meat**	+	O157	+	O157	+	O157	O157	O157	+	O157	PA			O157	O157	+	O157	PA	1	c
2021	**2274**	**Pavé de rumsteak à l'échalotte**	**Seasoned beef meat**	+	O157	+	O157	+	O157	O157	O157	+	O157	PA			O157	O157	+	O157	PA	1	c
2021	**2275**	**Viande hachée de bœuf à la bolognaise**	**Seasoned beef meat**	+	O157	+	O157	+	O157	O157	O157	+	O157	PA			O157	O157	+	O157	PA	1	c
2021	**2276**	**Viande hachée de bœuf à la bolognaise**	**Seasoned beef meat**	+	O157	+	O157	+	O157	O157	O157	+	O157	PA			O157	O157	+	O157	PA	1	c
2021	**2548**	**Brochette de bœuf tomates paprika**	**Seasoned beef meat**	+	O26	+	O26	+	O26	O26	O26	+	O26	PA			O26	O26	+	O26	PA	1	c
2021	**2549**	**Brochette de bœuf tomates paprika**	**Seasoned beef meat**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	1	c
2021	**2550**	**Pavé de bœuf à la mexicaine**	**Seasoned beef meat**	+	O103	+	O103	+	O103	O103/O26	O103	+	O103	PA			O103/O26	O103	+	O103	PA	1	c
2021	**2551**	**Pavé de bœuf à la mexicaine**	**Seasoned beef meat**	+	O145	+	O145	+	O145	O145	O145	+	O145	PA			O111	O145	+	O145	PA	1	c
2021	**2552**	**Emincés de bœuf à l'andalouse**	**Seasoned beef meat**	+	O145	+	O145	+	O145	O145	O145	+	O145	PA			O145	O145	+	O145	PA	1	c
2021	**2553**	**Emincés de bœuf à l'andalouse**	**Seasoned beef meat**	+	O111	+	O111	+	O111	O111	O111	+	O111	PA			O111	O111	+	O111	PA	1	c
2021	2708	Pavé de rumsteak salé et poivré	Seasoned beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	c
2021	2709	Steak haché à l'oignon	Seasoned beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	c

RAW BEEF MEAT (up to 25 g)																								
Date	Sample No	Product (French name)	Product	Global result	Reference method: ISO/TS 13136♦					Assurance® GDS STEC - Protocol ① (25 g + 225 ml (d1/10) PW mEHEC®)												Category	Type
										Before storage						After storage for 72 h at 5°C ±3°C							
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	ISO requirements Confirmation after 18h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	2710	Viande hachée de bœuf à la bolognaise	Seasoned beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	c
2021	2711	Carpaccio de bœuf huile d'olive basilic	Marinated beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	c
2021	2712	Carpaccio de bœuf huile de noix vinaigre	Marinated beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	c
2021	3048	Carpaccio à l'olive	Marinated beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	c
2021	3049	Tartare de bœuf	Marinated beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	c
2021	3050	Pavé de bœuf aux 3 poivres	Seasoned beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	c
2021	3051	Brochettes de bœuf au poivre	Seasoned beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	c
2021	3052	Brochettes de bœuf provençales	Marinated beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	c

RAW BEEF MEAT EXCLUDING SEASONED MEAT (up to 375 g)																									
Date	Sample No	Product (French name)	Product	Global result	Reference method: ISO/TS 13136♦					Assurance® GDS STEC - Protocol ② (375 g + 1500 ml (d 1/5) PW mEHEC®)												Category	Type
										Before storage							After storage for 72 h at 5°C ±3°C							
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	ISO requirements Confirmation after 18h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	**3249**	**Rôti de bœuf**	**Fresh beef trim meat**	**+**	O157	+	O157	+	O157	O157	O157	+	O157	**PA**			O157	O157	+	O157	**PA**	1	a
2021	**3250**	**Steak de bœuf**	**Fresh beef trim meat**	**+**	O157	+	O157	+	O157	O157	O157	+	O157	**PA**			O157	O157	+	O157	**PA**	1	a
2021	**3251**	**Paleron de bœuf à mijoter**	**Fresh beef trim meat**	**+**	O157	-	/	-	/	O157	O157	+	O157	**PD**			O157	O157	+	O157	**PD**	1	a
2021	**3252**	**Haché de bœuf 20% MG**	**Fresh ground beef meat**	**-**	-			-	/	-	-	-	/	**NA**	-	/	-	-	-	/	**NA**	1	a
2021	**3253**	**Haché de bœuf 15% MG**	**Fresh ground beef meat**	**-**	-			-	/	-	-	-	/	**NA**	-	/	-	-	-	/	**NA**	1	a
2021	**3254**	**Viande de Bœuf à fondue**	**Fresh beef trim meat**	**-**	-			-	/	-	-	-	/	**NA**	-	/	-	-	-	/	**NA**	1	a
2021	**3258**	**Steak haché 15% MG**	**Fresh ground beef meat**	**+**	O145	+	O145	+	O145	O145	O145	+	O145	**PA**			O145	O145	+	O145	**PA**	1	a
2021	**3259**	**Haché pur bœuf 5% MG**	**Fresh ground beef meat**	**+**	-			-	/	O145	O145	+	O145	**PD**			O145	O145	+	O145	**PD**	1	a
2021	**3260**	**Steak haché pur bœuf 15% MG**	**Fresh ground beef meat**	**+**	-			-	/	O145	O145	+	O145	**PD**			O145	O145	+	O145	**PD**	1	a
2021	**3261**	**Bourguignon à mijoter**	**Fresh beef trim meat**	**+**	-			-	/	O145/O157	O145	+	O145	**PD**			O145	O145	+	O145	**PD**	1	a
2021	**3262**	**Côte de bœuf à griller**	**Fresh beef trim meat**	**+**	O145	+	O145	+	O145	O145	O145	+	O145	**PA**			O145	O145	+	O145	**PA**	1	a
2021	**5453**	**Steak de boeuf à griller**	**Fresh ground beef meat**	**+**	-			-	/	O157	O157	+	O157	**PD**			O157	O157	+	O157	**PD**	1	a
2021	**5454**	**Paleron de bœuf tranché**	**Fresh beef trim meat**	**+**	-			-	/	O145	O145	+	O145	**PD**			O145	O145	+	O145	**PD**	1	a
2021	**5455**	**Steak haché de bœuf 5%MG**	**Fresh ground beef meat**	**+**	-			-	/	O157	O157	+	O157	**PD**			O157	O157	+	O157	**PD**	1	a
2021	**5456**	**Steak haché de bœuf 15%MG**	**Fresh ground beef meat**	**+**	O157	+	O157	+	O157	O157	O157	+	O157	**PA**			O157	O157	+	O157	**PA**	1	a
2021	**5457**	**Steak haché de bœuf 15%MG**	**Fresh ground beef meat**	**+**	O157	+	O157	+	O157	O157	O157	+	O157	**PA**			O157	O157	+	O157	**PA**	1	a
2021	**5458**	**Steak haché de bœuf 5%MG**	**Fresh ground beef meat**	**+**	O145	+	O145	+	O145	O145	O145	+	O145	**PA**			O145	O145	+		**PA**	1	a
2021	**5459**	**Steak haché de bœuf 15%MG**	**Fresh ground beef meat**	**+**	O145	+	O145	+	O145	O145	O145	+	O145	**PA**			O145	O145	+		**PA**	1	a
2021	5460	Steak haché de bœuf surgelé	Frozen ground beef meat	**+**	O157/ O26/ O145	+	O157/O26	+	O157/O26	O26/O157	O26/O157	+	O26/O157	**PA**			O26/O157	O26/157	+	O26/157	**PA**	1	a
2021	5461	Steak haché de bœuf surgelé	Frozen ground beef meat	**+**	O157/ O26	+	O157/O26	+	O157/O26	O26/O157	O26/O157	+	O26/O157	**PA**			O26/O157	O26/157	+	O26/157	**PA**	1	a
2021	5462	Steak à griller	Fresh beef trim meat	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						1	a
2021	5463	Entrecôtes de bœuf	Fresh beef trim meat	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						1	a
2021	5464	Paleron de bœuf en tranche	Fresh beef trim meat	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						1	a
2021	5465	Bavette d'Aloyau	Fresh beef trim meat	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						1	a
2021	5466	Paleron de bœuf entier	Fresh beef trim meat	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						1	a
2021	5467	Steak haché de bœuf 15%MG	Fresh ground beef meat	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						1	a
2021	5468	Steak haché de bœuf 15%MG	Frozen ground beef meat	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						1	a

RAW BEEF MEAT EXCLUDING SEASONED MEAT (up to 375 g)																								
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										Before storage								After storage for 72 h at 5°C ±3°C					
															ISO requirements								
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	Confirmation after 18h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	5469	Steak haché de bœuf 5%MG	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	5470	Steak haché de bœuf 5%MG	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	5471	Steak haché de bœuf 15%MG	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
2021	**4110**	**Viande hachée pur Bœuf 20% MG surgelée**	**Frozen ground beef meat**	+	O26	+	O26	+	O26	-	-	-	/	ND	-	/	-	-	-		ND	1	b
2021	**4111**	**Egréné de Bœuf 15% MG surgelé**	**Frozen ground beef meat**	+	-			-	/	O103/O26	O103	+	O103	PD			O103	O103	+	O103	PD	1	b
2021	**4112**	**Bavette d'Aloyau surgelée**	**Frozen beef trim meat**	+	O26	+	O26	+	O26	O26	O26	+	O26	PA	+	O26	O26	O26	+	O26	PA	1	b
2021	**4113**	**Parfait de Charolais surgelé**	**Frozen beef trim meat**	+	-			-	/	O103	O103	+	O103	PD			O103	O103	+	O103	PD	1	b
2021	**4116**	**Steak haché 15% MG surgelé**	**Frozen ground beef meat**	+	O111	+	O111	+	O111	O111	O111	+	O111	PA			O111	O111	+	O111	PA	1	b
2021	**4117**	**Noix-joue de bœuf à mijoter surgelée**	**Frozen beef trim meat**	+	-			-	/	O111	O111	+	O111	PD			O111	O111	+	O111	PD	1	b
2021	**4118**	**Steak de bœuf à griller surgelé**	**Frozen beef trim meat**	+	O111	+	O111	+	O111	O111	O111	+	O111	PA			O111	O111	+	O111	PA	1	b
2021	**4119**	**Egréné de Bœuf 20% MG surgelé**	**Frozen ground beef meat**	+	-			-	/	O111	O111	+	O111	PD			O111	O111	+	O111	PD	1	b
2021	4124	Bavette d'Aloyau surgelée	Frozen beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	4125	Egréné de Bœuf surgelé	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	4126	Steak haché 15% MG surgelé	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	4127	Noix-joue de bœuf surgelée	Frozen beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	4128	Viande hachée pur bœuf surgelée	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	**4267**	**Faux filet charolais surgelé**	**Frozen beef trim meat**	+	-			-	/	O26/O103	O26	+	O26	PD			O26/O103	O26	+	O26	PD	1	b
2021	**4268**	**Filet de bœuf surgelé**	**Frozen beef trim meat**	+	O26	+	O26	+	O26	O26	O26	+	O26	PA			O26	O26	+	O26	PA	1	b
2021	**4269**	**Tournedos bœuf surgelé**	**Frozen beef trim meat**	+	-			-	/	O26	O26	+	O26	PD			O26	O26	+	O26	PD	1	b
2021	**4270**	**Bavette d'Aloyau surgelée**	**Frozen beef trim meat**	+	O103/ O145	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	1	b
2021	**4273**	**Viande hachée égrénée surgelée**	**Frozen ground beef meat**	+	-			-	/	O111	O111	+	O111	PD			O111	O111	+	O111	PD	1	b
2021	**4274**	**Steak haché 15% %G surgelé**	**Frozen ground beef meat**	+	O111	+	O111	+	O111	O111	O111	+	O111	PA			O111	O111	+	O111	PA	1	b
2021	5554	Egrené de bœuf 15%MG surgelé	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	5555	Viande hachée 15%MG surgelée	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b

RAW BEEF MEAT EXCLUDING SEASONED MEAT (up to 375 g)																								
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										Before storage								After storage for 72 h at 5°C ±3°C					
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	ISO requirements Confirmation after 18h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	5556	Steack haché 12%MG surgelé	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	5557	Steack haché 20%MG surgelé	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	5558	Steack haché 15%MG surgelé	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	5559	Viande hachée 20%MG surgelée	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	5560	Côte de bœuf surgelée	Frozen beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	5561	Entrecôtes de bœuf surgelées	Frozen beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	5562	Noix de joue de bœuf surgelée	Frozen beef trim meat	-	O26/ O103	-	/	-		-	-(18h)	-	/	NA	-	/						1	b
2021	5563	Steack de bœuf surgelés	Frozen beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	5564	Bavette d'aloyau surgelée	Frozen beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b
2021	5565	Roti de bœuf surgelé	Frozen beef trim meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	b

RAW MILK AND DAIRY PRODUCTS (up to 25 g) – Raw milk type																								
Date	Sample No	Product (French name)	Product	Global result	Reference method: ISO/TS 13136♦					Assurance® GDS STEC - Protocol ③ (25 g + 225 ml (d 1/10) mEHEC®) 18 h at 41.5°C												Category	Type
										Before storage								After storage for 72 h at 5°C ±3°C							
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	ISO requirements Confirmation after 18h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	4990	Lait cru de chèvre	Raw goat milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	4991	Lait cru de chèvre	Raw goat milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	4992	Lait cru de chèvre	Raw goat milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	4993	Lait cru de chèvre	Raw goat milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	4994	Lait cru de chèvre	Raw goat milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	4995	Lait cru de chèvre	Raw goat milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	4996	Lait cru de chèvre	Raw goat milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	4997	Lait cru de chèvre	Raw goat milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	4998	Lait cru de chèvre	Raw goat milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	4999	Lait cru de chèvre	Raw goat milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5000	Caillé de chèvre	Fermented raw goat milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5001	Lait cru de vache	Raw cow milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5002	Lait cru de vache	Raw cow milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5003	Lait cru de vache	Raw cow milk	-	O26/O103/ O145/O157	-	O157	-	/	-	-	-	/	NA	-	/	O103	-	-	/	$PD_{FP(ALT)}$	2	a
2021	5004	Lait cru de vache	Raw cow milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	**5584**	**Lait cru de vache**	**Raw cow milk**	+	O26	+	O26	+	O26	-	-(18h)	-	/	ND	-	/	-	-	-	/	ND	2	a
2021	**5585**	**Lait cru de vache**	**Raw cow milk**	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	**5586**	**Lait cru de vache**	**Raw cow milk**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	2	a
2021	**5587**	**Lait cru de vache**	**Raw cow milk**	+	O157	+	O157	+	O157	-	-(18h)	-	/	ND	-	/	-	-	-	/	ND	2	a
2021	**5588**	**Lait cru de vache**	**Raw cow milk**	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	**5589**	**Lait cru de vache**	**Raw cow milk**	+	-			-	/	O145/O103	O145/O103	+	O145/O103	PD			O145	O145	+	O145	PD	2	a
2021	**5590**	**Lait cru de vache**	**Raw cow milk**	+	O157	+	O157	+	O157	O157	O157	+	O157	PA			O157	O157	+	O157	PA	2	a
2021	**5591**	**Lait cru de brebis**	**Raw ewe milk**	+	O157	+	O157	+	O157	O157	O157	+	O157	PA			O157	O157	+	O157	PA	2	a
2021	**5592**	**Lait cru de brebis**	**Raw ewe milk**	+	-			-	/	O26	O26	+	O26	PD			O26	O26	+	O26	PD	2	a
2021	**5593**	**Lait cru de brebis**	**Raw ewe milk**	+	-			-	/	O26/O103	O26/O103	+	O26/O103	PD			O26	O26	+	O26	PD	2	a

RAW MILK AND DAIRY PRODUCTS (up to 25 g) – Raw milk type																								
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										Before storage					ISO requirements		After storage for 72 h at 5°C ±3°C						
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	Confirmation after 18h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	**5594**	**Lait cru de brebis**	**Raw ewe milk**	+	-			-	/	O103	O103	+	O103	PD			O103	O103	+	O103	PD	2	a
2021	**5595**	**Lait cru de brebis**	**Raw ewe milk**	+	O157	+	O157	+	O157	O103/O157	O103/O157	+	O103/O157	PA			O157	O157	+	O157	PA	2	a
2021	**5596**	**Lait cru de brebis**	**Raw ewe milk cheese**	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	**5597**	**Lait cru de brebis**	**Raw ewe milk**	+	O145	+	O145	+	O145	O145/O157	O145	+	O145	PA			O145	O145	+	O145	PA	2	a
2021	**5598**	**Lait cru de chèvre**	**Raw goat milk**	+	O26	+	O26	+	O26	-	-(18h)	-	/	ND	-	/	-	-	-	/	ND	2	a
2021	**5599**	**Lait cru de chèvre**	**Raw goat milk**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	2	a
2021	**5600**	**Lait cru de chèvre**	**Raw goat milk**	+	-			-	/	O157	O157	+	O157	PD			O157	O157	+	O157	PD	2	a
2021	**5601**	**Lait cru de chèvre**	**Raw goat milk**	-	-			-	/	-/O111/-	O111	-	/	$NA_{FN(alt)}$			O111	O111	+	O111	PD	2	a
2021	**5602**	**Lait cru de chèvre**	**Raw goat milk**	+	O145	+	O145	+	O145	O145	O111/O145	+	O145	PA			O145	O145	+	O145	PA	2	a
2021	**5603**	**Lait cru de chèvre**	**Raw goat milk**	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	**5906**	**Lait cru de chèvre**	**Raw goat milk**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	2	a
2021	**5907**	**Lait cru de chèvre**	**Raw goat milk**	+	-			-	/	O103	O103 (72h)	+	O103	PD	-	/	O103	O103	+	O103	PD	2	a
2021	**5908**	**Lait cru de chèvre**	**Raw goat milk**	-	-			-	/	O26	- (ISO method -)	-	/	$PD_{FP(alt)}$			O26	- (ISO method -)	-	/	$PD_{FP(ALT)}$	2	a
2021	**5909**	**Lait cru de chèvre**	**Raw goat milk**	-	-			-	/	-/-/-	O26	-	/	$NA_{FN(alt)}$	-	/	-	O26	-	/	$NA_{FN(alt)}$	2	a
2021	**5910**	**Lait cru de chèvre**	**Raw goat milk**	-	stx	-	/	-	/	-	-	-	/	NA	-	/	-	-	-	/	NA	2	a
2021	**5911**	**Lait cru de chèvre**	**Raw goat milk**	+	O111	+	O111	+	O111	O111	- (ISO method -)	-	/	$PA_{FP(alt)}$			O111	- (ISO method -)	-	/	$PA_{FP(alt)}$	2	a
2021	**5912**	**Lait cru de vache**	**Raw cow milk**	-	-			-	/	-	-	-	/	NA	-	/	-	-	-	/	NA	2	a
2021	**5913**	**Lait cru de vache**	**Raw cow milk**	-	-			-	/	-	-	-	/	NA	-	/	-	-	-	/	NA	2	a
2021	**5914**	**Lait cru de vache**	**Raw cow milk**	-	-			-	/	O103	- (ISO method -)	-	/	$PD_{FP(ALT)}$			O103	- (ISO method -)	-	/	$PD_{FP(ALT)}$	2	a
2021	**5915**	**Lait cru de vache**	**Raw cow milk**	-	-			-	/	-	-	-	/	NA	-	/						2	a
2021	**5916**	**Lait cru de vache**	**Raw cow milk**	+	O26	+	O26	+	O26	O26	O26	+	O26	PA			O26	O26	+	O26	PA	2	a
2021	**5917**	**Lait cru de brebis**	**Raw ewe milk**	+	O26	+	O26	+	O26	-	-	-	/	ND	-	/	-	-	-	/	ND	2	a
2021	**5918**	**Lait cru de brebis**	**Raw ewe milk**	-	-			-	/	-	-	-	/	NA	-	/						2	a
2021	**5919**	**Lait cru de brebis**	**Raw ewe milk**	+	-			-	/	O111	O111	+	O111	PD			O111	O111	+	O111	PD	2	a

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					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	Confirmation after 18h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	**5920**	**Lait cru de brebis**	**Raw ewe milk**	+	O103	+	O103	+	O103	-	-	-	/	ND	-	/	-	-	-	/	ND	2	a
2021	**5921**	**Lait cru de brebis**	**Raw ewe milk**	+	O26	+	O26	+	O26	-	-	-	/	ND	-	/	-	-	-	/	ND	2	a
2021	5922	Lait cru de brebis	Raw ewe milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5923	Lait cru de brebis	Raw ewe milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5924	Lait cru de brebis	Raw ewe milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5925	Lait cru de brebis	Raw ewe milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5926	Lait cru de brebis	Raw ewe milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5927	Lait cru de vache	Raw cow milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5928	Lait cru de vache	Raw cow milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5929	Lait cru de vache	Raw cow milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5930	Lait cru de brebis	Raw ewe milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	5931	Lait cru de brebis	Raw ewe milk	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	a
2021	**6554**	**Lait cru de vache**	**Raw cow milk**	+	O26/O103	+	O26	+	O26	O26	O26	+	O26	PA			O26	O26	+	O26	PA	2	a
2021	**6555**	**Lait cru de vache**	**Raw cow milk**	+	O103/O145	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	2	a
2021	**6556**	**Lait cru de vache**	**Raw cow milk**	+	O111	+	O111	+	O111	O111	O111	+	O111	PA			O111	O111	+	O111	PA	2	a
2021	**6557**	**Lait cru de vache**	**Raw cow milk**	+	O145	+	O145	+	O145	O145	O145	+	O145	PA			O145	O145	+	O145	PA	2	a
2021	**6558**	**Lait cru de chèvre**	**Raw goat milk**	+	O26	+	O26	+	O26	O26	O26	+	O26	PA			O26	O26	+	O26	PA	2	a
2021	**6559**	**Lait cru de chèvre**	**Raw goat milk**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	2	a
2021	**6560**	**Lait cru de chèvre**	**Raw goat milk**	+	O111	+	O111	+	O111	O111	O111	+	O111	PA			O111	O111	+	O111	PA	2	a
2021	**6561**	**Lait cru de chèvre**	**Raw goat milk**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	2	a
2021	**6562**	**Lait cru de chèvre**	**Raw goat milk**	+	O145	+	O145	+	O145	O145	O145	+	O145	PA			O145	O145	+	O145	PA	2	a
2021	**6563**	**Lait cru de brebis**	**Raw ewe milk**	+	O26	+	O26	+	O26	O26	O26	+	O26	PA			O26	O26	+	O26	PA	2	a
2021	**6564**	**Lait cru de brebis**	**Raw ewe milk**	+	O26	+	O26	+	O26	O26	O26	+	O26	PA			O26	O26	+	O26	PA	2	a
2021	**6565**	**Lait cru de brebis**	**Raw ewe milk**	+	-			-	/	O103	O103	+	O103	PD			O103	O103	+	O103	PD	2	a

RAW MILK AND DAIRY PRODUCTS (up to 25 g) – Raw milk cheese type																									
Date	Sample No	Product (French name)	Product	Global result	Reference method: ISO/TS 13136♦					Assurance® GDS STEC - Protocol ④ (25 g + 225 ml (d 1/10) mEHEC®) 18 h at 41.5°C													Category	Type
										Before storage								After storage for 72 h at 5°C ±3°C						
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	ISO requirements Confirmation after 18 h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree ent		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	**4770**	**Ossau iraty lait cru de brebis**	**Hard raw ewe milk cheese**	+	-			-	/	O26	O26	+	O26	PD			O26	O26	+	O26	PD	2	b
2021	**4771**	**Ossau iraty lait cru de brebis**	**Hard raw ewe milk cheese**	+	O26	+	O26	+	O26	-	-	-	/	ND	-	/	-	-	-	/	ND	2	b
2021	**4772**	**Tomme de brebis au lait cru**	**Hard raw ewe milk cheese**	+	-			-	/	O103	O103	+	O103	PD			O103	O103	+	O103	PD	2	b
2021	**4773**	**Tomme de brebis au lait cru**	**Hard raw ewe milk cheese**	+	O111	+	O111	+	O111	O111	O111	+	O111	PA			O111	O111	+	O111	PA	2	b
2021	**4774**	**Beaufort lait cru vache**	**Hard raw cow milk cheese**	+	O26	+	O26	+	O26	O26	O26	+	O26	PA			O26	O26	+	O26	PA	2	b
2021	**4775**	**Beaufort lait cru vache**	**Hard raw cow milk cheese**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	2	b
2021	**4776**	**Comté lait cru vache**	**Hard raw cow milk cheese**	-	-			-	/	-	-	-	/	NA	-	/						2	b
2021	**5115**	**Fromage au lait cru de brebis (tomme)**	**Hard raw ewe milk cheese**	+	-			-	/	O157	O157	+	O157	PD			O157	O157	+	O157	PD	2	b
2021	**5116**	**Fromage au lait cru de vache (gruyère)**	**Hard raw cow milk cheese**	+	O145	+	O145	+	O145	O145	O145	+	O145	PA			O145	O145	+	O145	PA	2	b
2021	**5117**	**Fromage au lait cru de vache (comté)**	**Hard raw cow milk cheese**	+	O157	+	O157	+	O157	O157	O157	+	O157	PA			O157	O157	+	O157	PA	2	b
2021	**5118**	**Fromage au lait cru de brebis (Pecorino)**	**Hard raw ewe milk cheese**	+	-			-	/	O145	O145	+	O145	PD			O145	O145	+	O145	PD	2	b
2021	5317	Fromage au lait cru de vache (Gruyère)	Hard raw cow milk cheese	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	b
2021	5318	Fromage au lait cru de vache (Laguiole)	Hard raw cow milk cheese	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	b
2021	5319	Fromage au lait cru de vache (Cantal entre 2)	Hard raw cow milk cheese	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	b
2021	5320	Fromage au lait cru de brebis (Ossau Iraty)	Hard raw ewe milk cheese	-	stx (O145)	-	/	-	/	-	-(18h)	-	/	NA	-	/						2	b
2021	5321	Fromage au lait cru de brebis (Tomme)	Hard raw ewe milk cheese	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	b
2021	5322	Fromage au lait cru de brebis (Pecorino)	Hard raw ewe milk cheese	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	b
2021	**5604**	**Tomme chèvre cru**	**Hard raw goat milk cheese**	+	-			-	/	O26	O26	+	O26	PD			O26	O26	+	O26	PD	2	b
2021	**5605**	**Tomme chèvre cru**	**Hard raw goat milk cheese**	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	b
2021	**5606**	**Cantal lait cru**	**Hard raw cow milk cheese**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	2	b
2021	**5607**	**Laguiole lait cru**	**Hard raw cow milk cheese**	+	-			-	/	O103	O103/ O157	+	O103/ O157	PD			O157	O157	+	O157	PD	2	b
2021	**6119**	**Tomme de chèvre au lait cru**	**Hard raw ewe milk cheese**	-	-			-	/	-/-/-	O26	-	/	NA FN(alt)			-/-/-	O26	-	/	NA FN(alt)	2	b
2021	**6120**	**Tommette de chèvre au lait cru**	**Hard raw ewe milk cheese**	+	-			-	/	O103	O103	+	O103	PD			O103	O103	+	O103	PD	2	b
2021	**6121**	**Tomme de chèvre au lait cru**	**Hard raw ewe milk cheese**	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	b

RAW MILK AND DAIRY PRODUCTS (up to 25 g) – Raw milk cheese type																									
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										Before storage							After storage for 72 h at 5°C ±3°C							
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	ISO requirements Confirmation after 18 h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree ent		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	**6122**	**Tommette de chèvre au lait cru**	**Hard raw ewe milk cheese**	+	O111	+	O111	+	O111	O111	O111	+	O111	PA			O111	O111	+	O111	PA	2	b
2021	6129	Tomme de chèvre au lait cru	Hard raw ewe milk cheese	-				-	/	-	-(18h)	-	/	NA	-	/						2	b
2021	6130	Tommette de chèvre au lait cru	Hard raw ewe milk cheese	-				-	/	-	-(18h)	-	/	NA	-	/						2	b
2021	6131	Abondance au lait cru de vache	Hard raw cow milk cheese	+	stec	stec	/	-	/	O26/ O103	O26	+	O26	PD			O26/O1 03	O26	+	O26	PD	2	b
2021	6132	Pecorino de Toscane lait cru de brebis	Hard raw ewe milk cheese	-				-	/	-	-(18h)	-	/	NA	-	/						2	b
2021	6133	Tommette de chèvre au lait cru	Hard raw ewe milk cheese	-				-	/	-	-(18h)	-	/	NA	-	/						2	b
2021	**4766**	**Le chevrot lait cru chèvre**	**Soft raw goat milk cheese**	+	-			-	/	O26	O26	+	O26	PD			-/-/-	O26	-	/	NA	2	c
2021	**4767**	**Le chevrot lait cru chèvre**	**Soft raw goat milk cheese**	+	O26	+	O26	+	O26	O26	O26	+	O26	PA			O26	O26	+	O26	PA	2	c
2021	**4768**	**Chevrot affiné lait cru chèvre**	**Soft raw goat milk cheese**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	2	c
2021	**4769**	**Chevrot affiné lait cru chèvre**	**Soft raw goat milk cheese**	+	O111	+	O111	+	O111	O111	O111	+	O111	PA			O111	O111	+	O111	PA	2	c
2021	**4777**	**Roquefort lait cru brebis**	**Soft raw ewe milk cheese**	+	-			-	/	O26	O26	+	O26	PD			O26	O26	+	O26	PD	2	c
2021	**4778**	**Roquefort lait cru brebis**	**Soft raw ewe milk cheese**	+	O103	+	O103	+	O103	O103	O103	+	O103	PA			O103	O103	+	O103	PA	2	c
2021	**4779**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	-	-			-	/	-/-	-	-	/	NA	-	/	-	-	-	/	NA	2	c
2021	**4780**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	-	-			-	/	NoAmp/ NoAmp/ NoAmp/-	-	-	/	NA	-	/	-	-	-	/	NA	2	c
2021	**5112**	**Fromage au lait cru de vache (Reblochon)**	**Soft raw cow milk cheese**	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	c
2021	**5113**	**Fromage au lait cru de vache (camembert)**	**Soft raw cow milk cheese**	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	c
2021	**5114**	**Fromage au lait cru de brebis (Roquefort)**	**Soft raw ewe milk cheese**	+	O145	+	O145	+	O145	O145	O145	+	O145	PA			O145	O145	+	O145	PA	2	c
2021	**5119**	**Fromage au lait cru de chèvre (Picodon)**	**Soft raw goat milk cheese**	+	O26/ O103/ O1527	+	O157	+	O157	-	-(18h)	-	/	ND	-	/	-	-	-	/	ND	2	c
2021	5120	Caillé de chèvre au lait cru	Raw goat curd	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	c
2021	5121	Caillé de chèvre au lait cru	Raw goat curd	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	c
2021	**5122**	**Fromage de chèvre au lait cru**	**Soft raw goat milk cheese**	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	c
2021	**5123**	**Bûche de chèvre au lait cru**	**Soft raw goat milk cheese**	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	c
2021	**5124**	**Fromage frais de chèvre au lait cru**	**Soft raw goat milk cheese**	-	-			-	/	-	-(18h)	-	/	NA	-	/						2	c

RAW MILK AND DAIRY PRODUCTS (up to 25 g) – Raw milk cheese type																									
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										Before storage								After storage for 72 h at 5°C ±3°C							
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	ISO requirements Confirmation after 18 h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree ent		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
2021	**5125**	**Fromage de chèvre au lait cru**	**Soft raw goat milk cheese**	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						2	c
2021	5311	Fromage à pâte persillée au lait cru de brebis	Soft raw ewe milk cheese	**-**	stx	stx	/	-	/	-	-(18h)	-	/	**NA**	-	/						2	c
2021	5312	Fromage à pâte persillée au lait cru de brebis	Soft raw ewe milk cheese	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						2	c
2021	5313	Fromage à pâte persillée au lait cru de vache	Soft raw cow milk cheese	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						2	c
2021	5314	Fromage à pâte molle au lait cru de chèvre	Soft raw goat milk cheese	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						2	c
2021	5315	Fromage de chèvre au lait cru (Saint Maure)	Soft raw goat milk cheese	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						2	c
2021	5316	Fromage de chèvre au lait cru (Saint Maure)	Soft raw goat milk cheese	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						2	c
2021	**5608**	**Pont l'Evêque lait cru**	**Soft raw cow milk cheese**	**-**	-			-	/	-/-/-	-	-	/	**NA**			-	-	-	/	**NA**	2	c
2021	**5609**	**Roquefort lait cru brebis**	**Soft raw ewe milk cheese**	**+**	O103	+	O103	+	O103	O103	O103	+	O103	**PA**			O103	O103	+	O103	**PA**	2	c
2021	**5610**	**Livarot lait cru**	**Soft raw cow milk cheese**	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						2	c
2021	**5611**	**Livarot lait cru**	**Soft raw cow milk cheese**	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						2	c
2021	**5612**	**Reblochon lait cru**	**Soft raw cow milk cheese**	**+**	-			-	/	O145	O145	+	O145	**PD**			O145	O103/O145	+	O145	**PD**	2	c
2021	**5613**	**Le chevrot lait cru chèvre**	**Soft raw goat milk cheese**	**+**	-			-	/	O157	O157	+	O157	**PD**			O157	O157	+	O157	**PD**	2	c
2021	**6123**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	**-**	-			-	/	-	-(18h)	-	/	**NA**	-	/						2	c
2021	**6124**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	**+**	-			-	/	O26	O26	+	O26	**PD**			O26	O26	+	O26	**PD**	2	c
2021	**6125**	**Camembert lait cru vache**	**Soft raw cow milk cheese**	**+**	-			-	/	O103	O103	+	O103	**PD**			O103	O103	+	O103	**PD**	2	c
2021	**6126**	**Maroilles**	**Soft raw cow milk cheese**	**-**	-			-	/	-/-/-	-	-	/	**NA**			-/-/-	**O103**	-	/	**NA** FN(alt)	2	c
2021	**6127**	**Fourme de Montbrison**	**Soft raw cow milk cheese**	**-**	-			-	/	-/NoAmp/ NoAmp	**O111**	-	/	**NA** FN(alt)			-/-/ NoAmp	**O111**	-	/	**NA** FN(alt)	2	c
2021	**6128**	**Perail au lait cru de brebis**	**Soft raw ewe milk cheese**	**+**	O103	+	O103	+	O103	O103	O103	+	O103	**PA**			O103	O103	+	O103	**PA**	2	c

RAW AND RTC MEATS (except poultry) (up to 25 g)																																						
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC Short time (6 h) 25 g +225 ml PW mEHEC																																			
						PCR result – Short time at 41.5°C						PCR result – Short time + 2h à 41.5°C		PCR final result short time	Confirmations - Short time + 2h at 41.5°C																							Final Confirmation result short time	Final result short time	Agreement Ref/Alt short time	Category	Type
						MPX TOP 7 STEC						TOP STEC	EHEC ID		non-O157 and O157								non-O157				O157													
						Result					Final result	Final result	Final result		Beads from resuspension plate = IMS-R								Concentration reagent protocol = IMS				Direct streak = ID													
															Beads+Wash buffer 20µl								Beads+Wash buffer 20µl				10µl													
				Final result stx/eae	Sero-group	stx1	stx2	eae	O157						CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar	Final result		CHROMAgar STEC	EHEC	TBX	Final result	CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7	Final result								
																																	Result	Result					
2024	**674**	**Bavette d'aloyau**	**Sirloin steak**	+	O157	22.90	26.84	20.55	20.21	+	/	+O157	+O157	/	+1/2	/	+M	/	/	+O157	/	/	/	/	+1/2	+1/2	+m	+O157	+	+	PA	3	a
2024	**675**	**Steak haché**	**Ground beef**	+	O157	-	30.49	18.90	19.84	+	/	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+md	+p	+m	+O157	+	+	PA	3	a
2024	**676**	**Côte de veau**	**Veal chop**	-	/	-	24.00	20.15	20.45	+	+O145	-	+O145	+M	/	+1/2	/	/	/	+O111/ +O145	+M	+m	+1/2	+O145	-A	-A	-A	/	+	+	PD	3	a
2024	**677**	**Côte de porc**	**Pork chop**	-	/	-	20.07	19.13	17.61	+	+O145	-	+O145	+M	/	+1/2	/	/	/	+O145	+M	+1/2	+1/2	+O145	-A	-A	-A	/	+	+	PD	3	a
2024	**678**	**Côte d'agneau**	**Lamb chop**	-	/	23.02	-	20.64	-	+	+O26	/	+O26	+p	/	+M	/	/	/	+O26	+M	+M	+M	+O26	/	/	/	/	+	+	PD	3	a
2024	**1507**	**Côte de porc**	**Pork chop**	-	/	20.38	21.73	18.69	18.38	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+1/2	+p	+m	+O157	+	+	PD	3	a
2024	**1508**	**Poitrine de mouton à ragout**	**Stewed mutton belly**	+	O157	-	22.71	20.38	20.38	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+1/2	+p	+m	+O157	+	+	PA	3	a
2024	**3309**	**Escalope de veau**	**Veal escalope**	-	/	-	21.07	17.82	18.01	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+p	+p	+p	+O157	+	+	PD	3	a
2024	**3310**	**Filet de porc**	**Pork fillet**	-	/	-	-	-	-	-	-	-	-	/	st	/	st	/	/	-	/	/	/	/	-B	-B	-B	-	-	-	NA	3	a
2024	**3311**	**Gigot d'agneau**	**Leg of lamb**	-	/	-	24.09	20.04	19.59	+	+O145	-	+O145	+p	/	+p	/	/	/	+O145	/	/	/	/	/	/	/	/	+	+	PD	3	a
2024	**3312**	**Steak haché charolais**	**Charolais minced steak**	+	O157	-	20.55	17.14	17.93	+	-	+O157	+O157	/	+M	/	+M	/	/	+O157	/	/	/	/	+1/2	-B	-C	+O157	+	+	PA	3	a
2024	4769	Steak haché cru	Raw chopped steak	-	/	-	-	-	-	-	-	-	-	st	/	-B	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	3	a
2024	4770	Côte de veau crue	Raw veal chop	-	/	-	-	-	-	-	-	-	-	st	/	-B	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	3	a
2024	4771	Côte de porc crue	Raw pork chop	-	/	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	3	a
2024	4772	Escalope de veau cru	Raw veal cutlet	-	/	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	3	a
2024	4773	Filet de porc cru	Raw pork tenderloin	-	/	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	3	a
2024	4774	Tranche de gigot d'agneau cru	Raw leg of lamb slice	-	/	23.85	-	-	-	-	-	-	-	st	/	-B	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	3	a
2024	4775	Steak de bœuf cru	Raw beef steak	-	/	-	-	-	-	-	-	-	-	st	/	-B	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	3	a
2024	4776	Navarin d'agneau cru	Raw lamb navarin	-	/	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	NA	3	a
2024	4777	Côte d'agneau cru	Raw lamb chop	-	/	-	-	-	-	-	-	-	-	st	/	/	/	-A	/	-	/	/	/	/	/	/	/	/	-	-	NA	3	a
2025	117756	Viande de bœuf haché	Raw beef meat	-	/	31.41	-	28.58	-	+	+O103	/	+O103	+p	/	+m	/	st	/	+O103	/	/	/	/	/	/	/	/	+	+	PD	3	a
2024	**679**	**Carpaccio de bœuf mariné**	**Marinated beef carpaccio**	+	O157	-	-	27.65	26.85	-	/	+O157	- (O157)	/	+M	/	+M	/	/	+O157	/	/	/	/	+p	+p	+p	+O157	+	-	$ND_{FN(alt)}$	3	b
2024	**680**	**Pavé de bœuf au poivre**	**Peppered beef steak**	+	O157	-	23.69	19.73	19.43	+	/	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+p	+p	+p	+O157	+	+	PA	3	b
2024	**1509**	**Poitrine de mouton mariné**	**Marinated mutton belly**	+	O145	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	st	-A	st	-	/	/	/	-	-	-	ND	3	b
2024	**3313**	**Pavé de bœuf à l'échalote**	**Beef steak with shallots**	+	O157	-	20.87	17.21	17.83	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+M	+M	+M	+O157	+	+	PA	3	b

RAW AND RTC MEATS (except poultry) (up to 25 g)																																						
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC Short time (6 h) 25 g +225 ml PW mEHEC																																			
						PCR result – Short time at 41.5°C					PCR result – Short time + 2h à 41.5°C		PCR final result short time	Confirmations - Short time + 2h at 41.5°C																							Final Confirmation result short time	Final result short time	Agreement Ref/Alt short time	Category	Type
						MPX TOP 7 STEC					TOP STEC	EHEC ID		non-O157 and O157							non-O157				O157															
						Result				Final result	Final result	Final result		Beads from resuspension plate = IMS-R							Concentration reagent protocol = IMS				Direct streak = ID															
														Beads+Wash buffer 20µl							Beads+Wash buffer 20µl				10µl															
				Final result stx/eae	Sero-group	stx1	stx2	eae	O157					CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar	Final result	CHROMAgar STEC	EHEC	TBX	Final result	CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7	Final result										
																																Result	Result					
2024	**3314**	**Emincé de bœuf andalouse**	**Sliced Andalusian beef**	**+**	**O145**	-	19.89	15.95	16.64	+	+O145	-	+O145	+p	/	/	/	+p	/	+O145	/	/	/	/	/	/	/	/	+	+	**PA**	3	b
2024	**3315**	**Côte de porc mexicaine**	**Mexican pork chop**	**+**	**O157**	-	-	-	-	-	-	-	-	/	-A	/	-A	/	/	-	/	/	/	/	-B	-B	-C	-	-	-	**ND**	3	b
2024	**3316**	**Poitrine de porc mariné**	**Marinated pork belly**	**+**	**O157**	-	25.24	19.49	20.90	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+m	+m	-C	+O157	+	+	**PA**	3	b
2024	**3317**	**Agneau à l'ail**	**Garlic lamb**	**-**	**/**	-	-	-	-	-	-	-	-	/	-A	/	-A	/	/	-	/	/	/	/	-B	-B	-C	-	-	-	**NA**	3	b
2024	**3318**	**Blanquette de veau**	**Blanquette of veal**	**-**	**/**	-	22.57	18.19	19.81	+	-	+O157	+O157	/	+p	/	+1/2	/	/	+O157	/	/	/	/	+M	+M	-C	+O157	+	+	**PD**	3	b
2024	**4110**	**Viande de veau assaisonnée**	**Seasoned veal**	**+**	**O157**	21.89	19.50	19.00	20.23	+	-	+O157	+O157	/	+p	/	/	/	+p	+O157	/	/	/	/	+p	+p	+p	+O157	+	+	**PA**	3	b
2024	**4111**	**Agneau à l'ail**	**Garlic lamb**	**+**	**O26**	23.39	-	20.85	-	+	+O26	/	+O26	+p	/	/	/	+M	/	+O26	/	/	/	/	/	/	/	/	+	+	**PA**	3	b
2024	4778	Bavette à l'échalotte	Flank steak with shallots	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	-A	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	b
2024	4779	Carpaccio de bœuf mariné à la thaï	Thai marinated beef carpaccio	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	-B	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	b
2024	4780	Filet mignon de porc mariné aux herbes	Marinated pork tenderloin with herbs	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	b
2024	4781	Filet de porc à la provençale	Pork fillet à la Provençale	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	b
2024	4782	Pavé d'agneau à la tomate	Lamb steak with tomato sauce	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	b
2024	4822	Pavé de rumsteck à l'échalote	Rump steak with shallots	**-**	**/**	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	b
2024	4823	Bœuf mariné 3 poivres	Marinated beef 3 peppers	**-**	**/**	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	b
2024	4824	Emincés de porc mariné	Slices of marinated pork	**-**	**/**	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	b
2024	4825	Tranche d'agneau à l'ail	Slice of lamb with garlic	**-**	**/**	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	b
2024	**3524**	**steak haché de bœuf congelé**	**Frozen minced beef steak**	**+**	**O103**	23.01	-	20.55	-	+	+O103	/	+O103	+p	/	+p	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	**PA**	3	c
2024	**3525**	**Bavette d'aloyau congelé**	**Frozen sirloin steak**	**-**	**/**	22.08	-	21.33	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	/	/	/	/	/	/	/	/	+	+	**PD**	3	c
2024	**3526**	**Pavé de rumsteck congelé**	**Frozen rump steak**	**+**	**O157**	-	-	-	-	-	-	/	-	/	st	/	st	/	/	-	/	/	/	/	st	st	-B	-	-	-	**ND**	3	c

RAW AND RTC MEATS (except poultry) (up to 25 g)																																						
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC Short time (6 h) 25 g +225 ml PW mEHEC									Confirmations - Short time + 2h at 41.5°C																			Final Confirmation result short time	Final result short time	Agreement Ref/Alt short time	Category	Type
						PCR result – Short time at 41.5°C					PCR result – Short time + 2h à 41.5°C		PCR final result short time	non-O157 and O157							non-O157				O157												
						MPX TOP 7 STEC					TOP STEC	EHEC ID		Beads from resuspension plate = IMS-R							Concentration reagent protocol = IMS				Direct streak = ID												
						Result				Final result	Final result	Final result		Beads+Wash buffer 20µl						Final result	Beads+Wash buffer 20µl			Final result	10µl			Final result								
				Final result stx/eae	Sero-group	stx1	stx2	eae	O157					CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar		CHROMAgar STEC	EHEC	TBX		CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7										
2024	**3527**	**Effeuillé de charolais congelé**	**Frozen Charolais strip loin**	**-**	**/**	-	-	-	-	-	-	/	-	/	st	/	st	/	/	-	/	/	/	/	st	st	st	-	-	-	**NA**	3	c
2024	**3528**	**Haché pur porc congelé**	**Frozen minced pork**	**+**	**O103**	26.45	-	24.67	-	+	+O103	/	+O103	+p	/	+p	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	**PA**	3	c
2024	**3529**	**Côte de porc congelé**	**Frozen pork chop**	**+**	**O26**	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**ND**	3	c
2024	**3530**	**Poitrine de porc congelé**	**Frozen pork belly**	**+**	**O157**	-	-	-	-	-	-	/	-	/	st	/	st	/	/	-	/	/	/	/	-B	st	-B	-	-	-	**ND**	3	c
2024	**3531**	**Sauté de porc congelé**	**Frozen pork stir-fry**	**+**	**O157**	-	13.69	11.69	13.26	+	-	+O157	+O157	/	+p	/	/	/	+p	+O157	/	/	/	/	+1/2	+m	+1/2	+O157	+	+	**PA**	3	c
2024	**3532**	**Veau sauté congelé**	**Frozen sauteed veal**	**+**	**O103**	21.66	-	20.59	-	+	+O103	/	+O103	+p	/	/	/	+p	/	+O103	/	/	/	/	/	/	/	/	+	+	**PA**	3	c
2024	**3533**	**Escalope de veau hachée congelé**	**Frozen minced veal escalope**	**+**	**O26**	21.09	-	19.48	-	+	+O26	/	+O26	+p	/	/	/	+p	/	+O26	/	/	/	/	/	/	/	/	+	+	**PA**	3	c
2024	**3534**	**Souris d'agneau congelé**	**Frozen lamb mice**	**-**	**/**	20.72	20.88	22.53	23.39	+	-	+O157	+O157	/	+p	/	/	/	+p	+O157	/	/	/	/	+p	+p	+p	+O157	+	+	**PD**	3	c
2024	**3535**	**Souris d'agneau congelé**	**Frozen lamb mice**	**-**	**/**	-	23.52	19.55	23.49	+	-	+O157	+O157	/	+p	/	/	/	+p	+O157	/	/	/	/	+M	+p	+M	+O157	+	+	**PD**	3	c
2024	4826	Effeuillé de charolais congelé	Frozen Charolais thinly sliced	**-**	**/**	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	c
2024	4827	Steak haché congelé	Frozen minced steak	**-**	**/**	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	c
2024	4828	Poitrine de porc congelé	Frozen pork belly	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	c
2024	4829	Côte de porc congelé	Frozen pork chop	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	c
2024	4830	Souris d'agneau congelé	Frozen lamb mouse	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	c
2024	4831	Souris d'agneau congelé	Frozen lamb mouse	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	c
2024	4832	Sauté de veau congelé	Frozen veal sauté	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	c
2024	4833	Escalope hachée de veau congelé	Frozen minced veal escalope	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	3	c

RAW, RTC, RTRH AND RTE POULTRY (up to 25 g)																																						
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC Short time (8 h) 25 g +225 ml PW mEHEC									Confirmations - Short time + 2h at 41.5°C														Final Confirmation result short time	Final result short time	Agreement Ref/Alt short time	Category	Type
						PCR result – Short time at 41.5°C					PCR result – Short time + 2h à 41.5°C		PCR final result Short time		non-O157 and O157							non-O157				O157										
						MPX TOP 7 STEC					TOP STEC	EHEC ID			Beads from resuspension plate = IMS-R							Concentration reagent protocol = IMS				Direct streak = ID										
						Result				Final result	Final result	Final result			Beads+Wash buffer 20µl							Beads+Wash buffer 20µl				10µl										
				Final result stx/eae	Sero-group	stx1	stx2	eae	O157						CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar	Final result	CHROMAgar STEC	EHEC	TBX	Final result	CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7	Final result									
																															Result	Result						
2024	**2824**	**Filet de dinde**	**Turkey filet**	+	O157	16.47	16.79	14.34	14.37	+	-	+O157	+O157		/	-C	/	+m	/	/	+O157	/	/	/	/	-C	-C	-C	-	+	+	PA	4	a					
2024	**2825**	**Aiguillette de poulet**	**Chicken aiguillette**	+	O145	-	18.28	14.18	15.56	+	+O145	-	+O145		-C	/	+M	/	/	/	+O145	+m	-B	+m	+O145	/	/	/	/	+	+	PA	4	a					
2024	**2826**	**Cuisses de poulet**	**Chicken thighs**	-	/	15.34	15.74	12.81	13.10	+	-	+O157	+O157		/	-C	/	+1/2	/	/	+O157	/	/	/	/	-C	+m	-C	+O157	+	+	PD	4	a					
2024	**2827**	**Escalope de dinde**	**Turkey escalope**	+	O157	-	-	-	-	-	+O145	+O157	- (O145/ O157)		/	-C	/	-B	/	/	-	/	/	/	/	-C	-C	-C	-	-	-	ND	4	a					
2024	**2828**	**Aiguillette de canard**	**Duck aiguillette**	+	O145	-	16.33	13.17	13.61	+	+O145	-	+O145		+m (1)	/	+1/2	/	/	/	+O145	+m (2)	+m	+m	+O145	/	/	/	/	+	+	PA	4	a					
2024	**2945**	**Cuisse de lapin**	**Rabbit leg**	-	/	10.77	-	10.77	-	+	+O103	/	+O103		+p	/	/	/	+p	/	+O103	+p	+p	+M	+O103	/	/	/	/	+	+	PD	4	a					
2024	**2946**	**Magret de canard cru**	**Raw duck breast**	+	O26	17.16	-	17.16	-	+	+O26	/	+O26		+p	/	/	/	+m	/	+O26	+p	+m	+M	+O26	/	/	/	/	+	+	PA	4	a					
2024	**2947**	**Pintade fermière**	**Farm guinea fowl**	-	/	-	-	-	-	-	-	/	-		+m (1)	/	/	/	+1/2d	/	-	+m (6)	+1/2	+p	-	/	/	/	/	-	-	NA	4	a					
2025	**115331**	**Viande de dinde pour Osso bucco**	**Turkey meat**	+	O145	-	12.42	10.17	11.05	+	+O145	-	+O145		+p	/	+p	/	/	/	+O145	/	/	/	/	/	/	/	/	+	+	PA	4	a					
2025	**115332**	**Aiguillettes de canard**	**Duck aiguillettes**	+	O145	-	12.23	9.14	10.64	+	+O111/ +O145/ +O145	-	+O111/ +O145/ +O145		+M	/	+M	/	/	/	+O145	/	/	/	/	/	/	/	/	+	+	PA	4	a					
2025	**115333**	**Steak haché de poulet**	**Ground chicken steak**	+	O145	-	12.66	9.96	11.91	+	+O145	-	+O145		+p	/	+p	/	/	/	+O145	/	/	/	/	/	/	/	/	+	+	PA	4	a					
2025	115903	Filet de canard tournedos	Duck fillet tournedos	-	/	-	-	-	-	-	-	-	-		st	/	-B	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a					
2025	115904	Cuisse de pintade	Guinea fowl leg	-	/	-	-	28.71	-	-	+O145	-	-(O145)		-C	/	+M	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a					
2025	115905	Haut de cuisse de poulet	Chicken thigh	-	/	-	-	9.99	-	-	+O45/ +O103/ +O145	-	-(O45/ O103/ O145)		-C	/	+M	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a					
2025	115906	Cuisse de lapin	Rabbit leg	-	/	-	-	21.08	-	-	-	-	-		-B	/	-B	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a					
2025	115907	Coquelet	Cockerel	-	/	-	-	-	-	-	-	-	-		-B	/	/	/	-B	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a					
2025	115908	Cuisse de canard	Duck leg	-	/	-	-	-	-	-	-	-	-		-B	/	/	/	-C	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a					
2025	115909	Cuisse de poulet	Chicken thigh	-	/	-	-	7.95	-	-	+O26/ +O45/ +O103/ +O111/ +O145	-	-(O26/ O45/ O103/ O111/ O145)		+M	/	/	/	-C	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a					
2025	115910	Escalope de dinde	Turkey escalope	-	/	-	-	-	-	-	-	-	-		-A	/	/	/	-C	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a					
2025	115911	Escalope de poulet	Chicken escalope	-	/	-	-	11.31	-	-	+O45/ +O103	-	-(O45/ O103)		-C	/	/	/	-C	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a					

| RAW, RTC, RTRH AND RTE POULTRY (up to 25 g) | | |

| RAW, RTC, RTRH AND RTE POULTRY (up to 25 g) | | |

| RAW, RTC, RTRH AND RTE POULTRY (up to 25 g) | | |

RAW MILK AND DAIRY PRODUCTS (up to 25 g)																																						
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC Short time (10 h) 25 g +225 ml PW mEHEC								Confirmations - Short time + 2h at 41.5°C																Final Confirmation result short time	Final result short time	Agreement Ref/Alt short time	Category	Type
						PCR result – Short time at 41.5°C					PCR result – Short time + 2h à 41.5°C		PCR final result Short time	non-O157 and O157							non-O157				O157											
						MPX TOP 7 STEC					TOP STEC	EHEC ID		Beads from resuspension plate = IMS-R							Concentration reagent protocol = IMS				Direct streak = ID											
						Result				Final result	Final result	Final result		Beads+Wash buffer 20µl						Final result	Beads+Wash buffer 20µl			Final result	10µl			Final result							
				Final result stx/eae	Sero-group	stx1	stx2	eae	O157					CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar		CHROMAgar STEC	EHEC	TBX		CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7			Result	Result			
2024	865	Lait cru de vache	Raw cow milk	-	/	16.98	-	-	-	-	-	-	-	/	-B	/	st	/	/	-	/	/	/	/	-B	-B	-B	-	-	-	NA	5	a
2024	866	Lait cru de vache	Raw cow milk	+	O157	-	12.64	11.14	11.95	+	+O26	+O157	+O26/ +O157	/	+md	/	+md	/	/	+O157	/	/	/	/	+md	+md	-A	+O157	+	+	PA	5	a
2024	867	Lait cru de brebis	Raw ewe milk	+	O103	10.80	-	9.29	-	+	+O103	/	+O103	+p	/	+p	/	/	/	+O103	+p	-B	+p	+O103	/	/	/	/	+	+	PA	5	a
2024	868	Lait cru de chèvre	Raw goat milk	+	O103	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	st	st	st	-	/	/	/	/	-	-	ND	5	a
2024	879	Lait cru fermenté	Fermented raw milk	+	O26	10.68	-	8.95	-	+	+O26	/	+O26	+p	/	/	/	-B	/	+O26	+p	-C	+p	+O26	/	/	/	/	+	+	PA	5	a
2024	1267	Lait cru de vache	Raw cow milk	+	O103	10.44	-	9.81	-	+	+O103	/	+O103	+m	/	+1/2	/	/	/	+O103	+1/2	+M	+1/2	+O103	/	/	/	/	+	+	PA	5	a
2024	1268	Lait cru de vache	Row cow milk	+	O103	10.98	-	9.77	-	+	+O103	/	+O103	+m	/	+1/2	/	/	/	-	+m	+M	+1/2	-	/	/	/	/	-	-	PA FP(alt)	5	a
2024	1269	Lait cru de brebis	Raw ewe milk	+	O26	15.17	-	13.42	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	+p	+p (3)	+M	+O26	/	/	/	/	+	+	PA	5	a
2024	1270	Lait cru de chèvre	Raw goat milk	+	O26	8.64	-	6.22	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	+p	+1/2	+p	+O26	/	/	/	/	+	+	PA	5	a
2024	1273	Lait fermenté	Fermented raw milk	+	O26	10.15	-	8.02	-	+	+O26	/	+O26	+p	/	/	/	+p	/	+O26	+p	+p	+p	+O26	/	/	/	/	+	+	PA	5	a
2024	1274	Kéfir au lait cru	Kefir	-	/	21.69	-	21.68	-	+	+O103	/	+O103	+p	/	/	/	+p	/	+O103	+p	+p	+p	+O103	/	/	/	/	+	+	PD	5	a
2024	4668	Lait cru de chèvre	Raw goat milk	-	/	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	st	st	st	/	-	-	NA	5	a
2024	4669	Lait cru de chèvre	Raw goat milk	-	/	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	st	st	st	/	-	-	NA	5	a
2024	4670	Lait cru de chèvre	Raw goat milk	-	/	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	st	st	st	/	-	-	NA	5	a
2024	4671	Caillé de chèvre cru	Raw goat curd	-	/	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	st	st	st	/	-	-	NA	5	a
2024	4672	Lait de bufflons cru	Raw buffalo milk	-	/	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	st	st	st	/	-	-	NA	5	a
2024	4673	Lait de chèvre cru	Raw goat milk	-	/	-	-	-	-	-	-	-	-	-B	/	/	/	-B	/	-	/	/	/	/	st	st	st	/	-	-	NA	5	a
2024	4674	Lait de chèvre cru	Raw goat milk	-	/	-	-	-	-	-	-	-	-	-B	/	/	/	-B	/	-	/	/	/	/	st	st	st	/	-	-	NA	5	a
2024	4675	Lait de chèvre cru	Raw goat milk	-	/	-	-	-	-	-	-	-	-	-B	/	/	/	-B	/	-	/	/	/	/	st	st	st	/	-	-	NA	5	a
2024	4676	Lait de vache cru	Raw cow milk	-	/	-	-	-	-	-	-	-	-	st	/	/	/	-B	/	-	/	/	/	/	st	st	st	/	-	-	NA	5	a
2024	4677	Lait de vache cru	Raw cow milk	-	/	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	st	st	st	/	-	-	NA	5	a
2025	114566	Lait cru de vache	Raw cow milk	+	O157	-	19.61	17.69	19.55	+	-	+O157	+O157	/	+m	/	1/2	/	/	+O157	/	/	/	/	/	/	/	/	+	+	PA	5	a
2025	114567	Lait cru de chèvre	Raw goat milk	+	O103	8.42	-	6.60	-	+	+O103	/	+O103	+M	/	+M	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	PA	5	a
2025	114568	Lait cru de chèvre	Raw goat milk	-	/	11.33	-	9.87	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	/	/	/	/	/	/	/	/	+	+	PD	5	a
2025	114569	Lait cru de brebis	Raw ewe milk	-	/	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	5	a
2025	114570	Lait cru de brebis	Raw ewe milk	-	/	-	28.12	25.67	27.70	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	/	/	/	/	+	+	PD	5	a
2025	114571	Crème au lait cru	Raw milk cream	-	/	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	5	a
2025	116645	Faisselle au lait cru	Raw milk faisselle cheese	+	O26	14.93	-	12.35	-	+	+O26	-	+O26	+p	/	+p	/	/	/	+O26	/	/	/	/	/	/	/	/	+	+	PA	5	a
2025	116646	Lait Ribot	Ribot milk	+	O26	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	ND	5	a

| RAW MILK AND DAIRY PRODUCTS (up to 25 g) | | |

| RAW MILK AND DAIRY PRODUCTS (up to 25 g) | | |

| PRODUCTION ENVIRONMENTAL SAMPLES (up to 25 g/ml or sampling device)) | | |

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PRODUCTION ENVIRONMENTAL SAMPLES (up to 25 g/ml or sampling device))																																						
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136		Alternative method: Assurance® GDS STEC Short time (10 h) 25 g +225 ml PW mEHEC									Confirmations - Short time + 2h at 41.5°C																Final Confirmation result short time	Final result short time	Agreement Ref/Alt short time	Category	Type
						PCR result – Short time at 41.5°C					PCR result – Short time + 2h à 41.5°C		PCR final result Short time	non-O157 and O157							non-O157				O157												
						MPX TOP 7 STEC					TOP STEC	EHEC ID		Beads from resuspension plate = IMS-R							Concentration reagent protocol = IMS				Direct streak = ID												
						Result				Final result	Final result	Final result		Beads+Wash buffer 20µl						Beads+Wash buffer 20µl				10µl												
				Final result stx/eae	Sero-group	stx1	stx2	eae	O157					CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar	Final result	CHROMAgar STEC	EHEC	TBX	Final result	CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7	Final result									
																													Result	Result								
2024	**2623**	**Déchet effiloché de bœuf au sol**	**Beef meat waste**	**+**	**O157**	23.17	23.89	23.96	23.09	+	-	+O157	+O157	/	+p	/	/	/	+p	+O157	/	/	/	/	+p	+p	+p	+O157	+	+	**PA**	6	b
2024	**2624**	**Déchet haché de bœuf**	**Beef meat waste**	**-**	**/**	-	14.07	12.92	13.23	+	+O145	-	+O145	+p	/	+p	/	/	/	+O145	+p	st	+p	+O145	/	/	/	/	+	+	**PD**	6	b
2024	**2625**	**Déchet découpe de bœuf au sol**	**Beef meat waste**	**+**	**O145**	-	11.33	8.87	9.84	+	+O145	-	+O145	+p	/	+p	/	/	/	+O145	+p	st	+m	+O145	/	/	/	/	+	+	**PA**	6	b
2024	**2626**	**Déchet découpe de porc tombé au sol**	**Pork meat waste**	**+**	**O157**	-	-	-	-	-	-	-	-	/	st	/	/	/	st	-	/	/	/	/	-A	-A	-B	-	-	-	**ND**	6	b
2025	**115727**	**Déchet mousse de foie**	**Liver mousse waste**	**+**	**O157**	-	-	-	-	-	-	/	-	st	/	/	/	-C	/	-	/	/	/	/	-A	-B	-A	-	-	-	**ND**	6	b
2025	**115728**	**Déchet porc saumuré**	**Pickled pork waste**	**+**	**O157**	-	24.07	22.29	25.83	+	-	+O157	+O157	/	+p	/	/	/	st	+O157	/	/	/	/	/	/	/	/	+	+	**PA**	6	b
2025	**115729**	**Déchet chipolatas**	**Chipolatas waste**	**+**	**O157**	-	28.10	26.14	27.38	+	-	+O157	+O157	/	-A	/	/	/	+p	+O157	/	/	/	/	-A	+M	+m	+O157	+	+	**PA**	6	b
2025	**115730**	**Déchet effiloché de bœuf**	**Beef waste**	**-**	**/**	11.06	12.26	8.37	9.21	+	+O145	-	+O145	+p	/	/	/	+1/2	/	+O145	/	/	/	/	/	/	/	/	+	+	**PD**	6	b
2025	**115731**	**Déchet chipolatas**	**Chipolatas waste**	**+**	**O157**	-	23.69	22.66	22.98	+	-	+O157	+O157	/	-A	/	/	/	+M	+O157	/	/	/	/	-A	+p	+m	+O157	+	+	**PA**	6	b
2025	**115732**	**Déchet viande de bœuf**	**Waste beef**	**-**	**/**	-	-	-	-	-	-	/	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	6	b
2025	117081	Eau de process sortie (industrie laitière)	Process water (dairy industry)	**-**	**/**	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	6	b
2025	117082	Eau osmose inverse (industrie laitière)	Reverse osmosis water (dairy industry)	**-**	**/**	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	6	b
2025	117083	Eau cuve refroidissement (industrie laitière)	Rinsing water (meat processing industry)	**-**	**/**	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	6	b
2025	117084	Eau de rinçage (industrie charcutière)	Rinsing water (dairy industry)	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	6	b
2025	117085	Eau de rinçage (industrie laitière)	Rinsing water (meat industry)	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	6	b
2025	117086	Eau de rinçage (industrie carné)	Rinsing water (meat industry)	**-**	**/**	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	**NA**	6	b

| PRODUCTION ENVIRONMENTAL SAMPLES (up to 25 g/ml or sampling device)) | | |

| PRODUCTION ENVIRONMENTAL SAMPLES (up to 25 g/ml or sampling device)) | | |

| RAW AND RTC MEATS (except poultry) (up to 25 g) | | |

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RAW, RTC, RTRH AND RTE POULTRY (up to 25 g)																																			
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC Long time (24 h) 25 g +225 ml PW mEHEC								Confirmations - 24h + 2h at 41,5°C																Final Confirmation result short time	Final result short time	Agreement Ref/Alt 24h	Category	Type
						PCR result - long time 24h at 41.5°C					PCR result – long time 24h + 2h à 41.5°C		PCR final result 24h	non-O157 and O157							non-O157				O157									
						MPX TOP 7 STEC					TOP STEC	EHEC ID		Beads from resuspension plate = IMS-R							Concentration reagent protocol = IMS				Direct streak = ID									
						Result				Final result	Final result	Final result		Beads+Wash buffer 20µl						Final result	Beads+Wash buffer 20µl			Final result	10µl			Final result					
				Final result stx/eae	Sero-group	stx1	stx2	eae	O157					CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar		CHROMAgar STEC	EHEC	TBX		CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7							
																													Result	Result				
2024	**2824**	**Filet de dinde**	**Turkey filet**	+	O157	20.53	21.26	19.70	19.82	+	-	+O157	+O157	/	-B	/	+1/2	/	/	+O157	/	/	/	/	-C	-C	-C	-	+	+	PA	4	a
2024	**2825**	**Aiguillette de poulet**	**Chicken aiguillette**	+	O145	-	15.69	16.77	17.45	+	+O145	-	+O145	+M	/	+M	/	/	/	+O145	+M	+1/2	+M	+O145	/	/	/	/	+	+	PA	4	a
2024	**2826**	**Cuisses de poulet**	**Chicken thighs**	-	/	16.78	16.45	15.43	16.30	+	-	+O157	+O157	/	+m	/	+1/2	/	/	+O157	/	/	/	/	-C	+m	-C	+O157	+	+	PD	4	a
2024	**2827**	**Escalope de dinde**	**Turkey escalope**	+	O157	-	-	-	27.83	-	+O145	-	-(O145)	/	-B	/	-B	/	/	-	-B	-B	-C	-	-C	-C	-C	-	-	-	ND	4	a
2024	**2828**	**Aiguillette de canard**	**Duck aiguillette**	+	O145	-	18.07	15.85	17.38	+	+O145	-	+O145	+M	/	+M	/	/	/	+O145	+m (10)	+M	+M	+O145	/	/	/	/	+	+	PA	4	a
2024	**2945**	**Cuisse de lapin**	**Rabbit leg**	-	/	10.77	-	9.09	-	+	+O103	/	+O103	+p	/	/	/	+p	/	+O103	+p	+p	+M	+O103	/	/	/	/	+	+	PD	4	a
2024	**2946**	**Magret de canard cru**	**Raw duck breast**	+	O26	17.16	-	15.22	-	+	+O26	/	+O26	+p	/	/	/	+p	/	+O26	+p	+M	+M	+O26	/	/	/	/	+	+	PA	4	a
2024	**2947**	**Pintade fermière**	**Farm guinea fowl**	-	/	-	-	-	-	-	-	/	-	+1/2	/	/	/	+md	/	-	+1/2	+1/2	+1/2	-	/	/	/	/	-	-	NA	4	a
2025	**115331**	**Viande de dinde pour Osso bucco**	**Turkey meat**	+	O145	-	15.50	13.88	14.54	+	+O145	-	+O145	+p	/	+p	/	/	/	+O145	/	/	/	/	/	/	/	/	+	+	PA	4	a
2025	**115332**	**Aiguillettes de canard**	**Duck aiguillettes**	+	O145	-	14.72	12.54	13.83	+	+O145	-	+O145	+p	/	+p	/	/	/	+O145	/	/	/	/	/	/	/	/	+	+	PA	4	a
2025	**115333**	**Steak haché de poulet**	**Ground chicken steak**	+	O145	-	15.57	14.35	14.68	+	+O145	-	+O145	+p	/	+p	/	/	/	+O145	/	/	/	/	/	/	/	/	+	+	PA	4	a
2025	115903	Filet de canard tournedos	Duck fillet tournedos	-	/	-	-	29.93	-	-	-	-	-	st	/	-A	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a
2025	115904	Cuisse de pintade	Guinea fowl leg	-	/	-	-	-	-	-	-	-	-	-C	/	-C	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a
2025	115905	Haut de cuisse de poulet	Chicken thigh	-	/	-	-	17.41	-	-	-	-	-	-C	/	+M	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a
2025	115906	Cuisse de lapin	Rabbit leg	-	/	-	-	17.09	-	-	-	-	-	+p	/	/	/	-C	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a
2025	115907	Coquelet	Cockerel	-	/	-	-	-	-	-	-	-	-	-A	/	/	/	-B	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a
2025	115908	Cuisse de canard	Duck leg	-	/	-	-	-	-	-	-	-	-	-B	/	/	/	-B	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a
2025	115909	Cuisse de poulet	Chicken thigh	-	/	-	-	12.00	-	-	-	-	-	-C	/	/	/	-C	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a
2025	115910	Escalope de dinde	Turkey escalope	-	/	-	-	-	-	-	-	-	-	-A	/	/	/	-C	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a
2025	115911	Escalope de poulet	Chicken escalope	-	/	-	-	13.84	-	-	-	-	-	-B	/	/	/	-C	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	a
2024	**2829**	**Cuisses de poulet au paprika**	**Chicken thighs with paprika**	+	O157	-	-	17.30	28.49	-	+O45/ O103	+O157	-(O45/ O103/ O157)	/	+m	/	+m	/	/	+O157	/	/	/	/	-C	-C	-C	-	+	-	$ND_{FN(alt)}$	4	b
2024	**2830**	**Ailes de poulet au paprika**	**Chicken wings with paprika**	+	O157	18.89	18.56	16.85	18.22	+	+O103	+O157	+O103/ O157	/	+m	/	+M	/	/	+O157	/	/	/	/	-C	+m	-C	+O157	+	+	PA	4	b
2024	**2831**	**Aiguillette de dinde à la mexicaine**	**Mexican turkey tenderloin**	-	/	-	-	-	-	-	-	-	-	/	-B	/	-B	/	/	-	/	/	/	/	-C	-C	-C	-	-	-	NA	4	b

| RAW, RTC, RTRH AND RTE POULTRY (up to 25 g) | | |

| RAW, RTC, RTRH AND RTE POULTRY (up to 25 g) | | |

| RAW MILK AND DAIRY PRODUCTS (up to 25 g) | | |

| RAW MILK AND DAIRY PRODUCTS (up to 25 g) | | |

| RAW MILK AND DIRECT PRODUCTS (up to 25 g) | | |

| RAW MILK AND DAIRY PRODUCTS (up to 25 g) | | |

| PRODUCTION ENVIRONMENTAL SAMPLES (up to 25 g/ml or sampling device) | | |

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| PRODUCTION ENVIRONMENTAL SAMPLES (up to 25 g/ml or sampling device) | | |

RAW AND RTC MEATS (except poultry) (up to 25 g)																																					
Year	Sample N°	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC Short time (6 h) 25 g +225 ml PW mEHEC +72 h at 5 ± 3°C PCR result - short time at 41.5°C +72 h at 5 ± 3°C							PCR final result Short time 72h	Confirmations-Short time +72 h at 5 ± 3°C non-O157 and O157 Beads from resuspension plate = IMS-R Beads+Wash buffer 20µl							non-O157 Concentration reagent protocol = IMS Beads+Wash buffer 20µl				O157 Direct streak = ID 10µl				Final Confir-mation result short time + 72h	Final result short time + 72h	Agreement Ref/Alt Short time +72h	Category	Type
					MPX TOP 7 STEC Result				Final result	TOP STEC Final result	EHEC ID Final result																												
			Final result stx/eae	Sero-group	stx1	stx2	eae	O157					CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar	Final result	CHROMAgar STEC	EHEC	TBX	Final result	CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7	Final result	Result	Result			
2024	**674**	**Sirloin steak**	+	O157	19.99	19.60	18.35	19.53	+	/	+O157	+O157	/	+1/2	/	+p	/	/	+O157	/	/	/	/	+m	+M	-A	+O157	+	+	**PA**	3	a
2024	**675**	**Ground beef**	+	O157	-	20.25	15.78	15.64	+	/	+O157	+O157	/	+1/2	/	+p	/	/	+O157	/	/	/	/	-A	-A	-A	-	+	+	**PA**	3	a
2024	**676**	**Veal chop**	-	/	-	19.78	17.61	17.74	+	+O145	-	+O145	-C/-B	/	-C/-B	/	/	/	-	-C	-C	-C	-	/	/	/	/	-	-	**PD$_{FP(alt)}$**	3	a
2024	**677**	**Pork chop**	-	/	-	18.89	15.45	15.08	+	+O145	-	+O145	+1/2	/	-A	/	/	/	+O145	+1/2	-A	-A	+	/	/	/	/	+	+	**PD**	3	a
2024	**678**	**Lamb chop**	-	/	18.88	-	17.61	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	+p	+p (4)	+p	+O26	/	/	/	/	+	+	**PD**	3	a
2024	**1507**	**Pork chop**	-	/	23.23	26.65	19.66	20.53	+	/	+O157	+O157	/	+m	/	-A	/	/	+O157	/	/	/	/	-A	-B	-B	-	+	+	**PD**	3	a
2024	**1508**	**Stewed mutton belly**	+	O157	-	29.77	21.96	22.61	+	/	+O157	+O157	/	-A	/	-A	/	/	-	/	/	/	/	-A	-B	-B	-	-	-	**PA$_{FP(alt)}$**	3	a
2024	**3309**	**Veal escalope**	-	/	-	16.65	13.80	15.17	+	-	+O157	+O157	/	+p (1)	/	st	/	/	+O157	/	/	/	/	-B	-B	+d (1)	-	+	+	**PD**	3	a
2024	**3310**	**Pork fillet**	-	/	-/-/-	-/-/-	-/-/-	-/-/-	-/-/-	-	-	-	/	-A	/	st	/	/	-	/	/	/	/	-B	-B	-B	-	-	-	**NA**	3	a
2024	**3311**	**Leg of lamb**	-	/	-	20.27	19.42	20.53	+	+O145	-	+O145	+M	/	/	/	+p	/	+O145	/	/	/	/	/	/	/	/	+	+	**PD**	3	a
2024	**3312**	**Charolais minced steak**	+	O157	-	19.59	15.43	16.92	+	-	-	+O157	/	+m	/	-A	/	/	+O157	/	/	/	/	-B	-B	-C	-	+	+	**PA**	3	a
2025	117756	Raw beef meat	-	/	19.92	-	18.21	-	+	+O103	/	+O103	+M	/	+m	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	**PD**	3	a
2024	**679**	**Marinated beef carpaccio**	+	O157	27.38	27.71	22.54	24.27	+	/	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+m (1)	-A	-C	+O157	+	+	**PA**	3	b
2024	**680**	**Peppered beef steak**	+	O157	-	20.19	16.43	16.66	+	/	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+1/2	-C	-C	+O157	+	+	**PA**	3	b
2024	**1509**	**Marinated mutton belly**	+	O145	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**ND**	3	b
2024	**3313**	**Beef steak with shallots**	+	O157	-	19.74	15.52	17.00	+	-	+O157	+O157	/	st	/	/	/	st	-	/	/	/	/	-A	-A	+d	+	+	+	**PA**	3	b
2024	**3314**	**Sliced Andalusian beef**	+	O145	-	18.22	15.06	16.70	+	+O145	-	+O145	+p	/	+p	/	/	/	+O145	/	/	/	/	/	/	/	/	+	+	**PA**	3	b
2024	**3315**	**Mexican pork chop**	+	O157	-	-	-	-	-	-	-	-	/	st	/	/	/	st	-	/	/	/	/	/	/	/	/	-	-	**ND**	3	b
2024	**3316**	**Marinated pork belly**	+	O157	-	21.92	17.37	19.06	+	-	+O157	+O157	/	-A	/	/	/	+m	+O157	/	/	/	/	-B	-B	-C	-	+	+	**PA**	3	b
2024	**3318**	**Blanquette of veal**	-	/	-	19.82	16.79	16.79	+	-	+O157	+O157	/	+p	/	/	/	+M	+O157	/	/	/	/	-C	-C	-C	-	+	+	**PD**	3	b
2024	**4110**	**Seasoned veal**	+	O157	22.83	23.38	21.03	22.61	+	-	+O157	+O157	/	st	/	/	/	st	-	-B	-A	-A	-	-B	-B	-B	-	- (-iso)	-	**PA$_{FP(alt)}$**	3	b
2024	**4111**	**Garlic lamb**	+	O26	24.92	-	20.63	-	+	+O26	/	+O26	st	/	/	/	/	st	-	st	-B	-B	-	/	/	/	/	- (-iso)	-	**PA$_{FP(alt)}$**	3	b
2024	**3524**	**Frozen minced beef steak**	+	O103	22.59	-	21.08	-	+	+O103	/	+O103	+m (1)	/	+m	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	**PA**	3	c
2024	**3525**	**Frozen sirloin steak**	-	/	21.21	-	20.30	-	+	+O26	/	+O26	+m (2)	/	-A	/	/	/	+O26	/	/	/	/	/	/	/	/	+	+	**PD**	3	c
2024	**3526**	**Frozen rump steak**	+	O157	-	-	-	-	-	-	-	-	/	st	/	st	/	/	-	/	/	/	/	/	/	/	/	-	-	**ND**	3	c
2024	**3528**	**Frozen minced pork**	+	O103	25.84	-	25.19	-	+	+O103	/	+O103	st	/	-A	/	/	/	-	/	/	/	/	/	/	/	/	/	-	**PA$_{FP(alt)}$**	3	c
2024	**3529**	**Frozen pork chop**	+	O26	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**ND**	3	c
2024	**3530**	**Frozen pork belly**	+	O157	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	**ND**	3	c
2024	**3531**	**Frozen pork stir-fry**	+	O157	-	29.71	24.13	29.14	+	-	-	+O157	/	-C	/	st	/	/	-	/	/	/	/	-B	-B	-B	-	-	-	**PA$_{FP(alt)}$**	3	c
2024	**3532**	**Frozen sauteed veal**	+	O103	24.63	-	22.53	-	+	+O103	/	+O103	+m (1)	/	/	/	+ M	/	+O103	/	/	/	/	/	/	/	/	+	+	**PA**	3	c

| RAW AND RTC MEATS (except poultry) (up to 25 g) | | |

RAW, RTC, RTRH AND RTE POULTRY (up to 25 g)																																						
Year	Sample N°	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC Short time (8 h) 25 g +225 ml PW mEHEC +72 h at 5 ± 3°C								PCR final result Short time 72h	Confirmations-Short time +72 h at 5 ± 3°C																						Final Confir-mation result short time + 72h	Final result short time + 72h	Agreement Ref/Alt Short time +72h	Category	Type
					PCR result - short time at 41.5°C +72 h at 5 ± 3°C									non-O157 and O157							non-O157				O157													
					MPX TOP 7 STEC						TOP STEC	EHEC ID		Beads from resuspension plate = IMS-R							Concentration reagent protocol = IMS				Direct streak = ID													
					Result				Final result		Final result	Final result		Beads+Wash buffer 20µl							Beads+Wash buffer 20µl				10µl													
			Final result stx/eae	Sero-group	stx1	stx2	eae	O157						CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar	Final result	CHROMAgar STEC	EHEC	TBX	Final result	CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7	Final result									
																													Result	Result								
2024	**2824**	**Turkey filet**	+	O157	18.66	19.86	14.33	16.04	+	-	+O157	+O157	/	+md	/	+ md	/	/	+O157	/	/	/	/	+md	+m d	+m	-	+	+	PA	4	a
2024	**2825**	**Chicken aiguillette**	+	O145	-	21.06	14.40	14.96	+	+O145	-	+O145	+p	/	+m (1)	/	/	/	+O145	+1/2	+md	+m	+O145					+	+	PA	4	a
2024	**2826**	**Chicken thighs**	-	/	20.38	21.50	15.51	16.23	+	-	+O157	+O157	/	+md	/	+1 /2	/	/	+O157	/	/	/	/	+md	+1/ 2d	+m	-	+	+	PD	4	a
2024	**2827**	**Turkey escalope**	+	O157	-	-	21.92	26.83	-	+O145	-	-(O145)	/	+md	/	+ md	/	/	-	/	/	/	/	+md	+m d	+m	-	-	-	ND	4	a
2024	**2828**	**Duck aiguillette**	+	O145	-	17.49	12.23	13.75	+	+O145	-	+O145	st	/	+md	/	/	/	+O145	+md	+md	+m	+O145	/	/	/	/	+	+	PA	4	a
2024	**2945**	**Rabbit leg**	-	/	11.02	-	9.59	-	+	+O103	/	+O103	+p	/	/	/	+p	/	+O103	+p	+p	+1/2	+O103	/	/	/	/	+	+	PD	4	a
2024	**2946**	**Raw duck breast**	+	O26	16.54	-	15.27	-	+	+O26	/	+O26	+p	/	/	/	+1 /2	/	+O26	+p	+m	+1/2	+O26	/	/	/	/	+	+	PA	4	a
2025	**115331**	**Turkey meat**	+	O145	-	12.31	10.09	11.20	+	+O145	-	+O145	+p	/	+p	/	/	/	+O145	/	/	/	/	/	/	/	/	+	+	PA	4	a
2025	**115332**	**Duck aiguillettes**	+	O145	-	11.51	8.65	9.94	+	+O145	-	+O145	+p	/	+p	/	/	/	+O145	/	/	/	/	/	/	/	/	+	+	PA	4	a
2025	**115333**	**Ground chicken steak**	+	O145	-	12.82	10.35	11.53	+	+O145	-	+O145	+p	/	/	/	+p	/	+O145	/	/	/	/	/	/	/	/	+	+	PA	4	a
2024	**2829**	**Chicken thighs with paprika**	+	O157	18.66	21.10	13.61	15.95	+	O26 /O45/ O103/ O111/ O145	+O157	O26/ O45/ O103/ O111/ O145/ O157	/	+m	/	+ M	/	/	+O157	/	/	/	/	+m	+m d	+m	- (pool)	+	+	PA	4	b
2024	**2830**	**Chicken wings with paprika**	+	O157	17.66	18.91	13.44	15.57	+	O103	+O157	O103/O157	/	+m	/	+ M	/	/	+O157	/	/	/	/	+m	+m d	+md	+O157	+	+	PA	4	b
2024	**2832**	**Honey/barbecue chicken drumstick**	-	/	-	20.11	14.42	15.47	+	-	+O157	+O157	/	-C	/	/	/	+md (4)	-	/	/	/	/	+m (1)	+m	+m	-	-	-	$PD_{FP(alt)}$	4	b
2024	**2833**	**Smoked duck breast**	+	O145	-	17.95	12.58	14.22	+	+O145	-	+O145	-C	/	+m	/	/		+O145	-C	+md	+p	+O145	/	/	/	/	+	+	PA	4	b
2024	**2835**	**Chicken sausage**	-	/	-	23.48	17.84	18.83	+	-	+O157	+O157	/	st	/	/	/	st	-	/	/	/	/	-C	st	-C	-	-	-	$PD_{FP(alt)}$	4	b
2024	**2953**	**Chicken sausage**	+	O103	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	st	st	st	-	/	/	/	/	-	-	ND	4	b
2024	**4100**	**Smoked duck breast**	+	O103	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	st	st	st	-	/	/	/	/	- (+24h)	-	$ND_{FN(alt)}$	4	b
2024	**4101**	**Poultry sausage**	+	O157	-	-	-	-	-	-	-	-	/	st	/	st	/	/	-	st	st	st	-	st	st	st	-	- (+24h)	-	$ND_{FN(alt)}$	4	b
2024	**4102**	**Sliced marinated chicken**	+	O26	-	-	19.49	-	-	+O26	/	-(O26)	-B	/	-B	/	/	/	-	-B	-B	-B	-	/	/	/	/	-	-	ND	4	b
2024	**4103**	**Seasoned turkey**	+	O103	21.29	-	19.36	-	+	+O45/ +O103	/	+O103	-B	/	-B	/	/	/	-	-B	-B	-B	-	/	/	/	/	- (-iso)	-	$PA_{FP(alt)}$	4	b
2024	**4104**	**Marinated duck leg**	-	/	21.77	21.49	17.95	19.56	+	-	+O157	+O157	/	st	/	st	/	/	-	-B	-A	-A	-	-C	-C	-C	-	- (-iso)	-	$PD_{FP(alt)}$	4	b
2024	**2836**	**Duck mousse**	+	O157	-	-	-	-	-	-	-	-	/	st	/	/	/	st	-	/	/	/	/	st	st	st	-	-	-	ND	4	c
2024	**2837**	**Cooked turkey breast**	+	O145	-	18.38	13.37	14.47	+	+O145	-	+O145	+m	/	/	/	-C	/	+O145	+M	+M	+M	+O145	/	/	/	/	+	+	PA	4	c

| RAW, RTC, RTRH AND RTE POULTRY (up to 25 g) | | |

| RAW MILK AND DAIRY PRODUCTS (up to 25 g) | | |

| RAW MILK AND DAIRY PRODUCTS (up to 25 g) | | |

| PRODUCTION ENVIRONMENTAL SAMPLES (up to 25 g/ml or sampling device) | | |

| PRODUCTION ENVIRONMENTAL SAMPLES (up to 25 g/ml or sampling device) | | |

| RAW AND RTC MEATS (except poultry) (up to 25 g) | | |

RAW AND RTC MEATS (except poultry) (up to 25 g)																																						
Year	Sample N°	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC Long time (24 h) 25 g +225 ml PW mEHEC + 72 h at 5 ± 3°C																																				
					PCR Result - 24h at 41,5°C +72 h at 5 ± 3°C								PCR final result	Confirmations - 24h at 41,5°C + 72 h at 5 ± 3°C																								Final Confirmation result short time	Final result short time	Agreement Ref/Alt 24h+72h	Category	Type
					MPX TOP 7 STEC					TOP STEC	EHEC ID		non-O157 and O157							non-O157						O157														
					Result				Final result	Final result	Final result		Beads from resuspension plate = IMS-R							Concentration reagent protocol = IMS						Direct streak = ID														
													Beads+Wash buffer 20µl							Beads+Wash buffer 20µl			Confirmation of typical colonies		10µl														
			Final result stx/eae	Sero-group	stx1	stx2	eae	O157					CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar	Final result	CHROMAgar STEC	EHEC	TBX	MPX ID for TOP STEC Group 1 & Group 2 Final result	Final result	CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7	Final result									
																															Result	Result							
2024	3532	Frozen sauteed veal	+	O103	12.31	-	10.32	-	+	+O103	/	+O103	+p	/	/	/	+m (3)	/	+O103	/	/	/	/	/	/	/	/	/	+	+	PA	3	c						
2024	3533	Frozen minced veal escalope	+	O26	12.68	-	11.29	-	+	+O26	/	+O26	+p	/	/	/	+p	/	+O26	/	/	/	/	/	/	/	/	/	+	+	PA	3	c						
2024	3534	Frozen lamb mice	-	/	12.04	12.17	10.14	11.92	+	-	+O157	+O157	/	+M	/	+M	/	/	+O157	/	/	/	/	/	+M	+M	+p	+O157	+	+	PD	3	c						
2024	3535	Frozen lamb mice	-	/	-	12.89	9.76	12.12	+	-	+O157	+O157	/	+M	/	+M	/	/	+O157	/	/	/	/	/	+M	+m	+p	+O157	+	+	PD	3	c						

| RAW, RTC, RTRH AND RTE POULTRY (up to 25 g) | | |

RAW, RTC, RTRH AND RTE POULTRY (up to 25 g)																																						
Year	Sample N°	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC Long time (24 h) 25 g +225 ml PW mEHEC + 72 h at 5 ± 3°C																																			
					PCR Result - 24h at 41,5°C +72 h at 5 ± 3°C								PCR final result	Confirmations - 24h at 41,5°C + 72 h at 5 ± 3°C																							Final Confirmation result short time	Final result short time	Agreement Ref/Alt 24h+72h	Category	Type
					MPX TOP 7 STEC					TOP STEC	EHEC ID		non-O157 and O157							non-O157					O157														
													Beads from resuspension plate = IMS-R							Concentration reagent protocol = IMS					Direct streak = ID												
					Result				Final result	Final result	Final result		Beads+Wash buffer 20µl						Final result	Beads+Wash buffer 20µl			Confirmation of typical colonies	Final result	10µl				Final result										
			Final result stx/eae	Sero-group	stx1	stx2	eae	O157					CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar		CHROMAgar STEC	EHEC	TBX	MPX ID for TOP STEC Group 1 & Group 2 Final result		CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7										
																																	Result	Result					
2024	**2837**	**Cooked turkey breast**	+	O145	-	14.79	11.63	12.55	+	+O145	-	+O145	+M	/	/	/	+M	/	+O145	+1/2	+Md	+M	+O145	+O145	/	/	/	/	+	+	PA	4	c
2024	**2838**	**Cooked chicken breast**	+	O145	-	14.76	11.77	12.28	+	+O145	-	+O145	+M	/	/	/	+Md	/	+O145	+M	+1/2d	+M	+O145	+O145	/	/	/	/	+	+	PA	4	c
2024	**2948**	**Duck confit**	+	O103	10.99	-	9.87	-	+	+O103	/	+O103	+p	/	/	/	+p	/	+O103	+p	+p	+p	+O103	+O103	/	/	/	/	+	+	PA	4	c
2024	**2951**	**Rabbit terrine**	+	O103	10.97	-	9.69	-	+	+O103	/	+O103	+p	/	+p	/	/	/	+O103	+p	+p	+p	+O103	+O103	/	/	/	/	+	+	PA	4	c
2024	**2952**	**Roast chicken rillettes**	+	O26	14.72	-	13.64	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	+p	+p	+p	+O26	+O26	/	/	/	/	+	+	PA	4	c
2024	**4105**	**Cooked turkey breast**	+	O26	15.46	-	14.09	-	+	+O26	/	+O26	+M	/	+M		/	/	+O26	/	/	/	/	/	/	/	/	/	+	+	PA	4	c
2024	**4106**	**Cooked chicken breast**	+	O103	14.80	-	13.05	-	+	+O103	/	+O103	st	/	/	/	+M	/	+O103	/	/	/	/	/	/	/	/	/	+	+	PA	4	c
2024	**4107**	**Chopped cooked chicken**	+	O157	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	st	st	st	-	-	-	ND	4	c
2024	**4108**	**Roast chicken aiguillettes**	+	O26	14.65	-	13.26	-	+	+O26	/	+O26	+p	/	/	/	+p	/	+O26	/	/	/	/	/	/	/	/	/	+	+	PA	4	c
2024	**4109**	**Cooked chicken allumette**	+	O103	14.65	-	13.32	-	+	+O103	/	+O103	st	/	/	/	+p	/	+O103	/	/	/	/	/	/	/	/	/	+	+	PA	4	c

RAW MILK AND DAIRY PRODUCTS (up to 25 g)																																					
Year	Sample N°	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC Long time (24 h) 25 g +225 ml PW mEHEC + 72 h at 5 ± 3°C																																		
					PCR Result - 24h at 41,5°C +72 h at 5 ± 3°C																																		
					MPX TOP 7 STEC						TOP STEC	EHEC ID	PCR final result	Confirmations - 24h at 41,5°C + 72 h at 5 ± 3°C																										
														non-O157 and O157							non-O157						O157										
														Beads from resuspension plate = IMS-R							Concentration reagent protocol = IMS						Direct streak = ID										
					Result				Final result					Beads+Wash buffer 20µl							Beads+Wash buffer 20µl			Confirmation of typical colonies			10µl										
														CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC	ChromID EHEC	EC O157 Chromoselect agar	Final result	CHROMAgar STEC	EHEC	TBX	MPX ID Group 1 & Group 2	Final result	CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7	Final result	Final Confirmation result short time	Final result short time	Agreement Ref/Alt 24h+72h	Category	Type
			Final result stx/eae	Sero-group	stx1	stx2	eae	O157																	Final result						Result	Result			
2024	866	Raw cow milk	+	O157	-	19.36	17.44	12.89	+	/	+O157	+O157	/	+m	/	-A	/	/	+	/	/	/	/	/	+m	-B	-B	+O157	+	+	PA	5	a
2024	867	Raw ewe milk	+	O103	14.87	-	13.42	-	+	+O103	/	+O103	+p	/	+p	/	/	/	+O103	+p	+p	+M	+O103	+O103	/	/	/	/	+	+	PA	5	a
2024	868	Raw goat milk	+	O103	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	/	-	-	ND	5	a
2024	879	Fermented raw milk	+	O26	16.60	-	15.70	-	+	+O26	/	+O26	+p	/	/	/	+M	/	+O26	+p	+p	+M	+O26	+O26	/	/	/	/	+	+	PA	5	a
2024	1267	Raw cow milk	+	O103	14.17	-	13.72	-	+	+O103	/	+O103	+M	/	+1/2	/	/	/	+O103	+M	+M	+1/2	+O103	+O103	/	/	/	+	+	+	PA	5	a
2024	1268	Row cow milk	+	O103	22.40	-	20.89	-	+	+O103	/	+O103	st	/	st	/	/	/	-	st	st	st	/	-	/	/	/	-	-	-	PA$_{FP(alt)}$	5	a
2024	1269	Raw ewe milk	+	O26	12.47	-	11.15	-	+	+O26	/	+O26	+p	/	+M	/	/	/	+O26	+p	-B	+p	+O26	+O26	/	/	/	+	+	+	PA	5	a
2024	1270	Raw goat milk	+	O26	15.03	-	14.32	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	+p	+p	+p	+O26	+O26	/	/	/	+	+	+	PA	5	a
2024	1273	Fermented raw milk	+	O26	17.53	-	16.76	-	+	+O26	/	+O26	+p	/	/	/	+p	/	+O26	+p	+p	+p	+O26	+O26	/	/	/	+	+	+	PA	5	a
2024	1274	Kefir	-	/	10.94	-	10.12	-	+	+O103	/	+O103	+p	/	/	/	+p	/	+O103	+p	+p	+p	+O103	+O103	/	/	/	+	+	+	PD	5	a
2025	114566	Raw cow milk	+	O157	-/-/-	-/ 25.18/ -	22.79/ 21.45/ 22.93	-23.77/ 29.97	-/-/-	/	+O157	-(O157)	/	st	/	st	/	/	-	/	/	/	/	/	-A	-A	-A	-	-	-	ND	5	a
2025	114567	Raw goat milk	+	O103	18.34	-	17.26	-	+	+O103	/	+O103	+p	/	+p	/	/	/	+O103	/	/	/	/	/	/	/	/	/	+	+	PA	5	a
2025	114568	Raw goat milk	-	/	17.23	-	15.64	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	/	/	/	/	/	/	/	/	/	+	+	PD	5	a
2025	114570	Raw ewe milk	-	/	-	16.53	13.65	14.89	+	/	+O157	+O157	+p	/	/	+p	/	/	+O157	/	/	/	/	/	+p	+p	+p	+	+	+	PD	5	a
2025	116645	Raw milk dishes	+	O26	14.27	-	12.58	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	/	/	/	/	/	/	/	/	/	+	+	PA	5	a
2024	878	Raw milk faisselle cheese	-	/	17.27	-	17.42	-	+	+O103	/	+O103	+p	/	/	/	+M	/	+	+p	+p	+M	+O103	+	/	/	/	/	+	+	PD	5	b
2024	1275	Raw milk faisselle cheese	+	O103	16.10	-	16.45	-	+	+O103	/	+O103	+p	/	/	/	+p	/	+O103	+p	+p	+p	+O103	+O103	/	/	/	+	+	+	PA	5	b
2025	114574	Raw cow milk cheese	+	O157	-	26.69	21.89	25.28	+	/	+O157	+O157	+p	/	/	/	/	+1/2	+O157	/	/	/	/	/	+m	+p	+p	+	+	+	PA	5	b
2025	114575	Raw cow milk cheese	-	/	11.08	-	9.40	-	+	+O103	/	+O103	+p	/	+p	/	/	/	+O103	/	/	/	/	/	/	/	/	/	+	+	PD	5	b
2025	114577	Raw goat milk cheese	-	/	-/-/-	-/-/-	30.97/-/-	-/-/-	-/-/-	-	/	-	st	/	/	/	st	/	+O111	/	/	/	/	/	/	/	/	/	-	-	NA	5	b
2025	114578	Raw goat milk cheese	+	O157	-	-	-	-	-	-	-	-	-B	/	/	/	/	-B	+O157					/	-A	-A	-A	-	-	-	ND	5	b
2025	114579	Raw ewe milk cheese	-	/	11.79	-	9.78	-	+	+O103	-	+O103	+p	/	/	/	+p	/	+O103	/	/	/	/	/	/	/	/	/	+	+	PD	5	b
2025	114580	Raw ewe milk cheese	+	O26	14.18	-	11.95	-	+	+O26		+O26	+p	/	/	/	+p	/	+O26					/	/	/	/	/	+	+	PA	5	b
2025	116649	Raw milk butter	+	O26	15.23	-	13.35	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	/	/	/	/	/	/	/	/	/	+	+	PA	5	b
2025	116652	Raw ewe milk cheese	-	/	13.12	-	12.07	13.16	+	+O145	-	+O145	+p	/	/	/	+p	/	+O145	/	/	/	/	/	/	/	/	/	+	+	PD	5	b
2025	116653	Raw ewe milk cheese	-	/	12.89	-	11.15	-	+	+O26	/	+O26	+p	/	/	/	+p	/	+O26	/	/	/	/	/	/	/	/	/	+	+	PD	5	b
2025	116654	Raw goat milk cheese	-	/	10.65	-	8.92	-	+	+O111		+O111	+p	/	/	/	+p	/	+O111	/	/	/	/	/	/	/	/	/	+	+	PD	5	b

| RAW MILK AND DAIRY PRODUCTS (up to 25 g) | | |

| PRODUCTION ENVIRONMENTAL SAMPLES (up to 25 g/ml or sampling device) | | |

| PRODUCTION ENVIRONMENTAL SAMPLES (up to 25 g/ml or sampling device) | | |

Appendix 5 – Relative level of detection study: raw data

Matrix : Seasoned beef meat
Strain : *E. coli* O157:H7 Ad683
stx1+/ stx2+ / eae+
Aerobic mesophilic flora : 7.3 x 10^3 CFU/g
48 h at 3°C ± 2°C

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦						Alternative method: Assurance® GDS STEC - Protocol ① (25 g + 225 ml (d1/10) PW mEHEC®)									
									8 h at 41.5°C PW mEHEC®	10 h at 41.5°C PW mEHEC®				ISO requirements		Final result Assurance® GDS STEC		
									Screening	Confirmation				18 h at 41.5°C PW mEHEC®				
			PCR Result	Confirmation		Final result ISO/TS 13136		Positive/Total	MPX TOP 7 STEC	MPX ID	EHEC ID	Final result PCR	Confirmation result	Result	Serogroup	Result	Serogroup	Positive/Total
				Result	Serogroup	Global result	Serogroup											
4488	0	/	-			-	/	0/5	-		-	-	-(18h)	-	/	-	/	0/5
4489			-			-	/		-/-/-	-	-	-	-	-	/	-	/	
4490			-			-	/		-		-	-	-(18h)	-	/	-	/	
4491			-			-	/		-		-	-	-(18h)	-	/	-	/	
4492			-			-	/		-		-	-	-(18h)	-	/	-	/	
4493	1	1.0	O157	+	O157	+	O157	12/20	-		-	-	-(18h)	-	/	-	/	13/20
4494			-			-	/		O157		O157	O157	O157			+	O157	
4495			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	
4496			-			-	/		O157		O157	O157	O157			+	O157	
4497			O157	+	O157	+	O157		-		-	-	-	-	/	-	/	
4498			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	
4499			-			-	/		-		-	-	-	-	/	-	/	
4500			-			-	/		-		-	-	-	-	/	-	/	
4501			-			-	/		O157		O157	O157	O157			+	O157	
4502			-			-	/		O157		O157	O157	O157			+	O157	
4503			O157	+	O157	+	O157		-		-	-	-	-	/	-	/	
4504			O157	+	O157	+	O157		-		-	-	-	-	/	-	/	
4505			-			-	/		O157		O157	O157	O157			+	O157	
4506			O157	+	O157	+	O157		-		-	-	-	-	/	-	/	
4507			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	
4508			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	
4509			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	
4510			O157	+	O157	+	O157		O157		O157	O157	O157	+		+	O157	
4511			-			-	/		O157		O157	O157	O157			+	O157	
4512			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	
4513	2	7.3	O157	+	O157	+	O157	5/5	O157		O157	O157	O157			+	O157	5/5
4514			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	
4515			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	
4516			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	
4517			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	

Matrix : Frozen raw ground beef
Strain : *E. coli* O145:H28 1502-105
stx1- / stx2+ / eae+
Aerobic mesophilic flora : 2.3 x 10^2 CFU/g
2 weeks at -20°C

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦						Alternative method : Assurance® GDS STEC - Protocol ② (375 g + 1500 ml (d1/5) PW mEHEC)								
									10 h at 41.5°C PW mEHEC	12 h at 41.5°C PW mEHEC				ISO requirements		Final result Assurance® GDS STEC		
									Screening	Confirmation				18 h at 41.5°C PW mEHEC				
			PCR Result	Confirmation		Final result ISO/TS 13136		Positive/Total	MPX TOP 7 STEC	MPX ID	EHEC ID	Final result PCR	Confirmation result	Result	Serogroup	Result	Serogroup	Positive/Total
				Result	Serogroup	Global result	Serogroup											
4671	0	0	-			-	/	0/5	-	/	/	-	-(18h)	-	/	-	/	0/5
4672			-	stx	/	stx	/		-	/	/	-	-(18h)	-	/	-	/	
4673			-			-	/		+	-	/	-	-(18h)	-	/	-	/	
4674			-			-	/		-	/	/	-	-(18h)	-	/	-	/	
4675			-			-	/		-	/	/	-	-(18h)	-	/	-	/	
4676	1	0.6	O145	+	O145	+	O145	13/20	+(O157)	O145	-	O145	O145			+	O145	10/20
4677			O145	+	O145	+	O145		-		-	-	-(18h)	-	/	-	/	
4678			-			-	/		+(O157)	O145	-	O145	O145			+	O145	
4679			O145	+	O145	+	O145		-		-	-	-(18h)	-	/	-	/	
4680			O145	+	O145	+	O145		-		-	-	-(18h)	-	/	-	/	
4681			O145	+	O145	+	O145		+(O157)	O145	-	O145	O145			+	O145	
4682			O145	+	O145	+	O145		+(O157)	O145	-	O145	O145			+	O145	
4683			-	stx	/	-	/		+(O157)	O145	-	O145	O145			+	O145	
4684			O145	+	O145	+	O145		-		-	-	-(18h)	-	/	-	/	
4685			-			-	/		-		-	-	-(18h)	-	/	-	/	
4686			O145	+	O145	+	O145		+(O157)	O145	-	O145	O145			+	O145	
4687			-	stx	/	-	/		+(O157)	O145	-	O145	O145			+	O145	
4688			-			-	/		-		-	-	-(18h)	-	/	-	/	
4689			-			-	/		-		-	-	-(18h)	-	/	-	/	
4690			O145	+	O145	+	O145		+(O157)	O145	-	O145	O145			+	O145	
4691			O145	+	O145	+	O145		-		-	-	-(18h)	-	/	-	/	
4692			-			-	/		+(O157)	O145	-	O145	O145			+	O145	
4693			O145	+	O145	+	O145		-		-	-	-(18h)	-	/	-	/	
4694			O145	+	O145	+	O145		+(O157)	O145	-	O145	O145			+	O145	
4695			O145	+	O145	+	O145		-		-	-	-(18h)	-	/	-	/	
4696	2	13.0	O145	+	O145	+	O145	5/5	+(O157)	O145	-	O145	O145			+	O145	5/5
4697			O145	+	O145	+	O145		+(O157)	O145	-	O145	O145			+	O145	
4698			O145	+	O145	+	O145		+(O157)	O145	-	O145	O145			+	O145	
4699			O145	+	O145	+	O145		+(O157)	O145	-	O145	O145			+	O145	
4700			O145	+	O145	+	O145		+(O157)	O145	-	O145	O145			+	O145	

Matrix : Raw cow milk
Strain : *E. coli* O103:H2 Ad3027
stx1+/ stx2- / eae+
Aerobic mesophilic flora : 4.9 x 10^5 CFU/g
48 h at 3°C ± 2°C

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦						Alternative method: Assurance® GDS STEC - Protocol ③ (25 g + 225 ml (d 1/10) mEHEC®) 18 h at 41.5°C								
									18 h at 41.5°C mEHEC®	20 h at 41.5°C mEHEC®				ISO requirements		Final result Assurance® GDS STEC		
									Screening	Confirmation				18 h at 41.5°C PW mEHEC®				
			PCR Result	Confirmation		Final result ISO/TS 13136		Positive/Total	MPX TOP 7 STEC	MPX ID	EHEC ID	Final result PCR	Confirmation result	Result	Serogroup	Result	Serogroup	Positive/ Total
				Result	Serogroup	Global result	Serogroup											
6772	0		-			-	/	0/5	-	/	/	-	-(18h)	-	/	-	/	0/5
6773			-			-	/		-	/	/	-	-(18h)	-	/	-	/	
6774			-			-	/		-	/	/	-	-(18h)	-	/	-	/	
6775			-			-	/		-	/	/	-	-(18h)	-	/	-	/	
6776			-			-	/		-	/	/	-	-(18h)	-	/	-	/	
6777	1	1.6	O103	+	O103	+	O103	13/20	-	/	/	-	-(18h)	-	/	-	/	12/20
6778			O103	+	O103	+	O103		-	/	/	-	-(18h)	-	/	-	/	
6779			O103	+	O103	+	O103		-	/	/	-	-(18h)	-	/	-	/	
6780			-			-	/		+	O103	/	O103	O103			+	O103	
6781			O103	+	O103	+	O103		+	O103	/	O103	O103			+	O103	
6782			-			-	/		-	/	/	-	-(18h)	-	/	-	/	
6783			O103	+	O103	+	O103		+	O103	/	O103	O103			+	O103	
6784			O103	+	O103	+	O103		-	/	/	-	-(18h)	-	/	-	/	
6785			-			-	/		+	O103	/	O103	O103			+	O103	
6786			O103	+	O103	+	O103		-	/	/	-	-(18h)	-	/	-	/	
6787			O103	+	O103	+	O103		+	O103	/	O103	O103			+	O103	
6788			O103	+	O103	+	O103		+	O103	/	O103	O103			+	O103	
6789			O103	+	O103	+	O103		+	O103	/	O103	O103			+	O103	
6790			-			-	/		+	O103	/	O103	O103			+	O103	
6791			-			-	/		+	O103	/	O103	O103			+	O103	
6792			-			-	/		+	O103	/	O103	O103			+	O103	
6793			O103	+	O103	+	O103		+	O103	/	O103	O103			+	O103	
6794			O103	+	O103	+	O103		-	/	/	-	-(18h)	-	/	-	/	
6795			O103	+	O103	+	O103		-	/	/	-	-(18h)	-	/	-	/	
6796			-			-	/		+	O103	/	O103	O103			+	O103	
6797	2	6.8	O103	+	O103	+	O103	5/5	+	O103	/	O103	O103			+	O103	5/5
6798			O103	+	O103	+	O103		+	O103	/	O103	O103			+	O103	
6799			O103	+	O103	+	O103		+	O103	/	O103	O103			+	O103	
6800			O103	+	O103	+	O103		+	O103	/	O103	O103			+	O103	
6801			O103	+	O103	+	O103		+	O103	/	O103	O103			+	O103	

Matrix : Raw goat milk cheese
Strain : *E. coli* O26:H11 Ad3098
stx1+/ stx2- / eae+
Aerobic mesophilic flora : 1.4 x 10^8 CFU/g
48 h at 3°C ± 2°C

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦						Assurance® GDS STEC - Protocol ④ (25 g + 225 ml (d 1/10) mEHEC®) 18 h at 41.5°C								
									18 h at 41.5°C mEHEC® and + 2 h subculture in BHI	Confirmation after 22 h at 41.5°C mEHEC® (Protocol 4)							
									Screening	Confirmation				ISO requirements		Final result Assurance® GDS STEC		
			PCR Result	Confirmation		Final result ISO/TS 13136		Positive/ Total	MPX TOP 7 BHI	MPX ID	EHEC ID	Final result PCR	Confirmation result	18 h at 41.5°C PW mEHEC®				
				Result	Serogroup	Global result	Serogroup							Result	Serogroup	Result	Serogroup	Positive/ Total
6993	0	/	-			-	/	0/5	-			-	-(18h)	-	/	-	/	0/5
6994			-			-	/		-			-	-(18h)	-	/	-	/	
6995			-			-	/		-			-	-(18h)	-	/	-	/	
6996			-			-	/		-			-	-(18h)	-	/	-	/	
6997			-			-	/		-			-	-(18h)	-	/	-	/	
6998	1	1.2	-			-	/	12/20	+	-/-/-		-/-/-	O26			-	/	7/20
6999			O26			+	O26		-			-	-(18h)	-	/	-	/	
7000			O26			+	O26		-			-	-(18h)	-	/	-	/	
7001			O26			+	O26		-			-	-(18h)	-	/	-	/	
7002			O26			+	O26		-			-	-(18h)	-	/	-	/	
7003			O26			+	O26		-			-	-(18h)	-	/	-	/	
7004			O26			+	O26		-			-	-(18h)	-	/	-	/	
7005			-			-	/		-			-	-(18h)	-	/	-	/	
7006			-			-	/		-			-	-(18h)	-	/	-	/	
7007			-			-	/		-			-	-(18h)	-	/	-	/	
7008			O26			+	O26		+	O26		O26	O26			+	O26	
7009			O26			+	O26		+	O26		O26	O26			+	O26	
7010			-			-	/		+	O26		O26	O26			+	O26	
7011			O26			+	O26		-			-	-(18h)	-	/	-	/	
7012			-			-	/		+	O26		O26	O26			+	O26	
7013			-			-	/		-			-	-(18h)	-	/	-	/	
7014			O26			+	O26		+	O26		O26	O26			+	O26	
7015			-			-	/		-			-	-(18h)	-	/	-	/	
7016			O26			+	O26		+	O26		O26	O26			+	O26	
7017			O26			+	O26		+	O26		O26	O26			+	O26	
7018	2	3.4	-			-	/	4/5	+	O26		O26	O26			+	O26	5/5
7019			O26			+	O26		+	O26		O26	O26			+	O26	
7020			O26			+	O26		+	O26		O26	O26			+	O26	
7021			O26			+	O26		+	O26		O26	O26			+	O26	
7022			O26			+	O26		+	O26		O26	O26			+	O26	

Matrix : Raw Ground beef
Strain : *E. coli* O145:H28 1502-105
stx1/ stx2 / eae
Aerobic mesophilic flora : 2 x 10^6 CFU/g

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦			Alternative method: GDS STEC																							
						Short time (6 h) 25 g + 225 ml PW mEHEC													Long time (24 h) 25 g +225 ml PW mEHEC											
			Final result		Positive/ Total	MPX TOP 7 STEC					TOP STEC	Final PCR result	Beads from resuspension plate = IMS-R			Final Confirmation result	Positive/ Total	MPX TOP 7 STEC					TOP STEC	Final PCR result	Beads from resuspension plate = IMS-R			Final Confirmation result	Positive/ Total
						Result							Beads+Wash buffer 20µl					Result							Beads+Wash buffer 20µl				
			Global result	Sero-group		stx1	stx2	eae	O157	Final	Final result		CHROMagar STEC	TBX	ChromID EHEC			stx1	stx2	eae	O157	Final	Final result		CHROMagar STEC	TBX	ChromID EHEC		
3611	0	/	-	/	0/5	-	-	-	-	-	-	-	st	-C	/	-	0/5	-	-	-	-	-	-	-	st	-B	/	-	0/5
3612			-	/		-	-	-	-	-	-	-	st	-C	/	-		-	-	-	-	-	-	-	st	-B	/	-	
3613			-	/		-	-	-	-	-	-	-	st	-C	/	-		-	-	-	-	-	-	-	st	-B	/	-	
3614			-	/		-	-	-	-	-	-	-	st	-C	/	-		-	-	-	-	-	-	-	st	-B	/	-	
3615			-	/		-	-	-	-	-	-	-	st	-C	/	-		-	-	-	-	-	-	-	st	-B	/	-	
3616	1	0.7	-	/	11/20	-	20.05	17.33	17.58	+	+O145	+O145	+p	+M	/	+O145	12/20	-	15.49	13.56	15.11	+	+O145	+O145	+p	+p	/	+O145	12/20
3617			+	O145		-	-	-	-	-	-	-	st	-C	/	-		-	-	-	-	-	-	-	st	-B	/	-	
3618			-	/		-	21.48	19.76	19.91	+	+O145	+O145	+p	+M	/	+O145		-	16.80	14.74	15.40	+	+O145	+O145	+p	+m	/	+O145	
3619			-	/		-	-	-	-	-	-	-	st	-C	/	-		-	-	-	-	-	-	-	st	-B	/	-	
3620			+	O145		-	-	-	-	-	-	-	st	-C	/	-		-	-	-	-	-	-	-	st	-B	/	-	
3621			+	O145		-	26.89	23.46	24.01	+	+O145	+O145	+p	+1/2	/	+O145		-	15.48	13.61	15.99	+	+O145	+O145	+p	+1/2	/	+O145	
3622			+	O145		-	26.94	23.40	22.83	+	+O145	+O145	+p	+M	/	+O145		-	16.10	14.36	15.46	+	+O145	+O145	+p	+1/2	/	+O145	
3623			+	O145		-	21.94	17.86	18.07	+	+O145	+O145	+p	+M	/	+O145		-	15.03	13.56	14.08	+	+O145	+O145	+p	+M	/	+O145	
3624			+	O145		-	20.94	18.38	18.38	+	+O145	+O145	+p	+M	/	+O145		-	15.79	15.38	15.89	+	+O145	+O145	+p	+M	/	+O145	
3625			-	/		-	-	-	-	-	-	-	st	-C	/	-		-	-	-	-	-	-	-	st	-B	/	-	
3626			+	O145		-	-	-	-	-	-	-	st	-C	/	-		-	-	-	-	-	-	-	st	-B	/	-	
3627			+	O145		-	22.39	18.54	19.55	+	+O145	+O145	+p	+1/2	/	+O145		-	15.08	13.65	15.23	+	+O145	+O145	+p	+M	/	+O145	
3628			+	O145		-	27.34	23.20	24.25	-	+O145	+O145	+p	+1/2	/	+O145		-	15.41	14.67	15.58	+	+O145	+O145	+p	+m	/	+O145	
3629			-	/		-	-	-	-	-	-	-	st	/	st	-		-	-	-	-	-	-	-	st	/	-B	-	
3630			-	/		-	23.29	20.95	21.53	-	-	-	st	/	st	-		-	23.06	22.88	24.58	+	-	-	+p	/	-B	-	
3631			-	/		-	20.26	17.41	18.45	+	+O145	+O145	+p	/	st	+O145		-	15.01	14.07	15.54	+	+O145	+O145	+p	/	+M	+O145	
3632			-	/		-	-	-	-	-	-	-	st	/	st	-		-	-	-	-	-	-	-	st	/	-B	-	
3633			+	O145		-	23.46	19.65	19.95	+	+O145	+O145	+p	/	-C	+		-	15.32	12.57	14.49	+	+O145	+O145	+p	/	+M	+O145	
3634			-	/		-	29.74	26.03	26.26	+	+O145	+O145	+p	/	st	+O145		-	14.71	13.61	14.38	+	+O145	+O145	+p	/	+M	+O145	
3635			-	/		-	25.89	26.00	24.54	+	+O145	+O145	+p	/	st	+O145		-	16.72	14.82	15.61	+	+O145	+O145	+p	/	+M	+O145	
3636	2	3.1	+	O145	5/5	-	18.12	15.84	15.84	+	+O145	+O145	+p	/	+M	+O145	5/5	-	15.20	13.47	13.81	+	+O145	+O145	+p	/	+M	+O145	5/5
3637			+	O145		-	18.67	15.95	16.28	+	+O145	+O145	+p	/	+M	+O145		-	14.98	13.55	14.05	+	+O145	+O145	+p	/	+M	+O145	
3638			+	O145		-	18.32	15.29	15.50	+	+O145	+O145	+p	/	+M	+O145		-	15.19	13.08	13.74	+	+O145	+O145	+p	/	+M	+O145	
3639			+	O145		-	18.18	15.15	15.59	+	+O145	+O145	+p	/	+p	+O145		-	15.30	13.85	14.77	+	+O145	+O145	+p	/	+M	+O145	
3640			+	O145		-	18.40	15.34	15.77	+	+O145	+O145	+p	/	+p	+O145		-	16.21	15.19	15.78	+	+O145	+O145	+p	/	+M	+O145	

Matrix : Raw turkey filet
Strain : *E. coli* O103
stx1 + / stx2 +/ eae +
Aerobic mesophilic flora : 2 x 10^6 CFU/g

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦			Alternative method: GDS STEC															
						Short time (8 h) 25 g +225 ml PW mEHEC															
			Final result		Positive/ Total	MPX TOP 7 STEC					MPX TOP 7 STEC (PPMX)					MPX ID FOR TOP STEC	Final PCR result	Beads from resuspension plate = IMS-R			Final Confirmation result	Positive/Total
						Result				Final result	Result				Final result	Final result		Beads+Wash buffer 20µl				
			Global result	Sero-group		stx1	stx2	eae	O157		stx1	stx2	eae	O157				CHROMAgar STEC	TBX	ChromID EHEC		
115014	0	/	-	/	0/5	-	-	-	-	-	30.81	-	-	-	-	-	-	+1/2	-A	/	-	0/5
115015			-	/		-	-	-	-	-	30.31	-	-	-	-	-	-	+1/2	-A	/	-	
115016			-	/		-	-	-	-	-	27.92	-	-	-	-	-	-	+M	-A	/	-	
115017			-	/		-	-	-	-	-	28.68	-	-	-	-	-	-	+M	-A	/	-	
115018			-	/		-	-	20.65	-	-	28.52	-	21.97	-	-	-	-	-A	-A	/	-	
115019	1	0.6	-	/	14/20	-	-	30.97	-	-	27.11	-	-	-	-	-	-	+M	-A	/	-	8/20
115020			+	O103		14.27	14.52	13.44	-	+	15.82	16.43	15.07	-	+	+O45/+O103/+O121	+O45/O103/O121	+p	+m	/	+O103	
115021			+	O103		17.78	18.42	16.48	-	+	19.94	20.04	18.86	-	+	+O45/+O103	+O45/O103	+M	-A	/	+O103	
115022			-	/		-	-	24.61	-	-	27.45	-	-	-	-	-	-	-B	-A	/	-	
115023			+	O103		17.35	17.34	16.20	-	+	19.20	19.41	18.10	-	+	+O45/+O103	+O45/O103	+p	-A	/	+O103	
115024			-	/		17.22	17.46	15.65	-	+	19.52	19.99	18.07	-	+	+O45/+O103	+O45/O103	+p	+m	/	+O103	
115025			+	O103		-	-	-	-	-	28.91	-	-	-	-	-	-	-B	-A	/	-	
115026			-	/		-	-	27.49	-	-	-	-	-	-	-	-	-	-B	-A	/	-	
115027			+	O103		-	-	22.68	-	-	-	-	-	-	-	-	-	-A	-A	/	-	
115028			+	O103		17.85	18.93	17.07	-	+	19.82	21.17	19.33	-	+	+O45/+O103/+O121	+O45/O103/O121	+p	+m	/	+O103	
115029			+	O103		-	-	28.85	-	-	27.32	-	-	-	-	-	-	+1/2	/	-A	-	
115030			+	O103		-	-	-	-	-	28.41	-	-	-	-	-	-	+1/2	/	-A	-	
115031			-	/		16.33	17.35	15.55	-	+	19.65	19.63	18.49	-	+	+O45/+O103	+O45/O103	+p	/	+m	+O103	
115032			+	O103		-	-	-	-	-	29.40	-	-	-	-	-	-	-C	/	-A	-	
115033			+	O103		-	-	-	-	-	28.51	-	-	-	-	-	-	-C	/	-A	-	
115034			+	O103		-	-	-	-	-	27.21	-	-	-	-	-	-	-B	/	-A	-	
115035			+	O103		15.32	15.67	14.18	-	+	17.81	17.82	16.49	-	+	+O45/+O103	+O45/O103	+p	/	+m	+O103	
115036			+	O103		-	-	31.00	-	-	30.84	-	-	-	-	-	-	st	/	-A	-	
115037			+	O103		16.04	16.06	14.73	-	+	18.17	19.10	17.17	-	+	+O45/+O103	+O45/O103	+p	/	+1/2	+O103	
115038			-	/		-	-	-	-	-	26.64	-	-	-	-	-	-	-C	/	-A	-	
115039	2	2.9	+	O103	5/5	15.26	15.84	14.32	-	+	18.14	18.61	16.72	-	+	+O45/+O103/+O121	+O45/O103/O121	+p	/	+m	+O103	5/5
115040			+	O103		17.59	17.90	15.62	-	+	20.61	21.05	19.82	-	+	+O45/+O103	+O45/O103	+p	/	+m	+O103	
115041			+	O103		18.79	18.96	17.63	-	+	22.02	22.89	20.99	-	+	+O45/+O103	+O45/O103	+M	/	+m	+O103	
115042			+	O103		15.95	17.12	14.83	-	+	19.23	19.84	18.02	-	+	+O45/+O103	+O45/O103	+M	/	+m	+O103	
115043			+	O103		18.21	18.50	16.32	-	+	21.13	21.53	19.73	-	+	+O45/+O103	+O45/O103	+p	/	+1/2	+O103	

Matrix : Raw turkey filet
Strain : *E. coli* O103
stx1 + / stx2 +/ eae +
Aerobic mesophilic flora: 2 x 10^6 CFU/g

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦			Alternative method: GDS STEC																
						Long time (24h) 25g +225ml PW mEHEC																
			Final result		Positive/Total	MPX TOP 7 STEC					MPX TOP 7 STEC (PPMX)					MPX ID FOR TOP STEC	Final PCR result	Beads from resuspension plate = IMS-R			Final Confirmation result	Positive/Total
						Result				Final result	Result				Final result	Final result		Beads+Wash buffer 20µl				
			Global result	Serogroup		stx1	stx2	eae	O157		stx1	stx2	eae	O157				CHROMagar STEC	TBX	ChromID EHEC		
115014	0	/	-	/	0/5	-	-	-	-	-	-	-	-	-	-	-	-	+M	-A	/	-	0/5
115015			-	/		-	-	-	-	-	-	-	-	-	-	-	-	+p	-A	/	-	
115016			-	/		-	-	-	-	-	-	-	-	-	-	-	-	+1/2	-A	/	-	
115017			-	/		-	-	-	-	-	-	-	-	-	-	-	-	+1/2	-A	/	-	
115018			-	/		-	-	21.32	-	-	-	-	24.69	-	-	-	-	+1/2	-A	/	-	
115019	1	0.6	-	/	14/20	-	-	-	-	-	-	-	-	-	-	-	-	+1/2	-A	/	-	8/20
115020			+	O103		16.53	16.94	15.30	+	+	19.52	20.58	18.08	-	+	+O45/+O103/+O121	+O45/+O103/+O121	+p	+m	/	+O103	
115021			+	O103		21.47	22.51	19.94	+	+	24.06	25.88	22.95	-	+	+O45/+O103	+O45/+O103	+M	+m	/	+O103	
115022			-	/		-	-	-	-	-	-	-	31.47	-	-	+O145	-	-A	-A	/	-	
115023			+	O103		19.75	20.23	18.97	+	+	23.23	24.40	22.63	-	+	+O45/+O103	+O45/+O103	+M	-A	/	+O103	
115024			-	/		20.02	20.56	18.62	+	+	23.00	24.36	22.34	-	+	+O45/+O103	+O45/+O103	+M	-A	/	+O103	
115025			+	O103		-	-	31.13	-	-	-	-	-	-	-	-	-	-B	-A	/	-	
115026			-	/		-	-	-	-	-	-	-	-	-	-	-	-	-A	-A	/	-	
115027			+	O103		-	-	30.49	-	-	-	-	-	-	-	-	-	-A	-A	/	-	
115028			+	O103		18.34	19.24	17.00	+	+	20.07	20.76	19.71	-	+	+O45/+O103/+O145	+O45/+O103/+O145	+M	+m	/	+O103	
115029			+	O103		-	-	24.63	-	-	-	-	-	-	-	-	-	+1/2	/	+m	-	
115030			+	O103		-	-	-	-	-	-	-	-	-	-	-	-	-A	/	-A	-	
115031			-	/		18.85	19.55	17.52	+	+	22.44	23.48	21.88	-	+	+O45/+O103	+O45/+O103	+M	/	+m	+O103	
115032			+	O103		-	-	-	-	-	-	-	-	-	-	-	-	-A	/	-A	-	
115033			+	O103		-	-	-	-	-	-	-	-	-	-	-	-	-A	/	-B	-	
115034			+	O103		-	-	-	-	-	-	-	-	-	-	-	-	-A	/	-A	-	
115035			+	O103		18.95	20.14	17.79	+	+	22.87	24.27	22.10	-	+	+O45/+O103	+O45/+O103	+p	/	+m	+O103	
115036			+	O103		-	-	-	-	-	-	-	-	-	-	-	-	-B	/	-A	-	
115037			+	O103		18.35	19.00	17.30	+	+	22.35	23.45	20.93	-	+	+O45/+O103	+O45/+O103	+p	/	-A	+O103	
115038			-	/		-	-	-	-	-	-	-	-	-	-	-	-	st	/	-A	-	
115039	2	2.9	+	O103	5/5	17.82	18.22	16.66	+	+	20.75	21.14	20.30	-	+	+O45/+O103/+O121	+O45/+O103/+O121	+p	/	+m	+O103	5/5
115040			+	O103		20.96	21.27	20.30	+	+	23.17	24.70	22.94	-	+	+O45/+O103	+O45/+O103	+p	/	+m	+O103	
115041			+	O103		21.66	22.24	20.87	+	+	24.29	26.84	24.05	-	+	+O45/+O103	+O45/+O103	+M	/	-A	+O103	
115042			+	O103		17.96	18.15	16.00	+	+	21.27	22.17	20.21	-	+	+O45/+O103	+O45/+O103	+p	/	+m	+O103	
115043			+	O103		19.81	20.31	17.98	+	+	22.83	23.91	21.71	-	+	+O45/+O103	+O45/+O103	+p	/	+m	+O103	

Matrix : Raw milk cheese (Brie de Meaux)
Strain : *E. coli* O111 Ad3179
stx1 + / stx2 - / eae +
Aerobic mesophilic flora :1.18 x 10^8 CFU/g

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦			Alternative method: GDS STEC																
						Short time (10 h) 25 g + 225 ml PW mEHEC																
			Final result		Positive/Total	MPX TOP 7 STEC					MPX TOP 7 STEC (PPMX)					MPX ID FOR TOP STEC	Final PCR result	Beads from resuspension plate = IMS-R				Final Confirmation result	Positive/Total
						Result				Final result	Result				Final result	Final result		Beads+Wash buffer 20µl			Final Confirmation		
			Global result	Serogroup		stx1	stx2	eae	O157		stx1	stx2	eae	O157				CHROMagar STEC	TBX	ChromID EHEC			
113426	0	/	-	-	0/5	-	-	-	-	-	-	-	-	-	-	-	-	st	st	/	-	-	0/5
113427			-	-		-	-	-	-	-	-	-	-	-	-	-	-	st	-B	/	-	-	
113428			-	-		-	-	-	-	-	-	-	29.76	-	-	-	-	st	-B	/	-	-	
113429			-	-		-	-	-	-	-	27.49	-	-	-	-	-	-	st	-C	/	-	-	
113430			-	-		-	-	-	-	-	30.31	-	-	-	-	-	-	st	-B	/	-	-	
113431	1	2.1	-	-	8/20	-	-	-	-	-	-	-		-	-	-	-	st	-B	/	-	-	5/20
113432			-	-		25.12/-/-	-/-/-	30.56/26.37/-	-	+/-/-	27.54	-	25.80	-	+	-/i/i/-*/-*	-	+p	-B	/	+O111	-	
113433			-	-		-	-	-	-	-	26.54	-	25.03	-	+	-	-	st	-B	/	-	-	
113434			-	-		30.18/31.58/-	-	-/27.18/27.26	-	-/+/-	26.79	-	26.52	-	+	-/i/i/i*/i*	-	+p (4)	-A	/	+O111	-	
113435			+	O111		26.74	-	27.83	-	+	28.39	-	26.66	-	+	-/i/i/-*/-*	-	st	-B	/	-	-	
113436			+	O111		-	-	-	-	-	30.97	-	-	-	-	-	-	st	-B	/	-	-	
113437			+	O111		22.13	-	20.78	-	+	24.54	-	22.21	-	+	+O111	+O111	+p (10)	-B	/	+O111	+	
113438			+	O111		-	-	-	-	-	29.38	-	-	-	-	-	-	st	-B	/	-	-	
113439			-	-		26.54	-	26.07	-	+	30.34	-	28.60	-	+	-/i/i/-*/-*	-	+p (2)	-B	/	+O111	-	
113440			-	-		28.33	-	24.90	-	+	26.01	-	24.81	-	+	-/-/-	-	+p (10)	st	/	+O111	-	
113441			-	-		-	-	-	-	-	-	-	-	-	-	-	-	st	/	st	-	-	
113442			-	-		22.40	-	21.91	-	+	25.23	-	23.78	-	+	+O111	+O111	+p	/	+p (1)	+O111	+	
113443			+	O111		19.02	-	18.17	-	+	22.80	-	20.52	-	+	+O111	+O111	+p	/	+p (1)	+O111	+	
113444			-	-		-	-	-	-	-	-	-	-	-	-	-	-	st	/	st	-	-	
113445			-	-		-	-	-	-	-	-	-	-	-	-	-	-	st	/	st	-	-	
113446			+	O111		22.16	-	21.99	-	+	28.36	-	25.48	-	+	-/i/i/-*/-*	-	+p (5)	/	+1/2	+O111	-	
113447			+	O111		23.69	-	22.38	-	+	26.45	-	23.42	-	+	-/i/i/i*/-*	-	+p	/	+M	+O111	-	
113448			+	O111		-	-	-	-	-	-	-	-	-	-	-	-	st	/	st	-	-	
113449			-	-		18.60	-	17.75	-	+	21.22	-	19.89	-	+	+O111	+O111	+p	/	+M	+O111	+	
113450			-	-		18.65	-	17.12	-	+	22.55	-	20.85	-	+	+O111	+O111	+p	/	st	+O111	+	
113451	2	3.9	+	O111	4/5	-/-/-	-	-/-/-	-	-	-	-	-	-	-	-/i/i/i*/-*	-	+p (2)	/	+p (2)	+O111	-	2/5
113452			+	O111		29.49	-	27.04	-	+	-	-	-	-	-	-/i/i/i*/-*	-	st	/	st	-	-	
113453			+	O111		24.28	-	23.24	-	+	28.40	-	28.25	-	+	-/i/i/i*/-*	-	+p (1)	/	+p (7)	+O111	-	
113454			-	-		22.18	-	21.38	-	+	25.20	-	21.90	-	+	+O111	+O111	+p	/	+M	+O111	+	
113455			+	O111		21.10	-	19.84	-	+	23.88	-	21.48	-	+	+O111	+O111	+p	/	+M	-	+	

Matrix : Raw milk cheese (Brie de Meaux)
Strain : *E. coli* O111 Ad3179
stx1 + / stx2 - / eae +
Aerobic mesophilic flora :1.18 x 10^8 CFU/g

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136♦			Alternative method: GDS STEC																
						Long time (24 h) 25 g + 225 ml PW mEHEC																
			Final result		Positive/ Total	MPX TOP 7 STEC					MPX TOP 7 STEC (PPMX)					MPX ID FOR TOP STEC	Final PCR result	Beads from resuspension plate = IMS-R			Final Confirmation result	Positive/ Total
						Result				Final result	Result				Final result	Final result		Beads+Wash buffer 20µl				
			Global result	Sero-group		stx1	stx2	eae	O157		stx1	stx2	eae	O157				CHROMagar STEC	TBX	ChromID EHEC		
113426	0	/	-	-	0/5	-	-	-	-	-	-	-	-	-	-	-	-	st	-B	/	-	0/5
113427			-	-		-	-	-	-	-	-	-	-	-	-	-	-	st	-B	/	-	
113428			-	-		-	-	-	-	-	-	-	-	-	-	-	-	st	-B	/	-	
113429			-	-		-	-	-	-	-	-	-	-	-	-	-	-	st	-B	/	-	
113430			-	-		-	-	-	-	-	30.32	-	-	-	-	-	-	st	-B	/	-	
113431	1	2.1	-	-	8/20	-	-	-	-	-	-	-	-	-	-	-	-	st	-B	/	-	11/20
113432			-	-		26.82/25.03/24.84	-/-/-	27.62/24.64/24.48	-/-/-	+/+/+	24.47	-	24.38	-	+	-	-	+p	-B	/	+O111	
113433			-	-		-/28.33/26.87	-	-/27.86/28.98	-	-/+/+	-	-	30.67	-	-	-/-/-	-	+p (1)	-B	/	+O111	
113434			-	-		22.89	-	20.19	-	+	22.99	-	22.38	-	+	+O111	+O111	+p	-B	/	+O111	
113435			+	O111		21.69	-	19.94	-	+	22.22	-	22.03	-	+	+O111	+O111	+p	+m	/	+O111	
113436			+	O111		-	-	-	-	-	-	-	-	-	-	-	-	st	-B	/	-	
113437			+	O111		23.28	-	17.59	-	+	19.93	-	17.63	-	+	+O111	+O111	+p	+1/2	/	+O111	
113438			+	O111		-	-	-	-	-	-	-	-	-	-	-	-	st	-B	/	-	
113439			-	-		19.95	-	18.27	-	+	21.11	-	20.50	-	+	+O111	+O111	+p	+m	/	+O111	
113440			-	-		19.21	-	18.20	-	+	20.68	-	19.74	-	+	+O111	+O111	+p	+m	/	+O111	
113441			-	-		-	-	-	-	-	-	-	-	-	-	-	-	st	/	st	-	
113442			-	-		17.21	-	15.83	-	+	22.82	-	18.67	-	+	+O111	+O111	+p	/	+M	+O111	
113443			+	O111		16.48	-	14.64	-	+	17.98	-	16.27	-	+	+O111	+O111	+p	/	+1/2	+O111	
113444			-	-		-	-	-	-	-	-	-	-	-	-	-	-	st	/	-B	-	
113445			-	-		-	-	-	-	-	-	-	-	-	-	-	-	st	/	-B	-	
113446			+	O111		17.69	-	16.26	-	+	20.96	-	18.90	-	+	+O111	+O111	+p	/	+M	+O111	
113447			+	O111		21.88	-	19.19	-	+	22.79	-	20.92	-	+	+O111	+O111	+p	/	+1/2	+O111	
113448			+	O111		-	-	-	-	-	-	-	-	-	-	-	-	st	/	-B	-	
113449			-	-		12.11	-	10.41	-	+	15.42	-	13.51	-	+	+O111	+O111	+p	/	+M	+O111	
113450			-	-		20.76	-	14.34	-	+	15.84	-	14.12	-	+	+O111	+O111	+p	/	+p	+O111	
113451	2	3.9	+	O111	4/5	28.15	-	27.31	-	+	28.48	-	-	-	-	-/-/-	-	+p	/	+m	+O111	2/5
113452			+	O111		25.34	-	23.33	-	+	25.82	-	23.60	-	+	-/-/i	-	+p	/	+m	+O111	
113453			+	O111		20.86	-	18.95	-	+	23.75	-	22.02	-	+	+O111	+O111	+p	/	+1/2	+O111	
113454			-	-		19.41	-	18.14	-	+	19.85	-	17.67	-	+	-/+/+	-	+p	/	+p	+O111	
113455			+	O111		17.53	-	15.96	-	+	18.00	-	16.72	-	+	+O111	+O111	+p	/	+p	+O111	

Matrix : Process water
Strain : *E*.coli O26 Ad2826
stx1+ / stx2- / eae+
Aerobic mesophilic flora: 3.2 x 10^3 CFU/mL

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136			Alternative method: GDS STEC																						
						Short time (10 h) 25 g + 225 ml PW mEHEC												Long time (24h) 25g +225ml or 375g +1500 ml PW (41,5°C) mEHEC											
			Final result		Positive/ Total	MPX TOP 7 STEC					TOP STEC	Final PCR result	Beads from resuspension plate = IMS-R			Final Confirmation result	Positive/ Total	MPX TOP 7 STEC					TOP STEC	Final PCR result	Beads from resuspension plate = IMS-R			Final Confirmation result	Positive/ Total
						Result				Final result	Final result		Beads+Wash buffer 20µl					Result				Final result	Final result		Beads+Wash buffer 20µl				
			Global esult	Sero-group		stx1	stx2	eae	O157				CHROMagar STEC	TBX	ChromID EHEC			stx1	stx2	eae	O157				CHROMagar STEC	TBX	ChromID EHEC		
1939	0	/	-	/	0/5	-	-	-	-	-	-	-	st	st	/	-	0/5	-	-	-	-	-	-	-	st	st	/	-	0/5
1940			-	/		-	-	-	-	-	-	-	st	st	/	-		-	-	-	-	-	-	-	st	st	/	-	
1941			-	/		-	-	-	-	-	-	-	st	st	/	-		-	-	-	-	-	-	-	st	st	/	-	
1942			-	/		-	-	-	-	-	-	-	st	st	/	-		-	-	-	-	-	-	-	st	st	/	-	
1943			-	/		-	-	-	-	-	-	-	st	st	/	-		-	-	-	-	-	-	-	st	st	/	-	
1944	1	0.6	+	O26	10/20	-	-	-	-	-	-	-	st	st	/	-	7/20	-	-	-	-	-	-	-	st	st	/	-	8/20
1945			-	/		10.78	-	8.39	-	+	+O26	+O26	+p	+p	/	+O26		14.99	-	13.29	-	+	+O26	+O26	+p	+p	/	+O26	
1946			-	/		-	-	-	-	-	-	-	st	st	/	-		-	-	-	-	-	-	-	st	st	/	-	
1947			+	O26		13.39	-	10.64	-	+	+O26	+O26	+p	+p	/	+O26		13.45	-	12.41	-	+	+O26	+O26	+p	+p	/	+O26	
1948			+	O26		13.10	-	10.60	-	+	+O26	+O26	+p	+p	/	+O26		13.14	-	11.80	-	+	+O26	+O26	+p	+p	/	+O26	
1949			-	/		-	-	-	-	-	-	-	st	st	/	-		-	-	-	-	-	-	-	st	st	/	-	
1950			+	O26		-	-	-	-	-	+O26	-	+p (9)	+p (8)	/	+O26		12.14	-	10.92	-	+	+O26	+O26	+p	+p	/	+O26	
1951			+	O26		-	-	-	-	-	-	-	st	st	/	-		-	-	-	-	-	-	-	st	st	/	-	
1952			-	/		11.53	-	9.17	-	+	+O26	+O26	+p	+p	/	+O26		14.18	-	13.37	-	+	+O26	+O26	+p	+p	/	+O26	
1953			-	/		13.09	-	10.44	-	+	+O26	+O26	+p	+p	/	+O26		14.65	-	13.36	-	+	+O26	+O26	+p	+p	/	+O26	
1954			-	/		-	-	-	-	-	-	-	st	st	/	-		-	-	-	-	-	-	-	st	st	/	-	
1955			+	O26		-	-	-	-	-	-	-	st	st	/	-		-	-	-	-	-	-	-	st	st	/	-	
1956			+	O26		-	-	-	-	-	-	-	st	st	/	-		-	-	-	-	-	-	-	st	st	/	-	
1957			+	O26		-	-	-	-	-	-	-	st	/	st	-		-	-	-	-	-	-	-	st	/	st	-	
1958			-	/		-	-	-	-	-	-	-	st	/	st	-		-	-	-	-	-	-	-	st	/	st	-	
1959			-	/		-	-	-	-	-	-	-	st	/	st	-		-	-	-	-	-	-	-	st	/	st	-	
1960			+	O26		-	-	-	-	-	-	-	st	/	st	-		-	-	-	-	-	-	-	st	/	st	-	
1961			+	O26		-	-	-	-	-	-	-	st	/	st	-		-	-	-	-	-	-	-	st	/	st	-	
1962			-	/		12.00	-	9.98	-	+	+O26	+O26	+p	/	+p	+O26		14.49	-	13.28	-	+	+O26	+O26	+p	/	+p	+O26	
1963			-	/		13.54	-	11.35	-	+	+O26	+O26	+p	/	+p	+O26		13.89	-	12.86	-	+	+O26	+O26	+p	/	+p	+O26	
1964	2	2.3	+	O26	4/5	14.13	-	11.82	-	+	+O26	+O26	+p	/	+p	+O26	4/5	14.72	-	13.26	-	+	+O26	+O26	+p	/	+p	+O26	5/5
1965			-	/		14.35	-	12.36	-	+	+O26	+O26	+p	/	+p	+O26		13.70	-	12.56	-	+	+O26	+O26	+p	/	+p	+O26	
1966			+	O26		13.55	-	12.18	-	+	+O26	+O26	+p	/	+p	+O26		12.41	-	11.73	-	+	+O26	+O26	+p	/	+p	+O26	
1967			+	O26		-	-	-	-	-	-	-	st	/	st	-		9.12	-	7.54	-	+	+O26	+O26	+p	/	+p	+O26	
1968			+	O26		13.71	-	11.38	-	+	+O26	+O26	+p	/	+p	+O26		13.54	-	12.34	-	+	+O26	+O26	+p	/	+p	+O26	

Appendix 6 – Inclusivity/exclusivity study: raw data

a, b, c, d, g: variant

Initial validation												
INCLUSIVITY												
N°	Strain	Serotype	Reference	Origin	Virulence genes			Inoculationlevel CFU/225ml	Alternative method : Assurance® GDS STEC - Protocol ① (25g + 225ml (d1/10) PW mEHEC®)			
									Final PCR result	Confirmation result	Final result Assurance® GDS STEC	
					stx$_1$	*stx*$_2$	*eae*				Result	Serogroup
1	*Escherichia coli*	O26:H11	CIP 104673	/	+	-	+	34	O26	O26	+	**O26**
2	*Escherichia coli*	O26	Ad1741	Raw milk cheese	+	-	+	23	O26	O26	+	**O26**
3	*Escherichia coli*	O26	Ad2298	Dairy product	+	-	+	26	O26	O26	+	**O26**
4	*Escherichia coli*	O26	Ad2303	Raw milk cheese	-	+	+	57	O26	O26	+	**O26**
5	*Escherichia coli*	O26	Ad2671	Dairy product	-	+	+	29	O26	O26	+	**O26**
6	*Escherichia coli*	O26	Ad2675	Raw milk cheese	-	+	+	37	O26	O26	+	**O26**
7	*Escherichia coli*	O26	Ad2678	Dairy product	+	-	+	12	O26	O26	+	**O26**
8	*Escherichia coli*	O26:H11	1377-138 LOT 3	Meat	-	+	+	34	O26	O26	+	**O26**
9	*Escherichia coli*	O26:H11	déc-62	Meat	+	-	+	27	O26	O26	+	**O26**
10	*Escherichia coli*	O26:H11	14-53	Meat	+	-	+	15	O26	O26	+	**O26**
11	*Escherichia coli*	O26:H11	1311-12	Cream	-	+ (a)	+	27	O26	O26	+	**O26**
12	*Escherichia coli*	O26:H11	375-122	Cheese	+	+ (c,d)	+	25	O26	O26	+	**O26**
13	*Escherichia coli*	O103	Ad982	Animal	+	-	+	9	O103	O103	+	**O103**
14	*Escherichia coli*	O103	Ad1772	/	+	-	+	13	O103	O103	+	**O103**
15	*Escherichia coli*	O103:H2	Ad1773	Cheese	+	+	+	10	O103	O103	+	**O103**
16	*Escherichia coli*	O103:H2	1144	Dairy product	+	-	+	27	O103	O103	+	**O103**
17	*Escherichia coli*	O103:H2	821-76	Dairy product	+	+	+	34	O103	O103	+	**O103**
18	*Escherichia coli*	O103:H2	56-12	Meat	+	-	+	10	O103	O103	+	**O103**
19	*Escherichia coli*	O103:H2	262-03-18-1	Meat	-	+	+	21	O103	O103	+	**O103**
20	*Escherichia coli*	O103:H2	V92-362	Meat	+	-	+	38	O103	O103	+	**O103**
21	*Escherichia coli*	O103:H2	03-35	Meat	+	-	+	17	O103	O103	+	**O103**
22	*Escherichia coli*	O103:H2	72-11	Meat	+	-	+	23	O103	O103	+	**O103**
23	*Escherichia coli*	O111:H8	Ad511	Clinic	+	+	+	21	O111	O111	+	**O111**
24	*Escherichia coli*	O111	Ad981	Animal	+	+	+	22	O111	O111	+	**O111**
25	*Escherichia coli*	O111:H8	1251-31	Dairy product	+ (a)	+ (c,d)	+	29	O111	O111	+	**O111**
26	*Escherichia coli*	O111:H8	1391-40	Dairy product	+	-	+	17	O111	O111	+	**O111**
27	*Escherichia coli*	O111:H8	577-54	Dairy product	+ (a)	+ (c,d)	+	19	O111	O111	+	**O111**
28	*Escherichia coli*	O111:H8	593-95	Dairy product	+ (a)	+ (c,d)	+	20	O111	O111	+	**O111**
29	*Escherichia coli*	O111:H8	622-4	Dairy product	+ (a)	+ (c,d)	+	16	O111	O111	+	**O111**
30	*Escherichia coli*	O145	Ad983	Animal	-	+	+	7	O145	O145	+	**O145**
31	*Escherichia coli*	O145	Ad2310	Unknown	-	+	+	54	O145	O145	+	**O145**
32	*Escherichia coli*	O145:H28	2305-1	Meat	-	+	+	42	O145	O145	+	**O145**
33	*Escherichia coli*	O145:H28	1331-100	Meat	-	+	+	15	O145	O145	+	**O145**
34	*Escherichia coli*	O145:H28	1502-105	Meat	-	+	+	62	O145	O145	+	**O145**
35	*Escherichia coli*	O145:H28	1867-177	Meat	-	+	+	36	O145	O145	+	**O145**
36	*Escherichia coli*	O145:H28	092-4	Meat	-	+	+	36	O145	O145	+	**O145**
37	*Escherichia coli*	O157:H7	769	Ground beef	-	+(a)	+	43	O157	O157	+	**O157**
38	*Escherichia coli*	O157:H7	803	Meat	-	+ (c,d)	+	12	O157	O157	+	**O157**

Initial validation											
INCLUSIVITY											
N°	Strain	Serotype	Reference	Origin	Virulence genes			Inoculationlevel CFU/225ml	Alternative method : Assurance® GDS STEC - Protocol ① (25g + 225ml (d1/10) PW mEHEC®)			
									Final PCR result	Confirmation result	Final result Assurance® GDS STEC	
					stx$_1$	*stx*$_2$	*eae*				Result	Serogroup
39	*Escherichia coli*	O157:H7	1043	VHS beef	+(a)	+ (c,d)	+	40	O157	O157	+	**O157**
40	*Escherichia coli*	O157:H7	1211-1	VHS beef	-	+	+	35	O157	O157	+	**O157**
41	*Escherichia coli*	O157:H7	52-33 N°34	VHS	-	+	+	47	O157	O157	+	**O157**
42	*Escherichia coli*	O157:H7	Ad683	Ground beef	+	+	+	35	O157	O157	+	**O157**
43	*Escherichia coli*	O157:H7	Ad685	Beef industry environment	-	+	+	40	O157	O157	+	**O157**
44	*Escherichia coli*	O157:H7	Ad489	Frozen beef balls	+	+	+	36	O157	O157	+	**O157**
45	*Escherichia coli*	O157:H7	ET8	Water treatment plant	-	+	+	44	O157	O157	+	**O157**
46	*Escherichia coli*	O157:H7	Ad924	Ground beef	-	+	+	51	O157	O157	+	**O157**
47	*Escherichia coli*	O157:H7	Ad1071	Ground beef	-	+	+	43	O157	O157	+	**O157**
48	*Escherichia coli*	O157:H7	Ad1174	Frozen ground beef	-	+	+	33	O157	O157	+	**O157**
49	*Escherichia coli*	O157:H7	Ad1745	Raw cheese	-	+	+	51	O157	O157	+	**O157**
50	*Escherichia coli*	O157:H7	Ad2222	Ground beef	-	+	+	35	O157	O157	+	**O157**

Extension study																	
INCLUSIVITY																	
N°	Strain	Serotype	Reference	Origin	Virulence genes			Inoculation level CFU/225ml	Assurance GDS STEC - Protocol ⑤ (225ml PW mEHEC)								
									6 h at 41.5°C PW mEHEC	6 h at 41.5°C PW mEHEC		Final result PCR	6 h at 41.5°C PW mEHEC				Final confirmatory tests
									Screening	Confirmation			non-O157			O157	
													Concentration reagent Streaking (20µL beads)				
					stx$_1$	*stx*$_2$	*eae*		Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		CHROMagar STEC	EHEC	TBX	Final confirmation result non-O157	Final confirmation result O157
1	*Escherichia coli*	O26:H11	CIP 104673	/	+	-	+	17	- (+ at 8h)	- (+O26 at 8h)	/	- (+O26 at 8h)	st (+ at 8h)	st (+ at 8h)	st (+ at 8h)	- (+O26 at 8h)	/	- (+ at 8 h)
2	*Escherichia coli*	O26	Ad1741	Raw milk cheese	+	-	+	30	+	+O26	/	+O26	+	+	+	+O26	/	+
3	*Escherichia coli*	O26	Ad2298	Dairy product	+	-	+	23	+	+O26	/	+O26	+	+	+	+O26	/	+
4	*Escherichia coli*	O26	Ad2303	Raw milk cheese	-	+	+	33	+	+O26	/	+O26	+	+	+	+O26	/	+
5	*Escherichia coli*	O26	Ad2671	Dairy product	-	+	+	25	+	+O26	/	+O26	+	+	+	+O26	/	+
6	*Escherichia coli*	O26	Ad2675	Raw milk cheese	-	+	+	30	+	+O26	/	+O26	+	+	+	+O26	/	+
7	*Escherichia coli*	O26	Ad2678	Dairy product	+	-	+	15	+	+O26	/	+O26	+	+	+	+O26	/	+
8	*Escherichia coli*	O26:H11	1377-138 LOT 3	Meat	-	+	+	17	+	+O26	/	+O26	+	+	+	+O26	/	+
9	*Escherichia coli*	O26:H11	12-62	Meat	+ a	-	+ b	17	+	+O26	/	+O26	+	+	+	+O26	/	+
10	*Escherichia coli*	O26:H11	14-53	Meat	+ a	-	+ b	20	+	+O26	/	+O26	+	+	+	+O26	/	+
11	*Escherichia coli*	O26:H11	1311-12	Cream	-	+ (a)	+ b	26	+	+O26	/	+O26	+	+	+	+O26	/	+
12	*Escherichia coli*	O26:H11	375-122	Cheese	+	+ (c,d)	+ b	30	+	+O26	/	+O26	+	+	+	+O26	/	+
13	*Escherichia coli*	O103	Ad982	animal	+	-	+	32	+	+O103	/	+O103	+	+	+	+O103	/	+
14	*Escherichia coli*	O103	Ad1772	/	+	-	+	27	+	+O103	/	+O103	st	+	+	+O103	/	+
15	*Escherichia coli*	O103:H2	Ad1773	Cheese	+	+	+	36	+	+O103	/	+O103	+	+	+	+O103	/	+
16	*Escherichia coli*	O103:H2	1144	Dairy product	+	-	+ e	36	+	+O103	/	+O103	+	st	+	+O103	/	+
17	*Escherichia coli*	O103:H2	821-76	Dairy product	+	+	/	24	+	+O103	/	+O103	+	+	+	+O103	/	+
18	*Escherichia coli*	O103:H2	56-12	Meat	+	-	+	28	+	+O103	/	+O103	st	st	+	+O103	/	+
19	*Escherichia coli*	O103:H2	262-03-18-1	Meat	-	+	+	35	+	+O103	/	+O103	st	+	+	+O103	/	+
20	*Escherichia coli*	O103:H2	V92-362	Meat	+	-	+	26	+	+O103	/	+O103	+	+	+	+O103	/	+
21	*Escherichia coli*	O103:H2	03-35	Meat	+ a	-	+ e	21	+	+O103	/	+O103	+	+	+	+O103	/	+
22	*Escherichia coli*	O103:H2	72-11	Meat	+	-	+	23	+	+O103	/	+O103	+	+	+	+O103	/	+
23	*Escherichia coli*	O111:H8	DEC8b/Ad511	Clinic	+	+	+	19	+	+O111	/	+O111	+	+	+	+O111	/	+
24	*Escherichia coli*	O111	Ad981	Animal	+	+	+	24	+	+O111	/	+O111	+	+	+	+O111	/	+
25	*Escherichia coli*	O111:H8	1251-31	Dairy product	+ (a)	+ (c,d)	+ q	25	+	+O111	/	+O111	+	+	+	+O111	/	+
26	*Escherichia coli*	O111:H8	1391-40	Dairy product	+	-	+ q	19	+	+O111	/	+O111	+	+	+	+O111	/	+
27	*Escherichia coli*	O111:H8	577-54	Dairy product	+ (a)	+ (c,d)	+ q	19	+	+O111	/	+O111	+	+	+	+O111	/	+
28	*Escherichia coli*	O111:H8	593-95	Dairy product	+ (a)	+ (c,d)	+ q	29	+	+O111	/	+O111	+	+	+	+O111	/	+
29	*Escherichia coli*	O111:H8	622-4	Dairy product	+ (a)	+ (c,d)	+ q	25	+	+O111	/	+O111	+	+	+	+O111	/	+

Extension study																		
INCLUSIVITY																		
N°	Strain	Serotype	Reference	Origin	Virulence genes			Inoculation level CFU/225ml	Assurance GDS STEC - Protocol ⑤ (225ml PW mEHEC)									
									6 h at 41.5°C PW mEHEC	6 h at 41.5°C PW mEHEC		Final result PCR	6 h at 41.5°C PW mEHEC					Final confirmatory tests
									Screening	Confirmation			non-O157				O157	
													Concentration reagent			Final confirmation result non-O157	Final confirmation result O157	
													Streaking (20µL beads)					
					stx$_1$	*stx*$_2$	*eae*		Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		CHROMagar STEC	EHEC	TBX			
30	*Escherichia coli*	O145	Ad983	Animal	-	+	+	22	+	+O145	-	+O145	+	st	+	+O145	/	+
31	*Escherichia coli*	O145	Ad2310	Unknown	-	+	+	20	+	+O145	-	+O145	+	+	+	+O145	/	+
32	*Escherichia coli*	O145:H28	2305-1	Meat	-	+	+	20	+	+O145	-	+O145	+	st	+	+O145	/	+
33	*Escherichia coli*	O145:H28	1331-100	Meat	-	+	+	22	+	+O145	-	+O145	st	st	+	+O145	/	+
34	*Escherichia coli*	O145:H28	1502-105	Meat	-	+	+	33	+	+O145	-	+O145	+	+	+	+O145	/	+
35	*Escherichia coli*	O145:H28	1867-177	Meat	-	+	+	14	+	+O145	-	+O145	+	+	+	+O145	/	+
36	*Escherichia coli*	O145:H28	092-4	Meat	-	+	+	30	+	+O145	-	+O145	+	+	+	+O145	/	+
37	*Escherichia coli*	O157:H7	769	Ground beef and pork meat	-	+(a)	+ g	53	+	/	+O157	+O157	/	/	/	/	+	+
38	*Escherichia coli*	O157:H7	803	Veal meat	-	+ (c,d)	+ g	38	+	/	+O157	+O157	/	/	/	/	+	+
39	*Escherichia coli*	O157:H7	1043	Frozen ground beef	+(a)	+ (c,d)	+ g	48	+	/	+O157	+O157	/	/	/	/	+	+
40	*Escherichia coli*	O157:H7	1211-1	Frozen ground beef	-	+ (c,d)	+ g	23	+	/	+O157	+O157	/	/	/	/	+	+
41	*Escherichia coli*	O157:H7	52-33 N°34	Frozen ground beef	-	+(a)	+ g	60	+	/	+O157	+O157	/	/	/	/	+	+
42	*Escherichia coli*	O157:H7	Ad683	Ground beef	+	+	+	48	+	/	+O157	+O157	/	/	/	/	+	+
43	*Escherichia coli*	O157:H7	Ad685	Beef industry environment	-	+	+	64	+	/	+O157	+O157	/	/	/	/	+	+
44	*Escherichia coli*	O157:H7	Ad489	Frozen beef balls	+	+	+	24	+	/	+O157	+O157	/	/	/	/	+	+
45	*Escherichia coli*	O157:H7	ET8	Environment	-	+	+	50	+	/	+O157	+O157	/	/	/	/	+	+
46	*Escherichia coli*	O157:H7	Ad924	Ground beef	+	+	+	53	+	/	+O157	+O157	/	/	/	/	+	+
47	*Escherichia coli*	O157:H7	Ad1071	Ground beef	-	+	+	52	+	/	+O157	+O157	/	/	/	/	+	+
48	*Escherichia coli*	O157:H7	Ad1174	Frozen ground beef	-	+	+	35	+	/	+O157	+O157	/	/	/	/	+	+
49	*Escherichia coli*	O157:H7	Ad1745	Raw milk cheese	-	+	+	36	+	/	+O157	+O157	/	/	/	/	+	+
50	*Escherichia coli*	O157:H7	Ad2222	Ground beef	-	+	+	34	+	/	+O157	+O157	/	/	/	/	+	+

EXCLUSIVITY											
N°	Strain	Serotype	Reference	Origin	Virulence genes			Inoculation level CFU/ml	BPW 24h à 37°C		
									PCR Screening	PCR Confirmation	Final result Assurance® GDS STEC
									MPX TOP 7 STEC	MPX ID	
					stx1	*stx2*	*eae*				
1	*Escherichia coli*	O26:H11	AEEC 335	Dairy product	-	-	+ b	4,6E+05	-		-
2	*Escherichia coli*	O157:H26	AEEC 561	Meat product	-	-	+ b	6,2E+05	-		-
3	*Escherichia coli*	O145:H28	AEEC 1387-177	Dairy product	-	-	+ g	2,9E+05	-		-
4	*Escherichia coli*	O145:H28-	529-64	Meat product	-	-	-	2,4E+05	-		-
5	*Escherichia coli*	O145-:H28-	236-9	Dairy product	-	-	-	4,8E+05	-		-
6	*Escherichia coli*	O91:H21	13482	Dairy product	+	+ b	-	2,7E+05	-		-
7	*Escherichia coli*	O113:H21	STEC-19-50	Meat product	-	+	-	4,5E+05	-		-
8	*Escherichia coli*	O111:H2	Ad513	Clinic	-	-	+	4,7E+05	-		-
9	*Escherichia coli*	O111	Ad1774	Clinic	-	+	-	2,8E+05	-		-
10	*Escherichia coli*	O103	Ad1743	Meat product	-	-	-	2,0E+05	-		-
11	*Escherichia coli*	O103	Ad1862	Dairy product	-	-	+	3,7E+05	-		-
12	*Escherichia coli*	O26	Ad1739	Dairy product	-	-	+	3,6E+05	-		-
13	*Escherichia coli*	O26	Ad1864	Meat product	-	-	+	4,1E+05	-		-
14	*Escherichia coli*	O26	Ad2677	Dairy product	-	-	+	5,1E+05	-		-
15	*Escherichia coli*	O157:H7	ENV177	Environment	-	-	+	4,2E+05	-		-
16	*Escherichia coli*	O157:H7	Ad2301	Environment	-	-	+	3,6E+05	-		-
17	*Escherichia coli*	O92:H33	Ad503	Clinic	-	-	-	1,7E+05	-		-
18	*Escherichia coli*	O78:H11	ATCC 35401	Clinic	-	-	-	4,7E+05	-		-
19	*Escherichia coli*	O6:H6	Ad506	Clinic	-	-	-	3,7E+05	-		-
20	*Escherichia coli*	O6:H10	Ad507	Clinic	-	-	-	2,3E+05	-		-
21	*Escherichia coli*	O86:H43	Ad509	Elephant	-	-	-	5,1E+05	-		-
22	*Escherichia coli*	O128:H2	Ad512	Clinic	-	-	+	4,9E+05	-		-
23	*Escherichia coli*	O78:K80:H12	ATCC 43896	Clinic	-	-	-	2,9E+05	-		-
24	*Escherichia coli*	O104:H21	Ad516	Clinic	-	-	-	4,8E+05	-		-
25	*Escherichia coli*	O55:H7	Ad518	Clinic	-	-	+	3,9E+05	-		-
26	*Escherichia coli*	O127:H6	Ad520	Clinic	-	-	+	1,6E+05	-		-
27	*Escherichia coli*	O126	Ad1776	Clinic	-	-	-	2,4E+05	-		-
28	*Escherichia coli*	O45:H2	Ad1778	Unknown	+	-	+	1,5E+05	**+ (O45)**	-	-
29	*Escherichia coli*	O121	Ad1779	Unknown	-	-	+	2,6E+05	-		-
30	*Citrobacter rodentium*	/	ATCC 51116	Hamster	-	-	-	1,8E+05	-		-

Appendix 7 - Results obtained by the collaborative laboratories and the expert laboratory

Collaborator **A**

Aerobic mesophilic flora: $7.6x10^4$ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																										Result		
													Pre-warmed mEHEC																												
													8 h at 41.5°C Screening					10 h at 41.5°C Confirmation															10 h at 41.5°C Cultural confirmation										
													MPX TOP 7 STEC					MPX ID for Top STEC															Remaining beads										
	PCR results			PCR Final result	Confirmation						Result		PCR result				MPX TOP 7 STEC Final result	PCR result Group 1 & Group 2									MPX ID Final result	PCR Final result	Streaking (20µL beads)		Confirmation on typical colonies			Final result cultural confirmation	STEC	Serogroup	Agreement
					Direct streaking																																					
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)	Result	STEC	Sero-group	stx1	stx2	eae	O157		eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*			CHROMAgar STEC	TBX	Plate used	PCR MPX Top 7 Result	PCR MPX ID Result				
4	-			-		-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CH			-	-	/	NA
7	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CH			-	-	/	NA
8	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CH			-	-	/	NA
12	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CH			-	-	/	NA
15	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CH			-	-	/	NA
16	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CH			-	-	/	NA
21	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CH			-	-	/	NA
23	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CH			-	-	/	NA
1	+19.90	+19.62	+19.53	O26	+	+	CH	+	+		O26	+	O26	10.78	-	7.23	-	+	-	-	9.26	9.83	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
2	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
6	+21.22	+20.97	+20.85	O26	+	+	CH	+	+		O26	+	O26	14.85	-	10.82	-	+	-	-	11.12	11.87	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
11	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
13	+19.03	+18.90	+18.89	O26	+	+	CH	+	+		O26	+		10.77	-	7.46	-	+	-	-	9.40	10.15	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
14	+23.17	+22.50	+22.18	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND
18	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
24	-			-	-	-					-	-	/	11.98	-	8.13	-	+	-	-	8.22	8.51	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
3	+19.65	+19.61	+19.14	O26	+	+	CH	+	+		O26	+	O26	9.65	-	5.74	-	+	-	-	10.56	10.84	-	-	-	-	-	O26	O26	+		CH	+	O26	O26	+	O26	PA
5	+19.60	+19.50	+19.56	O26	+	+	CH	+	+		O26	+	O26	12.06	-	9.33	-	+	-	-	9.08	9.75	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+17.48	+17.44	+17.89	O26	+	+	CH	+	+		O26	+	O26	10.37	-	6.71	-	+	-	-	10.18	10.65	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+17.95	+18.40	+18.26	O26	+	+	CH	+	+		O26	+	O26	11.44	-	7.45	-	+	-	-	10.60	10.84	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+18.45	+18.86	+18.74	O26	+	+	CH	+	+		O26	+	O26	11.40	-	7.62	-	+	-	-	10.77	11.49	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+18.80	+19.41	+19.44	O26	+	+	CH	+	+		O26	+	O26	13.05	-	9.29	-	+	-	-	9.71	10.17	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+21.04	+20.82	+20.57	O26	+	+	CH	+	+		O26	+	O26	12.28	-	8.46	-	+	-	-	9.83	9.69	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
22	+18.88	+18.33	+18.23	O26	+	+	CH	+	+		O26	+	O26	11.08	-	7.24	-	+	-	-	10.26	10.60	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

Collaborator B

Aerobic mesophilic flora: $1.9x10^4$ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method													Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																							Result		Agreement
														Pre-warmed mEHEC																										
														8 h at 41.5°C Screening					10 h at 41.5°C Confirmation															10 h at 41.5°C Cultural confirmation									
														MPX TOP 7 STEC					MPX ID for Top STEC															Remaining beads									
	PCR results			PCR Final result	Confirmation							Result		PCR result				MPX TOP 7 STEC Final result	PCR result Group 1 & Group 2									MPX ID Final result	PCR Final result	Streaking (20µL beads)		Confirmation on typical colonies			Final result cultural confir-mation	STEC	Sero-group	
					Direct streaking																																					
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)	Result	STEC	Sero-group	stx1	stx2	eae	O157		eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*			CHROMAgar STEC	TBX	Plate used	PCR MPX Top 7 Result	PCR MPX ID Result				
4	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	/	NA
7	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	/	NA
8	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	/	NA
12	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-		NA
15	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-		NA
16	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-		NA
21	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-		NA
23	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-		NA
1	+26.45	+27.04	+26.74	O26	+	+	CH	+	+		O26	+	O26	21.65	-	20.04	-	+	-/-(1)	-/-(1)	19.77/ 14.91(1)	-/ 16.03(1)	-/-(1)	-/-(1)	-/-(1)	-/-(1)	-/-(1)	-/O26(1)	-/O26(1)	+	+	CH	+	O26	O26	-	/	NDFN(alt)
2	-			-	-	-					-	-	/	16.34	-	11.93	-	+	-	-	12.13	14.70	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
6	+18.39	+18.58	+18.96	O26	+	+	CH	+	+		O26	+	O26	16.93	-	13.43	-	+	-	-	13.97	20.44	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
11	+17.44	+17.43	+17.51	O26	+	+	CH	+	+		O26	+	O26	17.70	-	14.15	-	+	-	-	10.86	12.46	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
13	+18.75	+19.02	+19.27	O26	+	+	CH	+	+		O26	+	O26	26.15/ 21.69 (1)	-/-	-/18.36(1)	-/-(1)	-/+(1)	-	-	11.82	13.67	-	-	-	-	-	O26	-/O26(1)	+	+	CH	+	O26	O26	-	/	NDFN(alt)
14	+17.28	+19.18	+17.45	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	/	ND
18	-			-	-	-					-	-	/	16.15	-	11.62	-	+	-	-	12.01	13.59	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
24	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	/	NA
3	+19.81	+20.00	+20.13	O26	+	+	CH	+	+		O26	+	O26	16.07	-	11.53	-	+	-/-(1)	-/-(1)	-/19.57(1)	-/ 20.42(1)	-/-(1)	-/-(1)	-/-(1)	-/-(1)	-/-(1)	-/O26(1)	-/O26(1)	+	+	CH	+	O26	O26	-	/	NDFN(alt)
5	+17.07	+17.08	+17.5	O26	+	+	CH	+	+		O26	+	O26	14.65	-	10.61	-	+	-	-	12.95	15.65	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+17.06	+17.43	+17.50	O26	+	+	CH	+	+		O26	+	O26	21.1/ 14.15(1)	-/-(1)	-/9.76(1)	-/-	-/+(1)	-	-	14.91	16.03	-	-	-	-	-	O26	-/O26(1)	+	+	CH	+	O26	O26	-	/	NDFN(alt)
10	+18.20	+18.22	+18.86	O26	+	+	CH	+	+		O26	+	O26	NA/ 15.21	-	NA/10.06	-	NA/+	-	-	12.18	13.49	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+16.65	+17.07	+16.93	O26	+	+	CH	+	+		O26	+	O26	16.36	-	20.55	-	+	-	-	16.08	16.96	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+17.75	+17.94	+18.45	O26	+	+	CH	+	+		O26	+	O26	14.15	-	9.76	-	+	-	-	13.52	14.99	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+17.23	+17.26	+17.03	O26	+	+	CH	+	+		O26	+	O26	15.21	-	10.06	-	+	-	-	11.20	12.28	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
22	+14.66	+14.62	+14.91	O26	+	+	CH	+	+		O26	+	O26	15.87	-	11.14	-	+	-	-	14.61	15.29	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

(1) Repeat analysis

Collaborator C

Aerobic mesophilic flora: $2.5x10^4$ CFU/g

| Sample N° | Reference method: ADRIA ISO/TS 13136 internal method | | | | | | | | | | | | | Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC) | | | | | | | | | | | | |

Collaborator D

Aerobic mesophilic flora: $7.1x10^4$ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method													Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																								Result		
														Pre-warmed mEHEC																										
														8 h at 41.5°C Screening					10 h at 41.5°C Confirmation															10 h at 41.5°C Cultural confirmation							
														MPX TOP 7 STEC					MPX ID for Top STEC															Remaining beads							
	PCR results			PCR Final result	Confirmation							Result		PCR result				MPX TOP 7 STEC Final result	PCR result Group 1 & Group 2									MPX ID Final result	PCR Final result	Streaking (20µL beads)		Confirmation on typical colonies			Final result cultural confirmation	Result		Agreement
					Direct streaking						Result																				CHROMAgar STEC	TBX	Plate used	PCR MPX Top 7	PCR MPX ID				
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)		STEC	Sero-group	stx1	stx2	eae	O157		eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*					Result	Result		STEC	Sero-group	
4	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-	/	NA
7	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-	/	NA
8	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-	/	NA
12	+35.62 (d)/-	+35.72 (d)	+38.70 (d)	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-	/	NA
15	+35.05 (d)/-	+33.99 (d)	+36.19 (d)	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-	/	NA
16	+37.51 (d)	+36.20 (d)	+36.89 (d)	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-	/	NA
21	+35.07 (d)	+32.17 (d)	+34.82 (d)	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-	/	NA
23	+35.96 (d)	+35.91 (d)	+29.01 (d)	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-		NA
1	+19.53	+18.88	+19.82	O26	+	+	/	+	+		O26	+	O26	23.84	-	19.85	-	+	-	-	11.86	11.97	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PA
2	-			-	-	-					-	-	/	18.88	-	15.76	-	+	-	-	11.26	11.44	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PD
6	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-	/	NA
11	+25.81	+25.26	+25.73	O26	+	+	/	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-	/	ND
13	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-	/	NA
14	+18.04	+17.57	+18.61	O26	+	+	/	+	+		O26	+	O26	21.91	-	18.81	-	+	-	-	10.21	10.45	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PA
18	+19.99	+19.53	+20.75	O26	+	+	/	+	+		O26	+	O26	23.25	-	20.11	-	+	-	-	8.92	9.53	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PA
24	+25.86	+26.05	+26.70	O26	+	+	/	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/			-	-	/	ND
3	+19.22	+19.72	+20.17	O26	+	+	/	+	+		O26	+	O26	19.24	-	15.93	-	+	-	-	12.47	12.57	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PA
5	+23.85	+22.06	+22.12	O26	+	+	/	+	+		O26	+	O26	18.63	-	15.46	-	+	-	-	12.33	12.47	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PA
9	+22.99	+22.41	+23.57	O26	+	+	/	+	+		O26	+	O26	14.84	-	11.50	-	+	-	-	11.29	11.60	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PA
10	+23.51	+23.01	+23.68	O26	+	+	/	+	+		O26	+	O26	20.23	-	16.47	-	+	-	-	10.21	10.53	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PA
17	+19.44	+18.69	+20.07	O26	+	+	/	+	+		O26	+	O26	18.64	-	15.45	-	+	-	-	9.35	9.54	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PA
19	+18.31	+17.98	+19.00	O26	+	+	/	+	+		O26	+	O26	18.51	-	14.84	-	+	-	-	10.36	10.84	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PA
20	+19.88	+19.17	+20.43	O26	+	+	/	+	+		O26	+	O26	19.85	-	16.80	-	+	-	-	10.32	11.05	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PA
22	+21.06	+21.20	+21.30	O26	+	+	/	+	+		O26	+	O26	16.94	-	13.39	-	+	-	-	9.80	9.74	-	-	-	-	-	O26	O26	+	+	/	+	O26	O26	+	O26	PA

(d): doubtful amplification curve

Collaborator E

Aerobic mesophilic flora: 2.1x10⁴ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method													Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																										Result		Agreement
														Pre-warmed mEHEC																												
														8 h at 41.5°C Screening					10 h at 41.5°C Confirmation															10 h at 41.5°C Cultural confirmation										
														MPX TOP 7 STEC					MPX ID for Top STEC															Remaining beads										
	PCR results			PCR Final result	Confirmation							Result		PCR result				MPX TOP 7 STEC Final result	PCR result Group 1 & Group 2									MPX ID Final result	PCR Final result	Streaking (20µL beads)		Confirmation on typical colonies			Final result cultural confirmation								
					Direct streaking																											CHROMAgar STEC	TBX	Plate used	PCR MPX Top 7	PCR MPX ID									
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)	Result	STEC	Sero-group	stx1	stx2	eae	O157		eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*						Result	Result								
4	+31.03	+30.55	+30.72	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		NA
7	+29.43	+29.00	+29.14	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		NA
8	+31.61	+30.18	+30.49	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		NA
12	+29.32	+28.91	+28.95	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		NA
15	+29.92	+29.44	+29.77	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		NA
16	+30.81	+30.44	+30.52	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		NA
21	+29.25	+28.89	+29.00	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		NA
23	+27.89	+27.99	+27.89	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		NA
1	+22.58	+22.35	+22.58	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND
2	+19.89	+19.35	+20.03	O26	+	+	CH	+	+		O26	+	O26	14.52	-	11.25	-	+	-	-	10.10	9.42	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
6	30.52	+30.11	+30.17	O26	-	-					-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		NA
11	+20.31	+19.79	+20.13	O26	+	+	CH	+	+		O26	+	O26	16.90	-	13.90	-	+	-	-	10.95	10.98	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
13	+19.84	+19.42	+19.56	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		ND
14	+24.05	+23.12	+23.61	O26	+	+	CH	+	+		O26	+	O26	22.06	-	19.54	-	+	-	-	14.02	13.45	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
18	+24.12	+23.22	+23.00	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		ND
24	+21.18	+20.41	+20.77	O26	+	+	CH	+	+		O26	+	O26	13.36	-	10.01	-	+	-	-	11.72	10.51	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
3	+20.07	+19.49	+19.59	O26	+	+	CH	+	+		O26	+	O26	12.23	-	8.75	-	+	-	-	10.68	9.06	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
5	+18.98	+18.59	+18.74	O26	+	+	CH	+	+		O26	+	O26	13.69	-	10.50	-	+	-	-	10.55	10.13	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+18.81	+18.52	+18.69	O26	+	+	CH	+	+		O26	+	O26	12.26	-	9.14	-	+	-	-	10.45	9.79	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+19.20	+19.00	+19.68	O26	+	+	CH	+	+		O26	+	O26	11.79	-	8.51	-	+	-	-	11.73	10.38	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+20.01	+19.74	+19.78	O26	+	+	CH	+	+		O26	+	O26	12.33	-	9.34	-	+	-	-	10.28	9.99	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+20.42	+20.26	+20.34	O26	+	+	CH	+	+		O26	+	O26	11.67	-	8.30	-	+	-	-	10.26	9.87	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+20.02	+19.76	+19.85	O26	+	+	CH	+	+		O26	+	O26	12.79	-	9.35	-	+	-	-	11.69	10.51	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
22	+17.88	+17.60	+17.67	O26	+	+	CH	+	+		O26	+	O26	13.59	-	10.29	-	+	-	-	10.25	9.47	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

Collaborator F

Aerobic mesophilic flora: 6.2x10^4 CFU/g

Analyses performed at Day 3

| Sample N° | Reference method: ADRIA ISO/TS 13136 internal method | | | | | | | | | | | | | Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC) | | | | | | | | | | | | |

Collaborator G

Aerobic mesophilic flora: $6.7x10^3$ CFU/g (incubation at 37°C)

| Sample N° | Reference method: ADRIA ISO/TS 13136 internal method | | | | | | | | | | | | | Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC) | | | | | | | | | | | | |

Collaborator H

Aerobic mesophilic flora: $3.1x10^4$ CFU/g

| Sample N° | Reference method: ADRIA ISO/TS 13136 internal method | | | | | | | | | | | | | Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC) | | | | | | | | | | | | |

Collaborator I

Aerobic mesophilic flora: $5.2x10^6$ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method													Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																								Result		
														Pre-warmed mEHEC																											
														8 h at 41.5°C Screening						10 h at 41.5°C Confirmation															10 h at 41.5°C Cultural confirmation								
														MPX TOP 7 STEC						MPX ID for Top STEC															Remaining beads								
	PCR results			PCR Final result	Confirmation							Result		PCR result				MPX TOP 7 STEC Final result	PCR result Group 1 & Group 2									MPX ID Final result	PCR Final result	Streaking (20µL beads)		Confirmation on typical colonies			Final result cultural confirmation	Result		Agreement
					Direct streaking																																						
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)	Result	STEC	Sero-group	stx1	stx2	eae	O157		eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*			CHROMAgar STEC	TBX	Plate used	PCR MPX Top 7 Result	PCR MPX ID Result		STEC	Serogroup	
4	+31.57	+32.31	+32.87	O26	-/-	-/-					-	-	/	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
7	+29.81	+30.86	+33.13	O26	-/-	-/-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
8	+34.94 (d)	+33.44	+39.12 (d)	O26	-/-	-/-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
12	+28.40	+27.96	+28.52	O26	-/-	-/-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
15	+35.24 (d)	+34.18	+34.25	O26	-/-	-/-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
16	+30.57 (d)	+30.71	+31.68	O26	-/-	-/-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
21	+29.64	+30.56	+29.37	O26	-/-	-/-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
23	+29.55	+30.14	+29.67	O26	-/-	-/-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
1	+31.14	+30.28	+30.86	O26	-	-					-	-	/	13.86	-	11.26	-	+	-	-	13.18	12.79	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
2	+20.10	+20.01	+20.26	O26	+	+	CH	+	+		O26	+	O26	13.95	-	11.42	-	+	-	-	10.44	9.92	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
6	+19.78	+19.08	+20.19	O26	+	+	CH	+	+		O26	+	O26	14.90	-	11.97	-	+	-	-	12.26	11.61	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
11	+31.21	+30.69	+31.04	O26	-/-	-/-					-	-	/	13.83	-	10.84	-	+	-	-	10.15	9.56	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
13	+34.06	+33.89	+35.51	O26	-/-	-/-					-	-	/	14.80	-	12.12	-	+	-	-	12.37	11.52	-	-	-	-	-	O26	O26	+	+	CH	+	O26/ O103/ O26	O26	+	O26	PD
14	+35.48 (d)	+32.64	+36.17	O26	-/-	-/-					-	-	/	-/- -/- (1)	-/- -/-(1)	-/- -/-(1)	-/- -/-(1)	-/- -/-(1)	-/- -/-(1)	-/- -/-(1)	22.6/ -/-/-(1)	22.11/ -/-/-(1)	-/- -/-(1)	-/- -/-(1)	-/- -/-(1)	-/- -/-(1)	-/- -/-(1)	O26/ -/-/-(1)	-	+/-	+/-	CH	+	O26	O26/-	-	/	$NA_{FN(alt)}$
18	+19.54	+20.61	+21.34	O26	+	+	CH	+	+		O26	+	O26	14.61	-	11.82	-	+	3.00	-	13.21	11.95	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
24	+19.61	+18.91	18.96	O26	+	+	CH	+	+		O26	+	O26	15.51	-	12.81	-	+	-	-	13.79	12.22	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
3	+19.20	+22.77	+19.15	O26	+	+	CH	+	+		O26	+	O26	15.71	-	13.51	-	+	-	-	11.21	11.10	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
5	+18.10	+17.16	+18.62	O26	+	+	CH	+	+		O26	+	O26	13.23	-	10.49	-	+	-	-	10.48	9.64	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+16.95	+16.38	+17.18	O26	+	+	CH	+	+		O26	+	O26	14.53	-	11.73	-	+	-	-	10.66	9.77	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+19.55	+18.52	+19.93	O26	+	+	CH	+	+		O26	+	O26	14.61	-	11.96	-	+	-	-	10.65	9.95	-	-	-	-	-	O26	O26	+	+	CH	+	O26/ O103/ O26	O26	+	O26	PA
17	+19.50	+20.62	+20.07	O26	+	+	CH	+	+		O26	+	O26	17.61	-	14.99	-	+	-	-	12.74	11.64	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+20.56	+19.68	+20.74	O26	+	+	CH	+	+		O26	+	O26	13.15	-	10.44	-	+	-	-	13.57	12.15	-	-	-	-	-	O26	O26	+	+	CH	+	O26/ O103/ O26	O26	+	O26	PA
20	+20.10	+20.12	+20.61	O26	+	+	CH	+	+		O26	+	O26	15.99	-	13.30	-	+	-	-	12.06	11.48	-	-	-	-	-	O26	O26	+	+	CH	+	O26/ O103/ O26	O26	+	O26	PA
22	+19.00	+19.10	+18.39	O26	+	+	CH	+	+		O26	+	O26	14.76	-	11.77	-	+	-	-	13.59	12.37	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

(d): doubtful amplification curve

(1) Repeat analysis

Collaborator J

Aerobic mesophilic flora: $3.1x10^2$ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method													Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																												Result		
														Pre-warmed mEHEC																														
														8 h at 41.5°C Screening					10 h at 41.5°C Confirmation																10 h at 41.5°C Cultural confirmation										
														MPX TOP 7 STEC					MPX ID for Top STEC																Remaining beads										
	PCR results			PCR Final result	Confirmation							Result		PCR result				MPX TOP 7 STEC Final result	PCR result Group 1 & Group 2									MPX ID Final result	PCR Final result	Streaking (20µL beads)		Confirmation on typical colonies			Final result cultural confirmation	Result		Agreement
					Direct streaking						Result																																	
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)		STEC	Sero-group	stx1	stx2	eae	O157		eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*			CHROMAgar STEC	TBX	Plate used	PCR MPX Top 7 Result	PCR MPX ID Result		STEC	Serogroup	
4	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
7	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
8	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
12	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
15	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
16	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
21	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
23	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
1	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
2	-			-	-	-					-	-	/	13.00	-	9.86	-	+	-	-	8.64	8.86	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
6	-			-	-	-					-	-	/	13.29	-	9.89	-	+	-	-	8.28	8.27	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
11	-			-	-	-					-	-	/	12.59	-	9.20	-	+	-	-	9.27	9.38	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
13	+19.69	+19.75	+19.63	O26	+	+	CH	+	+		O26	+	O26	12.34	-	9.05	-	+	-	-	9.32	9.57	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
14	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
18	+22.26	+21.49	+22.21	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND
24	+24.06	+22.83	+23.23	O26	+	+	CH	+	+		O26	+	O26	15.09	-	11.76	-	+	-	-	8.66	9.05	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
3	+19.17	+19.12	+19.91	O26	+	+	CH	+	+		O26	+	O26	11.05	-	7.80	-	+	-	-	8.46	8.32	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
5	+20.58	+20.40	+20.60	O26	+	+	CH	+	+		O26	+	O26	12.06	-	8.69	-	+	-	-	9.37	9.29	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+20.83	+19.97	+19.61	O26	+	+	CH	+	+		O26	+	O26	12.26	-	9.23	-	+	-	-	10.65	10.36	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+19.80	+19.65	+20.06	O26	+	+	CH	+	+		O26	+	O26	12.52	-	9.34	-	+	-	-	8.62	8.57	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+19.56	+19.59	+19.37	O26	+	+	CH	+	+		O26	+	O26	13.00	-	9.81	-	+	-	-	9.51	9.08	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+21.76	+21.86	+21.37	O26	+	+	CH	+	+		O26	+	O26	11.27	-	8.11	-	+	-	-	9.71	9.14	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+20.24	+19.71	+20.06	O26	+	+	CH	+	+		O26	+	O26	12.17	-	8.88	-	+	-	-	10.30	10.60	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
22	+20.07	+19.36	+19.32	O26	+	+	CH	+	+		O26	+	O26	11.98	-	8.65	-	+	-	-	10.16	9.65	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

Collaborator K

Aerobic mesophilic flora: 4.7x10³ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method													Assurance GDS STEC - Protocol 1 (25g + 225ml (d1/10) PW mEHEC)																												Result		
														Pre-warmed mEHEC																														
														8 h at 41.5°C Screening					10 h at 41.5°C Confirmation																10 h at 41.5°C Cultural confirmation									
														MPX TOP 7 STEC					MPX ID for Top STEC																Remaining beads									
	PCR results			PCR Final result	Confirmation							Result		PCR result				MPX TOP 7 STEC Final result	PCR result Group 1 & Group 2									MPX ID Final result	PCR Final result	Streaking (20µL beads)		Confirmation on typical colonies			Final result cultural confirmation									
					Direct streaking																																							
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)	Result	STEC	Sero-group	stx1	stx2	eae	O157		eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*			CHROMAgar STEC	TBX	Plate used	PCR MPX Top 7 Result	PCR MPX ID Result								
4	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
7	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
8	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
12	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
15	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
16	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
21	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
23	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
1	+16.02	+16.68	+16.20	O26	+	+	CH	+	+		O26	+	O26	12.96	-	9.57	-	+	-	-	6.97	7.18	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
2	-			-	-	-					-	-	/	12.53	-	9.10	-	+	-	-	7.52	7.48	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
6	+17.12	+17.51	+17.81	O26	+	+	TBX	+			O26	+	O26	17.10	-	13.80	-	+	-	-	7.62	8.03	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
11	+18.05	+18.17	+18.74	O26	+	+	CH	+	+		O26	+	O26	12.52	-	9.34	-	+	-	-	7.50	7.50	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
13	-			-	-	-					-	-	/	12.48	-	9.27	-	+	-	-	7.99	7.80	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PD
14	+19.02	+18.99	+19.36	O26	+	+	CH	+	+		O26	+	O26	13.31	-	10.04	-	+	-	-	8.32	7.78	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
18	+19.34	+19.10	+20.11	O26	+	+	CH	+	+		O26	+	O26	13.33	-	10.06	-	+	-	-	10.00	9.16	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
24	+19.18	+18.80	+18.93	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND
3	+16.28	+17.26	+17.13	O26	+	+	CH	+	+		O26	+	O26	11.53	-	8.22	-	+	-	-	7.61	7.70	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
5	+17.49	+18.50	+17.55	O26	+	+	TBX	+	+		O26	+	O26	11.89	-	8.47	-	+	-	-	8.08	7.74	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
9	+17.94	+18.22	+18.28	O26	+	+	CH	+	+		O26	+	O26	12.53	-	9.31	-	+	-	-	9.82	8.02	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+17.35	+17.55	+18.00	O26	+	+	CH	+	+		O26	+	O26	12.37	-	9.13	-	+	-	-	8.62	8.09	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+18.07	+18.25	+18.72	O26	+	+	CH	+	+		O26	+	O26	11.84	-	8.48	-	+	-	-	9.07	8.18	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+17.70	+17.96	+18.19	O26	+	+	TBX	+	+		O26	+	O26	12.08	-	8.84	-	+	-	-	9.03	9.16	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+17.47	+17.44	+17.36	O26	+	+	TBX	+	+		O26	+	O26	11.83	-	8.59	-	+	-	-	9.78	8.65	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
22	+17.73	+18.57	+18.25	O26	+	+	CH	+	+		O26	+	O26	13.15	-	9.93	-	+	-	-	9.00	8.27	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA

Collaborator **L**

MPX Top 7 run after 10 hours incubation time

Aerobic mesophilic flora: $2.6x10^4$ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																								Result		Agreement
													Pre-warmed mEHEC																											
													10 h at 41.5°C Screening						10 h at 41.5°C Confirmation														10 h at 41.5°C Cultural confirmation											
													MPX TOP 7 STEC						MPX ID for Top STEC														Remaining beads											
	PCR results				Confirmation																												Streaking (20µL beads)		Confirmation on typical colonies									
					Direct streaking								PCR result						PCR result Group 1 & Group 2																							
Sample N°	stx	eae	O26	PCR Final result	CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)	Result	Result STEC	Result Sero-group	stx1	stx2	eae	O157	MPX TOP 7 STEC Final result	eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*	MPX ID Final result	PCR Final result	CHROMAgar STEC	TBX	Plate used	PCR MPX Top 7 Result	PCR MPX ID Result	Final result cultural confirmation	STEC	Serogroup	Agreement
4	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
7	-			-	-	+	TBX	-			-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
8	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
12	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	TBX	-	-	-	-	/	NA
15	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
16	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
21	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
23	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	O26	NA
1	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	TBX	+	O26	O26	-	/	$NA_{FN(alt)}$
2	-	-	-	-	+	+	TBX	+	+	+	O26	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	TBX	+	O26	O26	-	/	$NA_{FN(alt)}$
6	-	-	-	-	+	+	TBX	+	+	+	O26	-	/	12.26	-	9.65	-	+	-	-	10.93	11.25	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PD
11	-	-	-	-	+	+	TBX	+	+	+	O26	-	/	12.58	-	10.30	-	+	-	-	12.41	12.40	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PD
13	+19.69	+19.75	+19.63	O26	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
14	-			-	-	-					-	-	/	23.38	-	21.02	-	+	-	-	22.57	25.74	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PD
18	+22.26	+21.49	+22.21	O26	+	+	TBX	+	+		O26	+	O26	12.27	-	10.02	-	+	-	-	10.74	10.75	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
24	+24.06	+22.83	+23.23	O26	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
3	+19.17	+19.12	+19.91	O26	+	+	TBX	+	+		O26	+	O26	13.42	-	10.88	-	+	-	-	11.16	11.46	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
5	+20.58	+20.40	+20.60	O26	+	+	TBX	+	+		O26	+	O26	12.22	-	9.83	-	+	-	-	10.68	11.02	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
9	+20.83	+19.97	+19.61	O26	+	+	TBX	+	+		O26	+	O26	12.68	-	10.60	-	+	-	-	12.08	12.51	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
10	+19.80	+19.65	+20.06	O26	+	+	TBX	+	+		O26	+	O26	14.27	-	12.17	-	+	-	-	11.12	11.73	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
17	+19.56	+19.59	+19.37	O26	+	+	TBX	+	+		O26	+	O26	11.59	-	9.18	-	+	-	-	10.58	11.06	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
19	+21.76	+21.86	+21.37	O26	+	+	TBX	+	+		O26	+	O26	11.68	-	9.39	-	+	-	-	12.30	13.09	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
20	+20.24	+19.71	+20.06	O26	+	+	TBX	+	+		O26	+	O26	11.47	-	9.02	-	+	-	-	10.82	11.02	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PA
22	+20.07	+19.36	+19.82	O26	+	+	TBX	+	+		O26	+	O26	12.40	-	10.28	-	+	-	-	10.46	10.42	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

Collaborator M

Aerobic mesophilic flora: 3.4x10^5 CFU/g

| Sample N° | Reference method: ADRIA ISO/TS 13136 internal method | | | | | | | | | | | | | Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC) | | | | | | | | | | | | |

Collaborator N

Aerobic mesophilic flora: 4.2x10³ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocol 1 (25g + 225ml (d1/10) PW mEHEC)																										
													Pre-warmed mEHEC																								Result		
													8 h at 41.5°C Screening					10 h at 41.5°C Confirmation															10 h at 41.5°C Cultural confirmation										
													MPX TOP 7 STEC					MPX ID for Top STEC															Remaining beads									
	PCR results			PCR Final result	Confirmation						Result		PCR result				MPX TOP 7 STEC Final result	PCR result Group 1 & Group 2									MPX ID Final result	PCR Final result	Streaking (20µL beads)		Confirmation on typical colonies			Final result cultural confirmation	STEC	Serogroup	Agreement
					Direct streaking																																				
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)		STEC	Sero-group	stx1	stx2	eae	O157		eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*			CHROMAgar STEC	TBX	Plate used	PCR MPX Top 7 Result	PCR MPX ID Result				
4	-			-	+	-	CH	-			-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
7	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
8	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
12	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
15	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
16	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
21	-			-	+	-	CH	-			-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
23	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
1	+26.80	+25.60	+26.57	O26	+	+	CH/TBX	+	+		O26	+	O26	12.90	-	11.21	-	+	-	-	12.33	13.12	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
2	+27.46	+27.95	+28.67	O26	+	+	CH/TBX	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND
6	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
11	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
13	+28.41	+28.56	+28.42	O26	+	+	CH/TBX	+	+		O26	+	O26	12.86	-	12.15	-	+	-	-	11.00	9.92	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
14	-			-	+	+	CH/TBX	+	+	+	O26	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
18	+22.84	+22.07	+22.66	O26	+	+	CH/TBX	+	+		O26	+	O26	13.18	-	11.81	-	+	-	-	11.61	11.11	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
24	+22.08	+22.37	+22.51	O26	+	+	CH/TBX	+	+		O26	+	O26	12.52	-	12.35	-	+	-	-	12.36	11.46	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
3	+25.02	+25.18	+25.93	O26	+	+	CH/TBX	+	+		O26	+	O26	12.68	-	10.95	-	+	-	-	13.03	13.03	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
5	+20.54	+21.16	+21.33	O26	+	+	CH/TBX	+	+		O26	+	O26	10.27	-	8.98	-	+	-	-	13.17	13.71	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+26.01	+25.37	+26.09	O26	+	+	CH/TBX	+	+		O26	+	O26	13.03	-	12.38	-	+	-	-	13.72	13.10	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+22.47	+22.37	+23.19	O26	+	+	CH/TBX	+	+		O26	+	O26	12.99	-	12.02	-	+	-	-	12.59	12.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+23.48	+23.83	+23.78	O26	+	+	CH/TBX	+	+		O26	+	O26	12.35	-	10.33	-	+	-	-	14.82	14.25	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+23.88	+23.30	+24.06	O26	+	+	CH/TBX	+	+		O26	+	O26	11.78	-	10.64	-	+	-	-	9.89	9.17	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+20.42	+20.61	+21.34	O26	+	+	CH/TBX	+	+		O26	+	O26	12.39	-	11.19	-	+	-	-	11.97	11.01	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
22	+21.16	+20.85	+21.52	O26	+	+	CH/TBX	+	+		O26	+	O26	11.54	-	10.39	-	+	-	-	11.99	10.76	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

Collaborator O

Aerobic mesophilic flora: 5.7x10³ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method													Assurance GDS STEC - Protocol 1 (25g + 225ml (d1/10) PW mEHEC)																							Result		
														Pre-warmed mEHEC																									
														8 h at 41.5°C Screening					10 h at 41.5°C Confirmation															10 h at 41.5°C Cultural confirmation								
														MPX TOP 7 STEC					MPX ID for Top STEC															Remaining beads								
	PCR results			PCR Final result	Confirmation							Result		PCR result				MPX TOP 7 STEC Final result	PCR result Group 1 & Group 2									MPX ID Final result	PCR Final result	Streaking (20µL beads)		Confirmation on typical colonies			Final result cultural confirmation	STEC	Serogroup	Agreement
					Direct streaking																																						
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)	Result	STEC	Sero-group	stx1	stx2	eae	O157		eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*			CHROMAgar STEC	TBX	Plate used	PCR MPX Top 7 Result	PCR MPX ID Result				
4	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
7	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
8	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
12	+27.53	+28.06	+28.19	O26	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
15	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+/-/-	+/-/-	CH	+	+	+/-/-	-	/	NA$_{FN(alt)}$
16	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
21	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
23	-			-	-	-					-	-	/		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
1	+16.92	+17.37	+17.34	O26	+	+	CH	+	+		O26	+	O26	11.79	-	9.05	-	+	-	-	9.24	9.31	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
2	+17.02	+17.50	+17.30	O26	+	+	CH	+	+		O26	+	O26		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND
6	+17.03	+17.39	+17.40	O26	+	+	CH	+	+		O26	+	O26	13.06	-	9.91	-	+	-	-	8.60	8.93	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
11	-			-	-	-					-	-	/	16.08	-	13.61	-	+	-	-	9.50	9.73	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
13	-			-	-	-					-	-	/	13.01	-	10.37	-	+	-	-	10.52	10.31	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
14	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
18	+19.35	+20.12	+20.42	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND
24	-			-	-	-					-	-	/	15.21	-	12.22	-	+	-	-	9.85	9.78	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
3	+17.44	+17.81	+17.77	O26	+	+	CH	+	+		O26	+	O26	12.81	-	9.81	-	+	-	-	8.79	8.51	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
5	+17.02	+17.32	+17.12	O26	+	+	CH	+	+		O26	+	O26	11.52	-	8.62	-	+	-	-	9.34	9.23	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+15.24	+16.03	+16.00	O26	+	+	CH	+	+		O26	+	O26	14.52	-	11.60	-	+	-	-	9.81	9.37	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+15.50	+15.93	+15.84	O26	+	+	CH	+	+		O26	+	O26	14.01	-	11.26	-	+	-	-	9.35	9.31	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+15.25	+16.10	+16.08	O26	+	+	CH	+	+		O26	+	O26	15.57	-	12.54	-	+	-	-	11.40	11.85	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+17.08	+17.25	+17.33	O26	+	+	CH	+	+		O26	+	O26	12.29	-	9.38	-	+	-	-	11.68	11.38	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+17.12	+17.19	+17.23	O26	+	+	CH	+	+		O26	+	O26	13.58	-	10.39	-	+	-	-	11.55	11.64	-	-	-	-	-	O26	O27	+	+	CH	+	O26	O26	+	O27	PA
22	+17.04	+17.32	+17.52	O26	+	+	CH	+	+		O26	+	O26	9.77	-	7.11	-	+	-	-	12.70	12.51	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

Collaborator ADRIA

Aerobic mesophilic flora: 5.7x10³ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136♦ internal method													Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																													Result		
														Pre-warmed mEHEC																															
														8 h at 41.5°C Screening						10 h at 41.5°C Confirmation															10 h at 41.5°C Cultural confirmation											
														MPX TOP 7 STEC						MPX ID for Top STEC															Remaining beads											
	PCR results			PCR Final result	Confirmation							Result		PCR result				MPX TOP 7 STEC Final result	PCR result Group 1 & Group 2									MPX ID Final result	PCR Final result	Streaking (20µL beads)		Confirmation on typical colonies			Final result cultural confirmation	Result		Agreement
					Direct streaking																																									
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)	Result	STEC	Sero-group	stx1	stx2	eae	O157		eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*			CHROMAgar STEC	TBX	Plate used	PCR MPX Top 7 Result	PCR MPX ID Result		STEC	Sero-group	
4	-			-							-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
7	-			-							-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
8	-			-							-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
12	-			-							-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
15	-			-							-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
16	-			-							-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
21	-			-							-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
23	-			-							-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
1	15.55	+15.61	+16.06	O26	+	+	CH	+	+		O26	+	O26	10.53	-	7.69	-	+	-	-	7.73	8.76	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
2	+16.13	+16.28	+16.09	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND
6	-			-								-	/	15.71	-	12.82	-	+	-	-	7.91	9.10	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
11	+15.41	+16.58	+15.36	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND
13	-			-								-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA
14	+15.08	+7.87	+15.01	O26	+	+	CH	+	+		O26	+	O26	13.34	-	10.66	-	+	-	-	8.88	9.92	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
18	-			-								-	/	10.96	-	7.88	-	+	-	-	7.43	8.20	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
24	+15.16	+14.50	+15.17	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND
3	+15.25	+15.28	+15.09	O26	+	+	CH	+	+		O26	+	O26	9.44	-	6.54	-	+	-	-	7.99	8.34	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
5	+16.22	+16.14	+16.24	O26	+	+	CH	+	+		O26	+	O26	10.52	-	7.34	-	+	-	-	7.40	8.34	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+16.10	+16.02	+16.32	O26	+	+	CH	+	+		O26	+	O26	9.81	-	6.68	-	+	-	-	9.22	9.33	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+15.20	+18.11 (1/10)	+15.01	O26	+	+	CH	+	+		O26	+	O26	9.93	-	7.15	-	+	-	-	8.53	8.99	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+15.06	+14.61	+15.03	O26	+	+	CH	+	+		O26	+	O26	10.25	-	7.43	-	+	-	-	7.02	7.77	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+15.03	+14.77	+14.83	O26	+	+	CH	+	+		O26	+	O26	11.88	-	9.07	-	+	-	-	7.17	8.01	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+15.61	+14.44	+14.93	O26	+	+	CH	+	+		O26	+	O26	9.65	-	6.53	-	+	-	-	7.35	7.80	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
22	+11.15	+18.26 (1/10)	+14.93	O26	+	+	CH	+	+		O26	+	O26	9.59	-	6.59	-	+	-	-	7.21	7.71	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA