

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

Qualitative method

> Expert Laboratory:	ADRIA ZA Creac'h Gwen 29000 Quimper (France)
○ For:	MILLIPORE SAS 39 Route Industrielle de la Hardt CS n° 49222 67129 MOLSHEIM Cedex (France)

This report consists of 184 pages, including 7 appendices.

Only copies including the totality of this report are authorised.

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

Version 0
September 2, 2025



List of abbreviations	4
1 AIM OF THE STUDY	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 trueness 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 <i>E. coli</i> 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 <i>Escherichia coli</i> (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	154
>	Appendix 6 – Inclusivity/exclusivity study: raw data	164
>	Appendix 7 - Results obtained by the collaborative laboratories and the expert laboratory	169

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
$\bar{D}$	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 — <i>Part 1: Vocabulary</i> - ISO 16140-2 (2016) & ISO 16140-2/A1 (2024): Microbiology of the food chain - Method validation — <i>Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method</i> - 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 <i>Escherichia coli</i> (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 (<i>excluding seasoned meat for 375 g test portion</i>) > Raw and ready-to-cook meat > Raw poultry meat, ready-to-cook, ready-to-heat and ready-to-eat > Raw milk and dairy products > Production environmental samples
Certification organism	AFNOR Certification (http://nf-validation.afnor.org/)

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

1 AIM OF THE STUDY

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 <i>Escherichia coli</i> (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

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.

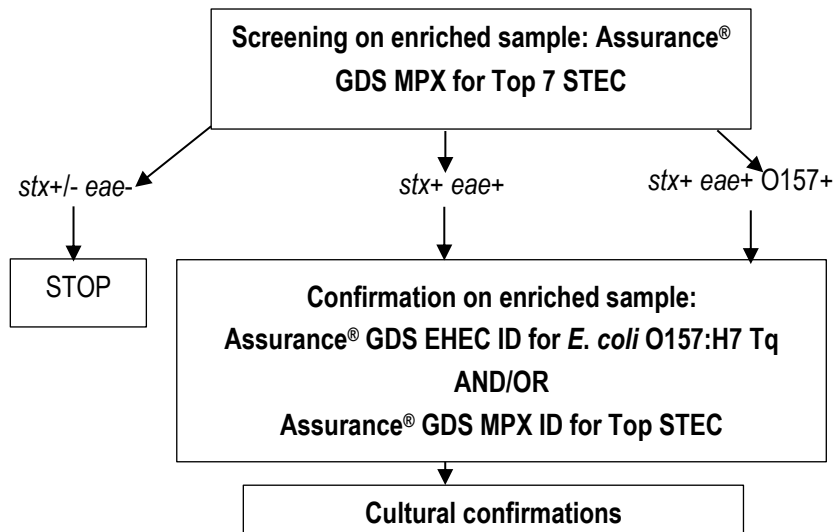
Table 1 -Targets detected with each kit

Target	Screening	Confirmation		
	Assurance® GDS MPX for Top 7 STEC	Assurance® GDS MPX ID for Top STEC		Assurance® GDS EHEC ID for <i>E. coli</i> O157:H7 Tq
		Group 1	Group 2	
<i>stx1</i>	X			X
<i>stx2</i>	X			X
<i>eae</i>	X	X	X	
O157 <i>eae</i> *	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 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 this extension (See **Appendix 1**) are described in the table 2 below.

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: <i>stx</i> , <i>eae</i> , <i>eae</i> 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 <i>E. coli</i> 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 <i>E. coli</i> O157:H7 Tq			

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

Extension study

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: <i>stx</i> , <i>eae</i> , <i>eae</i> 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 <i>E. coli</i> 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 <i>E. coli</i> 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				
<i>stx 1 or stx 2</i>	<i>eae</i>	<i>eae O157</i>	<i>eae 1 or eae 2 or eae 3</i>	<i>O26 or O103 or O11 or O145</i>	<i>stx</i>	<i>O157</i>	<i>H7</i>		
-	- or +	- or +	/	/	/	/	/	/	-
+	-	- or +	/	/	/	/	/	/	-
+	+	-	- or +	-	/	/	/	/	-
		-	- or +	+	/	/	/	+	+
		-	- or +	+	/	/	/	-	-
		+	/	/	+	-	- or +	/	Unconclusive, test MPX ID
		+	/	/	+	+	- or +	+	+
		+	/	/	+	+	- or +	-	Inconclusive, test MPX ID

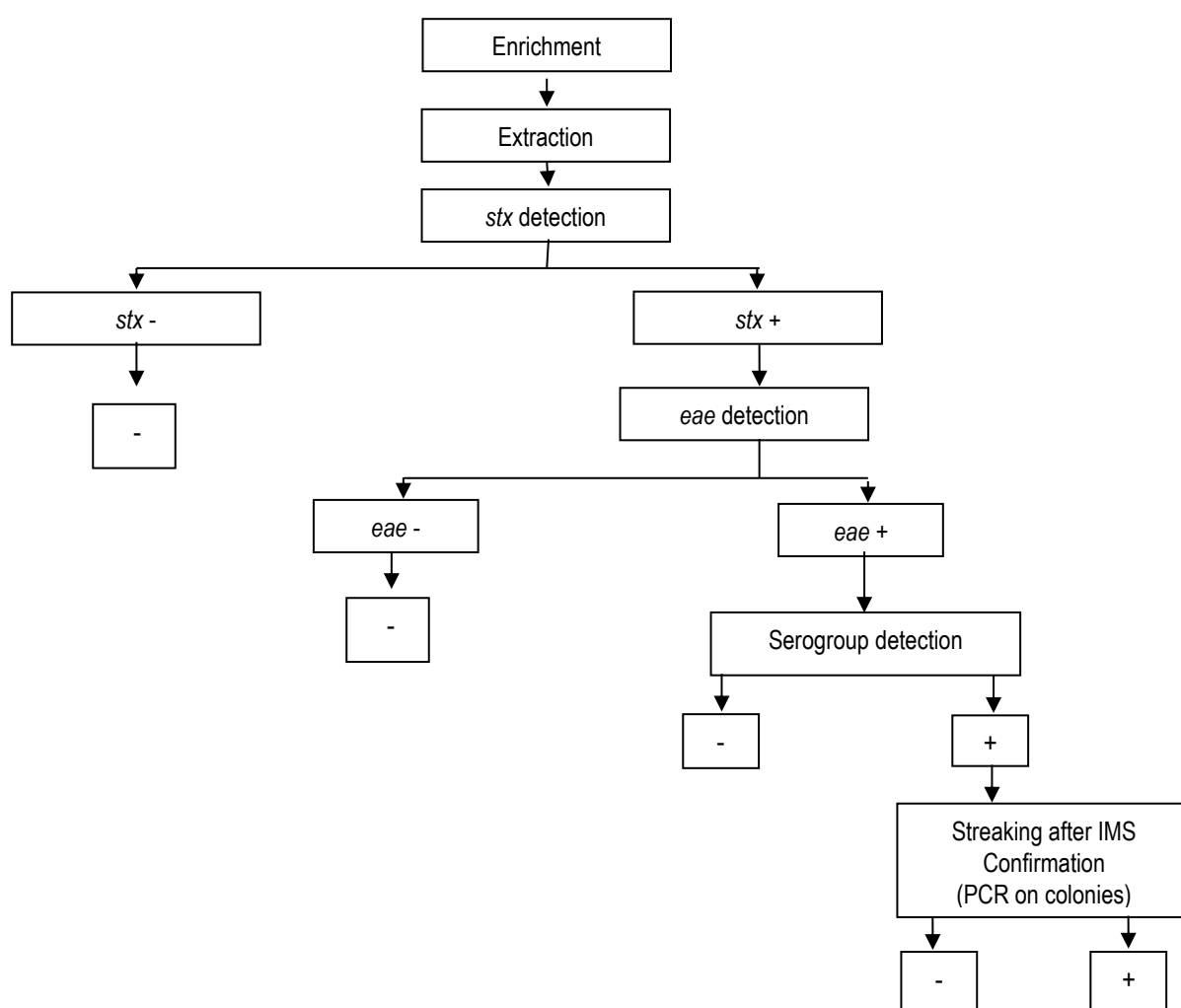
2.2 Reference method♦

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



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

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 <i>stx</i>	PCR <i>eae</i>	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 evaluation. The matrices strain pairs tested are described in Table 5 with the calculated LOD₅₀.

Table 5 – LOD₅₀ 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) / <i>E. coli</i> O26 Ad2826	0.69 [0.39;1.24]
	Vegetable waste / <i>E. coli</i> O103 Ad3318	0.57 [0.33; 0.97]
	Wipe (meat industry) / <i>E. coli</i> O157 Ad489	0.80 [0.46; 1.39]

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.

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. The assays are performed outside COFRAC accreditation.

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 poultry, raw seasoned poultry and heat-treated poultry (combined)	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		253	253	506
				All categories and protocols - Long incubation time		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 poultry, raw seasoned poultry and heat-treated poultry (combined)	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 following times were applied:

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 <i>E. coli</i> 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)

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:

- **6 h and 24 h** for Raw and RTC meats
- **8 h and 24 h** for Raw, RTC, RTRH and RTE poultry

- **10 h and 24 h** for Raw milk and dairy products and production environmental samples.

> ***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
<u>Top 4 non-O157</u>	/	<i>For initial validation study only:</i> 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) – <i>for initial validation study only</i>
<u>O157</u>	For all categories: streak 10 µL onto selective agar plates	/	<i>For raw dairy category during the initial validation and for all categories during the extension study:</i> By using the remaining IMS beads from Assurance® GDS MPX <u>EHEC ID for <i>E. coli</i> O157:H7 Tq</u> 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 have been tested 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 $5 \pm 3^{\circ}\text{C}$ 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 2024	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 poultry, raw seasoned poultry and heat-treated poultry (combined)	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 category 3, 4, 5 and 6					143	73	37	253	506
	All categories and protocols - Long incubation time for category 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.

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	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} \times 100 \%$	85.4%	86.2%
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} \times 100 \%$	71.1%	70.9%
Relative trueness	$RT = \frac{(PA + TNA)}{N} \times 100 \%$	78.3%	78.5%
False positive ratio for the alternative method (unpaired evaluation)	$FPR = \frac{PA_{FP(alt)} + PD_{FP(alt)}}{TNA} \times 100 \%$	2.0%	1.6%
False negative ratio for the alternative method (unpaired evaluation)	$FNR = \frac{NA_{FN(alt)} + ND_{FN(alt)}}{PA + TND + PD}$	0.036	0.024

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																																		
	Date	Sample N°	Product (French name)	Product	Artificial contaminations		Global result	Final result ISO/TS 13136*		Assurance® GDS STEC - Protocol ① (25 g + 225 ml (d1/10) PW mEHEC®) 8 h at 41.5°C																				Category	Type				
										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	ISO requirements		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						
																																Screening	Confirmation	Screening	Confirmation
													non-O157	O157	non-O157	O157																			
								2021	2277	Viande bovine bavette d'Aloyau	Beef trim meat	E. coli O157:H7 769	2,6	+	+	O157	-	/	-	-	/	-	-	/	ND	-	/	-	/			-	-	/	-
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																																		
	Date	Sample N°	Product (French name)	Product	Artificial contaminations		Global result	Final result ISO/TS 13136 [♦]		Assurance® GDS STEC - Protocol ② (375 g + 1500 ml (d1/5) PW mEHEC®) 10 h at 41.5°C																		Agreement	Category	Type					
										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		ISO requirements		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									
																															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 result PCR	Final confirmation result		Final confirmation result	Result	Serogroup	Agreement	Result	Serogroup	Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID	Final result PCR after storage	Final confirmation result			Final confirmatory	Result	Serogroup	Agreement	
																non-O157	O157											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			

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

	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)																
				Strain				Inoculation level/sample	PCR result				Confirmations				Final result short time		Agreement Ref/Alt short time	PCR result				Confirmations				Final result long time		Agreement Ref/Alt long time							
						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					
Final result stx/ee	Sero-group	Final result	Sero-group																																		
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						

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

	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			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				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
																Final result stx/ee	Sero-group	Final result									Sero-group			Final result	
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	-	-	-	-	-	/	/	-	-	/	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

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

Table 14 - Positive deviations

Initial validation study	Raw beef meat - 25 g sample size																																					
	Date	Sample N°	Product (French name)	Product	Artificial contaminations		Global result	Final result ISO/TS 13136*		Assurance® GDS STEC - Protocol ① (25 g + 225 ml (d1/10) PW mEHEC®) 8 h at 41.5°C																				Category	Type							
										Strain	Inoculation level/ sample	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									
															Screening	Confirmation		Screening	Confirmation		Screening	Confirmation		Screening	Confirmation													
															Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID	Final result PCR	Final confirmation result		Final confirmatory tests	Result		Serogroup	Agreement	Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID				Final result PCR after storage	Final confirmation result		Final confirmatory tests after storage	Result	Serogroup	
																			non-O157														O157	non-O157				O157
	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	+	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	+	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	+	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	+	O111	PD	1	b							

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

Initial validation study	Raw beef meat - 375 g sample size																																						
	Date	Sam ple N°	Product (French name)	Product	Artificial contaminations		Global result	Final result ISO/TS 13136*		Assurance® GDS STEC - Protocol ② (375 g + 1500 ml (d1/5) PW mEHEC®)																			Agreement	Category	Type								
										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													
																			Screening	Confirmation		Screening						Confirmation											
																																Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID	Final confirmation result	Final confir- matory tests	Result	Serogroup	
																																							non- O157
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									

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

Initial validation study	Raw milk																													
	Date	Sample N°	Product (French name)	Product	Artificial contaminations		Global result	Final result ISO/TS 13136*		Assurance® GDS STEC - Protocol ③ (25 g + 225 ml (d1/10) PW mEHEC®) 18h at41.5°C																	Agreement	Category	Type	
										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							
																		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
					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				-
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	+	O26	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	+	O26	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	+	O103	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	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	+	O103	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	+	O111	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	+	O103	PD	2	a

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

Initial validation study	Raw milk cheese																														
	Date	Sample N°	Product (French name)	Product	Artificial contaminations		Global result	Final result ISO/TS 13136 [♦]		Assurance® GDS STEC - Protocol ④ (25 g + 225 ml (d1/10) PW mEHEC®) 18h at41.5°C																		Category	Type		
										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 result Assurance® GDS STEC after storage		Agreement					
					Screening	Confirmation		Screening	Confirmation	Screening	Confirmation		Confirmations on colonies	Final confirmatory tests after storage	Result	Serogroup															
					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		non-O157			O157	
																															non-O157
					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	+
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	+	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	+	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	+	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	

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

	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)													
				Strain	Inoculation level/sample			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 short time		Agreement Ref/Alt short time	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 long time			Agreement Ref/Alt long time	
																Final result	Sero-group										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

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

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)														
			Strain	Inoculation level/sample			PCR result				Confirmations				Final result short time		Agreement Ref/Alt short time	PCR result				Confirmations				Final result long time			Agreement Ref/Alt long time		
							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				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
Final result stx/eae	Sero-group																														
	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
	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 2024	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)	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 poultry, raw seasoned poultry and heat-treated poultry (combined)	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 $\leq$ 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 poultry, raw seasoned poultry and heat-treated 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.

Similar results 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

Initial validation	Sample N°	Product	Result before storage			Result after storage		
			PCR	Confirmation	Agreement	PCR	Confirmation	Agreement
	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			
				Agreement Ref/Alt Short time	Agreement Ref/Alt Long time	Agreement Ref/Alt Short time	Agreement Ref/Alt Long time				
								Final result stx/eae	Serogroup		
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

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

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		
	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 2024	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 poultry, raw seasoned poultry and heat-treated poultry (combined)	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 2024	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 poultry, raw seasoned poultry and heat-treated 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								
Target to confirm	Media	Initial validation study				Extension study				
		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 poultry, raw seasoned poultry and heat-treated 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	Number of positives PCR	After incubation time							After enriched sample storage						
		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 poultry, raw seasoned poultry and heat-treated 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 poultry, raw seasoned poultry and heat-treated 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	/	-
	4780 after storage		MPX ID (mEHEC)	NoAmp	-	/	/	/
			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	<i>E. coli</i> O157:H7 Ad683 (<i>stx</i> ₁ +, <i>stx</i> ₂ +, <i>eae</i> +)	Beef meat	48 h at 3°C ± 2°C	①
			375 g (excluding seasoned meat)	Frozen raw ground beef	<i>E. coli</i> O145:H28 1502-105 (<i>stx</i> ₁ -, <i>stx</i> ₂ +, <i>eae</i> +)	Meat	2 weeks at -20°C	②
	2	Raw milk and dairy products	25 g	Raw cow milk	<i>E. coli</i> O103:H2 Ad3027 (<i>stx</i> ₁ +, <i>stx</i> ₂ -, <i>eae</i> +)	Dairy industry environmental sample	48 h at 5°C ± 3°C	③
			25 g	Soft cheese	<i>E. coli</i> O26:H11 Ad3098 (<i>stx</i> ₁ +, <i>stx</i> ₂ -, <i>eae</i> +)	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	<i>E. coli</i> O145:H28 1502-105 (<i>stx</i> ₂ / <i>eae</i>)	Meat	Liquid suspension 48-72 h at 3 ± 2°C	⑤
	4	Raw poultry, raw seasoned poultry and heat-treated poultry	25 g	Raw turkey filet	<i>E. coli</i> O103 (<i>stx</i> ₁ / <i>stx</i> ₂ / <i>eae</i>) Ad3284	Veal	Liquid suspension 48-72 h at 3 ± 2°C	⑥
	5	Raw milk and dairy products	25 g	Raw milk cheese	<i>E. coli</i> O111 (<i>stx</i> ₁ / <i>eae</i>) Ad3179	Raw milk cheese	Liquid suspension 48-72 h at 3 ± 2°C	⑦
	6	Production environmental samples	25 ml	Process water from milk industry	<i>E. coli</i> O26 Ad2826 (<i>stx</i> ₁ , <i>eae</i>)	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 LOD₅₀ 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) <i>E. coli</i> O157:H7 Ad683	2.5	0.873 [0.379; 2.008]	
			Raw beef meat (25g) <i>E. coli</i> O157:H7 Ad683		1.515 [0.636; 3.608]	
	2	Raw milk and dairy products	Raw cow milk <i>E. coli</i> O103:H2 Ad3027		1.146 [0.498; 2.636]	
			Soft cheese <i>E. coli</i> O26:H11 Ad3098		1.429 [0.632; 3.231]	
Extension study 2024	3	Raw and RTC meats (except poultry)	Raw Ground beef <i>E. coli</i> O145:H28 1502-105		0.871 [0.369; 2.061]	0.871 [0.369; 2.061]
	4	Raw poultry, raw seasoned poultry and heat-treated poultry (combined)	Raw turkey filet <i>E. coli</i> O103		2.357 [0.946; 5.871]	2.357 [0.946; 5.871]
	5	Raw milk and dairy products	Raw milk cheese <i>E. coli</i> O111 Ad3179		2.110 [0.800; 5.567]	0.918 [0.405; 2.079]
	6	Production environmental samples	Process water <i>E.coli</i> 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 - LOD₅₀ and LOD₉₅ results

			Level of detection at 50% (CFU / sample size)			Level of detection at 95% (CFU / sample size)		
Category		(Strain / matrix) pair	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) <i>E. coli</i> 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]	
		Raw beef meat (25g) <i>E. coli</i> O157:H7 Ad683	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 cow milk <i>E. coli</i> 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 <i>E. coli</i> 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 2024	3	Raw and RTC meats (except poultry) Raw Ground beef <i>E. coli</i> 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 poultry, raw seasoned poultry and heat-treated poultry (combined) Raw turkey filet <i>E. coli</i> 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 <i>E. coli</i> 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 <i>E. coli</i> 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 LOD₅₀ 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
<i>stx+</i> , <i>eae+</i> 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 10⁵ 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. A positive result was observed for the *E. coli* O45:H2 Ad1778, as expected, but as this serogroup is not included in the scope of the validation, the result is considered as negative.

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 $5\pm 3^{\circ}\text{C}$. 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, (*stx1+*, *stx2-*, *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 $3 \pm 2^\circ\text{C}$. *Triplicate samples* were analysed. 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)						<i>E. coli</i> 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 $3 \pm 2^\circ\text{C}$. 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	6.7 10 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 3.1 10² CFU/g to 5.2 10⁶ 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	P₀=34	C₀=1	CP₀=1	P₁=77	C₁=70	C₁=66	CP₂=120	C₂=120	CP₂=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	P₀=0	C₀=1	CP₀=0	P₁=70	C₁=75	CP₁=70	P₂=118	C₂=120	CP₂=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	P ₁ =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	$SP_{ref} = \left(1 - \left(\frac{P_0}{N_-} \right) \right) \times 100 \% =$	99.1%
Specificity for the reference method – before confirmation	$SP_{ref} = \left(1 - \left(\frac{P_0}{N_-} \right) \right) \times 100 \% =$	69.6%
Specificity for the final alternative method	$SP_{alt} = \left(1 - \left(\frac{CP_0}{N_-} \right) \right) \times 100 \% =$	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	$SE_{alt} = \frac{(PA + PD)}{(PA + TND + PD)} \times 100 \%$	73.6%
Sensitivity for the reference method	$SE_{ref} = \frac{(PA + TND)}{(PA + TND + PD)} \times 100 \%$	71.4%
Relative trueness	$RT = \frac{(PA + TNA)}{N} \times 100 \%$	55.4%
False positive ratio for the alternative method (unpaired evaluation)	$FPR = \frac{PA_{FP(alt)} + PD_{FP(alt)}}{TNA} \times 100 \%$	0.0%
False negative ratio for the alternative method (unpaired evaluation)	$FNR = \frac{NA_{FN(alt)} + ND_{FN(alt)}}{PA + TND + PD}$	0.03

4.4.3 Interpretation of trueness 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

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

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 $\leq$ 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 ND - PD meets the acceptability limits (AL) for all categories, protocols and for all the combined samples.
- ☒ 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.
- ☒ It is possible to store the primary enrichment broth for 72 h at $5 \pm 3^{\circ}\text{C}$ for most of the categories except after short incubation times (6h, 8h and 10h) due to difficulties confirming the positive PCR results.
- ☒ Negative results are available on the day of initiating the analyses for all categories when using the short incubation time, with 6, 8 or 10 h. Positive results are obtained in one day. 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, 02 September 2025

Florian QUERO

Technical Study Manager

Method performance in food microbiology



Astrid CARIOU

Manager

Method performance in food microbiology

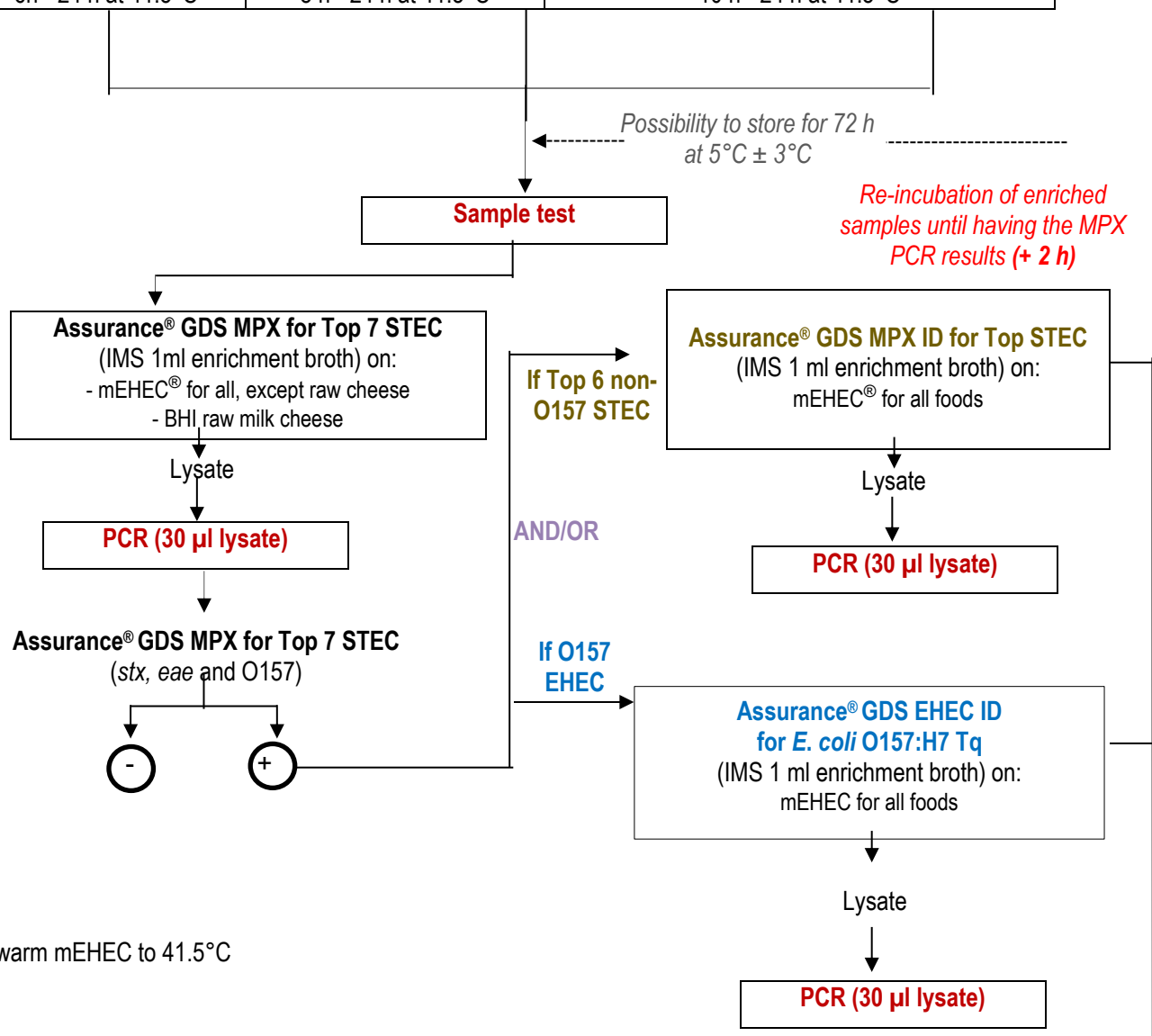


I hereby attest to the validation of the results of the analyses carried out under the COFRAC accreditation.

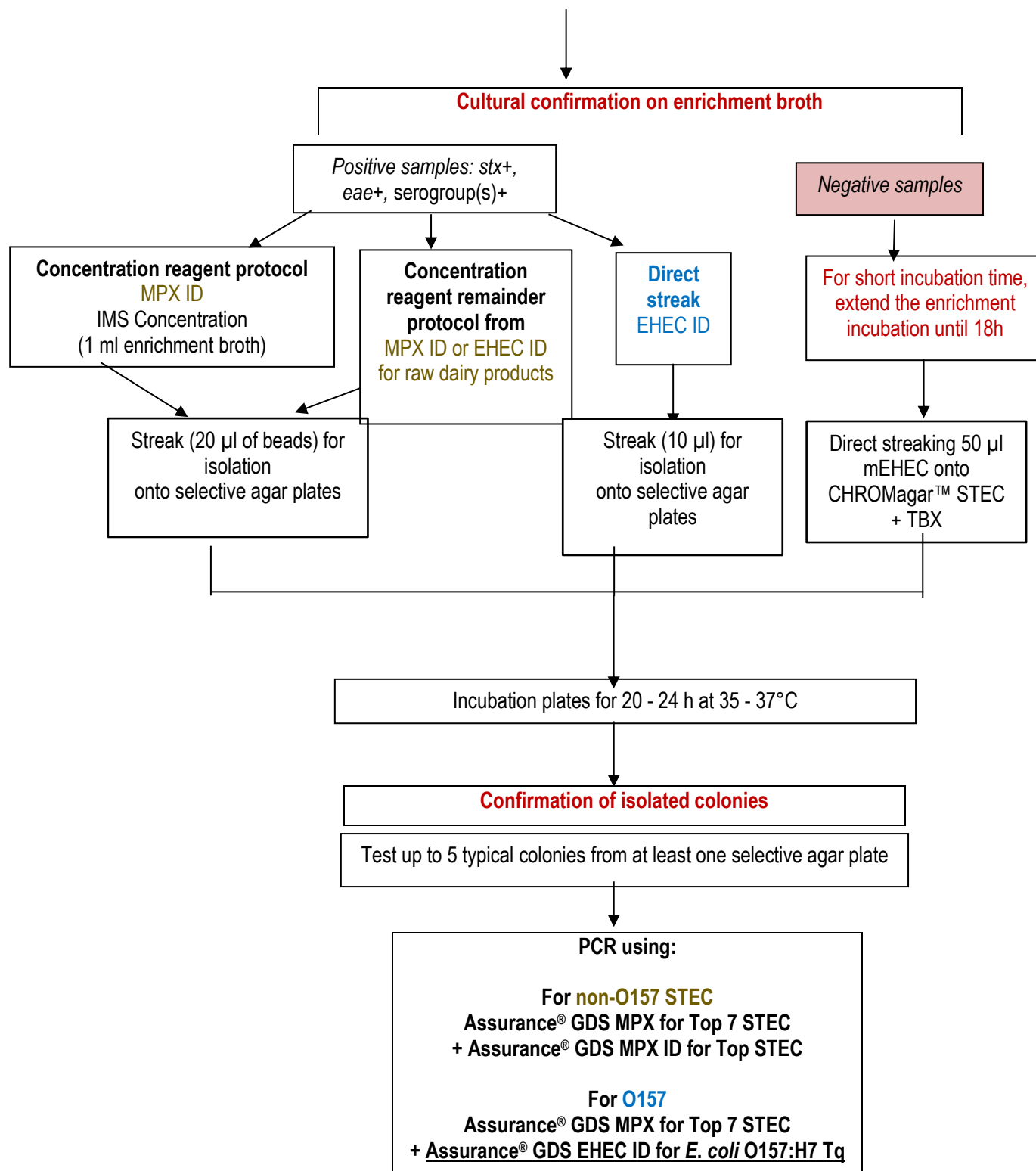
I hereby attest to the validation of the verification of the conformity of the report (opinion and interpretation).

**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®*	Raw beef meat (excluding seasoned meat) 375 g + 1500 ml d 1:5 mEHEC®*	Raw milk 25 g + 225 ml d 1:10 mEHEC®*	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
8 h - 16 h at 41.5°C	10 h - 18 h at 41.5°C	18 h - 24 h at 41.5°C	
Protocol ⑤	Protocol ⑥	Protocol ⑦	
Raw and RTC meats Up to 25 g d 1/10 pre-warmed mEHEC® (41.5°C) 6 h - 24 h at 41.5°C	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	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	



* 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 (protocol ④)

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		
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

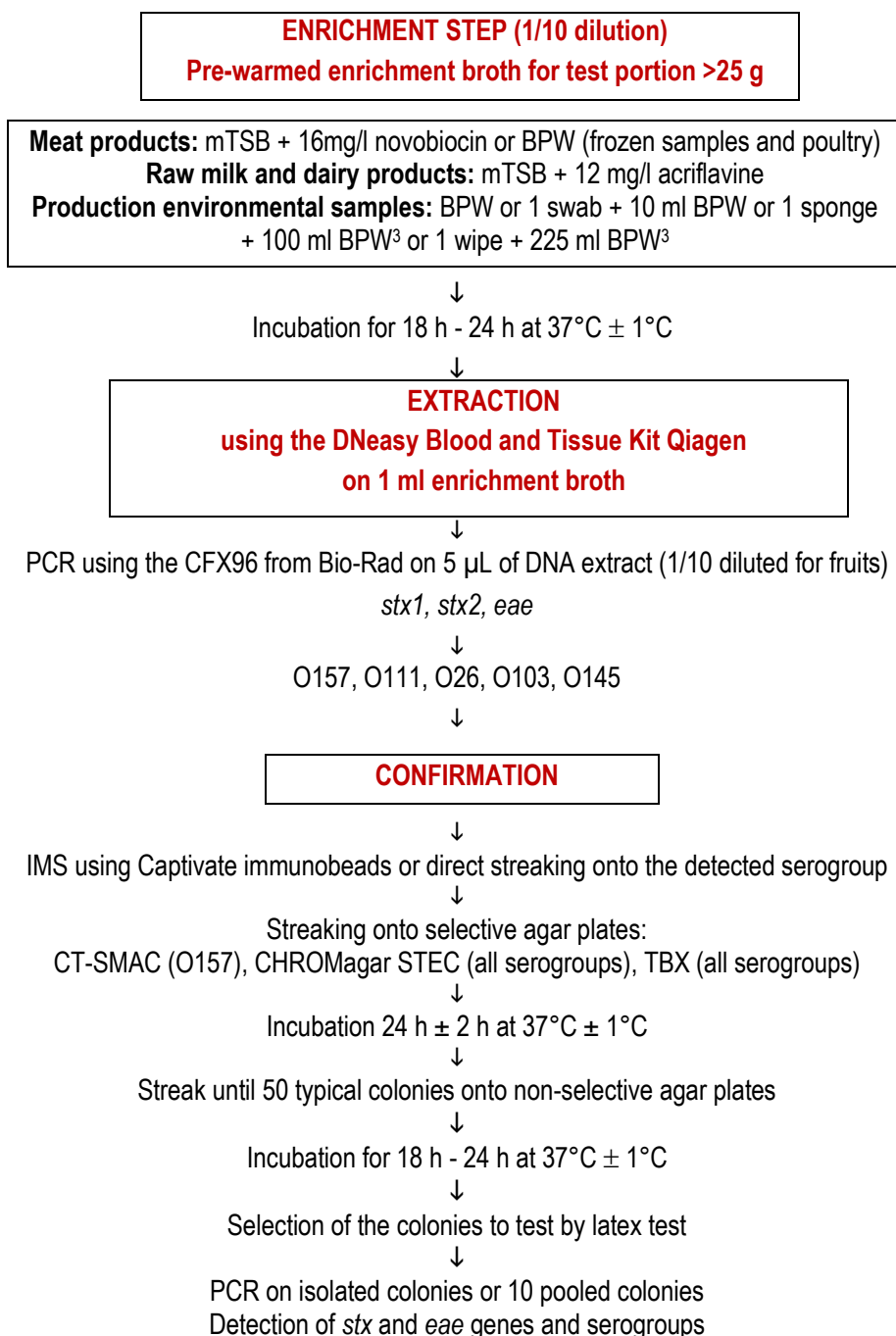
² (excluding seasoned meat)

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 <i>E. coli</i> O157:H7 Tq		Media	Streak 20 µl of beads	Media	Streak 10 µl of enrichment broth	Media	Streak 20 µl of beads (2 extractions)	Selectiv e agar plates for non-O157 STEC	Selectiv e agar plates for O157
		Tested Media	Incubation time (h)	Tested Media	Incubati 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				
					stx1	stx2	eae			Enumeration	Mean			
2021	2277	Viande bovine bavette d'Aloyau	Beef trim meat	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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				
					stx1	stx2	eae			Enumeration	Mean			
2021	3249	Rôti de bœuf	Fresh beef trim meat	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> O111 Ad3042	+	-	+	Raw milk cheese	Seeding 2 weeks at -20°C	1-1-1-2-0	1.0	+	1	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					
2024	674	Bavette d'ailou	Sirloin steak	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> O103 Ad3113	+	-	+	Escalope	Seeding 2 weeks at -20°C	/	0-1-4-1-2	1.6	25g	+	+	3	c
2024	3525	Bavette d'ailou congelé	Frozen sirloin steak	<i>E. coli</i> 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	<i>E. coli</i> O157:H7 Ad976	+	+	+	Beef meat	Seeding 2 weeks at -20°C	/	2-4-0-3-1	2.0	25g	+	+	3	c
2024	3527	Effeillé de charolais congelé	Frozen Charolais strip loin	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	879	Lait cru fermenté	Fermented raw milk	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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 buisnières)	Raw ewe milk cheese	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> O26 Ad3034	+	-	+	Raw goat milk	Seeding 48h 3±2°C	/	0-1-4-1-2	1.6	25g	+	+	5	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	116654	Fromage au lait cru de chèvre (Picodon)	Raw goat milk cheese	<i>E. coli</i> 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	<i>E. coli</i> 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 (industrie laitière)	Swape before cleaning (dairy industry)	<i>E. coli</i> 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 laitière)	Swape before cleaning (dairy industry)	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> O103 Ad2981	+	+	+	Rawmilk 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)	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> O103 Ad2981	+	+	+	Rawmilk 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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	<i>E. coli</i> 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 measure ment	Inoculation level/sample			Short time	Long time		
					stx1	stx2	eae				Enumeration	Mean					
2025	115731	Déchet chipolatas	Chipolatas waste	<i>E. coli</i> 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	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> O103 Ad2981	+	+	+	Rawmilk 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)	<i>E. coli</i> 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)	<i>E. coli</i> 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 rince bottes (industrie carné)	Process water (meat industry)	<i>E. coli</i> 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)	<i>E. coli</i> 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	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> 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)	<i>E. coli</i> O103:H2 Ad3027	+	-	+	Wipa goat farming	Seeding 48h 3±2°C	/	1-0-2-0-1	0.8	25g	+	+	6	c

RAW BEEF MEAT (25 g test portion)																								
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						
										Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agreement	ISO requirements Confirmation after 18h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agreement			
					Result	Serogroup	Result	Serogroup	Result			Serogroup	Result		Serogroup									
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	
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	

RAW BEEF MEAT (25 g test portion)																								
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		Result		
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	
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 (375 g test portion)																							
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®)													
										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		Agreement	ISO requirements Confirmation after 18h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agreement	Category	Type
						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

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

RAW BEEF MEAT EXCLUDING SEASONED MEAT (375 g test portion)																							
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			
					Result	Serogroup	Global result	Serogroup	Result		Serogroup	Result	Serogroup	Result			Serogroup	Result		Serogroup			
2021	5468	Steak haché de bœuf 15%MG	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/						1	a
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

RAW BEEF MEAT EXCLUDING SEASONED MEAT (375 g test portion)																							
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		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Confirmation after 18h incubation time at 41.5°C	Result			Serogroup				
																				Result			
2021	5555	Viande hachée 15%MG surgelée	Frozen ground beef meat	-	-			-	/	-	-(18h)	-	/	NA	-	/					1	b	
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'ailoyau 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 (25 g test portion) – 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							
										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	-	-	/	PDFP(AL T)	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		

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

RAW MILK AND DAIRY PRODUCTS (25 g test portion) – 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
					PCR Result	Confirmation		Final result ISO/TS 13136		Before storage						After storage for 72 h at 5°C ±3°C							
										Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ment	ISO requirements		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agree-ent		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Confirmation after 18 h incubation time at 41.5°C	Result			
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

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

RAW MILK AND DAIRY PRODUCTS (25 g test portion) – 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
					PCR Result	Confirmation		Final result ISO/TS 13136		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agreement	ISO requirements		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agreement		
															Confirmation after 18 h incubation time at 41.5°C								
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
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
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/O103	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

RAW MILK AND DAIRY PRODUCTS (25 g test portion) – 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
					PCR Result	Confirmation		Final result ISO/TS 13136		Before storage						After storage for 72 h at 5°C ±3°C							
										Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agreement	ISO requirements Confirmation after 18 h incubation time at 41.5°C		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		Agreement		
						Result	Serogroup	Global result	Serogroup			Result	Serogroup		Result	Serogroup			Result	Serogroup			
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
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 POULTRY, RAW SEASONED POULTRY AND HEAT-TREATED POULTRY (combined)																																			
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136*		Alternative method: Assurance® GDS STEC																												Category	Type
						Short time (8 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				
						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			Final result	10µl			Final result							
														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	Final result stx/ae	Sero-group	stx1	stx2	ee	O157	Final result	Final result	Final result	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	NA		
2025	115911	Escalope de poulet	Chicken escalope	-	/	-	-	11.31	-	-	+O45/ +O103	-	-(O45/ O103)	-C	/	/	/	-C	/	-	/	/	/	/	/	/	/	-	-	NA	4	a			
2024	2829	Cuisses de poulet au paprika	Chicken thighs with paprika	+	O157	16.23	15.74	13.15	14.46	+	O26/ O45/ O103/ O111/ O145	+O157	O26/ O45/ O103/ O111/ O145/ O157	/	-C	/	+1/2	/	/	+O157	/	/	/	/	+m	+m	+m	+O157	+	+	PA	4	b		
2024	2830	Ailes de poulet au paprika	Chicken wings with paprika	+	O157	15.84	16.18	13.54	13.76	+	O103/ O111/ O145	+O157	O103/ O111/ O145/ O157	/	-C	/	+M	/	/	+O157	/	/	/	/	+m	+m	+m	+O157	+	+	PA	4	b		
2024	2831	Aiguillette de dinde à la mexicaine	Mexican turkey tenderloin	-	/	-	-	-	-	-	-	+O157	-(O157)	/	-C	/	/	/	-B	-	/	/	/	/	-C	-C	-C	-	-	-	NA	4	b		
2024	2832	Pilon de poulet miel/barbecue	Honey/barbecue chicken drumstick	-	/	-	15.92	13.21	14.56	+	-	+O157	+O157	/	-C	/	/	/	+m	+O157	/	/	/	/	-C	+m	-C	+O157	+	+	PD	4	b		
2024	2833	Magret de canard fumé	Smoked duck breast	+	O145	-	16.29	12.39	12.68	+	+O145	-	+O145	+m	/	+1/2	/	/	/	+O145	+1/2	-B	+1/2	+O145	/	/	/	/	+	+	PA	4	b		
2024	2834	Saucisson de volaille	Chicken sausage	-	stx/ee+	-	-	-	-	-	-	-	-	/	st	/	/	/	st	-	/	/	/	/	-C	-C	-C	-	-	-	NA	4	b		
2024	2835	Saucisson de poulet	Chicken sausage	-	/	-	18.26	15.69	16.74	+	-	+O157	+O157	/	+p	/	/	/	+p	+O157	/	/	/	/	+M	+p	+p	+O157	+	+	PD	4	b		
2024	2953	Saucisson de poulet	Chicken sausage	+	O103	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	st	st	st	-	/	/	/	/	-	-	ND	4	b		
2024	4100	Magret de canard fumé	Smoked duck breast	+	O103	-	-	-	-	-	+O103/ +O145	/	-(O103/ O145)	st	/	-B	/	/	/	-	/	/	/	/	/	/	/	/	- (+24h)	-	ND _{FN(alt)}	4	b		
2024	4101	Saucisson de volaille	Poultry sausage	+	O157	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	st	st	st	-	- (+24h)	-	ND _{FN(alt)}	4	b		
2024	4102	Emincé de poulet mariné	Sliced marinated chicken	+	O26	20.91	-	18.42	-	+	+O26	/	+O26	+p	/	+m	/	/	/	+O26	/	/	/	/	/	/	/	/	+	+	PA	4	b		
2024	4103	Dinde assaisonnée	Seasoned turkey	+	O103	21.03	-	19.17	-	+	+O45/ +O103	/	+O103/ +O45	-C	/	+m	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	PA	4	b		
2024	4104	Cuisse de canard mariné	Marinated duck leg	-	/	19.17	19.60	16.35	17.22	+	-	+O157	+O157	/	+M	/	+p	/	/	+O157	/	/	/	/	-A	+M	-A	+O157	+	+	PD	4	b		
2025	113057	Magret de canard fumé	Smoked duck breast	-	/	-	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	4	b		

RAW POULTRY, RAW SEASONED POULTRY AND HEAT-TREATED POULTRY (combined)																																	
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136*		Alternative method: Assurance® GDS STEC																										Category	Type
						Short time (8 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		
						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							Beads+Wash buffer 20µl							Beads+Wash buffer 20µl				10µl									
						Final result stx/eae	Sero-group	stx1	stx2	eae	O157		Final result	Final result	Final result	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		
2025	113067	Pilons de poulet cuit naturels	Plain cooked chicken drumsticks	-	/	-	-	-	-	-	-		-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	-	-	NA	4	c
2025	113068	Emincés de poulet rôti	Sliced roast chicken	-	/	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	-	-	NA	4	c	
2025	113069	Terrine de lapin	Rabbit terrine	-	/	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	-	-	NA	4	c	
2025	113070	Rillettes de poulet rôti	Roast chicken rillettes	-	/	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	-	-	NA	4	c	

RAW MILK AND DAIRY PRODUCTS																																			
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136*		Alternative method: Assurance® GDS STEC																												Category	Type
						Short time (10 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				
						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												
													Beads+Wash buffer 20µl							Beads+Wash buffer 20µl				10µl											
													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									
						Final result stx/eae	Sero-group	stx1	stx2	eae	O157		Final result	Final result	Final result	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			
2025	114573	Fromage au lait cru de vache (Reblochon)	Raw cow milk cheese	-	/	-	-	-	-	-	-/- -/- -	/	-	+p	/	-B	/	/	/	-	/	/	/	/	/	/	/	-	-	NA	5	b			
2025	114574	Fromage au lait cru de vache (Morbier)	Raw cow milk cheese	+	O157	-	19.40	17.28	19.09	+	-	+O157	+O157	/	+p		/	/	+p	+O157	/	/	/	/	/	/	/	+	+	PA	5	b			
2025	114575	Fromage au lait cru de vache (Brie de Meaux)	Raw cow milk cheese	-	/	15.71	-	13.64	-	+	+O103	/	+O103	+p	/	/	/	+p	/	+O103	/	/	/	/	/	/	/	+	+	PD	5	b			
2025	114576	Fromage au lait cru de vache (Camembert)	Raw cow milk cheese	-	/	-	-	-	-	-	-	/	-	-C	/	/	/	-C	/	-	/	/	/	/	/	/	/	-	-	NA	5	b			
2025	114577	Fromage au lait cru de chèvre (Crottin)	Raw goat milk cheese	-	/	18.52	-	17.27	-	+	+O111	/	+O111	+m (2)	/	/	/	st	/	+O111	/	/	/	/	/	/	/	+	+	PD	5	b			
2025	114578	Fromage au lait cru de chèvre (Rocamadour)	Raw goat milk cheese	+	O157	-	-	-	-	-	-	/	-	/	-B	/	/	/	-B	-	/	/	/	/	/	/	/	- (+72h)	-	ND _{FN(alt)}	5	b			
2025	114579	Fromage au lait cru de brebis (Roquefort)	Raw ewe milk cheese	-	/	21.27	-	20.05	-	+	+O103	/	+O103	+p	/	/	/	+p	/	+O103	/	/	/	/	/	/	/	+	+	PD	5	b			
2025	114580	Fromage au lait cru de brebis (Pérail les buisnières)	Raw ewe milk cheese	+	O26	31.93	-	27.05	-	+	-/ -/ -	-	-	+p (5)	/	/	/	st	/	+O26	/	/	/	/	/	/	/	+	-	ND _{FN(alt)}	5	b			
2025	116648	Crème au lait cru	Raw milk cream	-	/	-	-	-	-	-	-	-	-	st	/	-B	/	/	/	-	/	/	/	/	/	/	/	-	-	NA	5	b			
2025	116649	Beurre au lait cru	Raw milk butter	+	O26	10.28	-	8.12	-	+	+O26	-	+O26	+p	/	+p	/	/	/	+O26	/	/	/	/	/	/	/	+	+	PA	5	b			
2025	116650	Fromage au lait cru de vache (Camembert)	Raw cow milk cheese	-	/	-/-	-/-	-/-	-/-	i/-/i	-	-	-	-B	/	+M	/	/	/	-	/	/	/	/	/	/	/	-	-	NA	5	b			
2025	116651	Fromage au lait cru de vache (reblochon)	Raw cow milk cheese	-	/	-	-	-	-	-	-	-	-	-B	/	-A	/	/	/	-	/	/	/	/	/	/	/	-	-	NA	5	b			
2025	116652	Fromage au lait cru de brebis (Roquefort)	Raw ewe milk cheese	-	/	8.89	-	6.90	8.57	+	+O145	-	+O145	+m	/	/	/	+M	/	+O145	/	/	/	/	/	/	/	+	+	PD	5	b			
2025	116653	Fromage au lait cru de brebis (Ossau Iraty)	Raw ewe milk cheese	-	/	16.67	-	14.50	-	+	+O26	-	+O26	+p	/	/	/	+p (15)	/	+O26	/	/	/	/	/	/	/	+	+	PD	5	b			
2025	116654	Fromage au lait cru de chèvre (Picodon)	Raw goat milk cheese	-	/	14.57	-	13.03	-	+	+O111	-	+O111	+p	/	/	/	+p	/	+O111	/	/	/	/	/	/	/	+	+	PD	5	b			

RAW MILK AND DAIRY PRODUCTS																																			
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136*		Alternative method: Assurance® GDS STEC																												Category	Type
						Short time (10 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				
						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			Final result	10µl			Final result							
														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								
						Final result stx/eae	Sero-group	stx1	stx2	eae	O157	Final result	Final result	Final result	+p (2)	/	/	/	+p	/	+O145	/	/	/	/	/	/	/	/	/	/	/	/		
2025	116655	Fromage au lait cru de chèvre (Rocamadour)	Raw goat milk cheese	-	/	20.26	-	19.88	20.02	+	+O145	-	+O145	+p (2)	/	/	/	+p	/	+O145	/	/	/	/	/	/	/	/	+	+	PD	5	b		

PRODUCTION ENVIRONMENTAL SAMPLES																																			
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136		Alternative method: Assurance® GDS STEC																												Category	Type
						Short time (10 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				
						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			Final result	10µl			Final result							
														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								
Final result stx/eae	Sero-group	stx1	stx2	eae	O157	Final result	Final result	Final result	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	2572	Chiffonnette sol atomiseur avant nettoyage (industrie laitière)	Swape before cleaning (dairy industry)	-	/	-	-	-	-	-	-	/	-	st	/	/	/	st	/	-	st	st	st	-	/	/	/	/	-	-	NA	6	a		
2024	2573	Chiffonnette sol virole avant nettoyage (industrie laitière)	Swape before cleaning (dairy industry)	+	O111	-	-	-	-	-	-	/	-	st	/	/	/	st	/	-	st	st	st	-	/	/	/	/	-	-	ND	6	a		
2024	2574	Chiffonnette porte sal fabrication avant nettoyage (fromagerie)	Swape before cleaning (dairy industry)	+	O103	9.43	-	7.79	-	+	+O103	/	+O103	+p	/	/	/	+p	/	+O103	+p	+M	+p	+O103	/	/	/	/	+	+	PA	6	a		
2024	2575	Chiffonnette moule emmental avant nettoyage (fromagerie)	Swape before cleaning (dairy industry)	-	/	-	11.06	9.37	-	+	+O26	/	+O26	+p	/	/	/	+M	/	+O26	+M	+M	+p	+O26	/	/	/	/	+	+	PD	6	a		
2024	2576	Chiffonnette préparation crème glacée après nettoyage (industrie laitière)	Swape after cleaning (dairy industry)	-	/	-	-	-	-	-	-	/	-	st	/	/	/	st	/	-	st	st	st	-	/	/	/	/	-	-	NA	6	a		
2024	2627	Chiffonnette sol local électronarcose (industrie aviaire)	Swape (poultry industry)	+	O157	-	-	-	-	-	-	-	-	/	st	/	/	/	st	-	/	/	/	/	st	st	st	-	-	-	ND	6	a		
2024	2628	Chiffonnette cutter après nettoyage (industrie porc)	Swape after cleaning (pork industry)	+	O145	-	11.36	8.42	9.21	+	+O145	-	+O145	+p	/	/	/	st	/	+O145	+p	st	+p	+O145	/	/	/	/	+	+	PA	6	a		
2024	2629	Chiffonnette plan de travail production mousse de foie avant nettoyage (industrie porc)	Swape after cleaning (pork industry)	+	O145	-	14.03	11.23	11.51	+	+O145	-	+O145	+p	/	/	/	st	/	+O145	+p	st	+p	+O145	/	/	/	/	+	+	PA	6	a		
2025	115721	Filtre à lait	Milk filter	+	O157	-	21.63	19.56	21.90	+	-	+O157	+O157	/	-B	/	-B	/	/	-	/	/	/	/	-A	-A	-A	-	- (+72h)	+	PA	6	a		
2025	115722	Filtre à lait	Milk filter	+	O103	8.34	-	6.37	-	+	+O103	/	+O103	st	/	+p	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	PA	6	a		

PRODUCTION ENVIRONMENTAL SAMPLES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136		Alternative method: Assurance® GDS STEC																												Category	Type																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
						Short time (10 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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
						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							Beads+Wash buffer 20µl							Beads+Wash buffer 20µl				10µl																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

PRODUCTION ENVIRONMENTAL SAMPLES																																			
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136		Alternative method: Assurance® GDS STEC																												Category	Type
						Short time (10 h) 25 g +225 ml PW mEHCC																													
						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				
						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			Final result	10µl			Final result							
														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								
						Final result stx/eae	Sero-group	stx1	stx2	eae	O157	Final result	Final result	Final result	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	PA	PD		
2024	2623	Déchets effilochés 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	Déchets hachés 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	Déchets 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	Déchets découpe de porc tombés au sol	Pork meat waste	+	O157	-	-	-	-	-	-	-	-	/	st	/	/	/	st	-	/	/	/	/	-A	-A	-B	-	-	-	ND	6	b		
2025	115727	Déchets mousse de foie	Liver mousse waste	+	O157	-	-	-	-	-	-	/	-	st	/	/	/	-C	/	-	/	/	/	/	-A	-B	-A	-	-	-	ND	6	b		
2025	115728	Déchets porc saumurés	Pickled pork waste	+	O157	-	24.07	22.29	25.83	+	-	+O157	+O157	/	+p	/	/	/	st	+O157	/	/	/	/	/	/	/	/	+	+	PA	6	b		
2025	115729	Déchets chipolatas	Chipolatas waste	+	O157	-	28.10	26.14	27.38	+	-	+O157	+O157	/	-A	/	/	/	+p	+O157	/	/	/	/	-A	+M	+m	+O157	+	+	PA	6	b		
2025	115730	Déchets effilochés de bœuf	Beef waste	-	/	11.06	12.26	8.37	9.21	+	+O145	-	+O145	+p	/	/	/	+1/2	/	+O145	/	/	/	/	/	/	/	/	+	+	PD	6	b		
2025	115731	Déchets chipolatas	Chipolatas waste	+	O157	-	23.69	22.66	22.98	+	-	+O157	+O157	/	-A	/	/	/	+M	+O157	/	/	/	/	-A	+p	+m	+O157	+	+	PA	6	b		
2025	115732	Déchets viande de bœuf	Waste beef	-	/	-	-	-	-	-	-	/	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	b		
2025	117081	Eau de processus 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																																			
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136		Alternative method: Assurance® GDS STEC																												Category	Type
						Short time (10 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				
						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			Final result	10µl			Final result							
														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								
						stx1	stx2	eae	O157	CHROMagar STEC	EHEC		TBX	CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7	Result	Result																	
2025	117087	Eau de rinçage adoucie déminéralisée (industrie laitière)	Softened and demineralized rinsing water (dairy industry)	-	/	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	b			
2024	2562	Eau de siphon salle de fabrication (fromagerie)	Washing water (dairy industry)	+	O26	-	-	-	-	-	-	/	-	st	/	-A	/	/	/	-	st	st	st	-	/	/	/	/	-	-	ND	6	c		
2024	2563	Eau de lavage (fromagerie)	Washing water (dairy industry)	+	O111	10.12	-	9.05	-	+	+O111	/	+O111	+p	/	+p	/	/	/	+O111	+p	st	+p	+O111	/	/	/	/	+	+	PA	6	c		
2024	2564	Eau de process (fromagerie)	Process water (dairy industry)	+	O103	25.27	-	23.89	-	+	+O103	/	+O103	+p	/	+p	/	/	/	+O103	+p	st	+p	+O103	/	/	/	/	+	+	PA	6	c		
2024	2565	Eau de nettoyage (fromagerie)	Cleaning water (dairy industry)	-	/	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	st	st	st	-	/	/	/	/	-	-	NA	6	c		
2024	2566	Eau de rinçage circuit (industrie laitière)	Circuit rinsing water (dairy industry)	-	/	8.14	8.33	6.41	-	+	+O103	/	+O103	+p	/	+p	/	/	/	+O103	+p	+M	+p	+O103	/	/	/	/	+	+	PD	6	c		
2024	2567	Eau de lavage (industrie laitière)	Washing water (dairy industry)	+	O26	9.77	-	8.30	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	+p	st	+p	+O26	/	/	/	/	+	+	PA	6	c		
2024	2568	Eau de lavage (industrie laitière)	Washing water (dairy industry)	+	O111	11.84	-	10.82	-	+	+O111	/	+O111	+p	/	+p	/	/	/	+O111	+p	st	+p	+O111	/	/	/	/	+	+	PA	6	c		
2024	2620	Eau de process rince bottes (industrie carné)	Process water (meat industry)	-	/	-	-	-	-	-	-	-	-	/	st	/	st	/	/	-	/	/	/	/	st	st	st	-	-	-	NA	6	c		
2024	2621	Eau de lavage (industrie carné)	Washing water (meat industry)	+	O157	9.45	9.78	7.28	8.18	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+p	+p	+p	+O157	+	+	PA	6	c		
2024	2622	Déchet de porc saumuré	Pork meat waste	+	O157	-	9.06	7.23	8.10	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+p	+p	+p	+O157	+	+	PA	6	c		
2025	115718	Eau de process (industrie porc)	Process water (pork industry)	+	O103	8.81	-	7.08	-	+	+O103	/	+O103	st	/	+p	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	PA	6	c		
2025	115719	Eau de process (industrie porc)	Process water (pork industry)	+	O157	-	24.08	-	29.25	+	-	+O157	+O157	/	-B	/	+M	/	/	+O157	/	/	/	/	-A	+p	+M	+O157	+	+	PA	6	c		
2025	115720	Eau de process (environnement laitier)	Process water (dairy industry)	+	O103	10.12	-	7.99	-	+	+O103	/	+O103	st	/	+p	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	PA	6	c		
2025	117088	Déchet pâte finie porc caséinate (industrie charcutière)	Waste finished pork caseinate paste (meat industry)	-	/	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	-	-	NA	6	c			

PRODUCTION ENVIRONMENTAL SAMPLES																																			
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136		Alternative method: Assurance® GDS STEC																												Category	Type
						Short time (10 h) 25 g +225 ml PW mEHCC																													
						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				
						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			Final result	10µl			Final result							
				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										
Final result stx/eae	Sero-group	stx1	stx2	eae	O157	Final result	Final result	Final result	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										
2025	117089	Déchet broyeur poulet (industrie aviaire)	Chicken grinder waste (poultry industry)	-	/	-	-	14.75	-	-	-	-	-	-	+p	/	/	/	+M	/	-	/	/	/	/	/	/	/	-	-	NA	6	c		
2025	117090	Déchets chipolatas (industrie porcine)	Waste chipolatas (pork industry)	-	/	-	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	-	-	NA	6	c		
2025	117091	Déchets porc saumuré (industrie porcine)	Brined pork waste (pork industry)	-	/	-	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	-	-	NA	6	c		
2025	117092	Déchets haché (industrie viande)	Minced meat waste (meat industry)	-	/	-	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	-	-	NA	6	c		
2025	117093	Déchets effiloché bœuf (industrie viande)	Beef shredder waste (meat industry)	-	/	-	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	-	-	NA	6	c		
2025	117094	Déchets sol découpe bœuf (industrie viande)	Ground beef cuts waste (meat industry)	-	/	-	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	-	-	NA	6	c		

RAW MILK AND DAIRY PRODUCTS																																					
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136*		Alternative method: Assurance® GDS STEC																										Category	Type				
						Long time (24 h) 25 g +225 ml PW mEHEC																															
						PCR result - long time 24h at 41.5°C				PCR result – long time 24h + 2h à 41.5°C		PCR final result 24h	Confirmations - 24h + 2h at 41.5°C																Final Confirmation result short time	Final result short time	Agreement Ref/Alt 24h						
						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			Final result	10µl			Final result									
														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										
						Final result stx/eae	Sero-group	stx1	stx2	eae	O157		Final result	Final result	Final result	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
						2025	116654	Fromage au lait cru de chèvre (Picodon)	Raw goat milk cheese	-	/		11.14	-	9.52	-	+	+O111	-	+O111	+p	/	/	/	/	+p	/	+O111						/	/	/	/
2025	116655	Fromage au lait cru de chèvre (Rocamadour)	Raw goat milk cheese	-	/	19.40	-	18.59	19.25	+	+O145		-	+O145	+p	/	/	/	/	+p	/	+O145	/	/	/	/	/	/				/	+	+	PD	5	b

PRODUCTION ENVIRONMENTAL SAMPLES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136		Alternative method: Assurance® GDS STEC																												Category	Type																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
						Long time (24 h) 25 g +225 ml PW mEHEC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
						PCR result - long time 24h at 41.5°C				PCR result – long time 24h + 2h à 41.5°C		PCR final result 24h	Confirmations - 24h + 2h at 41,5°C																		Final Confirmation result short time	Final result short time	Agreement Ref/Alt 24h																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
						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			Final result	10µl			Final result																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
						CHROMAgar STEC	CHROMAgar O157	TBX	CT SMAC					ChromID EHEC	EC O157 Chromoselect agar	CHROMAgar STEC	EHEC	TBX		Final result	CHROMAGAR O157	CT-SMAC		ChromoSelect E.coli O157:H7	Final result																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
				stx1	stx2	eae	O157																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

PRODUCTION ENVIRONMENTAL SAMPLES																																	
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																											
						PCR result - long time 24h at 41.5°C				PCR result – long time 24h + 2h à 41.5°C		PCR final result 24h	Confirmations - 24h + 2h at 41,5°C																Final Confirmation result short time	Final result short time	Agreement Ref/Alt 24h		
						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			Final result	10µl			Final result					
						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						
				Final result stx/eae	Sero-group																											Result	Result
2025	115724	Chiffonnette cutter après nettoyage (industrie porc)	Swape after cleaning (pork industry)	+	O103	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	ND	6	a	
2025	115725	Chiffonnette cutter avant nettoyage (industrie porc)	Swape before cleaning (pork industry)	+	O157	-	19.01	23.11	23.83	+	-	+O157	+O157	/	+M	/	+p	/	/	+O157	/	/	/	/	+M	+M	+1/2	+O157	+	+	PA	6	a
2025	115726	Chiffonnette sol après nettoyage (industrie laitier)	Swape after cleaning (dairy industry)	-	/	16.27	16.32	15.33	16.05	+	+O145	-	+O145	+p	/	/	/	+M	/	+O145	/	/	/	/	/	/	/	+	+	PD	6	a	
2025	117075	Eponge avant désinfection (industrie laitière)	Sponge before cleaning (dairy industry)	-	/	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	a	
2025	117076	Eponge avant nettoyage (industrie carné)	Sponge before cleaning (meat industry)	-	/	-	-	-	-	-	-	-	st	/	-B	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	a	
2025	117077	Eponge avant nettoyage (industrie fromagère)	Sponge before cleaning cheese industry)	-	/	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	a	
2025	117078	Filtre d'un lait de tank	Tank milk filter	-	/	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	a	
2025	117079	Chiffonnette après nettoyage (industrie aviaire)	Swape after cleaning (poultry industry)	-	/	-	-	-	-	-	-	-	-C	/	-A	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	a	
2025	117080	Chiffonnette après nettoyage (industrie fromagère)	Swape after cleaning (cheese industry)	-	/	-	-	-	-	-	-	-	st	/	st	/	/	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	a	
2024	2569	Déchét essais fromage	Cheese waste	-	/	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	st	st	st	-	/	/	/	/	-	-	NA	6	b
2024	2570	Déchét fromage Brie tombé au sol	Cheese waste	+	O26	-	16.00	14.33	-	+	+O26	/	+O26	+p	/	/	/	+p	/	+O26	+p	+p	+p	+O26	/	/	/	/	+	+	PA	6	b
2024	2571	Déchét production fromage pâte persillée	Cheese waste	-	/	-	-	-	-	-	-	/	-	st	/	/	/	st	/	-	st	st	st	-	/	/	/	/	-	-	NA	6	b
2024	2623	Déchét effiloché de bœuf au sol	Beef meat waste	+	O157	14.44	14.48	13.59	13.90	+	-	+O157	+O157	/	+p	/	/	/	+p	+O157	/	/	/	/	+M	+p	+p	+O157	+	+	PA	6	b
2024	2624	Déchét haché de bœuf	Beef meat waste	-	/	-	15.05	13.66	13.85	+	+O145	-	+O145	+p	/	+p	/	/	/	+O145	+p	+p	+p	+O145	/	/	/	/	+	+	PD	6	b

PRODUCTION ENVIRONMENTAL SAMPLES																																			
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136		Alternative method: Assurance® GDS STEC																										Category	Type		
						Long time (24 h) 25 g +225 ml PW mEHEC																													
						PCR result - long time 24h at 41.5°C				PCR result – long time 24h + 2h à 41.5°C		PCR final result 24h	Confirmations - 24h + 2h at 41,5°C																		Final Confirmation result short time			Final result short time	Agreement Ref/Alt 24h
						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			Final result	10µl			Final result								
														CHROMagar STEC	CHROMagar O157	TBX	CT SMAC	ChromID EHEC		EC O157 Chromoselect agar	CHROMagar STEC	EHEC		TBX	Final result	CHROMAGAR O157		CT-SMAC	ChromoSelect E.coli O157:H7	Final result					
						stx1	stx2	ee	O157	Final result	Final result		Final result	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	2564	Eau de process (fromagerie)	Process water (dairy industry)	+	O103	12.93	-	12.54	-	+	+O103		/	+O103	+p	/	+p	/	/	/	+O103	+p	+p	+p	+O103	/	/	/	/	+		+	PA		
2024	2565	Eau de nettoyage (fromagerie)	Cleaning water (dairy industry)	-	/	-	-	-	-	-	-	/	-	st	/	st	/	/	/	-	st	st	st	-	/	/	/	/	-	-	NA	6	c		
2024	2566	Eau de rinçage circuit (industrie laitière)	Circuit rinsing water (dairy industry)	-	/	11.88	12.75	11.19	-	+	+O103	/	+O103	+p	/	+p	/	/	/	+O103	+p	+p	+p	+O103	/	/	/	/	+	+	PD	6	c		
2024	2567	Eau de lavage (industrie laitière)	Washing water (dairy industry)	+	O26	15.97	-	14.59	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	+p	+p	+p	+O26	/	/	/	/	+	+	PA	6	c		
2024	2568	Eau de lavage (industrie laitière)	Washing water (dairy industry)	+	O111	17.05	-	16.66	-	+	+O111	/	+O111	+p	/	+p	/	/	/	+O111	+p	+p	+p	+O111	/	/	/	/	+	+	PA	6	c		
2024	2620	Eau de process rince bottes (industrie carné)	Process water (meat industry)	-	/	-	-	-	-	-	-	-	-	/	st	/	st	/	/	-	/	/	/	/	st	st	st	-	-	-	NA	6	c		
2024	2621	Eau de lavage (industrie carné)	Washing water (meat industry)	+	O157	13.79	13.60	12.79	14.43	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+p	+p	+p	+O157	+	+	PA	6	c		
2024	2622	Déchét de porc saumuré	Pork meat waste	+	O157	-	15.20	14.77	14.91	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+M	+p	+p	+O157	+	+	PA	6	c		
2025	115718	Eau de process (industrie porc)	Process water (pork industry)	+	O103	15.82	-	13.93	-	+	+O103	-	+O103	st	/	+p	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	PA	6	c		
2025	115719	Eau de process (industrie porc)	Process water (pork industry)	+	O157	-	16.33	19.67	21.03	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+M	+p	+M	+O157	+	+	PA	6	c		
2025	115720	Eau de process (environnement laitier)	Process water (dairy industry)	+	O103	14.86	-	13.54	-	+	+O103	-	+O103	st	/	+M	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	PA	6	c		
2025	117088	Déchét pâte finie porc caséinate (industrie charcutière)	Waste finished pork caseinate paste (meat industry)	-	/	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	c		
2025	117089	Déchét broyeur poulet (industrie aviaire)	Chicken grinder waste (poultry industry)	-	/	-	-	19.42	-	-	-	-	-	+M	/	/	/	+1/2	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	c		
2025	117090	Déchét chipolatas (industrie porcin)	Waste chipolatas (pork industry)	-	/	-	-	-	-	-	-	-	-	st	/	/	/	-A	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	c		
2025	117091	Déchét porc saumuré (industrie porcin)	Brined pork waste (pork industry)	-	/	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	c		
2025	117092	Déchets haché (industrie carné)	Minced meat waste (meat industry)	-	/	-	-	-	-	-	-	-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	/	/	-	-	NA	6	c		

PRODUCTION ENVIRONMENTAL SAMPLES																																	
Year	Sample N°	Product (French name)	Product	Reference method : ADRIA internal method according to ISO/TS 13136		Alternative method: Assurance® GDS STEC																										Category	Type
						Long time (24 h) 25 g +225 ml PW mEHEC																											
						PCR result - long time 24h at 41.5°C				PCR result – long time 24h + 2h à 41.5°C		PCR final result 24h	Confirmations - 24h + 2h at 41,5°C																Final Confirmation result short time	Final result short time	Agreement Ref/Alt 24h		
						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			Final result	10µl			Final result					
														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						
						Final result stx/eae	Sero-group	stx1	stx2	eae	O157		Final result	Final result	Final result	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					
2025	117093	Déchets effiloché bœuf (industrie carné)	Beef shredder waste (meat industry)	-	/	-	-	-	-	-	-		-	-	st	/	/	/	st	/	-	/	/	/	/	/	/	-				-	NA
2025	117094	Déchet sol découpe bœuf (industrie carné)	Ground beef cuts waste (meat industry)	-	/	-	-	-	-	-	-	-	-	-C	/	/	/	-B	/	-	/	/	/	/	/	/	-	-	NA	6	c		

RAW AND RTC MEATS (except poultry)																																
Year	Sample N°	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦	Alternative method: Assurance® GDS STEC																									Category	Type		
				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														Final Conformation result short time + 72h	Final result short time + 72h			Agreement Ref/Alt Short time +72h	
				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			Final result	10µl			Final result						
													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
				Final result stx/eae	Sero-group	stx1	stx2	eae	O157																							
2024	3532	Frozen sauteed veal	+	O103	24.63	-	22.53	-	+	+O103	/	+O103	+m (1)	/	/	/	+ M	/	+O103	/	/	/	/	/	/	/	/	+	+	PA	3	c
2024	3533	Frozen minced veal escalope	+	O26	20.01	-	19.72	-	+	+O26	/	+O26	+m (3)	/	/	/	+ M	/	+O26	/	/	/	/	/	/	/	/	+	+	PA	3	c
2024	3534	Frozen lamb mice	-	/	23.73	26.28	22.12	22.87	+	-	+O157	+O157	/	+m (6)	/	/	/	st	+O157	/	/	/	/	+m (2)	st	st	+O157	+	+	PD	3	c
2024	3535	Frozen lamb mice	-	/	-	29.47	24.44	24.67	+	-	+O157	+O157	/	st	/	/	/	st	-	/	/	/	/	+m	+m	st	+O157	+	+	PD	3	c

RAW POULTRY, RAW SEASONED POULTRY AND HEAT-TREATED POULTRY (combined)																																
Year	Sample N°	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC																									Category	Type	
					Short time (8 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															Final Confir- mation result short time + 72h	Final result short time + 72h			Agreement Ref/Alt Short time +72h
					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		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	2837	Cooked turkey breast	+	O145	-	18.38	13.37	14.47	+	+O145	-	+O145	+m	/	/	/	-C	/	+O145	+M	+M	+M	+O145	/	/	/	/	+	+	PA	4	c
2024	2838	Cooked chicken breast	+	O145	-	23.08	17.74	18.34	+	+O145	-	+O145	-C	/	/	/	-C	/	-	-C	+md	+p	+O145	/	/	/	/	+	+	PA	4	c
2024	2948	Duck confit	+	O103	12.72	-	11.58	-	+	+O103	/	+O103	+p	/	/	/	+p	/	+O103	+p	+p	+p	+O103	/	/	/	/	+	+	PA	4	c
2024	2951	Rabbit terrine	+	O103	10.74	-	9.26	-	+	+O103	/	+O103	+p	/	+M	/	/	/	+O103	+p	+p	+p	+O103	/	/	/	/	+	+	PA	4	c
2024	2952	Roast chicken rillettes	+	O26	10.08	-	8.60	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	+p	+p	+p	+O26	/	/	/	/	+	+	PA	4	c
2024	4105	Cooked turkey breast	+	O26	23.50	-	21.38	-	+	+O26	/	+O26	st	/	st	/	/	/	-	-B	-B	-B	-	/	/	/	/	- (-iso)	-	PA _{FP(alt)}	4	c
2024	4106	Cooked chicken breast	+	O103	21.62	-	19.84	-	+	+O103	/	+O103	st	/	/	/	st	/	-	st	st	st	-	/	/	/	/	- (-iso)	-	PA _{FP(alt)}	4	c
2024	4107	Chopped cooked chicken	+	O157	-	-		-	-	-	-	-	/	st	/	/	/	/	-	st	-B	st	-	/	/	/	/	-	-	ND	4	c
2024	4108	Roast chicken aiguillettes	+	O26	23.56	-	21.18	-	+	+O26	/	+O26	st	/	/	/	st	/	-	-C	-A	-B	-	/	/	/	/	- (-iso)	-	PA _{FP(alt)}	4	c
2024	4109	Cooked chicken allumette	+	O103	21.52	-	20.03	-	+	+O103	/	+O103	st	/	/	/	st	/	-	st	st	-B	-	/	/	/	/	- (-iso)	-	PA _{FP(alt)}	4	c

RAW MILK AND DAIRY PRODUCTS																																		
Year	Sample N°	Product	Reference method : ADRIA internal method according to ISO/TS 13136 [♦]		Alternative method: Assurance® GDS STEC																											Category	Type	
					Short time (10 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																Final Confir- mation result short time + 72h	Final result short time + 72h			Agreement Ref/Alt Short time +72h
					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			Final result	10µl			Final result									
			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										
Final result stx/eae	Sero- group	stx1	stx2	eae	O157																													
2025	116654	Raw goat milk cheese	-	/	17.08	-	14.54	-	+	+O111	/	+O111	+p	/	/	/	/	+p	/	+O111	/	/	/	/	/	/	/	/	+	+	PD	5	b	
2025	116655	Raw goat milk cheese	-	/	22.33	-	20.64	22.46	+	+O145	-	+O145	+p	/	/	/	/	+1/2	/	+O145	/	/	/	/	/	/	/	/	+	+	PD	5	b	

PRODUCTION ENVIRONMENTAL SAMPLES																																		
Year	Sample N°	Product	Reference method : ADRIA internal method according to ISO/TS 13136		Alternative method: Assurance® GDS STEC																									Category	Type			
					Short time (10 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																		Final Confirmation result short time + 72h	Final result short time + 72h	Agreement Ref/Alt Short time +72h
					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			Final result	10µl			Final result								
												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							
					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											
					+	O111	+	O103	-	/	+	O26		+	O111	+	O157	+	O157	+	O103	+	O157											
2024	2563	Washing water (dairy industry)	+	O111	10.27	-	8.93	-	+	+O111	/	+O111		+p	/	+p	/	/	/	+O111	+p (2)	+p	+p	+O111	/	/	/	/	+	+	PA			
2024	2564	Process water (dairy industry)	+	O103	23.19	-	20.99	-	+	+O103	/	+O103	st	/	st	/	/	/	-	st	st	+p (2)	+O103	/	/	/	/	+	+	PA	6	c		
2024	2566	Circuit rinsing water (dairy industry)	-	/	10.68	11.07	8.99	-	+	+O103	/	+O103	+p	/	+p	/	/	/	+O103	st	st	st	-	/	/	/	/	+	+	PD	6	c		
2024	2567	Washing water (dairy industry)	+	O26	9.94	-	8.63	-	+	+O26	/	+O26	+p	/	+p	/	/	/	+O26	+p	+p	+p	+O26	/	/	/	/	+	+	PA	6	c		
2024	2568	Washing water (dairy industry)	+	O111	13.35	-	11.77	-	+	+O111	/	+O111	+p	/	/	/	+p	/	+O111	+p (2)	+p	+p	+O111	/	/	/	/	+	+	PA	6	c		
2024	2621	Washing water (meat industry)	+	O157	11.37	12.45	8.97	9.95	+	-	+O157	+O157	/	+p	/	st	/	/	+O157	/	/	/	/	+p	+p (4)	+p	+O157	+	+	PA	6	c		
2024	2622	Pork meat waste	+	O157	-	12.19	9.17	10.46	+	-	+O157	+O157	/	+p	/	+p	/	/	+O157	/	/	/	/	+p	+p	+p	+O157	+	+	PA	6	c		
2025	115718	Process water (pork industry)	+	O103	9.97	-	8.04	-	+	+O103	-	+O103	st	/	+p	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	PA	6	c		
2025	115719	Process water (pork industry)	+	O157	-	11.86	8.55	9.88	+	-	+O157	+O157	/	+p		/	/	/	+O157	/	/	/	/	+p	+p	+p	+O157	+	+	PA	6	c		
2025	115720	Process water (dairy industry)	+	O103	9.22	-	7.20	-	+	+O103	-	+O103	st	/	+p	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	PA	6	c		

RAW POULTRY, RAW SEASONED POULTRY AND HEAT-TREATED POULTRY (combined)																																				
Year	Sample N°	Product	Reference method : ADRIA internal method according to ISO/TS 13136*		Alternative method: Assurance® GDS STEC																												Category	Type		
					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				
					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											
			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	CHROMAGAR O157	CT-SMAC		ChromoSelect E.coli O157:H7										
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	Final result	CHROMAGAR O157	CT-SMAC	ChromoSelect E.coli O157:H7	Final result	Result	Result															
2024	4103	Seasoned turkey	+	O103	14.08	-	11.55	-	+	+O45/O103	/	+O45/O103	st	/	+1/2	/	/	/	+O103	/	/	/	/	/	/	/	/	+	+	PA	4	b				
2024	4104	Marinated duck leg	-	/	13.85	13.07	11.83	13.12	+	-	+O157	+O157	/	+M	/	+M	/	/	+O157	/	/	/	/	/	+m	+m	-B	+O157	+	+	PD	4	b			
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																																		
Year	Sample N°	Product	Reference method : ADRIA internal method according to ISO/TS 13136♦		Alternative method: Assurance® GDS STEC																								Category	Type				
					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	
					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								
												CHROMAgar STEC		CHROMAgar O157	TBX	CT SMAC		ChromID EHEC	EC O157 Chromoselect agar	CHROMAgar STEC	EHEC		TBX	MPX ID Group 1 & Group 2	CHROMAGAR O157		CT-SMAC	ChromoSelect E.coli O157:H7						
					Final result stx/eae	Sero-group	stx1	stx2	eae	O157																								
2025	116654	Raw goat milk cheese	-	/	10.65	-	8.92	-	+	+O111		+O111	+p	/	/	/	+p	/	+O111	/	/	/	/	/	/	/	/	+	+	PD	5	b		
2025	116655	Raw goat milk cheese	-	/	20.65	-	18.86	20.32	+	+O145	-	+O145	+p	/	/	/	+p	/	+O145	/	/	/	/	/	/	/	/	+	+	PD	5	b		

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 : 7,3 10³ 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®		Final result PCR	Confirmation result	ISO requirements		Final result Assurance® GDS STEC		
			PCR Result	Confirmation		Final result ISO/TS 13136		Positive/Total	MPX TOP 7 STEC	MPX ID	EHEC ID			18 h at 41.5°C PW mEHEC®				
														Result	Serogroup	Global result	Serogroup	Result
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			-			-	/		-		-	-	-	/	-	/		
4502			-			-	/		O157		O157	O157	O157			+	O157	
4503			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	
4504			O157	+	O157	+	O157		-		-	-	-	/	-	/		
4505			-			-	/		-		-	-	-	/	-	/		
4506			O157	+	O157	+	O157		O157		O157	O157	O157			+	O157	
4507			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		
4515			O157	+	O157	+	O157		O157		O157	O157			+	O157		
4516			O157	+	O157	+	O157		O157		O157	O157			+	O157		
4517			O157	+	O157	+	O157		O157		O157	O157			+	O157		

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

Matrix : Frozen raw ground beef
Strain : *E. coli* O145:H28 1502-105
stx1- / stx2+ / eae+
Aerobic mesophilic flora : 2,3 10² 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		Final result PCR	Confirmation result	ISO requirements		Final result Assurance® GDS STEC		
			PCR Result	Confirmation		Final result ISO/TS 13136		Positive/Total	Screening		Confirmation			18 h at 41.5°C PW mEHEC				
									MPX TOP 7 STEC	MPX ID	EHEC ID			Result	Serogroup			
				Result	Serogroup	Global result	Serogroup									Result	Serogroup	Result
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	

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

Matrix : Raw cow milk
Strain : *E. coli* O103:H2 Ad3027
stx1+ / stx2- / eae+
Aerobic mesophilic flora : 4,9 10⁵ 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®		Final result PCR	Confirmation result	ISO requirements		Final result Assurance® GDS STEC		
			PCR Result	Confirmation		Final result ISO/TS 13136		Positive/Total	MPX TOP 7 STEC	MPX ID	EHEC ID			18 h at 41.5°C PW mEHEC®		Result	Serogroup	Positive/ Total
														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	

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

Matrix : Raw goat milk cheese
Strain : *E. coli* O26:H11 Ad3098
stx1+/ stx2- / eae+
Aerobic mesophilic flora : 1,4 10⁸ 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)									
			PCR Result	Confirmation		Final result ISO/TS 13136		Positive/ Total	Screening	Confirmation		Final result PCR	Confirmation result	ISO requirements		Final result Assurance® GDS STEC		
									MPX TOP 7 BHI	MPX ID	EHEC ID			18 h at 41.5°C PW mEHEC®	Result			
				Result	Serogroup	Global result	Serogroup											
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	

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

Matrix : Raw turkey filet
Strain : *E. coli* O103
stx1 + / stx2 +/- eae +
Aerobic mesophilic flora: 2 x 10⁶ 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	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	

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

Matrix : Raw milk cheese (Brie de Meaux)
Strain : *E. coli* O111 Ad3179
stx1 + / stx2 - / eae +
Aerobic mesophilic flora : 1.18 x 10⁸ CFU/g

Sample N°	Level	Contamination level (CFU/Sample)	Reference method : ISO/TS 13136*		Positive/Total	Alternative method: GDS STEC																Final Confirmation result	Positive/Total
						Short time (10 h) 25 g + 225 ml PW mEHEC																	
			Final result			MPX TOP 7 STEC				MPX TOP 7 STEC (PPMX)				MPX ID FOR TOP STEC	Final PCR result	Beads from resuspension plate = IMS-R							
						Result				Final result	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/*/*	-	+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	-/-/-	-	-/-/-	-	-	-	-	-	-	-	+p (2)	/	+p (2)	+O111	-	2/5		
113452			+	O111		29.49	-	27.04	-	+	-	-	-	-	-	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		-	+

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

Matrix : Raw milk cheese (Brie de Meaux)
Strain : *E. coli* O111 Ad3179
stx1 + / stx2 - / eae +
Aerobic mesophilic flora : 1.18 x 10⁸ 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			Beads+Wash buffer 20µl				
						stx1	stx2	eae	O157		stx1	stx2	eae	O157				CHROMagar STEC	TBX	ChromID EHEC		
113426	0	/	-	-	0/5	-	-	-	-	-	-	-	-	-	-	st		-B	/	-		
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

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

Matrix : Process water
Strain : E.coli O26 Ad2826
stx1+ / stx2- / eae+
Aerobic mesophilic flora: 3.2 x 10³ 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	CHROMagar STEC			TBX	ChromID EHEC	Result				Final result	Final result	Beads+Wash buffer 20µl						
						stx1	stx2	eae	O157										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®)				
					stx ₁	stx ₂	eae		Final PCR result	Confirmation result	Final result Assurance® GDS STEC		
											Result	Serogroup	
1	<i>Escherichia coli</i>	O26:H11	CIP 104673	/	+	-	+	34	O26	O26	+	O26	
2	<i>Escherichia coli</i>	O26	Ad1741	Raw milk cheese	+	-	+	23	O26	O26	+	O26	
3	<i>Escherichia coli</i>	O26	Ad2298	Dairy product	+	-	+	26	O26	O26	+	O26	
4	<i>Escherichia coli</i>	O26	Ad2303	Raw milk cheese	-	+	+	57	O26	O26	+	O26	
5	<i>Escherichia coli</i>	O26	Ad2671	Dairy product	-	+	+	29	O26	O26	+	O26	
6	<i>Escherichia coli</i>	O26	Ad2675	Raw milk cheese	-	+	+	37	O26	O26	+	O26	
7	<i>Escherichia coli</i>	O26	Ad2678	Dairy product	+	-	+	12	O26	O26	+	O26	
8	<i>Escherichia coli</i>	O26:H11	1377-138 LOT 3	Meat	-	+	+	34	O26	O26	+	O26	
9	<i>Escherichia coli</i>	O26:H11	déc-62	Meat	+	-	+	27	O26	O26	+	O26	
10	<i>Escherichia coli</i>	O26:H11	14-53	Meat	+	-	+	15	O26	O26	+	O26	
11	<i>Escherichia coli</i>	O26:H11	1311-12	Cream	-	+(a)	+	27	O26	O26	+	O26	
12	<i>Escherichia coli</i>	O26:H11	375-122	Cheese	+	+(c,d)	+	25	O26	O26	+	O26	
13	<i>Escherichia coli</i>	O103	Ad982	Animal	+	-	+	9	O103	O103	+	O103	
14	<i>Escherichia coli</i>	O103	Ad1772	/	+	-	+	13	O103	O103	+	O103	
15	<i>Escherichia coli</i>	O103:H2	Ad1773	Cheese	+	+	+	10	O103	O103	+	O103	
16	<i>Escherichia coli</i>	O103:H2	1144	Dairy product	+	-	+	27	O103	O103	+	O103	
17	<i>Escherichia coli</i>	O103:H2	821-76	Dairy product	+	+	+	34	O103	O103	+	O103	
18	<i>Escherichia coli</i>	O103:H2	56-12	Meat	+	-	+	10	O103	O103	+	O103	
19	<i>Escherichia coli</i>	O103:H2	262-03-18-1	Meat	-	+	+	21	O103	O103	+	O103	
20	<i>Escherichia coli</i>	O103:H2	V92-362	Meat	+	-	+	38	O103	O103	+	O103	
21	<i>Escherichia coli</i>	O103:H2	03-35	Meat	+	-	+	17	O103	O103	+	O103	
22	<i>Escherichia coli</i>	O103:H2	72-11	Meat	+	-	+	23	O103	O103	+	O103	
23	<i>Escherichia coli</i>	O111:H8	Ad511	Clinic	+	+	+	21	O111	O111	+	O111	
24	<i>Escherichia coli</i>	O111	Ad981	Animal	+	+	+	22	O111	O111	+	O111	
25	<i>Escherichia coli</i>	O111:H8	1251-31	Dairy product	+(a)	+(c,d)	+	29	O111	O111	+	O111	
26	<i>Escherichia coli</i>	O111:H8	1391-40	Dairy product	+	-	+	17	O111	O111	+	O111	
27	<i>Escherichia coli</i>	O111:H8	577-54	Dairy product	+(a)	+(c,d)	+	19	O111	O111	+	O111	
28	<i>Escherichia coli</i>	O111:H8	593-95	Dairy product	+(a)	+(c,d)	+	20	O111	O111	+	O111	
29	<i>Escherichia coli</i>	O111:H8	622-4	Dairy product	+(a)	+(c,d)	+	16	O111	O111	+	O111	
30	<i>Escherichia coli</i>	O145	Ad983	Animal	-	+	+	7	O145	O145	+	O145	
31	<i>Escherichia coli</i>	O145	Ad2310	Unknown	-	+	+	54	O145	O145	+	O145	
32	<i>Escherichia coli</i>	O145:H28	2305-1	Meat	-	+	+	42	O145	O145	+	O145	
33	<i>Escherichia coli</i>	O145:H28	1331-100	Meat	-	+	+	15	O145	O145	+	O145	
34	<i>Escherichia coli</i>	O145:H28	1502-105	Meat	-	+	+	62	O145	O145	+	O145	
35	<i>Escherichia coli</i>	O145:H28	1867-177	Meat	-	+	+	36	O145	O145	+	O145	
36	<i>Escherichia coli</i>	O145:H28	092-4	Meat	-	+	+	36	O145	O145	+	O145	
37	<i>Escherichia coli</i>	O157:H7	769	Ground beef	-	+(a)	+	43	O157	O157	+	O157	
38	<i>Escherichia coli</i>	O157:H7	803	Meat	-	+(c,d)	+	12	O157	O157	+	O157	
39	<i>Escherichia coli</i>	O157:H7	1043	VHS beef	+(a)	+(c,d)	+	40	O157	O157	+	O157	
40	<i>Escherichia coli</i>	O157:H7	1211-1	VHS beef	-	+	+	35	O157	O157	+	O157	
41	<i>Escherichia coli</i>	O157:H7	52-33 N°34	VHS	-	+	+	47	O157	O157	+	O157	
42	<i>Escherichia coli</i>	O157:H7	Ad683	Ground beef	+	+	+	35	O157	O157	+	O157	
43	<i>Escherichia coli</i>	O157:H7	Ad685	Beef industry environment	-	+	+	40	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®)			
					stx ₁	stx ₂	eae		Final PCR result	Confirmation result	Final result Assurance® GDS STEC	
											Result	Serogroup
44	<i>Escherichia coli</i>	O157:H7	Ad489	Frozen beef balls	+	+	+	36	O157	O157	+	O157
45	<i>Escherichia coli</i>	O157:H7	ET8	Water treatment plant	-	+	+	44	O157	O157	+	O157
46	<i>Escherichia coli</i>	O157:H7	Ad924	Ground beef	-	+	+	51	O157	O157	+	O157
47	<i>Escherichia coli</i>	O157:H7	Ad1071	Ground beef	-	+	+	43	O157	O157	+	O157
48	<i>Escherichia coli</i>	O157:H7	Ad1174	Frozen ground beef	-	+	+	33	O157	O157	+	O157
49	<i>Escherichia coli</i>	O157:H7	Ad1745	Raw cheese	-	+	+	51	O157	O157	+	O157
50	<i>Escherichia coli</i>	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 ® (225ml PW mEHEC)								Final confirmatory tests	
									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						
									Screening	Confirmation		non-O157				O157		
									Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		Concentration reagent			Final confirmation result non-O157	Final confirmation result O157	
					stx ₁	stx ₂	eae						Streiking (20µL beads)					
													CHROMagar STEC	EHEC	TBX			
1	<i>Escherichia coli</i>	O26:H11	CIP 104673	/	+	-	+	17	-/+ (A8)	-/+O26 (A8)		+O26 (A8)	st/+ (A8)	st/+ (A8)	st/+ (A8)	+O26 (A8)		+
2	<i>Escherichia coli</i>	O26	Ad1741	Raw milk cheese	+	-	+	30	+	+O26		+O26	+	+	+	+O26		+
3	<i>Escherichia coli</i>	O26	Ad2298	Dairy product	+	-	+	23	+	+O26		+O26	+	+	+	+O26		+
4	<i>Escherichia coli</i>	O26	Ad2303	Raw milk cheese	-	+	+	33	+	+O26		+O26	+	+	+	+O26		+
5	<i>Escherichia coli</i>	O26	Ad2671	Dairy product	-	+	+	25	+	+O26		+O26	+	+	+	+O26		+
6	<i>Escherichia coli</i>	O26	Ad2675	Raw milk cheese	-	+	+	30	+	+O26		+O26	+	+	+	+O26		+
7	<i>Escherichia coli</i>	O26	Ad2678	Dairy product	+	-	+	15	+	+O26		+O26	+	+	+	+O26		+
8	<i>Escherichia coli</i>	O26:H11	1377-138 LOT 3	Meat	-	+	+	17	+	+O26		+O26	+	+	+	+O26		+
9	<i>Escherichia coli</i>	O26:H11	12-62	Meat	+ a	-	+ b	17	+	+O26		+O26	+	+	+	+O26		+
10	<i>Escherichia coli</i>	O26:H11	14-53	Meat	+ a	-	+ b	20	+	+O26		+O26	+	+	+	+O26		+
11	<i>Escherichia coli</i>	O26:H11	1311-12	Cream	-	+ (a)	+ b	26	+	+O26		+O26	+	+	+	+O26		+
12	<i>Escherichia coli</i>	O26:H11	375-122	Cheese	+	+ (c,d)	+ b	30	+	+O26		+O26	+	+	+	+O26		+
13	<i>Escherichia coli</i>	O103	Ad982	animal	+	-	+	32	+	+O103		+O103	+	+	+	+O103		+
14	<i>Escherichia coli</i>	O103	Ad1772	/	+	-	+	27	+	+O103		+O103	st	+	+	+O103		+
15	<i>Escherichia coli</i>	O103:H2	Ad1773	Cheese	+	+	+	36	+	+O103		+O103	+	+	+	+O103		+
16	<i>Escherichia coli</i>	O103:H2	1144	Dairy product	+	-	+ e	36	+	+O103		+O103	+	st	+	+O103		+
17	<i>Escherichia coli</i>	O103:H2	821-76	Dairy product	+	+	/	24	+	+O103		+O103	+	+	+	+O103		+
18	<i>Escherichia coli</i>	O103:H2	56-12	Meat	+	-	+	28	+	+O103		+O103	st	st	+	+O103		+
19	<i>Escherichia coli</i>	O103:H2	262-03-18-1	Meat	-	+	+	35	+	+O103		+O103	st	+	+	+O103		+
20	<i>Escherichia coli</i>	O103:H2	V92-362	Meat	+	-	+	26	+	+O103		+O103	+	+	+	+O103		+
21	<i>Escherichia coli</i>	O103:H2	03-35	Meat	+ a	-	+ e	21	+	+O103		+O103	+	+	+	+O103		+
22	<i>Escherichia coli</i>	O103:H2	72-11	Meat	+	-	+	23	+	+O103		+O103	+	+	+	+O103		+
23	<i>Escherichia coli</i>	O111:H8	DEC8b/Ad511	Clinic	+	+	+	19	+	+O111		+O111	+	+	+	+O111		+
24	<i>Escherichia coli</i>	O111	Ad981	Animal	+	+	+	24	+	+O111		+O111	+	+	+	+O111		+
25	<i>Escherichia coli</i>	O111:H8	1251-31	Dairy product	+ (a)	+ (c,d)	+ q	25	+	+O111		+O111	+	+	+	+O111		+
26	<i>Escherichia coli</i>	O111:H8	1391-40	Dairy product	+	-	+ q	19	+	+O111		+O111	+	+	+	+O111		+
27	<i>Escherichia coli</i>	O111:H8	577-54	Dairy product	+ (a)	+ (c,d)	+ q	19	+	+O111		+O111	+	+	+	+O111		+
28	<i>Escherichia coli</i>	O111:H8	593-95	Dairy product	+ (a)	+ (c,d)	+ q	29	+	+O111		+O111	+	+	+	+O111		+
29	<i>Escherichia coli</i>	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 ® (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		
									Final result MPX TOP 7 STEC	Final result MPX ID	Final result EHEC ID		Concentration reagent			Final confirmation result non-O157	Final confirmation result O157	
					Streaking (20µL beads)													
					CHROMagar STEC	EHEC	TBX											
30	<i>Escherichia coli</i>	O145	Ad983	Animal	-	+	+	22	+	+O145	-	+O145	+	st	+	+O145		+
31	<i>Escherichia coli</i>	O145	Ad2310	Unknown	-	+	+	20	+	+O145	-	+O145	+	+	+	+O145		+
32	<i>Escherichia coli</i>	O145:H28	2305-1	Meat	-	+	+	20	+	+O145	-	+O145	+	st	+	+O145		+
33	<i>Escherichia coli</i>	O145:H28	1331-100	Meat	-	+	+	22	+	+O145	-	+O145	st	st	+	+O145		+
34	<i>Escherichia coli</i>	O145:H28	1502-105	Meat	-	+	+	33	+	+O145	-	+O145	+	+	+	+O145		+
35	<i>Escherichia coli</i>	O145:H28	1867-177	Meat	-	+	+	14	+	+O145	-	+O145	+	+	+	+O145		+
36	<i>Escherichia coli</i>	O145:H28	092-4	Meat	-	+	+	30	+	+O145	-	+O145	+	+	+	+O145		+
37	<i>Escherichia coli</i>	O157:H7	769	Ground beef and pork meat	-	+(a)	+ g	53	+		+O157	+O157					+	+
38	<i>Escherichia coli</i>	O157:H7	803	Veal meat	-	+ (c,d)	+ g	38	+		+O157	+O157					+	+
39	<i>Escherichia coli</i>	O157:H7	1043	Frozen ground beef	+(a)	+ (c,d)	+ g	48	+		+O157	+O157					+	+
40	<i>Escherichia coli</i>	O157:H7	1211-1	Frozen ground beef	-	+ (c,d)	+ g	23	+		+O157	+O157					+	+
41	<i>Escherichia coli</i>	O157:H7	52-33 N°34	Frozen ground beef	-	+(a)	+ g	60	+		+O157	+O157					+	+
42	<i>Escherichia coli</i>	O157:H7	Ad683	Ground beef	+	+	+	48	+		+O157	+O157					+	+
43	<i>Escherichia coli</i>	O157:H7	Ad685	Beef industry environment	-	+	+	64	+		+O157	+O157					+	+
44	<i>Escherichia coli</i>	O157:H7	Ad489	Frozen beef balls	+	+	+	24	+		+O157	+O157					+	+
45	<i>Escherichia coli</i>	O157:H7	ET8	Environment	-	+	+	50	+		+O157	+O157					+	+
46	<i>Escherichia coli</i>	O157:H7	Ad924	Ground beef	+	+	+	53	+		+O157	+O157					+	+
47	<i>Escherichia coli</i>	O157:H7	Ad1071	Ground beef	-	+	+	52	+		+O157	+O157					+	+
48	<i>Escherichia coli</i>	O157:H7	Ad1174	Frozen ground beef	-	+	+	35	+		+O157	+O157					+	+
49	<i>Escherichia coli</i>	O157:H7	Ad1745	Raw milk cheese	-	+	+	36	+		+O157	+O157					+	+
50	<i>Escherichia coli</i>	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
					stx1	stx2	eae		MPX TOP 7 STEC	MPX ID	
1	<i>Escherichia coli</i>	O26:H11	AEEC 335	Dairy product	-	-	+ b	4,6E+05	-		-
2	<i>Escherichia coli</i>	O157:H26	AEEC 561	Meat product	-	-	+ b	6,2E+05	-		-
3	<i>Escherichia coli</i>	O145:H28	AEEC 1387-177	Dairy product	-	-	+ g	2,9E+05	-		-
4	<i>Escherichia coli</i>	O145:H28-	529-64	Meat product	-	-	-	2,4E+05	-		-
5	<i>Escherichia coli</i>	O145:-H28-	236-9	Dairy product	-	-	-	4,8E+05	-		-
6	<i>Escherichia coli</i>	O91:H21	13482	Dairy product	+	+ b	-	2,7E+05	-		-
7	<i>Escherichia coli</i>	O113:H21	STEC-19-50	Meat product	-	+	-	4,5E+05	-		-
8	<i>Escherichia coli</i>	O111:H2	Ad513	Clinic	-	-	+	4,7E+05	-		-
9	<i>Escherichia coli</i>	O111	Ad1774	Clinic	-	+	-	2,8E+05	-		-
10	<i>Escherichia coli</i>	O103	Ad1743	Meat product	-	-	-	2,0E+05	-		-
11	<i>Escherichia coli</i>	O103	Ad1862	Dairy product	-	-	+	3,7E+05	-		-
12	<i>Escherichia coli</i>	O26	Ad1739	Dairy product	-	-	+	3,6E+05	-		-
13	<i>Escherichia coli</i>	O26	Ad1864	Meat product	-	-	+	4,1E+05	-		-
14	<i>Escherichia coli</i>	O26	Ad2677	Dairy product	-	-	+	5,1E+05	-		-
15	<i>Escherichia coli</i>	O157:H7	ENV177	Environment	-	-	+	4,2E+05	-		-
16	<i>Escherichia coli</i>	O157:H7	Ad2301	Environment	-	-	+	3,6E+05	-		-
17	<i>Escherichia coli</i>	O92:H33	Ad503	Clinic	-	-	-	1,7E+05	-		-
18	<i>Escherichia coli</i>	O78:H11	ATCC 35401	Clinic	-	-	-	4,7E+05	-		-
19	<i>Escherichia coli</i>	O6:H6	Ad506	Clinic	-	-	-	3,7E+05	-		-
20	<i>Escherichia coli</i>	O6:H10	Ad507	Clinic	-	-	-	2,3E+05	-		-
21	<i>Escherichia coli</i>	O86:H43	Ad509	Elephant	-	-	-	5,1E+05	-		-
22	<i>Escherichia coli</i>	O128:H2	Ad512	Clinic	-	-	+	4,9E+05	-		-
23	<i>Escherichia coli</i>	O78:K80:H12	ATCC 43896	Clinic	-	-	-	2,9E+05	-		-
24	<i>Escherichia coli</i>	O104:H21	Ad516	Clinic	-	-	-	4,8E+05	-		-
25	<i>Escherichia coli</i>	O55:H7	Ad518	Clinic	-	-	+	3,9E+05	-		-
26	<i>Escherichia coli</i>	O127:H6	Ad520	Clinic	-	-	+	1,6E+05	-		-
27	<i>Escherichia coli</i>	O126	Ad1776	Clinic	-	-	-	2,4E+05	-		-
28	<i>Escherichia coli</i>	O45:H2	Ad1778	Unknown	+	-	+	1,5E+05	+	-	-
29	<i>Escherichia coli</i>	O121	Ad1779	Unknown	-	-	+	2,6E+05	-		-
30	<i>Citrobacter rodentium</i>	/	ATCC 51116	Hamster	-	-	-	1,8E+05	-		-

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

Collaborator **A**
Aerobic mesophilic flora: 7,6 10⁴ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method											Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																									
												Pre-warmed mEHEC																		PCR Final result	10 h at 41.5°C Cultural confirmation				Result		Agreement
												8 h at 41.5°C Screening				10 h at 41.5°C Confirmation																					
												MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC										MPX ID Final result	CHROMAgar STEC	TBX		Remaining beads		Final result cultural confirmation	STEC			
	PCR results			PCR Final result	Confirmation					Result	Result		PCR result Group 1 & Group 2								Confirmation on typical colonies																
	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									
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	+	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: 1,9 10⁴ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																										
													Pre-warmed mEHEC																						Result		Agreement		
													8 h at 41.5°C Screening						10 h at 41.5°C Confirmation												PCR Final result	10 h at 41.5°C Cultural confirmation							
													MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC								MPX ID Final result	Remaining beads			Final result cultural confir- mation									
	PCR results			PCR Final result	Confirmation					STEC	Sero- group	PCR result				PCR result Group 1 & Group 2				CHROMAgar STEC	TBX	Plate used	Streiking (20µL beads)		Confirmation on typical colonies														
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol			PCR (optional)	Result	stx1	stx2	eae	O157	eae 1	eae 2				eae 3	O26	O45*	O103	O111	O145	O121*	Result	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)	-/(¹)	-/(¹)	-/(¹)	O26	-	/	ND _{FN(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	-	/	ND _{FN(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)	-/(¹)	-/(¹)	-/(¹)	O26	-	/	ND _{FN(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	-	/	ND _{FN(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: 2,5 10⁴ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
													Pre-warmed mEHEC																		Result		Agreement																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
													8 h at 41.5°C Screening						10 h at 41.5°C Confirmation										PCR Final result	10 h at 41.5°C Cultural confirmation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
													MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC								MPX ID Final result	Remaining beads			Final result cultural confirmation				STEC	Serogroup																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	PCR results			PCR Final result	Confirmation					Result	PCR result				PCR result Group 1 & Group 2				Streaking (20µL beads)		Confirmation on typical colonies																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	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	PCR MPX ID																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

Collaborator

D

Aerobic mesophilic flora: 7,1 10⁴ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
													Pre-warmed mEHEC																		PCR Final result		PCR Final result		CHROMAgar STEC		TBX		Plate used		PCR MPX Top 7		PCR MPX ID		Final result cultural confirmation		STEC		Serogroup		Agreement																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
													8 h at 41.5°C Screening				10 h at 41.5°C Confirmation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
													MPX TOP 7 STEC				MPX ID for Top STEC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	Direct streaking				Result	STEC	Sero- group	stx1	stx2	eae																	O157	eae 1	eae 2	eae 3	O26	O45*	O103	O111	O145	O121*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
stx	eae	O26	CHROMAgar STEC	TBX							Plate used	Latex O26	Indol	PCR (optional)	Result																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
4	-			-	-	-				-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(d): doubtful amplification curve

Collaborator

E

Aerobic mesophilic flora: 2,1 10⁴ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																								
													Pre-warmed mEHEC																		Result		Agreement				
													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 TOP 7 STEC Final result	MPX ID for Top STEC								MPX ID Final result	PCR Final result	Remaining beads						Final result cultural confirmation	STEC	Serogroup	
	PCR results			PCR Final result	Confirmation					Result	PCR result				PCR result Group 1 & Group 2				Streaking (20µL beads)		Confirmation on typical colonies																
	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	PCR MPX ID						
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	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	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	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	PA			
3	+20.07	+19.49	+19.59	O26	+	+	CH	+	+	O26	+	O26	12.23	-	8.75	-	+	-	-	10.68	9.06	-	-	-	-	-	O26	O26	+	+	CH	+	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	PA			
9	+18.81	+18.52	+18.69	O26	+	+	CH	+	+	O26	+	O26	12.26	-	9.14	-	+	-	-	10.45	9.79	-	-	-	-	-	O26	O26	+	+	CH	+	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	PA			
17	+20.01	+19.74	+19.78	O26	+	+	CH	+	+	O26	+	O26	12.33	-	9.34	-	+	-	-	10.28	9.99	-	-	-	-	-	O26	O26	+	+	CH	+	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	PA			
20	+20.02	+19.76	+19.85	O26	+	+	CH	+	+	O26	+	O26	12.79	-	9.35	-	+	-	-	11.69	10.51	-	-	-	-	-	O26	O26	+	+	CH	+	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	PA			

Collaborator

F

Aerobic mesophilic flora: 6,2 10⁴ 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)																									
													Pre-warmed mEHEC																				Result		Agreement			
													8 h at 41.5°C Screening				10 h at 41.5°C Confirmation										PCR Final result	10 h at 41.5°C Cultural confirmation										
													MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC										MPX ID Final result	Remaining beads									
	PCR results			PCR Final result	Confirmation					Result	PCR result				PCR result Group 1 & Group 2						PCR Final result	Streaking (20µL beads)		Confirmation on typical colonies			Final result cultural confirmation		STEC	Serogroup								
	stx	eae	O26		CHROMagar STEC	TBX	Plate used	LateX O26	Indol		PCR (optional)	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	PCR MPX ID	Result	Result			
4	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA			
7	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA				
8	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA				
12	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA				
15	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA				
16	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA				
21	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA				
23	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA				
1	-			-	-	-					-	-	/	25.00	-	17.00	-	+	-	-	15.00	15.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
2	+18.96	+18.75	+19.20	O26	+	+	CH	+	+		O26	+	O26	27.00	-	24.00	-	+	-	-	14.00	15.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
6	-			-	-	-					-	-	/	23.00	-	17.00	-	+	-	-	14.00	16.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
11	-			-	-	-					-	-	/	25.00	-	17.00	-	+	-	-	13.00	14.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
13	+20.13	+19.53	+20.05	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	ND			
14	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA				
18	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA				
24	-			-	-	-					-	-	/	24.00	-	17.00	-	+	-	-	12.00	14.00	-	-	-	-	-	O26	O26	+	+	TBX	+	O26	O26	+	O26	PD
3	+16.77	+16.60	+16.63	O26	+	+	TBX	+	+		O26	+	O26	26.00	-	17.00	-	+	-	-	15.00	15.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
5	+19.03	-18.57	+18.97	O26	+	+	CH	+	+		O26	+	O26	25.00	-	17.00	-	+	-	-	16.00	17.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+20.84	+20.29	+20.47	O26	+	+	CH	+	+		O26	+	O26	28.00	-	19.00	-	+	-	-	15.00	15.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+20.95	+20.42	+21.05	O26	+	+	CH	+	+		O26	+	O26	27.00	-	19.00	-	+	-	-	13.00	13.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+18.76	+18.65	+19.02	O26	+	+	CH	+	+		O26	+	O26	25.00	-	18.00	-	+	-	-	17.00	18.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+18.84	+19.19	+19.12	O26	+	+	CH	+	+		O26	+	O26	24.00	-	19.00	-	+	-	-	14.00	16.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+19.47	+19.32	+19.27	O26	+	+	CH	+	+		O26	+	O26	25.00	-	20.00	-	+	-	-	14.00	15.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
22	+19.21	+18.69	+18.98	O26	+	+	CH	+	+		O26	+	O26	24.00	-	17.00	-	+	-	-	14.00	14.00	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

Collaborator

G

Aerobic mesophilic flora: 6,7 10³ 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)																				Result			Agreement	
													Pre-warmed mEHEC																								
													8 h at 41.5°C Screening						10 h at 41.5°C Confirmation										PCR Final result	10 h at 41.5°C Cultural confirmation							
													MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC								MPX ID Final result	Remaining beads					Final result cultural confirmation	STEC	Serogroup			
	PCR results			PCR Final result	Confirmation					Result	PCR result				PCR result Group 1 & Group 2								Streaking (20µL beads)		Confirmation on typical colonies												
	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	PCR MPX ID				Result		Result
	4	+28.23	+28.24	+28.53	O26	-/-	-/-				-/-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA		
7	+27.29	+27.60	+28.14	O26	-/-	-/-				-/-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA			
8	+29.23 (d)	+29.27	+29.84	O26	-/-	-/-				-/-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA			
12	+27.36 (d)	+27.98	+28.25	O26	-/-	-/-				-/-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA			
15	-			-	-	-				-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA			
16	-			-	-	-				-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA			
21	+26.89	+28.86	+29.02	O26	-/-	-/-				-/-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA			
23	+26.13	+27.85	+27.90	O26	-/-	-/-				-/-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA			
1	+15.99	+16.55	+16.81	O26	+	+	CH	+	+	O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	ND			
2	+22.61	+23.13	+23.67	O26	+	+	CH	+	+	O26	+	O26	12.27	-	9.30	-	+	-	-	13.18	12.43	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
6	+16.63	+17.04	+17.50	O26	+	+	CH	+	+	O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	ND			
11	+22.48	+24.05	+23.27	O26	+	+	CH	+	+	O26	+	O26	12.32	-	9.68	-	+	-	-	11.27	11.32	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
13	+23.28	+23.84	+24.28	O26	+	+	CH	+	+	O26	+	O26	14.66	-	12.16	-	+	-	-	10.76	10.23	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
14	+23.77	+25.42	+26.15	O26	+	+	CH	+	+	O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	ND			
18	-			-	-	-				-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	NA			
24	+17.70	+20.75	+18.41	O26	+	+	CH	+	+	O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	/	ND			
3	+34	+21.14	+21.51	O26	+	-	CH	+	+	O26	+	O26	12.62	-	10.05	-	+	-	-	13.50	12.79	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
5	+17.74	+18.24	+18.41	O26	+	+	CH	+	+	O26	+	O26	13.35	-	10.81	-	+	-	-	12.48	12.14	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+16.12	+16.66	+17.61	O26	+	+	CH	+	+	O26	+	O26	12.56	-	10.03	-	+	-	-	11.57	11.56	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+16.35	+17.09	+17.42	O26	+	+	CH	+	+	O26	+	O26	11.88		9.48	-	+	-	-	11.89	11.50	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+17.62	+18.08	+18.41	O26	+	+	CH	+	+	O26	+	O26	12.10	-	9.77	-	+	-	-	12.08	12.25	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+18.82	+19.38	+19.62	O26	+	+	CH	+	+	O26	+	O26	12.38	-	9.98	-	+	-	-	11.44	11.31	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+14.98	+15.74	+15.58	O26	+	+	CH	+	+	O26	+	O26	12.18	-	10.00	-	+	-	-	11.58	11.37	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
22	+16.30	+16.77	+17.23	O26	+	+	CH	+	+	O26	+	O26	11.87	-	9.63	-	+	-	-	11.25	10.51	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

(d): doubtful amplification curve

Collaborator

H

Aerobic mesophilic flora: 3,1 10⁴ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																							
													Pre-warmed mEHEC																				Result		Agreement	
													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 TOP 7 STEC Final result	MPX ID for Top STEC										MPX ID Final result	PCR Final result	Remaining beads						Final result cultural confirmation
	PCR results			PCR Final result	Confirmation					Result	PCR result Group 1 & Group 2					Streaking (20µL beads)		Confirmation on typical colonies																		
	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	+31.02	+33.53	+38.28 (d)	O26	-	-				-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA			
7	+32.59	+32.20	+31.54	O26	-	-				-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA			
8	+32.10	+35.25	+35.46 (d)	O26	-	-				-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA			
12	+31.82	+30.04	+29.94	O26	- /-	+/ +d	TBX	+/-	+	+	O26/-	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND			
15	+32.04	+29.61	+29.63	O26	-	-				-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA			
16	-			-	+ /-	-/-	CH	+	+	+	O26/-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA			
21	-			-	+ /-	+/ -	CH	+	+	+	O26/-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA			
23	+29.41	+28.85	+29.84	O26	-	-				-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA			
1	-			-	-	-				-	/	11.92	-	9.38	-	+	-	-	9.53	9.68	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
2	+37.01 (d)	+34.81 (d)	+36.30	O26	-	-				-	/	16.35	-	13.65	-	+	-	-	9.03	8.87	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
6	+21.55	+21.55	+21.17	O26	+	+	CH	+	+	O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND		
11	+18.85	+18.44	+19.05	O26	+	+	CH	+	+	O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND		
13	+34.16	+32.05	+31.09	O26	-	-				-	/	12.00	-	9.39	-	+	-	-	10.74	10.49	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
14	+31.79	+30.76	+30.61	O26	-	-				-	/	11.68	-	9.29	-	+	-	-	11.17	10.81	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
18	+25.25	+24.21	+24.28	O26	+	+	CH	+	+	O26	+	O26	16.79	-	14.38	-	+	-	-	10.12	10.11	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
24	+32.10	+29.67	+30.41	O26	-	-				-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA		
3	+17.92	+17.70	+17.35	O26	+	+	CH	+	+	O26	+	O26	10.94	-	8.25	-	+	-	-	9.66	9.24	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
5	+18.18	+18.34	+18.90	O26	+	+	CH	+	+	O26	+	O26	10.58	-	7.85	-	+	-	-	8.79	8.73	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+18.92	+18.69	+20.25	O26	+	+	CH	+	+	O26	+	O26	12.13	-	9.63	-	+	-	-	9.37	8.96	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+17.18	+16.86	+17.76	O26	+	+	CH	+	+	O26	+	O26	11.52	-	8.87	-	+	-	-	7.76	7.60	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+18.38	+18.81	+18.76	O26	+	+	CH	+	+	O26	+	O26	12.97	-	10.85	-	+	-	-	11.04	10.72	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+19.62	+19.41	+20.00	O26	+	+	CH	+	+	O26	+	O26	11.53	-	8.97	-	+	-	-	10.83	10.68	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+9.27	+17.87	+18.65	O26	+	+	CH	+	+	O26	+	O26	14.03	-	11.41	-	+	-	-	10.71	10.80	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
22	+22.33	+18.90	+19.15	O26	+	+	CH	+	+	O26	+	O26	11.90	-	9.22	-	+	-	-	9.93	9.59	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

(d): doubtful amplification curve

Collaborator I

Aerobic mesophilic flora: 5,2 10⁶ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																									
													Pre-warmed mEHEC																				Result		Agreement			
													8 h at 41.5°C Screening					10 h at 41.5°C Confirmation										PCR Final result	10 h at 41.5°C Cultural confirmation									
													MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC											MPX ID Final result	PCR Final result	Remaining beads			Final result cultural confirmation	STEC	Serogroup		
	PCR results			PCR Final result	Confirmation					Result		PCR result				PCR result Group 1 & Group 2						Streaking (20µL beads)		Confirmation on typical colonies														
	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	PCR MPX ID
	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: 3,1 10² CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																									
													Pre-warmed mEHEC																						Result		Agreement	
													8 h at 41.5°C Screening						10 h at 41.5°C Confirmation										PCR Final result	10 h at 41.5°C Cultural confirmation								
													MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC										MPX ID Final result		Remaining beads				Final result cultural confirmation				STEC
	PCR results			PCR Final result	Confirmation						PCR result	PCR result Group 1 & Group 2										Streaking (20µL beads)		Confirmation on typical colonies														
	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	PCR MPX ID		
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: 4,7 10³ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																								
													Pre-warmed mEHEC																					Result		Agreement	
													8 h at 41.5°C Screening						10 h at 41.5°C Confirmation										PCR Final result	10 h at 41.5°C Cultural confirmation							
													MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC						MPX ID Final result	PCR Final result	Remaining beads				Final result cultural confirmation	STEC	Serogroup					
	PCR results			PCR Final result	Confirmation					Result	PCR result Group 1 & Group 2				CHROMAgar STEC	TBX		Plate used	Streiking (20µL beads)		Confirmation on typical colonies																
	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	Result	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: 2,6 10⁴ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																										
													Pre-warmed mEHEC																	Result		Agreement							
													10 h at 41.5°C Screening					10 h at 41.5°C Confirmation															PCR Final result	10 h at 41.5°C Cultural confirmation					
													MPX TOP 7 STEC				MPX ID for Top STEC												MPX ID Final result					Remaining beads				Final result cultural confirmation	STEC
	PCR results			PCR Final result	Confirmation					Result		PCR result				PCR result Group 1 & Group 2								Streaking (20µL beads)		Confirmation on typical colonies													
	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	PCR MPX ID				
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: 3,4 10⁵ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																									
													Pre-warmed mEHEC																					Result		Agreement		
													8 h at 41.5°C Screening						10 h at 41.5°C Confirmation										PCR Final result	10 h at 41.5°C Cultural confirmation								
													MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC								MPX ID Final result	Remaining beads				Final result cultural confirmation	STEC	Sero- group					
	PCR results			PCR Final result	Confirmation						Result	PCR result				PCR result Group 1 & Group 2								Streaking (20µL beads)			Confirmation on typical colonies											
	stx	eae	O26		CHROMAgar STEC	TBX	Plate used	Latex O26	Indol	PCR (optional)		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	PCR MPX ID		Result	Result
4	-			-	-	-					-	-	/	-	-	-		-	-	-	-	-	-	-	-		-	-	-							-	-	/
7	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA				
8	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA				
12	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA				
15	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA				
16	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA				
21	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA				
23	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA				
1	+19.09	+19.18	+19.19	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND				
2	-			-	-	-					-	-	/	18.49	-	14.39	-	+	-	-	11.78.	12.29.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
6	+21.97	+21.61	+22.04	O26	+	+	CH	+	+		O26	+	O26	13.81	-	9.72.	-	+	-	-	10.95.	11.36.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
11	-			-	-	-					-	-	/	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	NA				
13	+22.07	+21.12	+21.35	O26	+	+	CH	+	+		O26	+	O26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	/	ND			
14	+18.00	+17.79	+17.91	O26	+	+	CH	+	+		O26	+	O26	13.62	-	10.06.	-	+	-	-	10.27.	10.36.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
18	+18.09	+18.27	+19.01	O26	+	+	CH	+	+		O26	+	O26	13.68	-	9.97.	-	+	-	-	10.62.	11.05.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
24	-			-	-	-					-	-	/	13.15	-	9.45.	-	+	-	-	10.09.	10.02.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PD
3	+19.12	+19.11	+19.40	O26	+	+	CH	+	+		O26	+	O26	12.45.	-	8.60.	-	+	-	-	9.59.	9.19.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
5	+18.36	+18.25	+18.47	O26	+	+	CH	+	+		O26	+	O26	12.94.	-	9.55.	-	+	-	-	9.66.	10.21.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
9	+18.05	+17.99	+18.13	O26	+	+	CH	+	+		O26	+	O26	12.45.	-	8.87.	-	+	-	-	10.19.	10.39.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
10	+16.94	+17.46	+16.99	O26	+	+	CH	+	+		O26	+	O26	13.08.	-	9.18.	-	+	-	-	10.16.	9.76.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
17	+18.61	+18.99	+18.79	O26	+	+	CH	+	+		O26	+	O26	12.96.	-	9.10.	-	+	-	-	10.07.	10.05.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
19	+18.75	+18.74	+20.00	O26	+	+	CH	+	+		O26	+	O26	11.99.	-	8.25.	-	+	-	-	10.04.	9.81.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
20	+19.45	+18.49	+19.21	O26	+	+	CH	+	+		O26	+	O26	12.60.	-	9.07.	-	+	-	-	10.43.	10.44.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA
22	+18.61	+18.87	+18.80	O26	+	+	CH	+	+		O26	+	O26	13.15	-	9.12.	-	+	-	-	11.66.	10.20.	-	-	-	-	-	O26	O26	+	+	CH	+	O26	O26	+	O26	PA

Collaborator

N

Aerobic mesophilic flora: 4,2 10³ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method													Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																								
														Pre-warmed mEHEC																			Result		Agreement			
														8 h at 41.5°C Screening						10 h at 41.5°C Confirmation										PCR Final result	10 h at 41.5°C Cultural confirmation							
														MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC								MPX ID Final result	Remaining beads				Final result cultural confirmation				STEC	Sero group	
	PCR results			PCR Final result	Confirmation					Result	PCR result				PCR result Group 1 & Group 2								Streaking (20µL beads)		Confirmation on typical colonies													
	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				PCR MPX ID
4	-			-	+	-	CH	-			-	-	/	-	-	-	-		-	-	-	-	-	-	-	-		-	-	-	-		-	-	-			/
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 0

Aerobic mesophilic flora: 5,7 10³ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136 internal method													Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
														Pre-warmed mEHEC																		Result		Agreement																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
														8 h at 41.5°C Screening					10 h at 41.5°C Confirmation										PCR Final result	10 h at 41.5°C Cultural confirmation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
														MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC											MPX ID Final result	Remaining beads				Final result cultural confirmation	STEC	Sero- group																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	PCR results			PCR Final result	Confirmation						PCR result	PCR result Group 1 & Group 2										Streiking (20µL beads)		Confirmation on typical colonies																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	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	PCR MPX ID																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

Collaborator

ADRIA

Aerobic mesophilic flora: 5,7 10³ CFU/g

Sample N°	Reference method: ADRIA ISO/TS 13136* internal method												Assurance GDS STEC - Protocole 1 (25g + 225ml (d1/10) PW mEHEC)																										
													Pre-warmed mEHEC																							Result		Agreement	
													8 h at 41.5°C Screening						10 h at 41.5°C Confirmation										PCR Final result	10 h at 41.5°C Cultural confirmation									
													MPX TOP 7 STEC				MPX TOP 7 STEC Final result	MPX ID for Top STEC						MPX ID Final result	Remaining beads			Final result cultural confirmation		STEC	Serogroup								
	PCR results			PCR Final result	Confirmation					PCR result Group 1 & Group 2				Streaking (20µL beads)		Confirmation on typical colonies																							
					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
stx	eae	O26	Result	Result						Result	Result																												
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		

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