

NF VALIDATION
Validation of alternative analytical methods
Application in food microbiology

Summary report

Validation study according to the ISO 16140-2

CHROMID® Coli (COLI ID-F)

(Certificate number: BIO 12/19 - 12/06).

**for the enumeration of β -glucuronidase-positive *Escherichia coli*
at 37°C in a broad range of food**

Quantitative method

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This report consists of 63 pages, including 10 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♦.

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

Measurement uncertainty on the reference method results is not taken into account to provide the conclusion in this report; this measurement uncertainty is however available.

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[♦]	ISO 16649-2:2001: Microbiology of food and animal feeding stuffs. Horizontal method for the enumeration of β glucuronidase-positive <i>Escherichia coli</i> – Part 2: colony-count technique at 44°C using 5-bromo-4-chloro-3 indolyl β -D-glucuronate
Alternative method	CHROMID® Coli (COLI ID-F) for the enumeration of β glucuronidase-positive <i>Escherichia coli</i> at 37°C
Scope	> Broad range of food
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 INTRODUCTION

The **CHROMID® Coli (COLI ID-F) for the enumeration of β -Glucuronidase positive *Escherichia coli* at 37°C** was validated in 2006 according to the ISO 16140:2003 protocol and the AFNOR technical rules (Certificate number: BIO 12/19 - 12/06).

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

Table 1 - Steps of the AFNOR Certification validation

Date	Study	Reference method	Validation standard	Conducted by
December 2006	Initial Validation for a broad range of food	ISO 16649-2:2001	ISO 16140:2003	ADRIA
2010	Renewal study	ISO 16649-2:2001	ISO 16140:2003	ADRIA
2014	Renewal study	ISO 16649-2:2001	ISO 16140:2003	ADRIA
2018	Renewal study including additional data to meet the requirements of ISO 16140-2:2016.	ISO 16649-2:2001	ISO 16140-2:2016	ADRIA
2022	Renewal study	ISO 16649-2:2001	ISO 16140-2:2016	ADRIA
2025	Extension study for a single pate interpretation and re-interpretation according to ISO 7218:2024 and ISO 16140-2/A1:2024	ISO 16649-2:2001	ISO 16140-2:2016 ISO 16140-2/A1:2024	ADRIA

2 METHODS DESCRIPTION

2.1 Alternative method

2.1.1 Principle

The CHROMID® Coli (Coli ID-F) is a chromogenic media which allows the enumeration of coliforms and β glucuronidase-positive *Escherichia coli*. This medium contains 2 chromogenic substrates. The coliforms (different from *Escherichia coli*) appear as blue to grey colonies. The *Escherichia coli* appear as pink to violet colonies due to the presence of β -glucuronidase. Only the *Escherichia coli* enumeration has to be considered for the present study.

2.1.2 Protocol

The flow diagram of the alternative method is provided in **Appendix 1**.

2.1.3 Restrictions

There is no restriction for use.

2.2 Reference method♦

The reference method is the ISO 16649-2:2001: Horizontal method for the enumeration of β glucuronidase positive *Escherichia coli* – Part 2: colony-count technique at 44°C using 5-bromo-4-chloro-3 indolyl β -D-glucuronate. The flow diagram is provided in **Appendix 2**.

In the initial study, in 2006, two plates and two replicates were inoculated per dilution for the reference method. In the renewal studies conducted in 2011 and 2018, only one plate and one replicate were inoculated per dilution.

For the extension performed in 2025, a reinterpretation of the results according to the ISO 7218:2024 was made by considering only the results of “replicate 1”, “plate a” for the samples analysed in 2006.

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

2.3 Protocols applied during the initial validation and the renewal study

> *Incubation of the plates*

The plates were incubated for 22 h at 37°C ± 1°C.

> *Interpretation*

Initial and renewal studies were carried out with an enumeration using two plates.

For the extension performed in 2025, the method comparison data were reanalysed using only one plate, one dilution as follow:

- Only first replicate “replicate 1” was kept for samples tested in 2006,
- the first dilution with interpretable results was kept.

The dilution and replicate kept for one plate interpretation are highlighted in blue in the raw data table.

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 Relative trueness study

The relative trueness is the degree of correspondence between the response obtained by the reference method and the response obtained by the alternative method on identical samples.

3.1.1 *Number and nature of the samples*

In previous studies, the experimental design was performed to meet the requirements of ISO 16140-2:2016.

Five food categories were tested with a minimum of 15 interpretable results per category and 5 interpretable results per type. The repartition per category and type is provided in Table 2.

The single plate interpretation was compared to the results obtained with two plate interpretations.

187 samples were analysed, leading to 133 interpretable results for both interpretations (based on one and two plates).

Table 2 – Categories and types

Category		Type		CHROMID Coli 37°C		
				Analysed	Interpretable 22 h	
					2 plates	1 plate
1	Meat and meat products	a	Raw (unseasoned)	20	13	13
		b	Raw and cooked delicatessen	21	18	18
		c	RTE, RTRH	13	11	11
		Total		54	42	42
2	Milk and dairy products	a	Raw milk	7	7	7
		b	Cream, desserts and cheeses	11	7	7
		c	Milk powder	11	5	5
		Total		29	19	19
3	Seafood products	a	Raw fish, selfish	14	11	11
		b	Smoked and marinated	8	8	8
		c	RTE, RTRH	12	5	5
		Total		34	24	24
4	Vegetables	a	Raw vegetables	9	6	6
		b	Frozen	9	5	5
		c	RTE, RTRH	12	9	9
		Total		30	20	20
5	Eggs and egg-based products	a	Eggs	9	7	7
		b	Egg-based products	16	11	11
		c	Pastries	15	10	10
		Total		40	28	28
All categories				187	133	133

3.1.2 Artificial and natural contamination of the samples

Artificial contaminations were realized by spiking or seeding protocols. The inoculated strains, the contamination protocols, the injured protocols of the inoculated vegetative cells and the injury evaluation are provided in **Appendix 3**. Injury efficiency was evaluated by enumerating the pure culture on selective and non-selective agars.

66 samples were artificially contaminated using spiking or seeding protocols. 60 samples gave interpretable results by both methods. 73 samples giving interpretable results by both methods were naturally contaminated.

For both interpretations (using 1 or 2 plates) 54.9 % of the samples were naturally contaminated.

3.1.3 Raw data

The raw data are provided in **Appendix 4**.

The samples were analysed by the reference and the alternative methods in order to have 15 interpretable results per incubation protocol, and 5 interpretable results per tested type.

The data are classified in four categories (See Table 3):

- Interpretable results with the reference and the alternative methods.
- Results with less than 4 colonies per plate with the reference and/or the alternative method (indicated with “*” in the data) in order to have a more precise result. These results are not included in the calculation.
- Results below or above the quantification limit: according to the ISO 16140-2:2016, if any result (either reference or alternative method) is below the quantification limit, the data should be plotted using a substituted value of 1 log₁₀ units less than the observed value in case of a lower than value. Similarly, any value greater than the upper limit should be amended by adding 1 log₁₀ unit. These results are not included in the calculations but also appear on the graphs.
- Samples with no result (ND): results not determined as the size of the colonies does not enable enumeration or incoherence in the enumeration between the dilutions are observed.

Table 3 - Classification of the data

Category		Type		Number of samples analysed	CHROMID Coli 37°C							
					22h							
					Number of samples with interpretable results by both methods		Number of samples with no results (ND)		Number of samples with less than 4 colonies/plate		Number of samples below or above the quantification limit	
					2 plates	1 plate	2 plates	1 plate	2 plates	1 plate	2 plates	1 plate
1	Meat and meat products	a	Raw (unseasoned)	20	13	13	2	2	2	2	3	3
		b	Raw and cooked delicatessen	21	18	18	0	0	3	3	0	0
		c	RTE, RTRH	13	11	11	0	0	2	2	0	0
		Total		54	42	42	2	2	7	7	3	3
2	Milk and dairy products	a	Raw milk	7	7	7	0	0	0	0	0	0
		b	Cream, desserts and cheeses	11	7	7	0	0	0	0	4	4
		c	Milk powder	11	5	5	0	0	0	0	6	6
		Total		29	19	19	0	0	0	0	10	10
3	Seafood products	a	Raw fish, selfish	14	11	11	0	0	0	0	3	3
		b	Smoked and marinated	8	8	8	0	0	0	0	0	0
		c	RTE, RTRH	12	5	5	0	0	1	1	6	6
		Total		34	24	24	0	0	1	1	9	9
4	Vegetables	a	Raw vegetables	9	6	6	0	0	0	0	3	3
		b	Frozen	9	5	5	0	0	1	1	3	3
		c	RTE, RTRH	12	9	9	1	1	1	1	1	1
		Total		30	20	20	1	1	2	2	7	7
5	Eggs and egg-based products	a	Eggs	9	7	7	0	0	1	1	1	1
		b	Egg-based products	16	11	11	0	0	1	1	4	4
		c	Pastries	15	10	10	0	0	3	3	2	2
		Total		40	28	28	0	0	5	5	7	7
All categories				187	133	133	3	3	15	15	36	36

The samples, which were not used in the calculations, are provided in Table 4.
These samples are the same for one or two-plate interpretation.

Table 4 - Samples which were not used in the calculations

Sample No	Product	ISO	CHROMID Coli 37°C		Category	Type
			22h			
			2 plates	1 plate		
562	Raw veal meat	<2.00	<1.00	<1.00	1	a
563	Raw veal meat	1.00*	<1.00	<1.00	1	a
564	Raw veal meat	<1.00	1.00*	1.00*	1	a
565	Raw meat	1.00*	ND	ND	1	a
566	Raw chicken meat	1.48*	ND	ND	1	a
594	Raw pork meat	1.48*	1.48*	1.48*	1	a
640	Raw chicken meat	1.00*	1.00*	1.00*	1	a
590	Sausage	1.48*	1.00*	1.00*	1	b
591	Sausage	1.74	1.00*	1.00*	1	b
592	Sausage	1.48*	1.00*	1.00*	1	b
589	Tartar	1.00*	1.56	1.60	1	c
595	RTRH pork meat	1.30*	1.30*	1.30*	1	c
726	Cheese	<1.00	<1.00	<1.00	2	b
6283	Raw milk cheese	<1.00	<1.00	<1.00	2	b
6284	Raw milk cheese	<1.00	<1.00	<1.00	2	b
6405	Cheese	<1.00	<1.00	<1.00	2	b
6297	Skimmed milk powder	<1.00	<1.00	<1.00	2	c
6298	Skimmed milk powder	<1.00	1.30*	1.30*	2	c
6299	Whole milk powder	<1.00	<1.00	<1.00	2	c
6300	Whole milk powder	<1.00	2.85	2.83	2	c
6738	Skimmed milk powder	3.00*	<3.00	<3.00	2	c
6739	Skimmed milk powder	<3.00	3.30*	3.30*	2	c
6169	Raw fish	<1.00	<1.00	<1.00	3	a
6402	Raw lobster	<1.00	<1.00	<1.00	3	a
6403	Raw salmon	<1.00	<1.00	<1.00	3	a
6170	RTRH seafood	<1.00	<1.00	<1.00	3	c
6279	RTRH fish	<1.00	<1.00	<1.00	3	c
6280	RTRH salmon	<1.00	<1.00	<1.00	3	c
6398	RTRH mussels	1.00*	<1.00	<1.00	3	c
6399	RTRH mussels	<1.00	<1.00	<1.00	3	c
6400	Scallops	<1.00	<1.00	<1.00	3	c
6401	RTRH fish	1.74	1.30*	1.30*	3	c
629	Green beans	<1.00	<1.00	<1.00	4	a
630	Zucchini	<1.00	1.00*	1.00*	4	a
1346	Salad	<2.00	<2.00	<2.00	4	a
627	Frozen Brussel sprout	<1.00	1.00*	1.00*	4	b
631	Frozen vegetables mix	<1.00	<1.00	<1.00	4	b
1348	Frozen zucchini	2.00*	2.00*	2.00*	4	b
1349	Frozen vegetables mix	<2.00	<2.00	<2.00	4	b
561	RTRH Spinach	<2.00	ND	ND	4	c

Sample No	Product	ISO	CHROMID Coli 37°C		Category	Type
			22h			
			2 plates	1 plate		
593	Piemontaise	1.48*	1.00*	1.00*	4	c
1347	Salad mix	<2.00	2.00*	2.00*	4	c
728	Egg liquid	2.00	1.48*	1.48*	5	a
827	Egg liquid	<1.00	<1.00	<1.00	5	a
588	Chocolate meringue	<1.00	<1.00	<1.00	5	b
1352	Mayonnaise	2.48*	2.30*	2.30*	5	b
1687	Cake with eggs	<3.00	3.48*	3.48*	5	b
1688	Cake with eggs	<3.00	<3.00	<3.00	5	b
6278	Quiche with eggs	<1.00	1.00*	1.00*	5	b
587	Pastry	1.00*	1.00*	1.00*	5	c
1350	Pastry	2.66	2.00*	2.00*	5	c
1686	Pastry	3.56	3.48*	3.48*	5	c
6171	Pastry	<1.00	<1.00	<1.00	5	c
6281	Pastrv	<1.00	<1.00	<1.00	5	c

*: Results with less than 4 colonies per plate with the reference and/or the alternative method

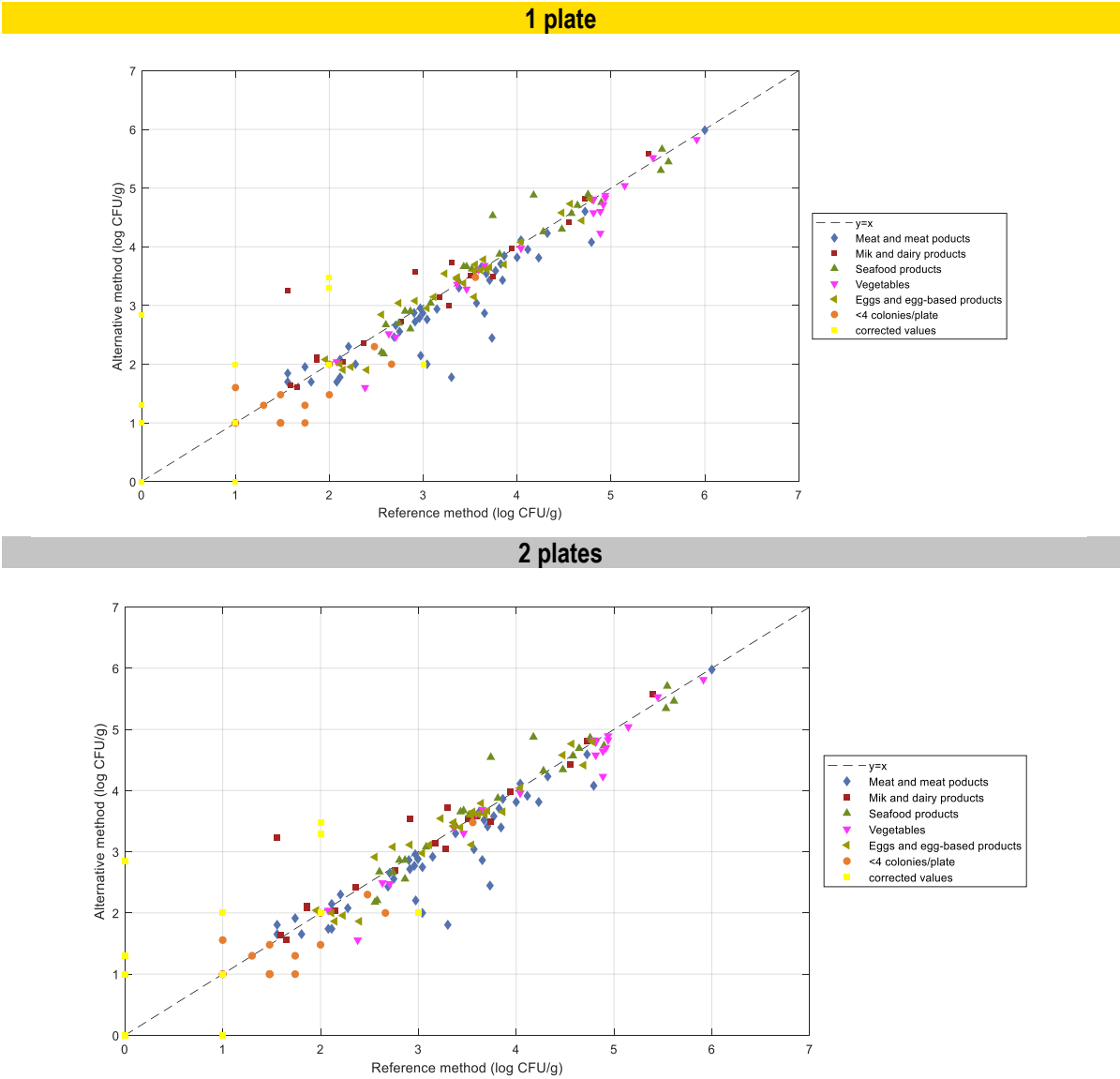
ND: samples with non-determined results (high background microflora)

3.1.4 Statistical interpretation

The obtained data were analysed using the scatter plot. The graphs are provided with the line of identity ($y = x$).

The data plotted for each individual category are given in **Appendix 5** and for all the products Figure 1.

Figure 1 - Data plotted for all the products



The calculated values for the Average difference and Standard deviation differences per category as well as the upper and lower 95% confidence limit are provided in Table 5.

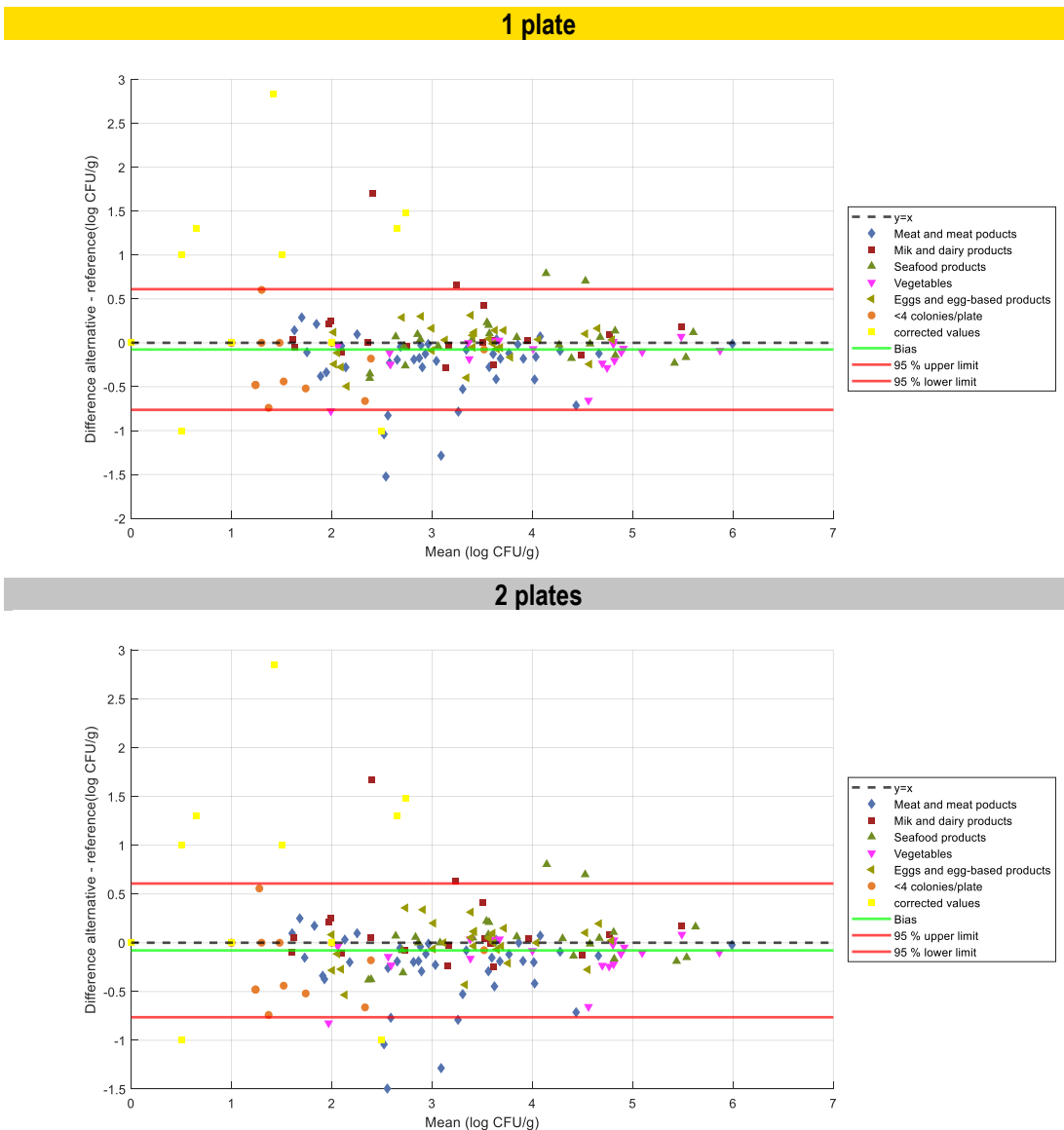
Table 5 - Calculated values

CHROMID Coli 37°C										
Category	n		Average difference (bias)		Standard deviation of differences (SD)		95% lower limit		95% upper limit	
	2 plates	1 plate	2 plates	1 plate	2 plates	1 plate	2 plates	1 plate	2 plates	1 plate
1	42	42	-0.26	-0.25	0.37	0.38	-1.01	-1.02	0.50	0.52
2	19	19	0.14	0.14	0.43	0.44	-0.78	-0.80	1.07	1.09
3	24	24	0.03	0.03	0.28	0.28	-0.55	-0.55	0.62	0.62
4	20	20	-0.15	-0.15	0.23	0.22	-0.64	-0.62	0.34	0.31
5	28	28	0.00	0.00	0.22	0.20	-0.46	-0.42	0.45	0.42
All categories	133	133	-0.08	-0.08	0.35	0.35	-0.76	-0.76	0.61	0.61

For both interpretations, the average differences (bias) between the alternative method and the reference method is equal to -0.08 and it varies from – 0.25 log₁₀ (meat and meat products) to 0.14 log₁₀ (milk and dairy products).

The Bland-Altman difference plot for each individual category is given in **Appendix 6** and for all the samples in Figure 2.

Figure 2 – Bland-Altman difference plot for all the samples



Samples for which the difference between the result observed with the reference and the alternative methods is above or lower than the limits are listed in Table 6.

Table 6 - Analysis of the data out of the confidence limits

Values in **green**: differences in favour of the alternative method
 UCL: Upper confidence limit

Values in **red**: differences in favour of the reference method
 LCL: Lower confidence limit

CHROMID Coli 37°C															
Classification of the data	Category	Type	N° Sample	Product	Reference method	Alternative method		Values before correction (Reference or/and alternative method)		Mean		Difference		LCL/UCL	
						2 plates	1 plate	2 plates	1 plate	2 plates	1 plate	2 plates	1 plate	2 plates	1 plate
Interpretable results by both methods	1	a	1913	Raw turkey meat	3.73	2.45	2.45	/	/	3.09	3.09	-1.29	-1.29		
	1	b	2369	Cooked ham	3.30	1.81	1.78	/	/	2.55	2.54	-1.49	-1.52		
	1	c	2066	RTRH pork meat	3.04	2.00	2.00	/	/	2.52	2.52	-1.04	-1.04		
	1	c	2368	Sandwich with ham	3.65	2.86	2.87	/	/	3.26	3.26	-0.79	-0.78		
	1	c	2482	RTE salad with chicken	2.97	2.20	2.15	/	/	2.59	2.56	-0.77	-0.83		
	2	c	6301	Skimmed milk powder	1.56	3.23	3.26	/	/	2.39	2.41	1.67	1.70		
	2	c	6736	Half skimmed milk powder	2.91	3.54	3.57	/	/	3.23	3.24	0.63	0.65		
	3	a	6728	Raw shrimps	3.74	4.54	4.53	/	/	4.14	4.14	0.80	0.79		
	3	a	6729	Scallops	4.18	4.88	4.88	/	/	4.53	4.53	0.70	0.70		
	4	c	2365	RTE vegetables mix	2.38	1.56	1.60	/	/	1.97	1.99	-0.82	-0.78		
< or > limit of quantification	1	a	562	Raw veal meat	1.00	0.00	0.00	2.00 / 1.00	2.00 / 1.00	0.50	0.50	-1.00	-1.00	-0.76/ 0.61	-0.76/ 0.61
	1	a	563	Raw veal meat	1.00	0.00	0.00	1.00	1.00	0.50	0.50	-1.00	-1.00		
	1	a	564	Raw veal meat	0.00	1.00	1.00	1.00	1.00	0.50	0.50	1.00	1.00		
	2	c	6298	Skimmed milk powder	0.00	1.30	1.30	1.00	1.00	0.65	0.65	1.30	1.30		
	2	c	6300	Whole milk powder	0.00	2.85	2.83	1.00	1.00	1.42	1.42	2.85	2.83		
	2	c	6738	Skimmed milk powder	3.00	2.00	2.00	3.00	3.00	2.50	2.50	-1.00	-1.00		
	2	c	6739	Skimmed milk powder	2.00	3.30	3.30	3.00	3.00	2.65	2.65	1.30	1.30		
	3	c	6398	RTRH mussels	1.00	0.00	0.00	1.00	1.00	0.50	0.50	-1.00	-1.00		
	4	a	630	Zucchini	0.00	1.00	1.00	1.00	1.00	0.50	0.50	1.00	1.00		
	4	b	627	Frozen Brussel sprout	0.00	1.00	1.00	1.00	1.00	0.50	0.50	1.00	1.00		
	4	c	1347	Salad mix	1.00	2.00	2.00	2.00	2.00	1.50	1.50	1.00	1.00		
	5	b	1687	Cake with eggs	2.00	3.48	3.48	3.00	3.00	2.74	2.74	1.48	1.48		
	5	b	6278	Quiche with eggs	0.00	1.00	1.00	1.00	1.00	0.50	0.50	1.00	1.00		

3.1.5 Discordant results

The samples are classified in three categories (See Table 7).

Table 7 - Classification of the samples

		Number of samples	
		CHROMID Coli 37°C – 22 h	
		2 plates	1 plate
Interpretable results by both methods	< LCL	6	6
	> UCL	4	4
	Total	10	10
< or > the quantification limit	< LCL	4	4
	> UCL	9	9
	Total	13	13
Total < LCL		10	10
Total >UCL		13	13
TOTAL		23	23

The number of samples with higher enumeration observed with the alternative method is higher than the number of samples with higher enumeration using the reference method. Same number of samples outside the confidence limits were obtained by single plate interpretation and two plates interpretations.

For both interpretations, for one sample, the difference between the two tested methods is relatively high: Sample 6300 (milk powder):

- Ref: < 1.00 log₁₀ CFU/g
- Alt: 2.85 log₁₀ CFU/g (2 plates) and 2.83 log₁₀ CFU/g (1 plate).

This sample was artificially contaminated with *Escherichia coli* 118. The TBX media used in the ISO method is probably more selective for this strain than the CHROMID media.

3.1.6 Conclusion

The relative trueness study of the alternative method is satisfying for all the categories tested.

No major difference was observed between both interpretations (1 or 2 plates).

3.2 Accuracy profile study

The accuracy profile is a graphical representation of the capacity of measurement of the quantitative method, obtained by combining acceptability intervals and β -expectation tolerance intervals, both reported to different levels of the reference value.

3.2.1 Matrices

Five matrices were tested with three contamination levels and five test portions per level. The tested categories, types, matrix and inoculated strains are provided in Table 8.

Table 8 - Categories, types and matrices

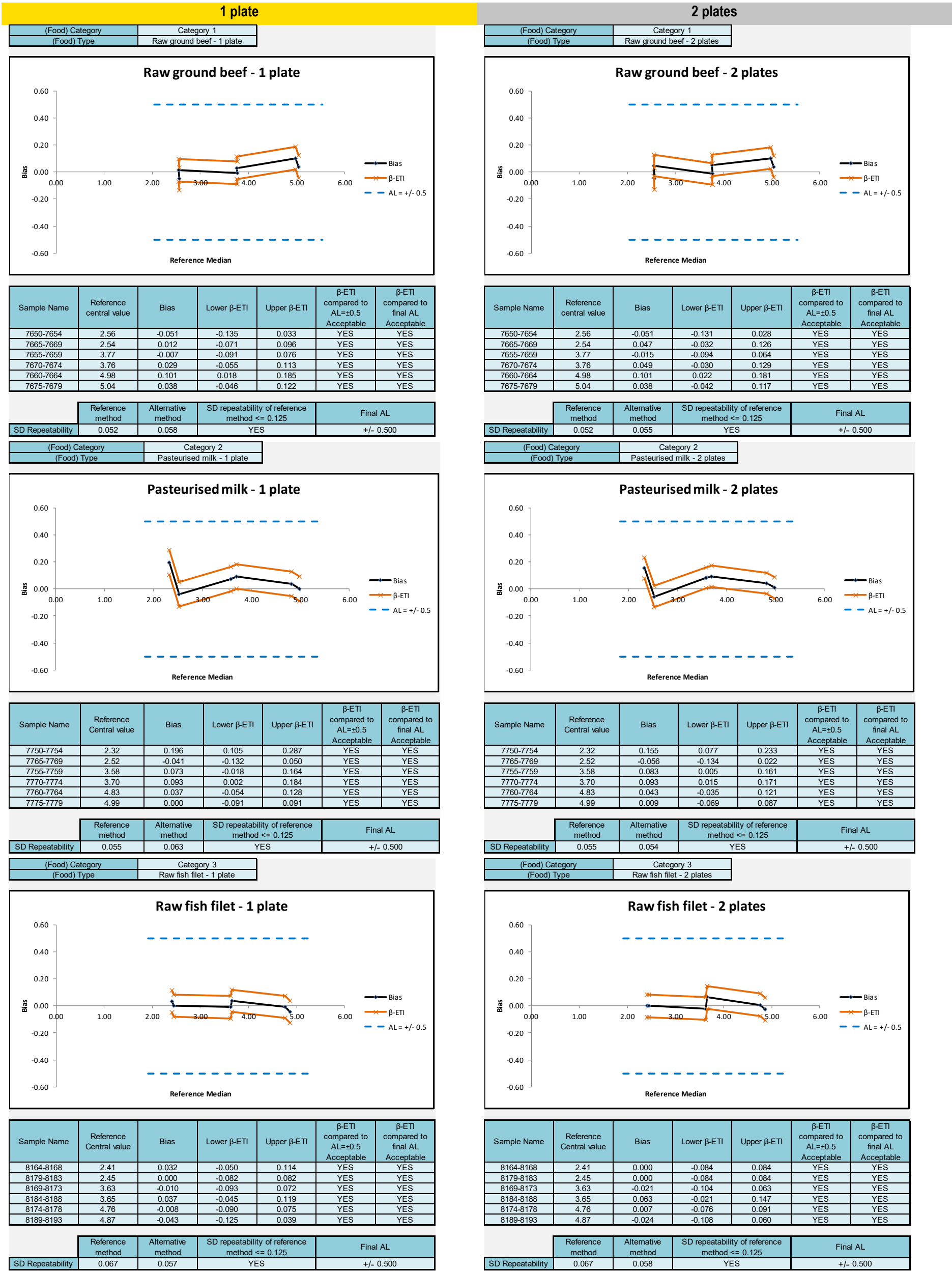
Category		Type	Matrix	Inoculated strain	Origin	Inoculation level (CFU/g)
1	Meat products and meat	a Raw meat	Ground beef	<i>Escherichia coli</i> 13	Ground beef	300 50000 100000
2	Milk and dairy products	b Dessert	Vanilla dairy-based dessert	<i>Escherichia coli</i> 94	Cheese	
3	Seafood products	a Raw fish	Raw fish fillet	<i>Escherichia coli</i> Ad228	Fish	
4	Vegetables	c RTE, RTRH	Grated carrots	<i>Escherichia coli</i> 19	Grated carrots	
5	Eggs and egg-based products	a Eggs	Liquid egg product	<i>Escherichia coli</i> 142	Liquid egg product	

3.2.2 Calculation and interpretation

The raw data are provided in **Appendix 7**. The summary tables (in log₁₀CFU/g) and calculations are provided in **Appendix 8**. The statistical results and the accuracy profiles are provided Figure 3.

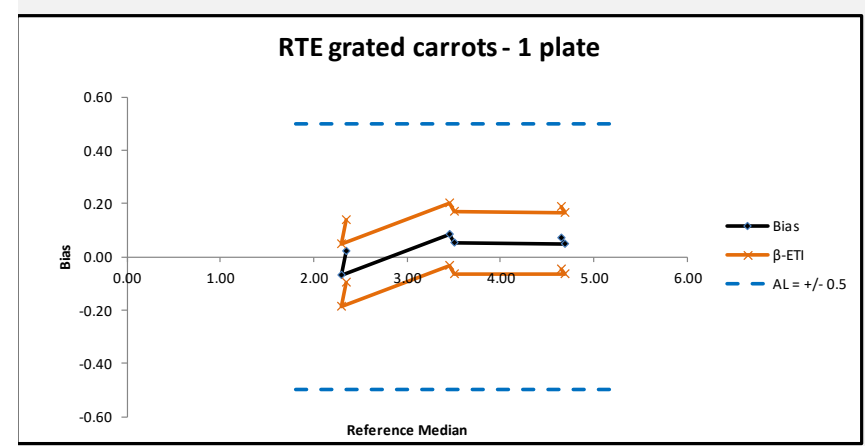
The calculations will be done using the AP Calculation Tool MCS (Clause 6-1-3-3 calculation and interpretation of accuracy profile study) ver 31-07-2018 available on <http://standards.iso.org/iso/16140>.

Figure 3 – Accuracy profile



1 plate

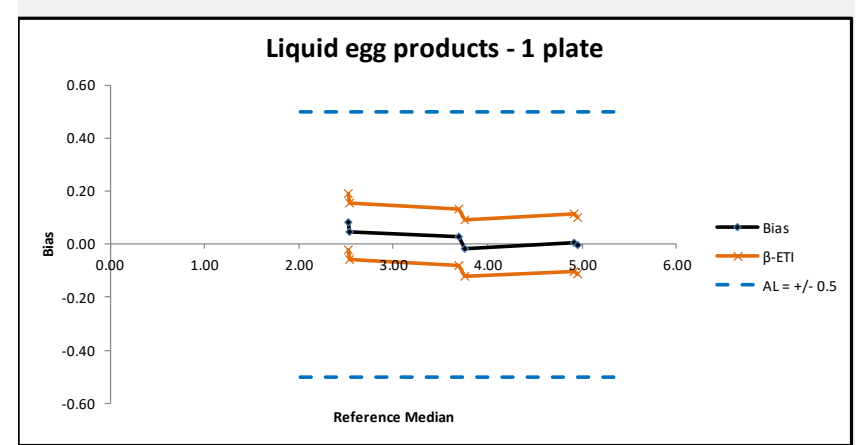
(Food) Category	Category 4
(Food) Type	RTE grated carrots - 1 plate



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
8239-8243	2.34	0.019	-0.098	0.136	YES	YES
8254-8258	2.30	-0.071	-0.188	0.046	YES	YES
8244-8248	3.45	0.084	-0.033	0.201	YES	YES
8259-8263	3.51	0.051	-0.066	0.168	YES	YES
8249-8253	4.69	0.050	-0.067	0.167	YES	YES
8264-8268	4.65	0.071	-0.046	0.188	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0.076	0.081	YES	+/- 0.500

(Food) Category	Category 5
(Food) Type	Liquid egg products - 1 plate

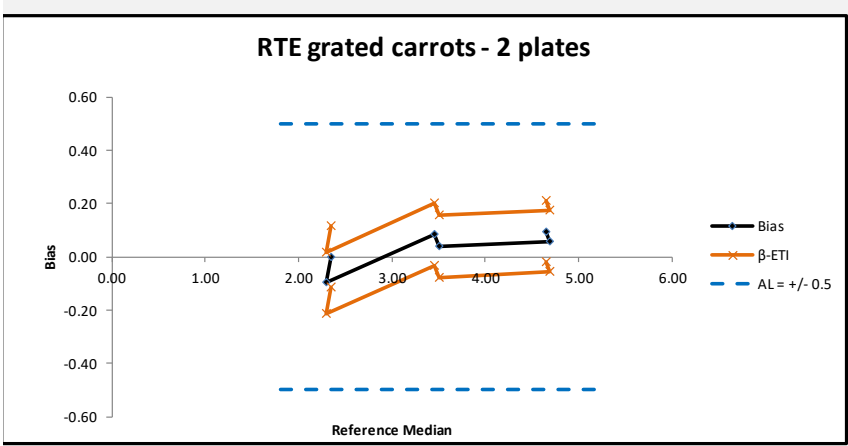


Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
8051-8055	2.52	0.084	-0.023	0.190	YES	YES
8066-8070	2.53	0.048	-0.059	0.155	YES	YES
8056-8060	3.69	0.026	-0.081	0.133	YES	YES
8071-8075	3.76	-0.016	-0.122	0.091	YES	YES
8061-8065	4.92	0.005	-0.102	0.112	YES	YES
8076-8080	4.96	-0.005	-0.112	0.102	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0.080	0.074	YES	+/- 0.500

2 plates

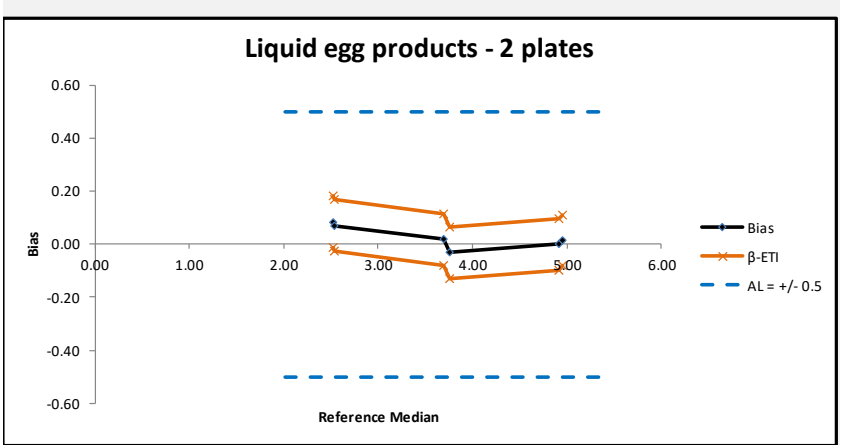
(Food) Category	Category 4
(Food) Type	RTE grated carrots - 2 plates



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
8239-8243	2.34	0.000	-0.115	0.115	YES	YES
8254-8258	2.30	-0.097	-0.212	0.019	YES	YES
8244-8248	3.45	0.084	-0.031	0.200	YES	YES
8259-8263	3.51	0.039	-0.077	0.154	YES	YES
8249-8253	4.69	0.058	-0.057	0.173	YES	YES
8264-8268	4.65	0.095	-0.021	0.210	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0.076	0.080	YES	+/- 0.500

(Food) Category	Category 5
(Food) Type	Liquid egg products - 2 plates



Sample Name	Reference Central value	Bias	Lower β-ETI	Upper β-ETI	β-ETI compared to AL=±0.5 Acceptable	β-ETI compared to final AL Acceptable
8051-8055	2.52	0.084	-0.013	0.180	YES	YES
8066-8070	2.53	0.071	-0.026	0.167	YES	YES
8056-8060	3.69	0.017	-0.079	0.114	YES	YES
8071-8075	3.76	-0.032	-0.128	0.065	YES	YES
8061-8065	4.92	0.000	-0.097	0.097	YES	YES
8076-8080	4.96	0.014	-0.083	0.111	YES	YES

	Reference method	Alternative method	SD repeatability of reference method <= 0.125	Final AL
SD Repeatability	0.080	0.067	YES	+/- 0.500

The lower and upper β .ETI are within the acceptability limits for all the matrix/strain pairs tested. The acceptability limits are fixed at + 0.5 log₁₀ and - 0.5 log₁₀ for all the matrices tested.

The SD repeatability of the reference method is always below to 0.250.

No difference was observed between the single plate and the two plates interpretation.

3.2.3 Conclusion

The observed profiles meet the AL. All the accuracy profiles fulfil the performance criteria. No difference was observed between both interpretations (1 or 2 plates).

3.3 Inclusivity and exclusivity studies

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

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

For the initial validation study (1998), 20 target and 23 non-target strains were tested once on PCA, in duplicate on VRBL (44.5°C - V08-017) and CHROMID Coli (37°C). 10 additional target strains were tested in 2006 in duplicate on PCA, TBX (ISO 16649-2) and CHROMID Coli (37°C).

In 2018, 20 target strains and 8 non-target strains were tested once on PCA, TBX and CHROMID Coli (37°C).

The raw data are provided in **Appendix 9**.

> **Inclusivity**

Among the 50 target strains tested, 6 gave non-typical colonies using the CHROMID Coli:

- *Escherichia coli* Adria12,
- *Escherichia coli* Adria20,
- *Escherichia coli* ATCC 43888,
- *Escherichia coli* Adria1816,
- *Escherichia coli* Adria1999,
- *Escherichia coli* Adria1386.

All these strains are β -glucuronidase negative and all of them tested on TBX also gave atypical white colonies

> **Exclusivity**

30 non-target strains were tested; 2 strains gave doubtful colonies on CHROMID Coli plates.

- *Escherichia vulneris* 151 (pink- purple colonies),
- *Plesiomonas shigelloides* (white-pink colonies).

The CHROMID Coli method is as specific and selective as the reference method.

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 bottles are stored in their boxes at 2°C -8°C until the expiry date and kept away from light The agar cannot be melted more than twice		
Time to result	Steps	Reference method	Alternative method
	Negative samples		
	Sampling analysis	D0	D0
	Enumeration	D1	D1
Common step with the reference method	Preparation of initial suspension		

The *Escherichia coli* enumeration is obtained in one day by both methods

4 INTER-LABORATORY STUDY ORGANISATION AND RESULTS

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.

The study was run in 2006. Pasteurised half-skimmed milk inoculated with *Escherichia coli* 94 and *Enterobacter cloacae* FB2 was used for the study. 14 laboratories participated in the study.

The results of the inter-laboratory study run in 2006 were interpreted according to the ISO 16140-2:2016 and ISO 16140-2/A1:2024 standard using the Excel spreadsheet available at <http://standards.iso.org/iso/16140> (AP Calculation tool ILS (clause 6.2.3 Calculation summary and interpretations of data) ver 14.03.2016).

4.1 Experimental parameters controls

Two samples inoculated per inoculation level were tested for enumeration after 24 h and 48 h storage at 3°C ± 2°C (See Table 9).

Table 9 – *Escherichia coli* 94 stability in the matrix

	Level 1		Level 2		Level 3	
	Replicate 1	Replicate 2	Replicate 1	Replicate 2	Replicate 1	Replicate 2
Day 0	55	47	450	450	3 500	2 700
Day 1	36	53	420	350	3 900	4 500
Day 2	38	47	340	550	5 000	4 400

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

4.2 Logistic conditions

The temperatures measured at reception by the Labs, the temperatures registered by the thermo-probe, and the receipt dates are given in Table 10.

Table 10 - Sample temperatures at receipt

Collaborator	Temperature measured at receipt (°C)	Date and hour receipt of the samples		Temperature measured by the probe (°C)
A	7.5	Day 2	14h00	0.5
B	2.0	Day 1	11h15	0.0
C	4.0	Day 1	11h30	<i>Probe not received</i>
D	3.0	Day 1	08h30	0.0
E	2.5	Day 2	09h10	0.0
F	0.3	Day 1	11h20	- 2.5 ¹
G	4.6	Day 1	10h00	0.00
H	0.2	Day 1	08h15	0.00
I	0.4	Day 1	09h30	0.00
J	1.0	Day 1	11h30	- 1.00 ¹
K	0.6	Day 1	09h20	0.00
L	0.3	Day 1	13h15	0.00
M	0.0	Day 1	11h00	0.00
N	0.3	Day 1	08h45	0.00

All the packages were declined at Day 1 except for two labs (A and E) which received their sample at Day 2. All the temperature measured at receipt were correct or below 8.4°C. No problem was encountered during transport.

4.3 Result analysis

Raw data are given in **Appendix 10**.

4.3.1 Results obtained by the expert Lab.

The results obtained by the expert Lab. are the following (See Table 11).

Table 11 – Results obtained by the expert Lab.

Level (log CFU/g)	Reference method		Alternative method	
	Replicate 1	Replicate 2	Replicate 1	Replicate 2
< 1	< 1	< 1	< 1	< 1
1 to 2	1.67	1.66	1.66	1.62
2 to 3	2.66	2.58	2.69	2.63
3 to 4	3.63	3.63	3.74	3.79

¹ Some temperatures below 0°C were noticed but the samples were not frozen.

4.3.2 Results obtained by the collaborators

Samples were sent to 14 collaborators.

> *Mesophilic aerobic microflora*

The mesophilic aerobic microflora was done on the matrix with ISO 4833 method. The results varied from 22 000 to 480 000 CFU/ml.

> *Escherichia coli* enumeration

A summary of the test results is given in **Table 12** (CFU/g) and **Table 13** (log₁₀ CFU/g).

Table 12 - Summary of data (CFU/g)

CFU/g																
Collab orator	Level 0				Level 1				Level 2				Level 3			
	Reference method		Alternative method		Reference method		Alternative method		Reference method		Alternative method		Reference method		Alternative method	
A	<10	<10	<10	<10	40	50	30	50	400	550	520	500	3600	4500	4600	6400
B	<1	<1	<1	<1	41	39	55	55	650	530	590	450	5300	4600	7200	6000
C	<10	<10	<10	<10	64	64	36	36	330	350	340	460	5000	4200	4500	4800
D	<10	<10	<10	<10	36	55	45	82	460	340	510	500	3700	3900	4800	3600
E	<1	<1	<1	<1	32	37	49	31	440	400	550	520	5000	4300	6700	5600
F	<1	<1	<1	<1	25	38	54	50	450	630	640	620	4500	7300	4800	4900
G	<10	<10	<10	<10	45	55	45	82	330	340	280	430	3100	3200	3800	4700
H	<1	<1	<1	<1	23	46	24	26	460	360	390	280	3800	5100	4400	4200
I	<1	<1	<1	<1	41	38	45	55	340	510	570	470	4100	4500	5400	6700
J	<1	<1	<1	<1	36	27	42	49	380	370	440	550	5600	4700	4800	5700
K	<10	<10	<10	<10	45	45	36	45	540	460	600	460	4900	5200	7000	5900
L	<10	<10	<10	<10	45	45	45	45	400	410	350	560	3500	5700	5400	5500
M	<1	<1	<1	<1	44	46	45	44	420	430	450	410	5200	4000	6100	3700
N	<1	<1	<1	<1	23	18	47	46	330	470	540	540	2600	3000	6000	6300
ADRIA	<1	<1	<1	<1	47	46	46	42	460	380	490	430	4300	4300	5500	6200

Table 13 - Summary of data (log₁₀ CFU/g)

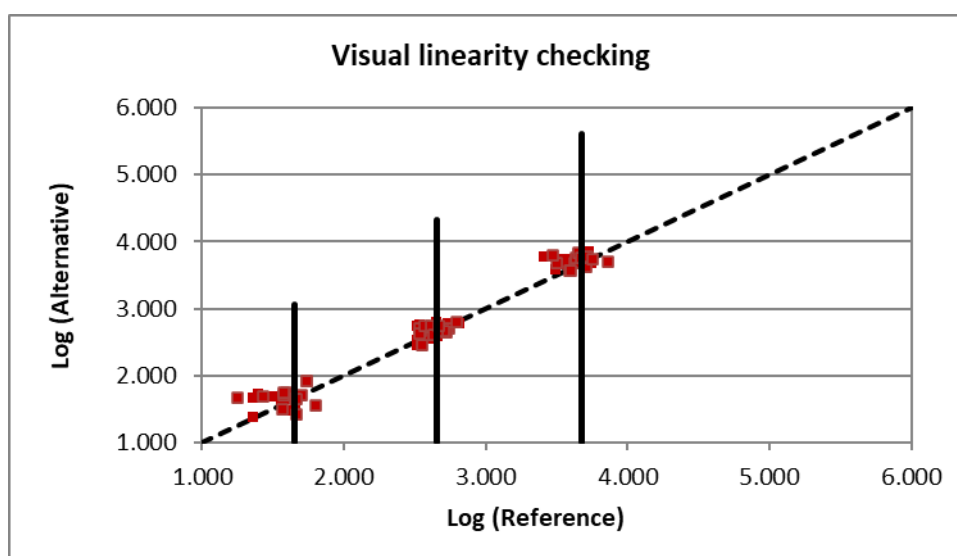
Log ₁₀ CFU/g																
Colla- borator	Level 0				Level 1				Level 2				Level 3			
	Reference method		Alternative method		Reference method		Alternative method		Reference method		Alternative method		Reference method		Alternative method	
A	<1.00	<1.00	<1.00	<1.00	1.60	1.70	1.48	1.70	2.60	2.74	2.72	2.70	3.56	3.65	3.66	3.81
B	<0.00	<0.00	<0.00	<0.00	1.61	1.59	1.74	1.74	2.81	2.72	2.77	2.65	3.72	3.66	3.86	3.78
C	<1.00	<1.00	<1.00	<1.00	1.81	1.81	1.56	1.56	2.52	2.54	2.53	2.66	3.70	3.62	3.65	3.68
D	<1.00	<1.00	<1.00	<1.00	1.56	1.74	1.65	1.91	2.66	2.53	2.71	2.70	3.57	3.59	3.68	3.56
E	<0.00	<0.00	<0.00	<0.00	1.51	1.57	1.69	1.49	2.64	2.60	2.74	2.72	3.70	3.63	3.83	3.75
F	<0.00	<0.00	<0.00	<0.00	1.40	1.58	1.73	1.70	2.65	2.80	2.81	2.79	3.65	3.86	3.68	3.69
G	<1.00	<1.00	<1.00	<1.00	1.65	1.74	1.65	1.91	2.52	2.53	2.45	2.63	3.49	3.51	3.58	3.67
H	<0.00	<0.00	<0.00	<0.00	1.36	1.66	1.38	1.41	2.66	2.56	2.59	2.45	3.58	3.71	3.64	3.62
I	<0.00	<0.00	<0.00	<0.00	1.61	1.58	1.65	1.74	2.53	2.71	2.76	2.67	3.61	3.65	3.73	3.83
J	<0.00	<0.00	<0.00	<0.00	1.56	1.43	1.62	1.69	2.58	2.57	2.64	2.74	3.75	3.67	3.68	3.76
K	<1.00	<1.00	<1.00	<1.00	1.65	1.65	1.56	1.65	2.73	2.66	2.78	2.66	3.69	3.72	3.85	3.77
L	<1.00	<1.00	<1.00	<1.00	1.65	1.65	1.65	1.65	2.60	2.61	2.54	2.75	3.54	3.76	3.73	3.74
M	<0.00	<0.00	<0.00	<0.00	1.64	1.66	1.65	1.64	2.62	2.63	2.65	2.61	3.72	3.60	3.79	3.57
N	<0.00	<0.00	<0.00	<0.00	1.36	1.26	1.67	1.66	2.52	2.67	2.73	2.73	3.41	3.48	3.78	3.80
ADRIA	<0.00	<0.00	<0.00	<0.00	1.67	1.66	1.66	1.62	2.66	2.58	2.69	2.63	3.63	3.63	3.74	3.79

Some labs enumerated the dilution -1, -2, -3 instead of the dilution 0, -1, -2, -3 this explains the results obtained for level 0 (< 1 or < 10 CFU/ml).

4.4 Calculation and interpretation

4.4.1 Visual linearity checking

Figure 4 shows the data points after log₁₀ transformation. The visual inspection shows that the alternative method gives results, which are proportional to those of the reference method. The data are distributed closely to the first bisecting lines with a slope equal to 1.

Figure 4 - Visual linearity checking


4.4.2 Accuracy profile calculation

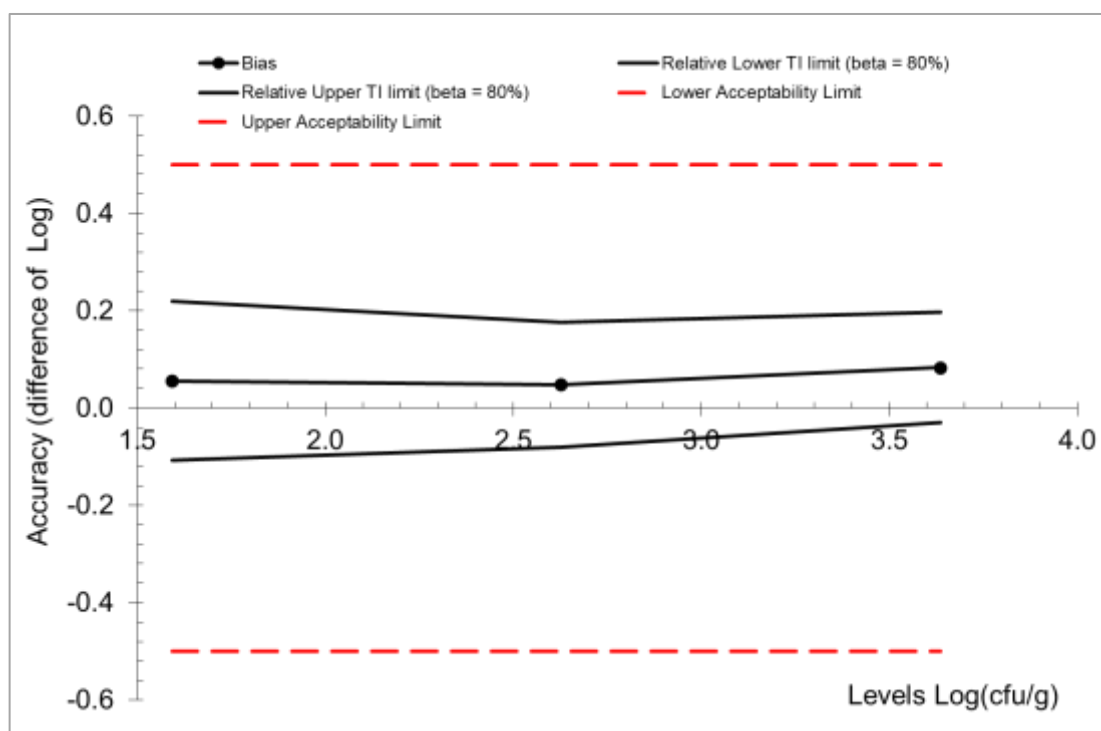
Statistical calculations were done according to the Excel spreadsheet available on <http://standards.iso.org/ISO/16140>. A summary of the statistical test is provided in **Table 14**.

Table 14 - Summary of statistical tests

Accuracy profile									
Study Name	CHROMID coli - <i>E. coli</i> 37°C								
Date	2006 - Reinterpretation 2025								
Coordinator	ADRIA								
Tolerance probability (beta)	80%	80%	80%						
Acceptability limit in log (lambda)	0.50	0.50	0.50						
	Alternative method			Reference method					
Levels	Low	Medium	High	Low	Medium	High			
Target value	1.593	2.627	3.636						
Number of participants (K)	14	14	14	14	14	14			
Average for alternative method	1.649	2.675	3.720	1.593	2.627	3.636			
Repeatability standard deviation (sr)	0.094	0.076	0.067	0.086	0.071	0.074			
Between-labs standard deviation (sL)	0.076	0.057	0.051	0.103	0.048	0.064			
Reproducibility standard deviation (sR)	0.121	0.095	0.084	0.134	0.085	0.098			
Corrected number of dof	22.775	23.274	23.221	19.430	24.038	22.159			
Coverage factor	1.352	1.351	1.351						
Interpolated Student t	1.320	1.319	1.319						
Tolerance interval standard deviation	0.1239	0.0972	0.0862						
Lower TI limit	1.485	2.546	3.606						
Upper TI limit	1.812	2.803	3.834						
Bias	0.056	0.048	0.084						
Relative Lower TI limit (beta = 80%)	-0.108	-0.080	-0.030						
Relative Upper TI limit (beta = 80%)	0.220	0.176	0.197						
Lower Acceptability Limit	-0.50	-0.50	-0.50						
Upper Acceptability Limit	0.50	0.50	0.50						
New acceptability limits may be based on reference method pooled variance									
Pooled repro standard dev of reference	0.108								

These values are collected in a graphical representation together with the acceptability limits (AL). This representation is given **Figure 5**.

Figure 5 - Accuracy profile



It is observed that for all the levels, the tolerance interval limits of the alternative method are within the acceptable limits of $\pm 0.5 \log_{10}$.

The results obtained with the alternative method are not statistically different than those obtained with the reference method.

4.4.3 Conclusion

The alternative method is equivalent to the reference method.

5 CONCLUSION

The observed data and interpretation confirm the performances of the alternative method:

- 187 samples were re-analysed for the relative trueness study, providing 133 interpretable results, which clearly satisfied the required criteria for quantitative method comparison per ISO 16140-2 and the ISO 16140-2/A1:2024.
- The observed profiles are comprised within the AL set at 0.5 log₁₀ CFU/g in the ISO 16140-2.
- No major difference was observed between one and two plates interpretation.
- The inclusivity and exclusivity testing shows satisfying results.
- The quality assurance parameters were verified, (targeted levels, strain stability, logistic conditions, analyses), confirming that the inter-laboratory study was conducted in appropriate conditions.
- The data interpretations were done according to the ISO 16140-2 and the ISO 16140-2/A1:2024. For the three contamination levels, the alternative method is accepted as equivalent to the reference method.

Based on the results obtained for the method comparison study and the inter-laboratory study, the alternative method is considered equivalent to the reference method.

Quimper, 27 November 2025

Lizaïg GOUGUET

Study Engineer

Method performance in food microbiology

Astrid CARIOU

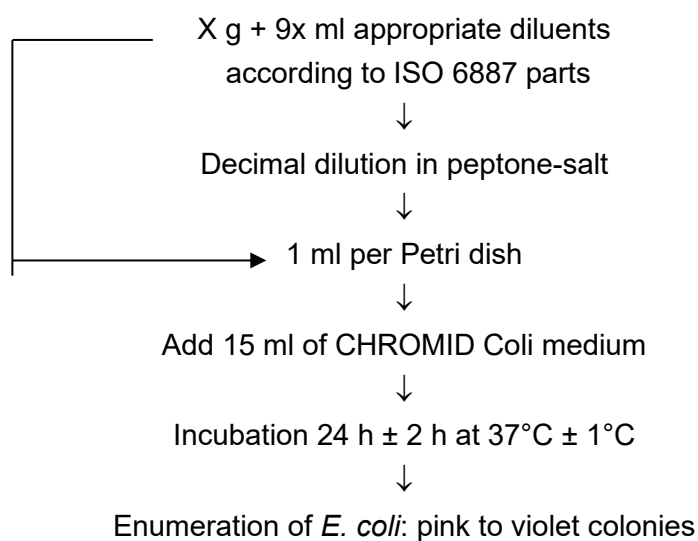
Manager

Method performance in food microbiology

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

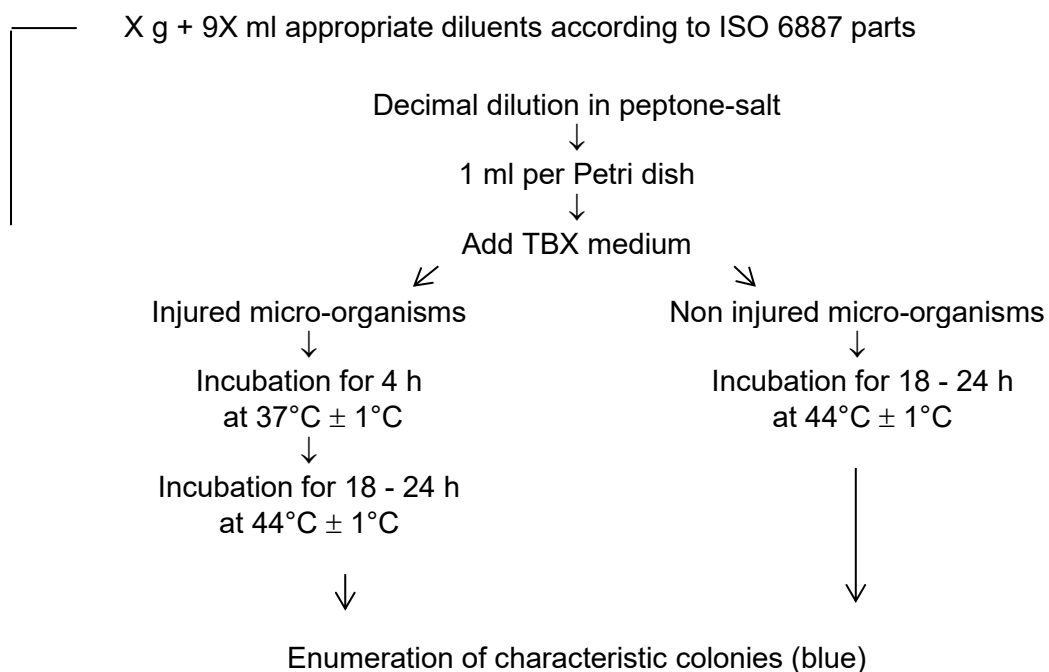
I hereby attest to the validation of the verification of the conformity of the report (opinion and interpretation).

**Appendix 1 – Flow diagram of the alternative method:
CHROMID Coli (Coli ID-F) for enumeration of β -glucuronidase-positive
Escherichia coli at 37°C**



Interpretation can be done using 2 plates from two dilution levels
or using 1 plate from one dilution level

Appendix 2 - Flow diagram of the reference method: ISO 16649-2 (July 2001) - Microbiology of food and animal feeding stuffs: Horizontal method for the enumeration of β glucuronidase positive *Escherichia coli* – Part 2: colony-count technique at 44°C using 5-bromo-4-chloro-3 indolyl β -D-glucuronate



Appendix 3 – Artificial contaminations of samples

Analysis date	Sample N°	Product (French name)	Product	Artificial contamination			Category	Type
				Strain	Origin	Injury		
2011	2186	Escalopes extra-fines de dinde	Raw turkey meat	<i>Escherichia coli</i> 96	Turkey meat	6 days at 4°C	1	a
2011	2152	Saucisses fumées bio	Smoked sausage	<i>Escherichia coli</i> 21	Delicatessen	Heat treatment 10 min 56°C	1	b
2011	2153	Saucisses de Montbéliard fumées au bois de hêtre	Smoked sausage	<i>Escherichia coli</i> 21	Delicatessen	Heat treatment 10 min 56°C	1	b
2011	2185	Saucisses natures	Sausage	<i>Escherichia coli</i> 6	Sausage	6 days at 4°C	1	b
2011	2369	Jambon cuit à la broche	Cooked ham	<i>Escherichia coli</i> 101	Pork meat	Heat treatment 10 min 56°C	1	b
2011	2470	Saucisson à l'ail	Sausage with garlic	<i>Escherichia coli</i> 1	Pork meat	Heat treatment 10 min 56°C	1	b
2011	2472	Chorizo	Chorizo	<i>Escherichia coli</i> 1	Pork meat	Heat treatment 10 min 56°C	1	b
2011	2473	Saucisson à l'ail	Sausage with garlic	<i>Escherichia coli</i> 1	Pork meat	Heat treatment 10 min 56°C	1	b
2011	2475	Chiffonnade de jambon sec	Ham	<i>Escherichia coli</i> 1	Pork meat	7 days 4°C	1	b
2011	2476	Bacon tranches épaisses	Bacon	<i>Escherichia coli</i> 3A	Pork meat	7 days 4°C	1	b
2011	2478	Poitrine fumée tranches fines	Smoked delicatessen	<i>Escherichia coli</i> 1	Pork meat	7 days 4°C	1	b
2011	2479	Jambon cru	Ham	<i>Escherichia coli</i> 21	Pork meat	7 days 4°C	1	b
2011	2059	Chili con carné	RTRH beef meat	<i>Escherichia coli</i> 144	Paella	Heat treatment 15 min 56°C	1	c
2011	2065	Nems au porc	RTRH pork meat	<i>Escherichia coli</i> 108	Ready to reheat meal	Heat treatment 10 min 56°C	1	c
2011	2066	Ravioli chinois au porc	RTRH pork meat	<i>Escherichia coli</i> 108	Ready to reheat meal	Heat treatment 15 min 56°C	1	c
2011	2151	Sandwich jambon œuf crudités	Sandwich with ham egg and vegetables	<i>Escherichia coli</i> Ad 222	Egg product	4°C 1 day	1	c
2011	2184	Sandwich poulet œuf	Sandwich with chicken	<i>Escherichia coli</i> 142	Egg product	6 days à 4°C	1	c
2011	2368	Sandwich jambon œuf tomate	Sandwich with ham	<i>Escherichia coli</i> 101	Pork meat	Heat treatment 10 min 56°C	1	c
2011	2480	Sandwich poulet rôti mayonnaise	Sandwich with chicken	<i>Escherichia coli</i> Ad 218	Poultry	7 days 4°C	1	c
2011	2481	Sandwich poulet rôti mayonnaise	Sandwich with chicken	<i>Escherichia coli</i> Ad 218	Poultry	7 days 4°C	1	c
2011	2482	Farfalles poulet rôti tomates	RTE salad with chicken	<i>Escherichia coli</i> 108	Ready to reheat meal	Heat treatment 10 min 56°C	1	c

Analysis date	Sample N°	Product (French name)	Product	Artificial contamination			Category	Type
				Strain	Origin	Injury		
2018	6717	Riz au lait saveur vanille	Dessert (rice pudding)	<i>Escherichia coli</i> 14	Dairy product	Seeding 48 h 3 ± 2°C	2	b
2018	6718	Riz au lait à la vanille	Dessert (rice pudding)	<i>Escherichia coli</i> 14	Dairy product	Seeding 48 h 3 ± 2°C	2	b
2018	6719	Panna cotta coulis de framboise	Panna cotta	<i>Escherichia coli</i> 15	Dairy product	Seeding 48 h 3 ± 2°C	2	b
2018	6720	Crème fraiche entière	Cream	<i>Escherichia coli</i> 15	Dairy product	Seeding 48 h 3 ± 2°C	2	b
2018	6297	Lait en poudre écrémé	Skimmed milk powder	<i>Escherichia coli</i> Ad1816	Dairy product	Seeding lyophilized strain 2 weeks at room temperature	2	c
2018	6298	Lait en poudre écrémé	Skimmed milk powder	<i>Escherichia coli</i> 118	Dairy product	Seeding lyophilized strain 2 weeks at room temperature	2	c
2018	6299	Lait en poudre entier	Whole milk powder	<i>Escherichia coli</i> Ad1816	Dairy product	Seeding lyophilized strain 2 weeks at room temperature	2	c
2018	6300	Lait en poudre entier	Whole milk powder	<i>Escherichia coli</i> 118	Dairy product	Seeding lyophilized strain 2 weeks at room temperature	2	c
2018	6301	Lait en poudre écrémé	Skimmed milk powder	<i>Escherichia coli</i> 118	Dairy product	Seeding lyophilized strain 2 weeks at room temperature	2	c
2018	6734	Poudre de lait demi écrémé	Semi skimmed milk powder	<i>Escherichia coli</i> 94	Dairy product	Spiking HT 56°C 8 min	2	c
2018	6735	Poudre de lait écrémé	Skimmed milk powder	<i>Escherichia coli</i> 94	Dairy product	Spiking HT 56°C 8 min	2	c
2018	6736	Poudre de lait demi écrémé	Half skimmed milk powder	<i>Escherichia coli</i> 94	Dairy product	Spiking HT 56°C 8 min	2	c
2018	6737	Poudre de lait calcium	Milk powder	<i>Escherichia coli</i> 97	Dairy product	Spiking HT 56°C 8 min	2	c
2018	6738	Poudre de lait écrémé	Skimmed milk powder	<i>Escherichia coli</i> 97	Dairy product	Spiking HT 56°C 8 min	2	c
2018	6739	Poudre de lait écrémé	Skimmed milk powder	<i>Escherichia coli</i> 97	Dairy product	Spiking HT 56°C 8 min	2	c
2018	6723	Filet de julienne	Raw fish	<i>Escherichia coli</i> Ad1384	Sea water	Seeding 48 h 3 ± 2°C	3	a
2018	6724	Filet de Merlan	Raw fish	<i>Escherichia coli</i> Ad1384	Sea water	Seeding 48 h 3 ± 2°C	3	a
2018	6725	Bar	Raw fish	<i>Escherichia coli</i> Ad1384	Sea water	Seeding 48 h 3 ± 2°C	3	a
2018	6726	Lamelles d'encornet géant	Raw seafood	<i>Escherichia coli</i> Ad1385	Sea water	Seeding 48 h 3 ± 2°C	3	a
2018	6727	Encornet criée	Raw seafood	<i>Escherichia coli</i> Ad1385	Sea water	Seeding 48 h 3 ± 2°C	3	a
2018	6728	Crevettes crues décortiquées	Raw shrimps	<i>Escherichia coli</i> Ad1385	Sea water	Seeding 48 h 3 ± 2°C	3	a
2018	6729	Noix de saint jacques	Scallops	<i>Escherichia coli</i> Ad1385	Sea water	Seeding 48 h 3 ± 2°C	3	a
2018	6291	Anchois marinés	Marinated anchovy	<i>Escherichia coli</i> Ad228	Fish product	Seeding 48 h 3 ± 2°C	3	b

Analysis date	Sample N°	Product (French name)	Product	Artificial contamination			Category	Type
				Strain	Origin	Injury		
2018	6294	Anchois marinés à l'orientale	Marinated anchovy	<i>Escherichia coli</i> Ad228	Fish product	Seeding 48 h 3 ± 2°C	3	b
2011	2150	Salade de pâtes saumon mayonnaise	RTE salad with salmon	<i>Escherichia coli</i> Ad 222	Egg product	Heat treatment 10 min 56°C	3	c
2018	6292	Bâtonnet gourmand	RTE surimi	<i>Escherichia coli</i> Ad228	Fish product	Seeding 48 h 3 ± 2°C	3	c
2018	6293	Bâtonnet gourmand	RTE surimi	<i>Escherichia coli</i> 144	RTRH fish product	Seeding 48 h 3 ± 2°C	3	c
2018	6295	Bâtonnets de surimi	RTE surimi	<i>Escherichia coli</i> 144	RTRH fish product	Seeding 48 h 3 ± 2°C	3	c
2018	6296	Breizh surimi	RTE surimi	<i>Escherichia coli</i> 144	RTRH fish product	Seeding 48 h 3 ± 2°C	3	c
2011	2120	Ratatouille surgelée	Frozen vegetables mix	<i>Escherichia coli</i> 19	Grated carrots	-20°C 8 days	4	b
2011	2058	Ratatouille	RTRH vegetables mix	<i>Escherichia coli</i> 19	Grated carrots	Heat treatment 15 min 56°C	4	c
2011	2060	Carottes en lamelles cuites	RTRH carrots	<i>Escherichia coli</i> 144	Paella	Heat treatment 10 min 56°C	4	c
2011	2121	Salade boulghour légumes du soleil	RTE salad with vegetables	<i>Escherichia coli</i> 19	Grated carrots	4°C 8 days	4	c
2011	2183	Quiche aux poireaux surgelée	RTRH leeks	<i>Escherichia coli</i> 142	Egg product	6 days à -20°C	4	c
2011	2363	Salade carotte cèleri	RTE salad with carrots and celery	<i>Escherichia coli</i> 19	Grated carrots	7 days 4°C	4	c
2011	2364	Salade de céleri rémoulade	RTE salad with celery	<i>Escherichia coli</i> 144	Paella	7 days 4°C	4	c
2011	2365	Macédoine de légumes	RTE vegetables mix	<i>Escherichia coli</i> 144	Paella	Heat treatment 10 min 56°C	4	c
2011	2366	Macédoine de légumes	RTE vegetables mix	<i>Escherichia coli</i> 142	Egg product	Heat treatment 10 min 56°C	4	c
2018	6730	Mayonnaise fraîche	Mayonnaise	<i>Escherichia coli</i> 143	Egg product	Seeding 48 h 3 ± 2°C	5	b
2018	6731	Tortilla espagnole aux oignons	Tortilla with onions	<i>Escherichia coli</i> 143	Egg product	Seeding 48 h 3 ± 2°C	5	b
2011	2062	Tartelette cocktail	Pastry	<i>Escherichia coli</i> Ad 222	Egg product	Heat treatment 15 min 56°C	5	c
2011	2063	Tartelette cocktail	Pastry	<i>Escherichia coli</i> 142	Egg product	Heat treatment 10 min 56°C	5	c
2011	2064	Tartelette fraise	Pastry	<i>Escherichia coli</i> Ad 222	Egg product	Heat treatment 10 min 56°C	5	c
2018	6732	Eclair au chocolat	Pastry	<i>Escherichia coli</i> 143	Egg product	Seeding 48 h 3 ± 2°C	5	c
2018	6733	Millefeuille	Pastry	<i>Escherichia coli</i> 143	Egg product	Seeding 48 h 3 ± 2°C	5	c

Appendix 4 - Relative trueness study: raw data

ISO 7218 (2024) changes Chosen plate for 1 plate interpretation Values in red: dilution inconsistency or above the quantification limit (not taken into account)

MEAT AND MEAT PRODUCTS																				
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*							Alternative method: CHROMID Coli (ID-F) for the enumeration of β-glucuronidase-positive <i>Escherichia coli</i> at 37°C								Category	Type
											Enumeration			2 plates interpretation		1 plate interpretation				
				Dilution	Replicate 1		Replicate 2		Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	Dilution	Replicate 1 CFU/ plate	Replicate 2 CFU/ plate	Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	CFU/g	log (CFU/g)	log (CFU/g) 1 plate - 2 plates		
					CFU/ plate a	CFU/ plate b	CFU/ plate a	CFU/ plate b												
2006	562	Sauté de veau	Raw veal meat	100	0	0	0	0	<100	<2.00	10	0	0	<10	<1.00	<10	<1.00	0.00	1	a
				1000	0	0	0	0			100									
2006	563	Paupiette de veau	Raw veal meat	10	1	1	1	1	10	1.00*	10	0	0	<10	<1.00	<10	<1.00	0.00	1	a
				100	0	0	0	0			100									
2006	564	Paupiette de veau	Raw veal meat	10	0	0	0	0	<10	<1.00	10	1	0	10	1.00*	10	1.00*	0.00	1	a
				100	0	0	0	0			100	1	0							
2006	565	Pointes (viande)	Raw meat	10	1	3	2	3	10	1.00*	10	ND	ND	ND	ND	ND	ND	0.00	1	a
				100	0	0	0	1			100									
2006	566	Viande blanche	Raw chicken meat	10	3	7	2	3	30	1.48*	10	ND	ND	ND	ND	ND	ND	0.00	1	a
				100	0	2	1	1			100									
2006	589	Tartare	Tartar	10	1	3	2	1	10	1.00*	10	4	1	36	1.56	40	1.60	0.05	1	c
				100	0	0	0	0			100	0	0		Ne		Ne			
2006	590	Saucisse	Sausage	10	3	3	8	1	30	1.48*	10	1	1	10	1.00*	10	1.00*	0.00	1	b
				100	0	0	0	0			100	0	0							
2006	591	Saucisse	Sausage	10	6	4	7	1	55	1.74	10	1	2	10	1.00*	10	1.00*	0.00	1	b
				100	0	0	0	0		Ne	100	0	0							
2006	592	Chair à saucisse	Sausage	10	3	4	2	1	30	1.48*	10	1	2	10	1.00*	10	1.00*	0.00	1	b
				100	0	0	0	0			100	0	0							
2006	594	Sauté de porc	Raw pork meat	10	3	3	3	5	30	1.48*	10	3	5	30	1.48*	30	1.48*	0.00	1	a
				100	0	0	0	0			100	0	0							
2006	595	Porc à l'ananas	RTRH pork meat	10	2	0	3	1	20	1.30*	10	2	0	20	1.30*	20	1.30*	0.00	1	c
				100	0	0	0	0			100	0	0							
2006	596	Viande blanche	Chicken meat	10	13	11	6	11	120	2.08	10	5	8	55	1.74	50	1.70	-0.04	1	a
				100	0	2	1	1			100	1	2		Ne		Ne			
2006	628	Viande de porc	Raw pork meat	10	4	4	3	3	36	1.56	10	7	2	64	1.81	70	1.85	0.04	1	a
				100	0	0	0	0		Ne	100	0	0		Ne		Ne			
2006	639	Escalope de dinde	Raw turkey meat	10	93	87	99	78	930	2.97	100	9	8	910	2.96	900	2.95	0.00	1	a
				100	9	9	7	11			1000	1	1		Ne		Ne			
2006	640	Escalope de poulet	Raw chicken meat	10	1	0	0	0	10	1.00*	10	1	2	10	1.00*	10	1.00*	0.00	1	a
				100	0	0	0	0			100	0	0							
2006	1287	Aiguillette de poulet roti	RTRH chicken meat	1000	10	13	16	12	11000	4.04	1000	13	15	13000	4.11	13000	4.11	0.00	1	c
				10000	2	4	1	2			10000	1	0							
2006	1288	Pâté de foie de porc	Delicatessen terrine	1000	8	7	13	16	7300	3.86	1000	7	6	7300	3.86	7000	3.85	-0.02	1	b
				10000	0	2	1	2		Ne	10000	1	1		Ne		Ne			
2006	1289	Bœuf aux carottes	RTRH beef meat	1000	14	9	12	13	13000	4.11	1000	9	12	8200	3.91	9000	3.95	0.04	1	c
				10000	0	0	1	0			10000	0	2		Ne		Ne			
2006	1389	Saucisse	Sausage	10000	103	128	108	117	1000000	6.00	10000	97	98	950000	5.98	970000	5.99	0.01	1	b
				100000	10	14	21	12			100000	8	9							
2006	1717	Lardons	Bacon	100	43	36	43	45	4200	3.62	100	46	50	4500	3.65	4600	3.66	0.01	1	b
				1000	3	6	2	6			1000	3	1							
2011	1866	Brochette de dinde	Raw turkey meat	10	54				560	2.75	10	36		360	2.56	360	2.56	0.00	1	a
				100	7						100	3								

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

MEAT AND MEAT PRODUCTS																				
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*						Alternative method: CHROMID Coli (ID-F) for the enumeration of β-glucuronidase-positive <i>Escherichia coli</i> at 37°C								Category	Type	
										Enumeration			2 plates interpretation		1 plate interpretation					
				Dilution	Replicate 1		Replicate 2		Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	Dilution	Replicate 1 CFU/ plate	Replicate 2 CFU/ plate	Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	CFU/g	log (CFU/g)			log (CFU/g) 1 plate - 2 plates
					CFU/ plate a	CFU/ plate b	CFU/ plate a	CFU/ plate b												
2011	1867	Brochette de dinde colombo	Raw turkey meat	10	47				510	2.71	10	46		450	2.65	460	2.66	0.01	1	a
				100	9						100	3								
2011	1868	Viande d'épaule de dinde saumurée	Seasoned turkey meat	100	60				5900	3.77	100	39		3800	3.58	3900	3.59	0.01	1	b
				1000	5						1000	3								
2011	1869	Chipolatas	Sausage	10	99				990	3.00	10	74		760	2.88	740	2.87	-0.01	1	b
				100	10						100	9								
2011	1870	Chipolatas	Sausage	10	81				800	2.90	10	75		730	2.86	750	2.88	0.01	1	b
				100	7						100	5								
2011	1871	Saucisse fumée	Smoked sausage	10	50				490	2.69	10	29		270	2.43	290	2.46	0.03	1	b
				100	4						100	1								
2011	1911	Paupiette bardée	Raw meat	10	114				1100	3.04	10	58		560	2.75	580	2.76	0.02	1	a
				100	5						100	3								
2011	1912	Paupiette bardée	Raw meat	10	93				910	2.96	10	61		590	2.77	610	2.79	0.01	1	a
				100	7						100	4								
2011	1913	Viande d'échine de dinde broyée	Raw turkey meat	100	57				5400	3.73	10	28		280	2.45	280	2.45	0.00	1	a
				1000	2						100	3								
2011	1915	Carcasse de dinde	Raw turkey meat	1000	19				17000	4.23	100	65		6500	3.81	6500	3.81	0.00	1	a
				10000	0						1000	6								
2011	1916	Viande rouge de dinde dénervée	Raw turkey meat	10	135				1400	3.15	10	87		830	2.92	870	2.94	0.02	1	a
				100	14						100	4								
2011	1918	Cornet de porc	Raw pork meat	100	100				10000	4.00	100	66		6500	3.81	6600	3.82	0.01	1	a
				1000	10						1000	5								
2011	1919	PV 3 mm Porc	Raw pork meat	1000	52				53000	4.72	1000	40		39000	4.59	40000	4.60	0.01	1	a
				10000	6						10000	3								
2011	2059	Chili con carné	RTRH beef meat	10	>150				2400	3.38	10	>150		2000	3.30	2000	3.30	0.00	1	c
				100	24						100	20								
2011	2065	Nems au porc	RTRH pork meat	100	71				7000	3.85	100	27		2500	3.40	2700	3.43	0.03	1	c
				1000	6						1000	1								
2011	2066	Ravioli chinois au porc	RTRH pork meat	10	104				1100	3.04	10	10		100	2.00	100	2.00	0.00	1	c
				100	16						100	1								
2011	2151	Sandwich jambon œuf crudités	Sandwich with ham egg and vegetables	100	50				5100	3.71	100	27		2600	3.41	2700	3.43	0.02	1	c
				1000	6						1000	2								
2011	2152	Saucisses fumées bio	Smoked sausage	10	4				36	1.56	10	5		45	1.65	50	1.70	0.05	1	b
				100	0					Ne	100	0			Ne		Ne			
2011	2153	Saucisses de Montbéliard fumées au bois de hêtre	Smoked sausage	100	43				4200	3.62	100	45		4300	3.63	4500	3.65	0.02	1	b
				1000	3						1000	2								
2011	2184	Sandwich poulet œuf	Sandwich with chicken	100	50				4700	3.67	100	35		3300	3.52	3500	3.54	0.03	1	c
				1000	2						1000	1								
2011	2185	Saucisses natures	Sausage	10	13				130	2.11	10	6		55	1.74	60	1.78	0.04	1	b
				100	1						100	0			Ne		Ne			
2011	2186	Escalopes extra-fines de dinde	Raw turkey meat	10	17				160	2.20	10	20		200	2.30	200	2.30	0.00	1	a
				100	1						100	2								
2011	2368	Sandwich jambon œuf tomate	Sandwich xith ham	10	>150				4500	3.65	10	74		730	2.86	740	2.87	0.01	1	c
				100	45						100	6								
2011	2369	Jambon cuit à la broche	Cooked ham	10	>150				2000	3.30	10	6		64	1.81	60	1.78	-0.03	1	b
				100	20						100	1			Ne		Ne			
2011	2470	Saucisson à l'ail	Sausage with garlic	10	82				820	2.91	10	53		520	2.72	530	2.72	0.01	1	b
				100	8						100	4								

MEAT AND MEAT PRODUCTS																				
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*						Alternative method: CHROMID Coli (ID-F) for the enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 37°C								Category	Type	
										Enumeration			2 plates interpretation		1 plate interpretation					
				Dilution	Replicate 1		Replicate 2		Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	Dilution	Replicate 1 CFU/ plate	Replicate 2 CFU/ plate	Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	CFU/g	log (CFU/g)			log (CFU/g) 1 plate - 2 plates
					CFU/ plate a	CFU/ plate b	CFU/ plate a	CFU/ plate b												
2011	2472	Chorizo	Chorizo	100	38				3700	3.57	10	107		1100	3.04	1100	3.04	0.00	1	b
				1000	3						100	16								
2011	2473	Saucisson à l'ail	Sausage with garlic	100	66				6700	3.83	100	51		5100	3.71	5100	3.71	0.00	1	b
				1000	8						1000	13								
2011	2475	Chiffonnade de jambon sec	Ham	10	7				64	1.81	10	5		45	1.65	50	1.70	0.05	1	b
				100	0					Ne	100	0			Ne		Ne			
2011	2476	Bacon tranches épaisses	Bacon	10	5				55	1.74	10	9		82	1.91	90	1.95	0.04	1	b
				100	1					Ne	100	0			Ne		Ne			
2011	2478	Poitrine fumée tranches fines	Smoked delicatessen	100	>150				21000	4.32	100	>150		17000	4.23	17000	4.23	0.00	1	b
				1000	21						1000	17								
2011	2479	Jambon cru	Ham	1000	62				62000	4.79	1000	12		12000	4.08	12000	4.08	0.00	1	b
				10000	6						10000	6								
2011	2480	Sandwich poulet rôti mayonnaise	Sandwich with chicken	10	20				190	2.28	10	10		120	2.08	100	2.00	-0.08	1	c
				100	1						100	3								
2011	2481	Sandwich poulet rôti mayonnaise	Sandwich with chicken	10	12				130	2.11	10	12		140	2.15	120	2.08	-0.07	1	c
				100	2						100	3								
2011	2482	Farfales poulet rôti tomates	RTE salad with chicken	10	96				940	2.97	10	14		160	2.20	140	2.15	-0.06	1	c
				100	7						100	3								

MILK AND DAIRY PRODUCTS																				
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*						Alternative method: CHROMID Coli (ID-F) for the enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 37°C								Category	Type	
										Enumeration			2 plates interpretation		1 plate interpretation					
				Dilution	Replicate 1		Replicate 2		Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	Dilution	Replicate 1 CFU/ plate	Replicate 2 CFU/ plate	Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	CFU/g	log (CFU/g)			log (CFU/g) 1 plate - 2 plates
CFU/ plate a	CFU/ plate b	CFU/ plate a	CFU/ plate b		CFU/g	log CFU/g														
2006	725	Lait cru	Raw milk	1	38	29	19	16	39	1.59	1	43	21	44	1.64	43	1.63	-0.01	2	a
				10	5	5	3	3			10	5	4							
2006	726	Rocamadour	Cheese	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	2	b
				100	0	0	0	0			100	0	0							
2006	824	Lait cru	Raw milk	1	>150	>150	>150	>150	1500	3.18	1	>150	>150	1400	3.15	1400	3.15	0.00	2	a
				10	145	152	113	142			10	135	138							
2006	842	Lait cru	Raw milk	10	>150	>150	>150	>150	1900	3.28	100	10	22	1100	3.04	1000	3.00	-0.04	2	a
				100	19	29	14	20			1000	2	0							
2006	847	Crottin de chèvre	Cheese	100	85	86	68	76	8700	3.94	100	93	80	9700	3.99	9300	3.97	-0.02	2	b
				1000	11	7	6	13			1000	14	6							
2006	1290	Crème fraiche	Cream	10	6	11	18	9	73	1.86	10	13	16	130	2.11	130	2.11	0.00	2	b
				100	2	1	1	0	Ne	100	1	2								
2006	1478	Lait	Milk	100	56	44	40	50	5500	3.74	100	31	27	3100	3.49	3100	3.49	0.00	2	a
				1000	5	6	3	9			1000	3	1							
2006	1479	Lait	Milk	100	32	35	37	33	3200	3.51	100	32	30	3500	3.54	3200	3.51	-0.04	2	a
				1000	3	4	2	7			1000	6	2							
2018	6167	Lait cru	Raw milk	10	8				73	1.86	10	12		120	2.08	120	2.08	0.00	2	a
				100	0				Ne	100	1									
2018	6168	Lait cru	Raw milk	10	15				140	2.15	10	11		110	2.04	110	2.04	0.00	2	a
				100	0					100	1									
2018	6283	Fromage Roquefort au Lait cru	Raw milk cheese	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	2	b
				100	0						100	0								
2018	6284	Fromage selles sur cher au lait cru	Raw milk cheese	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	2	b
				100	0						100	0								
2018	6404	Crème fraiche	Cream	1000	53				53000	4.72	1000	65		64000	4.81	65000	4.81	0.01	2	b
				10000	0					10000	5									
2018	6405	Saint Nectaire fermier	Cheese	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	2	b
				100	0						100	0								
2018	6297	Lait en poudre écrémé	Skimmed milk powder	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	2	c
				100	0						100	0								
2018	6298	Lait en poudre écrémé	Skimmed milk powder	10	0				<10	<1.00	10	2		20	1.30*	20	1.30*	0.00	2	c
				100	0						100	0								
2018	6299	Lait en poudre entier	Whole milk powder	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	2	c
				100	0						100	0								
2018	6300	Lait en poudre entier	Whole milk powder	10	0				<10	<1.00	10	68		700	2.85	680	2.83	-0.01	2	c
				100	0						100	9								
2018	6301	Lait en poudre écrémé	Skimmed milk powder	10	4				36	1.56	100	18		1700	3.23	1800	3.26	0.02	2	c
				100	0				Ne	1000	1									
2018	6717	Riz au lait saveur vanille	Dessert (rice pudding)	10	56				580	2.76	10	53		490	2.69	530	2.72	0.03	2	b
				100	8						100	1								
2018	6718	Riz au lait à la vanille	Dessert (rice pudding)	100	38				3900	3.59	100	41		3800	3.58	4100	3.61	0.03	2	b
				1000	5						1000	1								
2018	6719	Panna cotta coulis de framboise	Panna cotta	1000	37				36000	4.56	1000	26		27000	4.43	26000	4.41	-0.02	2	b
				10000	3						10000	4								
2018	6720	Crème fraiche entière	Cream	10000	25				250000	5.40	10000	38		370000	5.57	380000	5.58	0.01	2	b
				100000	3						100000	3								

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MILK AND DAIRY PRODUCTS																				
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										Enumeration			2 plates interpretation		1 plate interpretation					
				Dilution	Replicate 1		Replicate 2		Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	Dilution	Replicate 1 CFU/ plate	Replicate 2 CFU/ plate	Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	CFU/g	log (CFU/g)	log (CFU/g) 1 plate - 2 plates		
					CFU/ plate a	CFU/ plate b	CFU/ plate a	CFU/ plate b												
2018	6734	Poudre de lait demi écrémé	Semi skimmed milk powder	10	5				45	1.65	10	4		36	1.56	40	1.60 Ne	0.05	2	c
				100	0					Ne	100	0			Ne		Ne			
2018	6735	Poudre de lait écrémé	Skimmed milk powder	10	23				230	2.36	10	23		260	2.41	230	2.36	-0.05	2	c
				100	2						100	5								
2018	6736	Poudre de lait demi écrémé	Half skimmed milk powder	100	8				820	2.91	100	37		3500	3.54	3700	3.57	0.02	2	c
				1000	1					Ne	1000	1								
2018	6737	Poudre de lait calcium	Milk powder	100	21				2000	3.30	100	54		5200	3.72	5400	3.73	0.02	2	c
				1000	1						1000	3								
2018	6738	Poudre de lait écrémé	Skimmed milk powder	1000	1				1000	3.00*	1000	0		<1000	<3.00	<1000	<3.00	0.00	2	c
				10000	0						10000	0								
2018	6739	Poudre de lait écrémé	Skimmed milk powder	1000	0				<1000	<3.00	1000	2		2000	3.30*	2000	3.30*	0.00	2	c
				10000	0						10000	0								

SEAFOOD PRODUCTS																				
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*							Alternative method: CHROMID Coli (ID-F) for the enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 37°C								Category	Type
				Dilution	Replicate 1		Replicate 2		Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	Enumeration			2 plates interpretation		1 plate interpretation				
					CFU/ plate a	CFU/ plate b	CFU/ plate a	CFU/ plate b			Dilution	Replicate 1 CFU/ plate	Replicate 2 CFU/ plate	Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	CFU/g	log (CFU/g)	log (CFU/g) 1 plate - 2 plates		
2006	1342	Filet de loup de mer	Raw fish	100	7	11	7	7	730	2.86	100	4	5	360	2.56	400	2.60	0.05	3	a
				1000	1	0	1	0		Ne	1000	0	0		Ne		Ne			
2006	1343	Filet de dorade	Raw fish	100	8	9	8	4	730	2.86	100	8	7	730	2.86	800	2.90	0.04	3	a
				1000	0	1	0	0		Ne	1000	0	0		Ne		Ne			
2006	1344	Filet Haddock fumé	Smoked fish	100	5	4	5	13	550	2.74	100	5	6	460	2.66	500	2.70	0.04	3	b
				1000	1	0	2	4		Ne	1000	0	0		Ne		Ne			
2006	1345	Saumon fumé	Smoked salmon	100	7	6	14	10	640	2.81	100	8	5	730	2.86	800	2.90	0.04	3	b
				1000	0	1	1	1		Ne	1000	0	0		Ne		Ne			
2006	1383	Saumon fumé de Norvège	Smoked salmon	10000	37	42	53	46	350000	5.54	10000	46	51	510000	5.71	460000	5.66	-0.04	3	b
				100000	1	5	6	4			100000	10	4							
2006	1384	Saumon fumé d'Ecosse	Smoked salmon	10000	35	23	31	34	340000	5.53	10000	20	22	220000	5.34	200000	5.30	-0.04	3	b
				100000	2	1	2	3			100000	4	0							
2006	1385	Saumon Atlantique	Raw salmon	1000	79	55	91	95	79000	4.90	1000	57	77	54000	4.73	57000	4.76	0.02	3	a
				10000	8	13	10	5			10000	2	6							
2006	1386	Saumon fumé au bois de hêtre	Smoked salmon	1000	30	29	39	36	30000	4.48	1000	20	19	22000	4.34	20000	4.30	-0.04	3	b
				10000	3	1	5	4			10000	4	4							
2006	1387	Truite de mer	Raw trout fish filet	1000	38	35	59	46	38000	4.58	1000	37	38	37000	4.57	37000	4.57	0.00	3	a
				10000	4	6	3	3			10000	4	3							
2006	1388	Saumon fumé d'Irlande	Smoked salmon	10000	41	36	44	59	410000	5.61	10000	28	32	290000	5.46	280000	5.45	-0.02	3	b
				100000	4	7	3	6			100000	4	3							
2011	2150	Salade de pâtes saumon mayonnaise	RTE salad with salmon	10	35				360	2.56	10	16		150	2.18	160	2.20	0.03	3	c
				100	4						100	0								
2018	6169	Encornet rouge	Raw fish	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	3	a
				100	0						100	0								
2018	6170	Acra de morue	RTRH seafood	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	3	c
				100	0						100	0								
2018	6279	Poisson plat préparé	RTRH fish	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	3	c
				100	0						100	0								
2018	6280	Poisson plat préparé saumon	RTRH salmon	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	3	c
				100	0						100	0								
2018	6291	Anchois marinés	Marinated anchovy	10	118				1200	3.08	10	112		1200	3.08	1100	3.04	-0.04	3	b
				100	14						100	17								
2018	6292	Bâtonnet gourmand	RTE surimi	100	24				2400	3.38	100	26		2700	3.43	2600	3.41	-0.02	3	c
				1000	2						1000	4								
2018	6293	Bâtonnet gourmand	RTE surimi	10	39				380	2.58	10	15		160	2.20	150	2.18	-0.03	3	c
				100	3						100	3								
2018	6294	Anchois marinés à l'orientale	Marinated anchovy	100	34				3300	3.52	100	42		4000	3.60	4200	3.62	0.02	3	b
				1000	2						1000	2								
2018	6295	Bâtonnets de surimi	RTE surimi	100	63				6500	3.81	100	75		7500	3.88	7500	3.88	0.00	3	c
				1000	8						1000	8								
2018	6296	Breizh surimi	RTE surimi	1000	61				57000	4.76	1000	78		73000	4.86	78000	4.89	0.03	3	c
				10000	2						10000	2								
2018	6398	Chair de moules cuites	RTRH mussels	10	1				10	1.00*	10	0		<10	<1.00	<10	<1.00	0.00	3	c
				100	0						100	0								
2018	6399	Chair de moules cuites	RTRH mussels	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	3	c
				100	0						100	0								

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SEAFOOD PRODUCTS																				
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										Enumeration			2 plates interpretation		1 plate interpretation					
				Dilution	Replicate 1		Replicate 2		Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	Dilution	Replicate 1 CFU/ plate	Replicate 2 CFU/ plate	Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	CFU/g	log (CFU/g)	log (CFU/g) 1 plate - 2 plates		
					CFU/ plate a	CFU/ plate b	CFU/ plate a	CFU/ plate b												
2018	6400	Coquille Saint Jacques	Scallops	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	3	c
				100	0						100	0								
2018	6401	Cubes de colin cuits	RTRH fish	10	6				55	1.74	10	2		20	1.30*	20	1.30*	0.00	3	c
				100	0					Ne	100	0								
2018	6402	Homard Européen	Raw lobster	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	3	a
				100	0						100	0								
2018	6403	Saumon rose du pacifique	Raw salmon	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	3	a
				100	0						100	0								
2018	6723	Filet de julienne	Raw fish	10	38				400	2.60	10	47		470	2.67	470	2.67	0.00	3	a
				100	6						100	5								
2018	6724	Filet de Merlan	Raw fish	100	29				2700	3.43	100	46		4500	3.65	4600	3.66	0.01	3	a
				1000	1						1000	3								
2018	6725	Bar	Raw fish	1000	20				19000	4.28	1000	18		21000	4.32	18000	4.26	-0.07	3	a
				10000	1						10000	5								
2018	6726	Lamelles d'encornet géant	Raw seafood	100	27				2900	3.46	100	46		4700	3.67	4600	3.66	-0.01	3	a
				1000	5						1000	6								
2018	6727	Encornet criée	Raw seafood	1000	46				44000	4.64	1000	51		49000	4.69	51000	4.71	0.02	3	a
				10000	2						10000	3								
2018	6728	Crevettes crues décortiquées	Raw shrimps	1000	5				5500	3.74	1000	34		35000	4.54	34000	4.53	-0.01	3	a
				10000	1					Ne	10000	4								
2018	6729	Noix de saint jacques	Scallops	1000	16				15000	4.18	1000	76		75000	4.88	76000	4.88	0.01	3	a
				10000	1						10000	6								

VEGETABLES																				
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										Enumeration			2 plates interpretation		1 plate interpretation					
				Dilution	Replicate 1		Replicate 2		Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	Dilution	Replicate 1 CFU/ plate	Replicate 2 CFU/ plate	Replicate 1 2025	Interpretation 2025	CFU/g	log (CFU/g)	log (CFU/g) 1 plate - 2 plates		
CFU/ plate a	CFU/ plate b	CFU/ plate a	CFU/ plate b		CFU/g	log CFU/g														
2006	561	Epinards à la béchamel	RTRH spinach	100	0	0	0	0	<100	<2.00	100	ND	ND	ND	ND	ND	ND	0.00	4	c
				1000	0	0	0	0			1000									
2006	593	Piémontaise	Piemontaise	10	3	0	1	1	30	1.48*	10	1	1	10	1.00*	10	1.00*	0.00	4	c
				100	0	0	0	0			100	0	0							
2006	627	Choux de Bruxelles	Frozen Brussel sprout	10	0	0	0	0	<10	<1.00	10	1	1	10	1.00*	10	1.00*	0.00	4	b
				100	0	0	0	0			100	0	0							
2006	629	Haricots verts	Green beans	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	4	a
				100	0	0	0	0			100	0	0							
2006	630	Courgettes	Zucchini	10	0	0	0	0	<10	<1.00	10	1	0	10	1.00*	10	1.00*	0.00	4	a
				100	0	0	0	0			100	0	0							
2006	631	Poêlée de légumes aux champignons surgelée	Frozen vegetables mix	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	4	b
				100	0	0	0	0			100	0	0							
2006	1346	Salade mêlée	Salad	100	0	3	1	0	<100	<2.00	100	0	0	<100	<2.00	<100	<2.00	0.00	4	a
				1000	0	0	0	0			1000	0	0							
2006	1347	Mélange crudités	Salad mix	100	0	0	0	0	<100	<2.00	100	1	1	100	2.00*	100	2.00*	0.00	4	c
				1000	0	0	0	0			1000	0	0							
2006	1348	Courgette rondelles surgelées	Frozen zucchini	100	1	0	2	3	100	2.00*	100	1	2	100	2.00*	100	2.00*	0.00	4	b
				1000	0	0	0	0			1000	0	0							
2006	1349	Poêlée champêtre surgelée	Frozen vegetables mix	100	0	0	1	0	<100	<2.00	100	0	6	<100	<2.00	<100	<2.00	0.00	4	b
				1000	0	0	0	0			1000	0	0							
2006	1354	Salade	Salad	100	44	47	53	38	4500	3.65	100	48	57	4900	3.69	4800	3.68	-0.01	4	a
				1000	6	2	3	4			1000	6	7							
2006	1390	Poireaux coupés	Leeks	1000	73	62	56	67	77000	4.89	1000	40	33	44000	4.64	40000	4.60	-0.04	4	a
				10000	12	5	8	8			10000	8	4							
2006	1391	Epinards à la crème surgelés	Frozen spinach	10000	85	69	90	83	820000	5.91	10000	67	60	650000	5.81	670000	5.83	0.01	4	b
				100000	5	4	14	8			100000	4	6							
2006	1392	Haricots verts	Green beans	1000	88	68	103	100	87000	4.94	1000	75	80	78000	4.89	75000	4.88	-0.02	4	b
				10000	8	7	12	5			10000	11	5							
2006	1393	Poireaux éminés	Frozen leeks	1000	77	83	82	86	83000	4.92	1000	52	58	50000	4.70	52000	4.72	0.02	4	b
				10000	14	10	9	8			10000	3	8							
2006	1394	Brocolis	Broccolis	1000	63	57	72	56	65000	4.81	1000	63	53	62000	4.79	63000	4.80	0.01	4	a
				10000	8	7	10	4			10000	5	8							
2006	1395	Tomates en dés	Tomatoes	1000	82	113	109	119	87000	4.94	1000	68	62	67000	4.83	68000	4.83	0.01	4	a
				10000	14	14	14	21			10000	6	5							
2006	1396	Chou rouge	Red cabbage	1000	135	122	143	145	140000	5.15	1000	113	124	110000	5.04	110000	5.04	0.00	4	a
				10000	17	12	12	5			10000	13	16							
2006	1397	Mélange carottes céleri	Carrot and celery	10000	27	31	47	29	280000	5.45	10000	33	24	340000	5.53	330000	5.52	-0.01	4	a
				100000	4	3	3	2			100000	4	5							
2006	1398	Courgettes en rondelles surgelées	Frozen zucchini	1000	67	50	104	101	63000	4.80	1000	65	82	67000	4.83	65000	4.81	-0.01	4	b
				10000	2	5	7	11			10000	9	12							
2006	1718	Salade de légumes et mayonnaise	RTE Deli salad	100	38	44	48	43	3900	3.59	100	41	40	4200	3.62	4100	3.61	-0.01	4	c
				1000	5	6	4	2			1000	5	4							
2011	2058	Ratatouille	RTRH vegetables mix	10	11				120	2.08	10	11		110	2.04	110	2.04	0.00	4	c
				100	2						100	1								
2011	2060	Carottes en lamelles cuites	RTRH carrots	100	29				2900	3.46	100	19		2000	3.30	1900	3.28	-0.02	4	c
				1000	3						1000	3								

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VEGETABLES																				
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										Enumeration			2 plates interpretation		1 plate interpretation					
				Dilution	Replicate 1		Replicate 2		Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	Dilution	Replicate 1 CFU/ plate	Replicate 2 CFU/ plate	Replicate 1 2025	Interpretation 2025	CFU/g	log (CFU/g)			log (CFU/g) 1 plate - 2 plates
					CFU/ plate a	CFU/ plate b	CFU/ plate a	CFU/ plate b						CFU/g	log CFU/g					
2011	2120	Ratatouille surgelée	Frozen vegetables mix	10	51				510	2.71	10	29		300	2.48	290	2.46	-0.01	4	b
				100	5						100	4								
2011	2121	Salade boulghour légumes du soleil	RTE salad with vegetables	100	112				11000	4.04	100	94		9100	3.96	9400	3.97	0.01	4	c
				1000	10						1000	6								
2011	2183	Quiche aux poireaux surgelée	RTRH leeks	1000	69				65000	4.81	1000	38		38000	4.58	38000	4.58	0.00	4	c
				10000	3						10000	4								
2011	2363	Salade carotte céleri	RTE salad with carrots and celery	10	42				430	2.63	10	33		310	2.49	330	2.52	0.03	4	c
				100	5						100	1								
2011	2364	Salade de céleri rémoulade	RTE salade with celery	100	20				2300	3.36	100	23		2500	3.40	2300	3.36	-0.04	4	c
				1000	5						1000	5								
2011	2365	Macédoine de légumes	RTE vegetables mix	10	25				240	2.38	10	4		36	1.56	40	1.60	0.05	4	c
				100	1						100	0			Ne		Ne			
2011	2366	Macédoine de légumes	RTE vegetables mix	100	>150				77000	4.89	100	>150		17000	4.23	17000	4.23	0.00	4	c
				1000	77						1000	17								

EGG AND EGG-BASED PRODUCTS

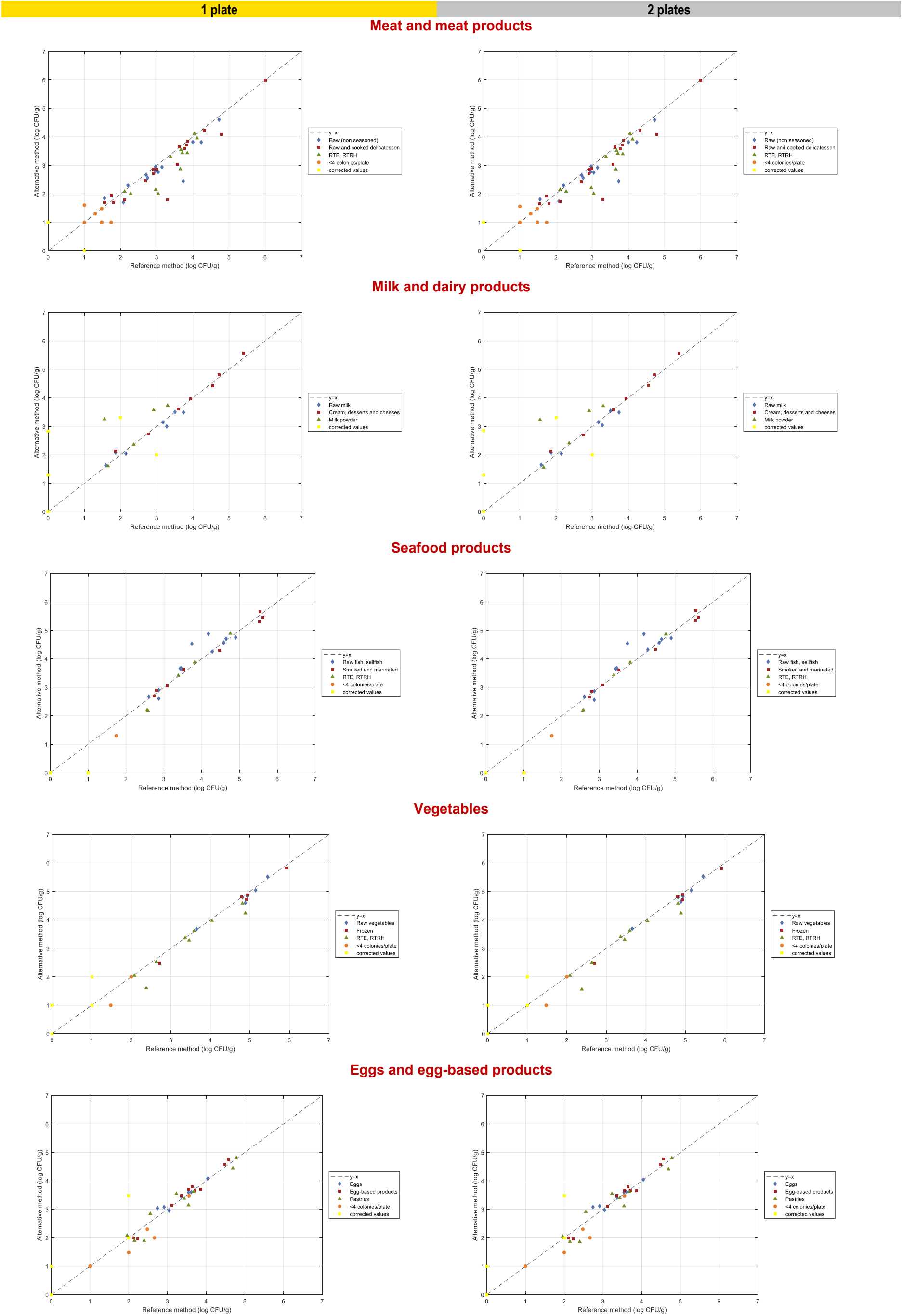
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*						Alternative method: CHROMID Coli (ID-F) for the enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 37°C									Category	Type
										Enumeration			2 plates interpretation		1 plate interpretation					
				Dilution	Replicate 1		Replicate 2		Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	Dilution	Replicate 1 CFU/ plate	Replicate 2 CFU/ plate	Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	CFU/g	log (CFU/g)	log (CFU/g) 1 plate - 2 plates		
					CFU/ plate a	CFU/ plate b	CFU/ plate a	CFU/ plate b												
2006	587	Baba au rhum	Pastry	10	1	0	0	0	10	1.00*	10	1	2	10	1.00*	10	1.00*	0.00	5	c
				100	0	0	0	0			100	0	0							
2006	588	Meringue chocolat	Chocolate meringue	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	5	b
				100	0	0	0	0			100	0	0							
2006	728	Coule d'œuf	Egg liquid	10	11	9	10	6	100	2.00	10	3	3	30	1.48*	30	1.48*	0.00	5	a
				100	0	1	0	0			100	0	0							
2006	827	Coule d'œuf	Egg liquid	10	0	0	1	0	<10	<1.00	10	0	1	<10	<1.00	<10	<1.00	0.00	5	a
				100	0	0	0	0			100	0	0							
2006	1291	Chou à la crème	Pastry	10	15	14	14	13	140	2.15	10	8	11	73	1.86	80	1.90	0.04	5	c
				100	0	0	4	4			100	0	0		Ne		Ne			
2006	1292	Crêpes	Crepes	10	17	6	13	5	170	2.23	10	9	10	91	1.96	90	1.95	0.00	5	b
				100	2	0	0	1			100	1	1		Ne		Ne			
2006	1293	Crêpes	Crepes	10	12	10	12	11	130	2.11	10	10	14	100	2.00	100	2.00	0.00	5	b
				100	2	3	1	3			100	1	3							
2006	1350	Fraisier	Pastry	100	5	5	1	2	460	2.66	100	1	3	100	2.00*	100	2.00*	0.00	5	c
				1000	0	0	0	0		Ne	1000	0	0							
2006	1351	Millefeuille	Pastry	100	4	5	9	10	360	2.56	100	7	3	820	2.91	700	2.85	-0.07	5	c
				1000	0	0	0	0		Ne	1000	2	0		Ne		Ne			
2006	1352	Mayonnaise	Mayonnaise	100	3	3	2	4	300	2.48*	100	2	5	200	2.30*	200	2.30*	0.00	5	b
				1000	0	0	0	0			1000	0	1							
2006	1353	Crème anglaise	Custard sauce	100	14	7	9	5	1300	3.11	100	14	13	1300	3.11	1400	3.15	0.03	5	b
				1000	0	0	0	0			1000	0	1							
2006	1355	Mayonnaise	Mayonnaise	100	24	44	15	22	2300	3.36	100	30	27	3000	3.48	3000	3.48	0.00	5	b
				1000	1	2	2	2			1000	3	4							
2006	1356	Eclair café	Pastry	100	29	29	21	15	2700	3.43	100	24	21	2500	3.40	2400	3.38	-0.02	5	c
				1000	1	3	3	2			1000	3	4							
2006	1357	Savarin chantilly	Cake with eggs	100	21	30	32	29	2300	3.36	100	30	28	3000	3.48	3000	3.48	0.00	5	b
				1000	4	2	1	1			1000	3	3							
2006	1358	Millefeuille	Pastry	100	49	46	43	45	4800	3.68	100	41	57	4100	3.61	4100	3.61	0.00	5	c
				1000	4	4	4	2			1000	4	5							
2006	1660	Œuf entier biologique	Egg	100	35	34	54	50	3500	3.54	100	39	46	3900	3.59	3900	3.59	0.00	5	a
				1000	4	1	3	1			1000	4	5							
2006	1661	Œuf dur	Egg	100	41	31	48	42	4100	3.61	100	40	48	4100	3.61	4000	3.60	-0.01	5	a
				1000	4	3	3	5			1000	5	4							
2006	1662	Jaune d'œuf biologique	Egg yolk	1000	11	10	18	15	11000	4.04	1000	12	14	11000	4.04	12000	4.08	0.04	5	a
				10000	1	1	2	2			10000	0	0							
2006	1663	Omelette nature	Omelette	100	48	54	49	34	5100	3.71	100	45	47	4700	3.67	4500	3.65	-0.02	5	b
				1000	8	4	1	3			1000	7	4							
2006	1684	Omelette au fromage	Omelette with cheese	1000	8	10	6	10	7300	3.86	1000	5	4	4500	3.65	5000	3.70	0.05	5	b
				10000	0	0	0	0		Ne	10000	0	0		Ne		Ne			
2006	1685	Flan	Cake with eggs	1000	4	2	5	4	3600	3.56	1000	5	7	4500	3.65	5000	3.70	0.05	5	b
				10000	0	0	0	0		Ne	10000	0	0		Ne		Ne			
2006	1686	Tartelette à la fraise	Pastry	1000	4	3	1	2	3600	3.56	1000	3	2	3000	3.48*	3000	3.48*	0.00	5	c
				10000	0	0	0	0		Ne	10000	0	0							
2006	1687	Clafoutis aux pommes	Cake with eggs	1000	0	0	0	0	<1000	<3.00	1000	3	1	3000	3.48*	3000	3.48*	0.00	5	b
				10000	0	0	0	0			10000	0	0							

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

EGG AND EGG-BASED PRODUCTS

Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*						Alternative method: CHROMID Coli (ID-F) for the enumeration of β-glucuronidase-positive <i>Escherichia coli</i> at 37°C								Category	Type	
				Dilution	Replicate 1		Replicate 2		Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	Enumeration			2 plates interpretation		1 plate interpretation				
					CFU/ plate a	CFU/ plate b	CFU/ plate a	CFU/ plate b			Dilution	Replicate 1 CFU/ plate	Replicate 2 CFU/ plate	Replicate 1 2025 CFU/g	Interpretation 2025 log CFU/g	CFU/g	log (CFU/g)			log (CFU/g) 1 plate - 2 plates
2006	1688	Flan pâtissier	Cake with eggs	1000	0	0	0	0	<1000	<3.00	1000	0	0	<1000	<3.00	<1000	<3.00	0.00	5	b
				10000	0	0	0	0			10000	0	0							
2006	1689	Jaune d'œuf liquide	Liquid egg yolk	100	8	8	9	9	820	2.91	100	12	11	1300	3.11	1200	3.08	-0.03	5	a
				1000	1	1	1	2		Ne	1000	2	1							
2006	1690	Blanc d'œuf liquide	Liquid egg white	100	6	5	7	9	550	2.74	100	11	11	1200	3.08	1100	3.04	-0.04	5	a
				1000	0	0	1	0		Ne	1000	2	1							
2006	1715	Jaune d'œuf	Egg yolk	100	22	15	29	23	2300	3.36	100	28	25	2600	3.41	2800	3.45	0.03	5	a
				1000	3	4	1	2			1000	1	1							
2006	1716	Blanc d'œuf	Egg white	10	107	105	85	89	1100	3.04	10	90	114	950	2.98	900	2.95	-0.02	5	a
				100	24	19	21	20			100	14	19							
2006	1719	Omelette au fromage	Omelette with cheese	1000	30	42	45	34	30000	4.48	1000	38	32	38000	4.58	38000	4.58	0.00	5	b
				10000	3	5	5	4			10000	4	1							
2011	2062	Tartelette cocktail	Pastry	10	24				250	2.40	10	8		73	1.86	80	1.90	0.04	5	c
				100	3						100	0		Ne	Ne		Ne			
2011	2063	Tartelette cocktail	Pastry	100	35				3500	3.54	100	14		1300	3.11	1400	3.15	0.03	5	c
				1000	12						1000	0								
2011	2064	Tartelette fraise	Pastry	1000	50				49000	4.69	1000	28		26000	4.41	28000	4.45	0.03	5	c
				10000	4						10000	1								
2018	6171	Tarte aux fraises	Pastry	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	5	c
				100	0						100	0								
2018	6278	Quiche lorraine	Quiche with eggs	10	0				<10	<1.00	10	1		10	1.00*	10	1.00*	0.00	5	b
				100	0						100	0								
2018	6281	Tarte aux fraises	Pastry	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	5	c
				100	0						100	0								
2018	6282	Pâtisserie aux fruits	Pastry with fruits	10	10				91	1.96	10	12		110	2.04	120	2.08	0.04	5	c
				100	0						100	0								
2018	6730	Mayonnaise fraiche	Mayonnaise	100	46				4400	3.64	100	61		6200	3.79	6100	3.79	-0.01	5	b
				1000	2						1000	7								
2018	6731	Tortilla espagnole aux oignons	Tortilla with onions	1000	39				37000	4.57	1000	54		58000	4.76	54000	4.73	-0.03	5	b
				10000	2						10000	10								
2018	6732	Eclair au chocolat	Pastry	100	16				1700	3.23	100	35		3500	3.54	3500	3.54	0.00	5	c
				1000	3						1000	3								
2018	6733	Millefeuille	Pastry	1000	57				60000	4.78	1000	65		63000	4.80	65000	4.81	0.01	5	c
				10000	9						10000	4								

Appendix 5 - Relative trueness study: data plotted for each category



Appendix 6 - Relative trueness study: Bland-Altman difference plot for each category



Appendix 7 - Accuracy profile study: raw data

ISO 7218 (2024) changes Chosen plate for 1 plate interpretation Values in red: dilution inconsistency or above the quantification limit (not taken into account)

Matrix	Strain	Level	Sample N°	Alternative method: ISO 16649-2*				Reference method: CHROMID Coli 37°C						
								Enumeration		2 plates interpretation		1 plate interpretation		
				Dilution	CFU/plate	CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g	log CFU/g	CFU/g	log(CFU/g)	log(CFU/g) 1 plate - 2 plates
Ground beef – Batch 1	Escherichia coli 13	1	7650	10	37	360	2.56	10	30	310	2.49	300	2.48	-0.01
				100	2			100	4					
			7651	10	32	340	2.53	10	33	340	2.53	330	2.52	-0.01
				100	5			100	4					
			7652	10	34	360	2.56	10	31	320	2.51	310	2.49	-0.01
				100	6			100	4					
			7653	10	41	390	2.59	10	32	320	2.51	320	2.51	0.00
				100	2			100	3					
			7654	10	36	350	2.54	10	40	410	2.61	400	2.60	-0.01
				100	2			100	5					
		2	7655	100	65	6200	3.79	100	58	5700	3.76	5800	3.76	0.01
				1000	3			1000	5					
			7656	100	79	7600	3.88	100	56	5500	3.74	5600	3.75	0.01
				1000	5			1000	5					
			7657	100	61	5900	3.77	100	64	6200	3.79	6400	3.81	0.01
				1000	4			1000	4					
			7658	100	55	5500	3.74	100	61	6700	3.83	6100	3.79	-0.04
				1000	6			1000	13					
			7659	100	56	5800	3.76	100	49	5100	3.71	4900	3.69	-0.02
				1000	8			1000	7					
		3	7660	1000	94	95000	4.98	1000	81	86000	4.93	81000	4.91	-0.03
				10000	11			10000	14					
			7661	1000	86	88000	4.94	1000	124	120000	5.08	120000	5.08	0.00
				10000	11			10000	9					
			7662	1000	93	98000	4.99	1000	110	110000	5.04	110000	5.04	0.00
				10000	15			10000	14					
Ground beef – Batch 2	Escherichia coli 13	1	7665	10	47	470	2.67	10	32	310	2.49	320	2.51	0.01
				100	5			100	2					
			7666	10	25	270	2.43	10	45	450	2.65	450	2.65	0.00
				100	5			100	4					
			7667	10	34	340	2.53	10	41	400	2.60	410	2.61	0.01
				100	3			100	3					
			7668	10	35	350	2.54	10	36	390	2.59	360	2.56	-0.03
				100	3			100	7					
			7669	10	35	370	2.57	10	31	290	2.46	310	2.49	0.03
				100	6			100	1					
		2	7670	100	66	6400	3.81	100	54	5900	3.77	5400	3.73	-0.04
				1000	4			1000	11					
			7671	100	56	5500	3.74	100	62	6500	3.81	6200	3.79	-0.02
				1000	5			1000	9					
			7672	100	56	5800	3.76	100	69	6500	3.81	6900	3.84	0.03
				1000	8			1000	3					
			7673	100	56	5500	3.74	100	60	5900	3.77	6000	3.78	0.01
				1000	5			1000	5					
			7674	100	58	5900	3.77	100	68	6500	3.81	6800	3.83	0.02
				1000	7			1000	4					
		3	7675	1000	118	120000	5.08	1000	117	120000	5.08	120000	5.08	0.00
				10000	16			10000	12					
			7676	1000	100	110000	5.04	1000	117	110000	5.04	120000	5.08	0.04
				10000	17			10000	6					
			7677	1000	125	130000	5.11	1000	124	120000	5.08	120000	5.08	0.00
				10000	23			10000	7					
			7678	1000	100	110000	5.04	1000	133	130000	5.11	130000	5.11	0.00
				10000	16			10000	11					
			7679	1000	86	93000	4.97	1000	98	100000	5.00	98000	4.99	-0.01
				10000	16			10000	12					

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

Matrix	Strain	Level	Sample N°	Alternative method: ISO 16649-2*				Reference method: CHROMID Coli 37°C						
								Enumeration		2 plates interpretation		1 plate interpretation		
				Dilution	CFU/plate	CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g	log CFU/g	CFU/g	log(CFU/g)	log(CFU/g) 1 plate - 2 plates
Pasteurized milk Batch 1 (4.0x10 ³ CFU/g)	<i>Escherichia coli</i> 94	1	7750	10	18	190	2.28	10	28	280	2.45	280	2.45	0.00
				100	3			100	3					
			7751	10	29	320	2.51	10	35	350	2.54	350	2.54	0.00
				100	6			100	3					
			7752	10	26	240	2.38	10	37	360	2.56	370	2.57	0.01
				100	0			100	2					
		2	7753	10	22	210	2.32	10	33	300	2.48	330	2.52	0.04
				100	1			100	0					
			7754	10	16	170	2.23	10	25	270	2.43	250	2.40	-0.03
				100	3			100	5					
			7755	100	37	3600	3.56	100	45	4400	3.64	4500	3.65	0.01
				1000	3			1000	3					
			7756	100	36	3800	3.58	100	49	5000	3.70	4900	3.69	-0.01
				1000	6			1000	6					
			7757	100	43	4500	3.65	100	44	4300	3.63	4400	3.64	0.01
				1000	6			1000	3					
			7758	100	43	4400	3.64	100	53	5200	3.72	5300	3.72	0.01
				1000	5			1000	4					
			7759	100	38	3700	3.57	100	44	4600	3.66	4400	3.64	-0.02
				1000	3			1000	7					
		3	7760	1000	56	55000	4.74	1000	69	68000	4.83	69000	4.84	0.01
				10000	5			10000	6					
			7761	1000	67	67000	4.83	1000	73	74000	4.87	73000	4.86	-0.01
				10000	7			10000	8					
			7762	1000	68	68000	4.83	1000	83	84000	4.92	83000	4.92	-0.01
				10000	7			10000	9					
			7763	1000	72	75000	4.88	1000	69	73000	4.86	69000	4.84	-0.02
				10000	10			10000	11					
			7764	1000	65	67000	4.83	1000	75	75000	4.88	75000	4.88	0.00
				10000	9			10000	7					
Pasteurized milk Batch 2 (<1 CFU/g)	<i>Escherichia coli</i> 94	1	7765	10	34	320	2.51	10	19	200	2.30	190	2.28	-0.02
				100	1			100	3					
			7766	10	30	330	2.52	10	31	300	2.48	310	2.49	0.01
				100	6			100	2					
			7767	10	33	330	2.52	10	26	270	2.43	260	2.41	-0.02
				100	3			100	4					
		2	7768	10	35	340	2.53	10	30	290	2.46	300	2.48	0.01
				100	2			100	2					
			7769	10	31	330	2.52	10	38	360	2.56	380	2.58	0.02
				100	5			100	2					
			7770	100	51	4900	3.69	100	57	5500	3.74	5700	3.76	0.02
				1000	3			1000	3					
			7771	100	52	5100	3.71	100	53	5500	3.74	5300	3.72	-0.02
				1000	4			1000	7					
			7772	100	51	5000	3.70	100	62	6200	3.79	6200	3.79	0.00
				1000	4			1000	6					
			7773	100	48	5000	3.70	100	64	6300	3.80	6400	3.81	0.01
				1000	7			1000	5					
			7774	100	58	6000	3.78	100	62	6500	3.81	6200	3.79	-0.02
				1000	8			1000	9					
		3	7775	1000	94	97000	4.99	1000	110	110000	5.04	110000	5.04	0.00
				10000	13			10000	13					
			7776	1000	106	110000	5.04	1000	106	100000	5.00	110000	5.04	0.04
				10000	13			10000	9					
			7777	1000	98	100000	5.00	1000	87	86000	4.93	87000	4.94	0.01
				10000	12			10000	8					
			7778	1000	85	93000	4.97	1000	97	99000	5.00	97000	4.99	-0.01
				10000	17			10000	12					
			7779	1000	93	94000	4.97	1000	83	85000	4.93	83000	4.92	-0.01
				10000	10			10000	10					

Matrix	Strain	Level	Sample N°	Alternative method: ISO 16649-2*				Reference method: CHROMID Coli 37°C						
								Enumeration		2 plates interpretation		1 plate interpretation		
				Dilution	CFU/plate	CFU/g (	log CFU/g	Dilution	CFU/plate	CFU/g	log CFU/g	CFU/g	log(CFU/g)	log(CFU/g) 1 plate - 2 plates
Fish fillet – Batch 1 (5.2x10 ³ CFU/g)	<i>Escherichia coli</i> Ad228	1	8164	10	37	370	2.57	10	28	260	2.41	280	2.45	0.03
				100	0			100	1					
			8165	10	32	290	2.46	10	24	260	2.41	240	2.38	-0.03
				100	0			100	4					
			8166	10	25	260	2.41	10	24	240	2.38	240	2.38	0.00
				100	3			100	2					
		2	8167	10	24	240	2.38	10	28	260	2.41	280	2.45	0.03
				100	2			100	1					
			8168	10	20	190	2.28	10	29	260	2.41	290	2.46	0.05
				100	1			100	0					
			8169	100	52	4900	3.69	100	46	4500	3.65	4600	3.66	0.01
				1000	2			1000	3					
		3	8170	100	47	4600	3.66	100	42	4100	3.61	4200	3.62	0.01
				1000	4			1000	3					
			8171	100	38	4300	3.63	100	44	4500	3.65	4400	3.64	-0.01
				1000	9			1000	6					
			8172	100	43	4200	3.62	100	31	3000	3.48	3100	3.49	0.01
				1000	3			1000	2					
Fish fillet – Batch 2 (2.5x10 ³ CFU/g)	Ad228	1	8173	100	40	4200	3.62	100	37	3500	3.54	3700	3.57	0.02
				1000	6			1000	1					
			8174	1000	58	58000	4.76	1000	61	59000	4.77	61000	4.79	0.01
				10000	6			10000	4					
			8175	1000	57	56000	4.75	1000	54	56000	4.75	54000	4.73	-0.02
				10000	5			10000	8					
		2	8176	1000	62	65000	4.81	1000	70	69000	4.84	70000	4.85	0.01
				10000	10			10000	6					
			8177	1000	59	59000	4.77	1000	53	58000	4.76	53000	4.72	-0.04
				10000	6			10000	11					
			8178	1000	56	55000	4.74	1000	57	59000	4.77	57000	4.76	-0.01
				10000	4			10000	8					
		3	8179	10	35	370	2.57	10	28	260	2.41	280	2.45	0.03
				100	6			100	0					
			8180	10	27	280	2.45	10	25	280	2.45	250	2.40	-0.05
				100	4			100	6					
			8181	10	29	260	2.41	10	36	390	2.59	360	2.56	-0.03
				100	0			100	7					
		1	8182	10	27	250	2.40	10	26	270	2.43	260	2.41	-0.02
				100	0			100	4					
			8183	10	46	430	2.63	10	33	300	2.48	330	2.52	0.04
				100	1			100	0					
			8184	100	50	4700	3.67	100	48	5200	3.72	4800	3.68	-0.03
				1000	2			1000	9					
		2	8185	100	54	5500	3.74	100	55	5500	3.74	5500	3.74	0.00
				1000	6			1000	5					
			8186	100	45	4500	3.65	100	39	3600	3.56	3900	3.59	0.03
				1000	5			1000	1					
			8187	100	45	4500	3.65	100	49	5200	3.72	4900	3.69	-0.03
				1000	4			1000	8					
		3	8188	100	37	4100	3.61	100	53	5400	3.73	5300	3.72	-0.01
				1000	8			1000	6					
			8189	1000	79	78000	4.89	1000	56	59000	4.77	56000	4.75	-0.02
				10000	7			10000	9					
			8190	1000	79	85000	4.93	1000	67	70000	4.85	67000	4.83	-0.02
				10000	14			10000	10					
		3	8191	1000	70	74000	4.87	1000	73	74000	4.87	73000	4.86	-0.01
				10000	11			10000	8					
			8192	1000	70	70000	4.85	1000	78	76000	4.88	78000	4.89	0.01
				10000	7			10000	6					
			8193	1000	66	68000	4.83	1000	67	69000	4.84	67000	4.83	-0.01
				10000	9			10000	9					

Matrix	Strain	Level	Sample N°	Alternative method: ISO 16649-2*				Reference method: CHROMID Coli 37°C						
								Enumeration		2 plates interpretation		1 plate interpretation		
				Dilution	CFU/plate	CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g	log CFU/g	CFU/g	log(CFU/g)	log(CFU/g) 1 plate - 2 plates
Grated carrots – Batch 1 (>3.0x10 ⁵ CFU/g)	<i>Escherichia coli</i> 19	1	8239	10	25	260	2.41	10	23	240	2.38	230	2.36	-0.02
				100	3			100	3					
			8240	10	25	240	2.38	10	23	220	2.34	230	2.36	0.02
				100	1			100	1					
			8241	10	15	150	2.18	10	23	220	2.34	230	2.36	0.02
				100	1			100	1					
		2	8242	10	21	200	2.30	10	15	150	2.18	150	2.18	0.00
				100	1			100	1					
			8243	10	21	220	2.34	10	16	160	2.20	160	2.20	0.00
				100	3			100	2					
			8244	100	25	2500	3.40	100	35	3400	3.53	3500	3.54	0.01
				1000	3			1000	2					
		3	8245	100	29	2700	3.43	100	41	3800	3.58	4100	3.61	0.03
				1000	1			1000	1					
			8246	100	38	3700	3.57	100	31	3000	3.48	3100	3.49	0.01
				1000	3			1000	2					
			8247	100	36	3800	3.58	100	34	3400	3.53	3400	3.53	0.00
				1000	6			1000	3					
Grated carrots – Batch 2 (>3.0x10 ⁵ CFU/g)	<i>Escherichia coli</i> 19	1	8248	100	29	2800	3.45	100	29	3200	3.51	2900	3.46	-0.04
				1000	2			1000	6					
			8249	1000	46	48000	4.68	1000	55	57000	4.76	55000	4.74	-0.02
				10000	7			10000	8					
			8250	1000	59	63000	4.80	1000	51	47000	4.67	51000	4.71	0.04
				10000	10			10000	1					
		2	8251	1000	60	58000	4.76	1000	58	56000	4.75	58000	4.76	0.02
				10000	4			10000	4					
			8252	1000	46	45000	4.65	1000	44	46000	4.66	44000	4.64	-0.02
				10000	4			10000	7					
			8253	1000	48	49000	4.69	1000	57	58000	4.76	57000	4.76	-0.01
				10000	6			10000	7					
		3	8254	10	13	160	2.20	10	20	200	2.30	200	2.30	0.00
				100	5			100	2					
			8255	10	31	290	2.46	10	16	160	2.20	160	2.20	0.00
				100	1			100	2					
			8256	10	19	180	2.26	10	17	160	2.20	170	2.23	0.03
				100	1			100	0					
	<i>Escherichia coli</i> 19	1	8257	10	18	200	2.30	10	17	160	2.20	170	2.23	0.03
				100	4			100	1					
			8258	10	25	250	2.40	10	21	220	2.34	210	2.32	-0.02
				100	2			100	3					
		2	8259	100	24	2500	3.40	100	36	3500	3.54	3600	3.56	0.01
				1000	4			1000	3					
			8260	100	22	2600	3.41	100	55	5600	3.75	5500	3.74	-0.01
				1000	7			1000	7					
			8261	100	37	3500	3.54	100	36	3500	3.54	3600	3.56	0.01
				1000	2			1000	2					
		3	8262	100	31	3200	3.51	100	24	2400	3.38	2400	3.38	0.00
				1000	4			1000	2					
			8263	100	33	3300	3.52	100	26	2800	3.45	2600	3.41	-0.03
				1000	3			1000	5					
			8264	1000	48	48000	4.68	1000	47	49000	4.69	47000	4.67	-0.02
				10000	0			10000	7					
		3	8265	1000	49	48000	4.68	1000	53	56000	4.75	53000	4.72	-0.02
				10000	4			10000	9					
			8266	1000	45	45000	4.65	1000	56	57000	4.76	56000	4.75	-0.01
				10000	5			10000	7					
			8267	1000	43	45000	4.65	1000	43	44000	4.64	43000	4.63	-0.01
				10000	7			10000	5					
		3	8268	1000	44	44000	4.64	1000	54	57000	4.76	54000	4.73	-0.02
				10000	4			10000	9					

Matrix	Strain	Level	Sample N°	Alternative method: ISO 16649-2*				Reference method: CHROMID Coli 37°C						
								Enumeration		2 plates interpretation		1 plate interpretation		
				Dilution	CFU/plate	CFU/g	log CFU/g	Dilution	CFU/plate	CFU/g	log CFU/g	CFU/g	log (CFU/g)	log (CFU/g) 1 plate - 2 plates
Pasteurized liquid egg product Batch 1 (20 CFU/g)	<i>Escherichia coli</i> 142	1	8051	10	32	330	2.52	10	41	420	2.62	410	2.61	-0.01
				100	4			100	5					
			8052	10	31	330	2.52	10	40	400	2.60	400	2.60	0.00
				100	5			100	4					
			8053	10	42	420	2.62	10	32	340	2.53	320	2.51	-0.03
				100	4			100	5					
			8054	10	32	320	2.51	10	33	350	2.54	330	2.52	-0.03
				100	3			100	5					
			8055	10	42	400	2.60	10	47	470	2.67	470	2.67	0.00
				100	2			100	5					
		2	8056	100	50	5200	3.72	100	56	5500	3.74	5600	3.75	0.01
				1000	7			1000	5					
			8057	100	45	4600	3.66	100	54	5100	3.71	5400	3.73	0.02
				1000	6			1000	2					
			8058	100	51	4900	3.69	100	47	4700	3.67	4700	3.67	0.00
				1000	3			1000	5					
			8059	100	55	5300	3.72	100	52	5500	3.74	5200	3.72	-0.02
				1000	3			1000	8					
			8060	100	43	4100	3.61	100	37	3900	3.59	3700	3.57	-0.02
				1000	2			1000	6					
		3	8061	1000	79	83000	4.92	1000	108	110000	5.04	110000	5.04	0.00
				10000	12			10000	10					
			8062	1000	57	59000	4.77	1000	69	69000	4.84	69000	4.84	0.00
				10000	8			10000	7					
			8063	1000	75	75000	4.88	1000	84	91000	4.96	84000	4.92	-0.03
				10000	17			10000	16					
			8064	1000	81	84000	4.92	1000	77	78000	4.89	77000	4.89	-0.01
				10000	11			10000	9					
			8065	1000	87	90000	4.95	1000	84	83000	4.92	84000	4.92	0.01
				10000	12			10000	7					
Pasteurized liquid egg product Batch 2 (20 CFU/g)	<i>Escherichia coli</i> 142	1	8066	10	20	210	2.32	10	24	260	2.41	240	2.38	-0.03
				100	3			100	4					
			8067	10	34	340	2.53	10	37	370	2.57	370	2.57	0.00
				100	3			100	4					
			8068	10	27	270	2.43	10	38	400	2.60	380	2.58	-0.02
				100	3			100	6					
			8069	10	46	450	2.65	10	42	400	2.60	420	2.62	0.02
				100	3			100	2					
			8070	10	41	410	2.61	10	41	410	2.61	410	2.61	0.00
				100	4			100	4					
		2	8071	100	44	4200	3.62	100	41	4000	3.60	4100	3.61	0.01
				1000	2			1000	3					
			8072	100	58	6100	3.79	100	55	5300	3.72	5500	3.74	0.02
				1000	9			1000	3					
			8073	100	56	5700	3.76	100	56	5500	3.74	5600	3.75	0.01
				1000	7			1000	4					
			8074	100	59	6100	3.79	100	57	5700	3.76	5700	3.76	0.00
				1000	8			1000	6					
			8075	100	43	4500	3.65	100	46	4700	3.67	4600	3.66	-0.01
				1000	7			1000	6					
		3	8076	1000	118	120000	5.08	1000	86	94000	4.97	86000	4.93	-0.04
				10000	12			10000	17					
			8077	1000	86	90000	4.95	1000	100	100000	5.00	100000	5.00	0.00
				10000	13			10000	11					
			8078	1000	93	91000	4.96	1000	79	77000	4.89	79000	4.90	0.01
				10000	7			10000	6					
			8079	1000	83	85000	4.93	1000	90	90000	4.95	90000	4.95	0.00
				10000	11			10000	1					
			8080	1000	101	110000	5.04	1000	105	110000	5.04	110000	5.04	0.00
				10000	16			10000	13					

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

Appendix 8 - Accuracy profile study: summarized results

1 plate

(Food) Category 1			Category 1									
(Food) Type 1			Raw ground beef - 1 plate									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
7650-7654	Ground beef	1	360	340	360	390	350	300	330	310	320	400
7665-7669	Ground beef	1	470	270	340	350	370	320	450	410	360	310
7655-7659	Ground beef	2	6200	7600	5900	5500	5800	5800	5600	6400	6100	4900
7670-7674	Ground beef	2	6400	5500	5800	5500	5900	5400	6200	6900	6000	6800
7660-7664	Ground beef	3	95000	88000	98000	110000	88000	81000	120000	110000	130000	130000
7675-7679	Ground beef	3	120000	110000	130000	110000	93000	120000	120000	120000	130000	98000
(Food) Category 3			Category 3									
(Food) Type 3			Raw fish fillet - 1 plate									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
8164-8168	Raw fish fillet	1	370	290	260	240	190	280	240	240	280	290
8179-8183	Raw fish fillet	1	370	280	260	250	430	280	250	360	260	330
8169-8173	Raw fish fillet	2	4900	4600	4300	4200	4200	4600	4200	4400	3100	3700
8184-8188	Raw fish fillet	2	4700	5500	4500	4500	4100	4800	5500	3900	4900	5300
8174-8178	Raw fish fillet	3	58000	56000	65000	59000	55000	61000	54000	70000	53000	57000
8189-8193	Raw fish fillet	3	78000	85000	74000	70000	68000	56000	67000	73000	78000	67000
(Food) Category 5			Category 5									
(Food) Type 5			Liquid egg products - 1 plate									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
8051-8055	Liquid egg products	1	330	330	420	320	400	410	400	320	330	470
8066-8070	Liquid egg products	1	210	340	270	450	410	240	370	380	420	410
8056-8060	Liquid egg products	2	5200	4600	4900	5300	4100	5600	5400	4700	5200	3700
8071-8075	Liquid egg products	2	4200	6100	5700	6100	4500	4100	5500	5600	5700	4600
8061-8065	Liquid egg products	3	83000	59000	75000	84000	90000	110000	69000	84000	77000	84000
8076-8080	Liquid egg products	3	120000	90000	91000	85000	110000	86000	100000	79000	90000	110000

(Food) Category 2			Category 2									
(Food) Type 2			Pasteurised milk - 1 plate									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
7750-7754	Pasteurised milk	1	190	320	240	210	170	280	350	370	330	250
7765-7769	Pasteurised milk	1	320	330	330	340	330	190	310	260	300	380
7755-7759	Pasteurised milk	2	3600	3800	4500	4400	3700	4500	4900	4400	5300	4400
7770-7774	Pasteurised milk	2	4900	5100	5000	5000	6000	5700	5300	6200	6400	6200
7760-7764	Pasteurised milk	3	55000	67000	68000	75000	67000	69000	73000	83000	69000	75000
7775-7779	Pasteurised milk	3	97000	110000	100000	93000	94000	110000	110000	87000	97000	83000
(Food) Category 4			Category 4									
(Food) Type 4			RTE grated carrots - 1 plate									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
8239-8243	Grated carrots	1	260	240	150	200	220	230	230	230	150	160
8254-8258	Grated carrots	1	160	290	180	200	250	200	160	170	170	210
8244-8248	Grated carrots	2	2500	2700	3700	3800	2800	3500	4100	3100	3400	2900
8259-8263	Grated carrots	2	2500	2600	3500	3200	3300	3600	5500	3600	2400	2600
8249-8253	Grated carrots	3	48000	63000	58000	45000	49000	55000	51000	58000	44000	57000
8264-8268	Grated carrots	3	48000	48000	45000	45000	44000	47000	53000	56000	43000	54000

2 plates

(Food) Category 1			Category 1									
(Food) Type 1			Raw ground beef - 2 plates									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
7650-7654	Ground beef	1	360	340	360	390	350	310	340	320	320	410
7665-7669	Ground beef	1	470	270	340	350	370	310	450	400	390	290
7655-7659	Ground beef	2	6200	7600	5900	5500	5800	5700	5500	6200	6700	5100
7670-7674	Ground beef	2	6400	5500	5800	5500	5900	5900	6500	6500	5900	6500
7660-7664	Ground beef	3	95000	88000	98000	110000	88000	86000	120000	110000	120000	130000
7675-7679	Ground beef	3	120000	110000	130000	110000	93000	120000	110000	120000	130000	100000
(Food) Category 3			Category 3									
(Food) Type 3			Raw fish fillet - 2 plates									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
8164-8168	Raw fish fillet	1	370	290	260	240	190	260	260	240	260	260
8179-8183	Raw fish fillet	1	370	280	260	250	430	260	280	390	270	300
8169-8173	Raw fish fillet	2	4900	4600	4300	4200	4200	4500	4100	4500	3000	3500
8184-8188	Raw fish fillet	2	4700	5500	4500	4500	4100	5200	5500	3600	5200	5400
8174-8178	Raw fish fillet	3	58000	56000	65000	59000	55000	59000	56000	69000	58000	59000
8189-8193	Raw fish fillet	3	78000	85000	74000	70000	68000	59000	70000	74000	76000	69000
(Food) Category 5			Category 5									
(Food) Type 5			Liquid egg products - 2 plates									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
8051-8055	Liquid egg products	1	330	330	420	320	400	420	400	340	350	470
8066-8070	Liquid egg products	1	210	340	270	450	410	260	370	400	400	410
8056-8060	Liquid egg products	2	5200	4600	4900	5300	4100	5500	5100	4700	5500	3900
8071-8075	Liquid egg products	2	4200	6100	5700	6100	4500	4000	5300	5500	5700	4700
8061-8065	Liquid egg products	3	83000	59000	75000	84000	90000	110000	69000	91000	78000	83000
8076-8080	Liquid egg products	3	120000	90000	91000	85000	110000	94000	100000	77000	90000	110000

(Food) Category 2			Category 2									
(Food) Type 2			Pasteurised milk - 2 plates									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
7750-7754	Pasteurised milk	1	190	320	240	210	170	280	350	360	300	270
7765-7769	Pasteurised milk	1	320	330	330	340	330	200	300	270	290	360
7755-7759	Pasteurised milk	2	3600	3800	4500	4400	3700	4400	5000	4300	5200	4600
7770-7774	Pasteurised milk	2	4900	5100	5000	5000	6000	5500	5500	6200	6300	6500
7760-7764	Pasteurised milk	3	55000	67000	68000	75000	67000	68000	74000	84000	73000	75000
7775-7779	Pasteurised milk	3	97000	110000	100000	93000	94000	110000	100000	86000	99000	85000
(Food) Category 4			Category 4									
(Food) Type 4			RTE grated carrots - 2 plates									
			Reference method result					Alternative method result				
Sample Name	(Food) item	Level	rep 1	rep 2	rep 3	rep 4	rep 5	rep 1	rep 2	rep 3	rep 4	rep 5
8239-8243	Grated carrots	1	260	240	150	200	220	240	220	220	150	160
8254-8258	Grated carrots	1	160	290	180	200	250	200	160	160	160	220
8244-8248	Grated carrots	2	2500	2700	3700	3800	2800	3400	3800	3000	3400	3200
8259-8263	Grated carrots	2	2500	2600	3500	3200	3300	3500	5600	3500	2400	2800
8249-8253	Grated carrots	3	48000	63000	58000	45000	49000	57000	47000	56000	46000	58000
8264-8268	Grated carrots	3	48000	48000	45000	45000	44000	49000	56000	57000	44000	57000

Appendix 9 – Inclusivity / Exclusivity: raw data

INCLUSIVITY								
Year of testing	N°	Strain	Reference	Origin	PCA	V08-017 (VRBL 44.5°C) OR ISO 16649-2 (TBX)	CHROMID Coli 37°C	
					CFU/ plate (1ml -7)	CFU/plate (1ml -7)	CFU/ plate (1ml -7)	Description of the colonies
1998 Reference method: VRBL 44.5°C	1	<i>Escherichia coli</i>	Adria 1	Sausage	140	64/67	72/97	Pink
	2	<i>Escherichia coli</i>	Adria 2B	Sausage	180	58/73	58/71	Pink
	3	<i>Escherichia coli</i>	Adria 3A	Sausage	210	85/78	106/81	Pink
	4	<i>Escherichia coli</i>	Adria 6	Sausage	110	38/47	57/56	Pink
	5	<i>Escherichia coli</i>	Adria 9	Goose rillettes	130	73/70	77/68	Pink
	6	<i>Escherichia coli</i>	Adria 12	Raw poultry meat	240	68/91 (white colonies on TBX)	83/74	Blue
	7	<i>Escherichia coli</i>	Adria 13	Ground beef	200	49/61	53/79	Pink
	8	<i>Escherichia coli</i>	Adria 14	Raw milk	140	35/38	46/31	Pink
	9	<i>Escherichia coli</i>	Adria 15	Raw milk	170	32/43	30/32	Pink
	10	<i>Escherichia coli</i>	Adria 16	Raw milk	110	20/24	24/31	Pink
	11	<i>Escherichia coli</i>	Adria 17	Water	240	78/90	56/37	Pink
	12	<i>Escherichia coli</i>	Adria 18	Water	130	67/74	78/76	Pink
	13	<i>Escherichia coli</i>	Adria 19	Grated carrots	100	24/28	41/31	Pink
	14	<i>Escherichia coli</i>	Adria 20	Water	160	131/131 (white colonies on TBX)	114/106	Blue
	15	<i>Escherichia coli</i>	Adria 21	Cured pork meat	150	132/87	21/16	Pink
	16	<i>Escherichia coli</i>	Adria 70	Ground meat	190	145/131	135/068	Pink
	17	<i>Escherichia coli</i>	CIP 54117	/	66	38/46	40/47	Pink
	18	<i>Escherichia coli</i>	CIP 54127	/	200	32/34	17/24	Pink
	19	<i>Escherichia coli</i>	ATCC 43888	Bovine faeces	210	75/74 (white colonies on TBX)	98/73	Blue
	20	<i>Escherichia coli</i>	CIP 7624	/	110	58/57	62/60	Pink
2006 TBX 44°C	21	<i>Escherichia coli</i>	Ad217	Meat product	35/41	2/3	3/3	Pink
	22	<i>Escherichia coli</i>	Ad218	Meat product	49/61	48/42	13/18	Pink
	23	<i>Escherichia coli</i>	Ad219	Meat product	21/19	11/9	125/14	Pink
	24	<i>Escherichia coli</i>	Ad228	Seafood product	24/16	22/17	17/30	Pink
	25	<i>Escherichia coli</i>	Ad94	Dairy product	30/20	24/21	25/25	Pink
	26	<i>Escherichia coli</i>	Adria E17	Dairy product	13/11	7/9	14/9	Pink
	27	<i>Escherichia coli</i>	Adria 144	Ready to reheat meal	15/11	13/14	16/16	Pink
	28	<i>Escherichia coli</i>	Adria142	Egg product	22/32	31/27	26/18	Pink
	29	<i>Escherichia coli</i>	Adria143	Egg product	23/29	9/18	27/25	Pink
	30	<i>Escherichia coli</i>	Ad222	Egg product	34/23	19/20	18/19	Pink

INCLUSIVITY								
Year of testing	N°	Strain	Reference	Origin	PCA	V08-017 (VRBL 44.5°C) OR ISO 16649-2 (TBX)	CHROMID Coli 37°C	
					CFU/ plate (1ml -7)	CFU/ plate (1ml -7)	CFU/ plate (1ml -7)	Description of the colonies
2018 TBX 44°C	31	<i>Escherichia coli</i> O103	Ad1743	Ground beef	58	80	44	Pink
	32	<i>Escherichia coli</i>	Ad1816	Raw milk cheese	50	37 (white colonies)	57	Blue
	33	<i>Escherichia coli</i>	Ad1828	Beef meat	61	50	64	Pink
	34	<i>Escherichia coli</i> O145	Ad1863	Ground beef	42	35	48	Pink
	35	<i>Escherichia coli</i> O26	Ad1864	Ground beef	47	34	50	Pink
	36	<i>Escherichia coli</i> O26	Ad1866	Raw milk cheese	41	47	39	Pink
	37	<i>Escherichia coli</i>	Ad1999	Chicken meat	29	36 (white colonies)	25	Grey
	38	<i>Escherichia coli</i> O26	Ad2827	Raw milk	35	39	37	Pink
	39	<i>Escherichia coli</i> O26	Ad2830	Raw ewe milk cheese	64	60	63	Pink
	40	<i>Escherichia coli</i> O26	Ad2832	Raw cow milk cheese	22	32	29	Pink
	41	<i>Escherichia coli</i> O103	Ad2839	Raw ewe milk	37	57	49	Pink
	42	<i>Escherichia coli</i> O145	Ad2841	Fermented milk	27	20	37	Pink
	43	<i>Escherichia coli</i> O26	Ad1861	Cheese	65	61	51	Pink
	44	<i>Escherichia coli</i> O103	Ad1862	Cheese	52	34	52	Pink
	45	<i>Escherichia coli</i> O26	Ad1742	Cheese	45	37	34	Pink
	46	<i>Escherichia coli</i>	A00C070	Chicken leg	24	39	54	Pink
	47	<i>Escherichia coli</i>	CIP53126	Unknown	25	25	73	Pink
	48	<i>Escherichia coli</i>	Ad1385	Sea water	59	51	57	Pink
	49	<i>Escherichia coli</i>	Ad1386	Well water	64	58 (white colonies)	61	Blue
	50	<i>Escherichia coli</i>	Ad1387	Drilling water	64	47	37	Pink

EXCLUSIVITY									
Year of analysis	N°	Strain		Reference	Origin	PCA	V08-017 (VRBL 44.5°C) OR ISO 16649-2 (TBX)	CHROMID Coli 37°C	
						CFU/plate (1ml -7)	CFU/plate (1ml -7)	CFU/plate (1ml -7)	Description of the colonies
1998 Reference method: VRBL 44.5°C	1	<i>Enterobacter</i>	<i>aerogenes</i>	CIP6086	/	30	0/0 (-6)	23/25	Blue
	2	<i>Enterobacter</i>	<i>aerogenes</i>	CIP 103659	/	90	53/37 (small)	79/55	White
	3	<i>Citrobacter</i>	<i>freundii</i>	Adria 23	Sausage	150	0/0 (-6)	82/90	Blue
	4	<i>Citrobacter</i>	<i>freundii</i>	Adria 24	Seafood cocktail	41	11/22 (small)	21/14	Dark blue
	5	<i>Klebsiella</i>	<i>oxytoca</i>	Adria 42	/	66	0/0 (-6)	51/55	Blue
	6	<i>Klebsiella</i>	<i>oxytoca</i>	CIP 7932	/	33	0/0 (-6)	127/123 (-6)	Dark blue
	7	<i>Serratia</i>	<i>liquefaciens</i>	Adria 26	Beetroot	60	0/0 (-6)	16/20	Blue
	8	<i>Serratia</i>	<i>liquefaciens</i>	Adria 81	Ham	30 (-5)	0/0 (-6)	0/0 (-5)	/
	9	<i>Shigella</i>	<i>flexneri</i>	CIP 8248	/	21	0/0 (-6)	37/39	White
	10	<i>Proteus</i>	<i>vulgaris</i>	Adria 43	Ham	30	0/0 (-6)	127/90 (-6)	White
	11	<i>Proteus</i>	<i>vulgaris</i>	Adria 56	Food product	79	0/0 (-6)	26/33	White
	12	<i>Erwinia</i>	<i>carotovora</i>	CIP 103762	Salad	8 (-6)	0/0 (-6)	0/0 (-6)	/
	13	<i>Erwinia</i>	<i>carotovora</i>	CIP 8283	Potatoes	52	0/0 (-6)	18/8	Small blue colonies
	14	<i>Bacillus</i>	<i>polymyxa</i>	CIP A39	/	32 (-6)	0/0 (-6)	0/0 (-6)	/
	15	<i>Enterococcus</i>	<i>faecalis</i>	Adria 25	Chicken leg	160	0/0 (-6)	0/0 (-6)	/
	16	<i>Staphylococcus</i>	<i>aureus</i>	Adria 501	Raw milk	92	0/0 (-6)	0/0 (-6)	/
	17	<i>Lactobacillus</i>	<i>plantarum</i>	A159	/	32 (-6)	0/0 (-6)	0/0 (-6)	/
	18	<i>Hafnia</i>	<i>alvei</i>	Adria 50	Ground meat	110	0/0 (-6)	47/59	Blue/grey
	19	<i>Candida</i>	<i>guillemondii</i>	Adria 381	Bier	16 (-6)	0/0 (-5)	0/0 (-5)	/
	20	<i>Candida</i>	<i>liptolytica</i>	CIP 81663	/	43 (-6)	0/0 (-5)	0/0 (-5)	/
	21	<i>Salmonella</i>	<i>Enteritidis</i>	CIP 8297	/	220	115/108	120/87	White
	22	<i>Escherichia</i>	<i>vulneris</i>	Adria 151	Raw milk	62	0/0 (-6)	56/47	Pink/purple
	23	<i>Plesiomonas</i>	<i>shigelloides</i>	Add 673	Fish	53 (-6)	77/63 (-6)	60/53 (-6)	White/pink
2018 TBX 44°C	24	<i>Escherichia</i>	<i>vulneris</i>	Adria 127	Dairy product	16/15	0/0 (-7)	0/0 (-7)	/
	25	<i>Escherichia</i>	<i>vulneris</i>	Adria 132	Meat product	40/30	0/0 (-7)	0/0 (-7)	/
	26	<i>Escherichia</i>	<i>vulneris</i>	Adria 134	Meat product	45/44	0/0 (-7)	0/0 (-7)	/
	27	<i>Buttiauxella</i>	<i>agrestis</i>	Ad1328	Egg product	30 (-6)	0/0 (-6)	0/0 (-6)	/
	28	<i>Kluyvera</i>	<i>ascorbata</i>	Ad229	Fish	177 (-6)	0/0 (-6)	0/0 (-6)	/
	29	<i>Escherichia</i>	<i>fergusonii</i>	Ad1381	Water	184 (-6)	0/0 (-6)	0/0 (-6)	/
	30	<i>Escherichia</i>	<i>hermanii</i>	Ad464	Raw milk	248 (-6)	0/0 (-6)	0/0 (-6)	/
	31	<i>Escherichia</i>	<i>vulneris</i>	Ad2853	Dairy environment	156 (-6)	0/0 (-6)	0/0 (-6)	/

**Appendix 10 - Results obtained by the collaborative laboratories
and the expert laboratory**

Collaborator	N° sample	Reference method: ISO 16649-2					Alternative method: CHROMID Coli - 37°C			
		Dilution	CFU/ plate a	CFU/ plate b	CFU/mL (rounded)	Log CFU/mL (2025)	Dilution	CFU/ plate	CFU/mL (rounded)	Log CFU/mL (2025)
A	A1	1			<10	<1.00	1	/	<10	<1.00
		10	0	0			10	0		
	A7	1			<10	<1.00	1	/	<10	<1.00
		10	0	0			10	0		
	A2	1			40	1.60 Ne	1	/	30	1.48 Ne
		10	4	3			10	3		
	A5	1			50	1.70 Ne	1	/	50	1.70
		10	5	3			10	5		
	A3	10	40	39	400	2.60	10	53	520	2.72
		100	4	3			100	4		
	A8	10	54	50	550	2.74	10	48	500	2.70
		100	6	3			100	7		
B	B1	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	B7	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	B2	1	40	45	41	1.61	1	56	55	1.74
		10	5	5			10	4		
	B5	1	38	45	39	1.59	1	54	55	1.74
		10	5	4			10	7		
	B3	10	69	60	650	2.81	10	62	590	2.77
		100	2	5			100	3		
	B8	10	51	55	530	2.72	10	46	450	2.65
		100	7	7			100	3		
C	C1	10	0	0	<10	<1.00	10	0	<10	<1.00
		100	0	0			100	0		
	C7	10	0	0	<10	<1.00	10	0	<10	<1.00
		100	0	0			100	0		
	C2	10	6	7	64	1.81 Ne	10	4	36	1.56 Ne
		100	1	0			100	0		
	C5	10	6	5	64	1.81 Ne	10	4	36	1.56 Ne
		100	1	0			100	0		
	C3	10	31	43	330	2.52	10	34	340	2.53
		100	5	4			100	3		
	C8	10	34	41	350	2.54	10	46	460	2.66
		100	4	8			100	4		
	C4	100	47	60	5000	3.70	100	45	4500	3.65
		1000	8	2			1000	4		
	C6	100	42	46	4200	3.62	100	48	4800	3.68
		1000	4	4			1000	5		

Collaborator	N° sample	Reference method: ISO 16649-2					Alternative method: CHROMID Coli - 37°C			
		Dilution	CFU/ plate a	CFU/ plate b	CFU/mL (rounded)	Log CFU/mL (2025)	Dilution	CFU/ plate	CFU/mL (rounded)	Log CFU/mL (2025)
D	D1	10	0	0	<10	<1.00	10	0	<10	<1.00
		100	0	0			100	0		
	D7	10	0	0	<10	<1.00	10	0	<10	<1.00
		100	0	0			100	0		
	D2	10	4	2	36	1.56 Ne	10	5	45	1.65
		100	0	0			100	0		Ne
	D5	10	6	4	55	1.74 Ne	10	9	82	1.91
		100	0	0			100	0		Ne
	D3	10	44	43	460	2.66	10	48	510	2.71
		100	6	3			100	8		
	D8	10	35	38	340	2.53	10	51	500	2.70
		100	2	3			100	4		
	D4	100	39	22	3700	3.57	100	48	4800	3.68
		1000	2	3			1000	5		
E	E1	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	E7	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	E2	1	29	55	32	1.51	1	49	49	1.69
		10	6	6			10	5		
	E5	1	37	50	37	1.57	1	30	31	1.49
		10	4	8			10	4		
	E3	10	45	52	440	2.64	10	55	550	2.74
		100	3	5			100	5		
	E8	10	41	37	400	2.60	10	55	520	2.72
		100	3	3			100	2		
	E4	100	49	41	5000	3.70	100	67	6700	3.83
		1000	6	10			1000	7		
F	F1	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	F7	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	F2	1	24	26	25	1.40	1	52	54	1.73
		10	4	2			10	7		
	F5	1	36	41	38	1.58	1	49	50	1.70
		10	6	7			10	6		
	F3	10	44	49	450	2.65	10	60	640	2.81
		100	5	9			100	10		
	F8	10	65	58	630	2.80	10	64	620	2.79
		100	4	5			100	4		
	F4	100	48	59	4500	3.65	100	46	4800	3.68
		1000	2	5			1000	7		
	F6	100	77	68	7300	3.86	100	50	4900	3.69
		1000	3	6			1000	4		

Collaborator	N° sample	Reference method: ISO 16649-2					Alternative method: CHROMID Coli - 37°C				
		Dilution	CFU/ plate a	CFU/ plate b	CFU/mL (rounded)	Log CFU/mL (2025)	Dilution	CFU/ plate	CFU/mL (rounded)	Log CFU/mL (2025)	
G	G1	10	0	0	<10	<1.00	10	0	<10	<1.00	
		100	0	0			100	0			
	G7	10	0	0	<10	<1.00	10	0	<10	<1.00	
		100	0	0			100	0			
	G2	10	4	3	45	1.65 Ne	10	4	45	1.65	
		100	1	0			100	1		Ne	
	G5	10	3	6	55	1.74 Ne	10	8	82	1.91	
		100	1	0			100	1		Ne	
	G3	10	31	39	330	2.52	10	28	280	2.45	
		100	5	5			100	3			
	G8	10	32	33	340	2.53	10	42	430	2.63	
		100	5	3			100	5			
	G4	100	30	39	3100	3.49	100	41	3800	3.58	
		1000	4	4			1000	1			
G6	100	34	38	3200	3.51	100	44	4700	3.67		
	1000	1	4			1000	8				
H	H1	1	0	0	<1	<0.00	1	0	<1	<0.00	
		10	0	0			10	0			
	H7	1	0	0	<1	<0.00	1	0	<1	<0.00	
		10	0	0			10	0			
	H2	1	22	26	23	1.36	1	23	24	1.38	
		10	3	5			10	3			
	H5	1	45	40	46	1.66	1	27	26	1.41	
		10	6	3			10	2			
	H3	10	46	26	460	2.66	10	40	390	2.59	
		100	4	4			100	3			
	H8	10	36	44	360	2.56	10	29	280	2.45	
		100	3	4			100	2			
	H4	100	40	40	3800	3.58	100	43	4400	3.64	
		1000	2	5			1000	5			
H6	100	53	50	5100	3.71	100	43	4200	3.62		
	1000	3	3			1000	3				
I	I1	1	0	0	<1	<0.00	1	0	<1	<0.00	
		10	0	0			10	0			
	I7	1	0	0	<1	<0.00	1	0	<1	<0.00	
		10	0	0			10	0			
	I2	1	42	42	41	1.61	1	47	45	1.65	
		10	3	2			10	2			
	I5	1	39	39	38	1.58	1	54	55	1.74	
		10	3	4			10	7			
	I3	10	32	51	340	2.53	10	55	570	2.76	
		100	5	5			100	8			
	I8	10	52	48	510	2.71	10	47	470	2.67	
		100	4	7			100	5			
	I4	100	41	39	4100	3.61	100	55	5400	3.73	
		1000	4	3			1000	4			
I6	100	45	53	4500	3.65	100	69	6700	3.83		
	1000	4	6			1000	5				

Collaborator	N° sample	Reference method: ISO 16649-2					Alternative method: CHROMID Coli - 37°C			
		Dilution	CFU/ plate a	CFU/ plate b	CFU/mL (rounded)	Log CFU/mL (2025)	Dilution	CFU/ plate	CFU/mL (rounded)	Log CFU/mL (2025)
J	J1	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	J7	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	J2	1	39	40	36	1.56	1	40	42	1.62
		10	1	5			10	6		
	J5	1	27	36	27	1.43	1	47	49	1.69
		10	3	9			10	7		
	J3	10	37	48	380	2.58	10	42	440	2.64
		100	5	7			100	6		
	J8	10	36	41	370	2.57	10	55	550	2.74
		100	5	6			100	5		
	J4	100	58	68	5600	3.75	100	49	4800	3.68
		1000	4	5			1000	4		
	J6	100	50	51	4700	3.67	100	60	5700	3.76
		1000	2	6			1000	3		
K	K1	10	0	0	<10	<1.00	10	0	<10	<1.00
		100	0	0			100	0		
	K7	10	0	0	<10	<1.00	10	0	<10	<1.00
		100	0	0			100	0		
	K2	10	5	2	45	1.65 Ne	10	4	36	1.56 Ne
		100	0	0			100	0		
	K5	10	5	4	45	1.65 Ne	10	4	45	1.65 Ne
		100	0	0			100	1		
	K3	10	56	65	540	2.73	10	60	600	2.78
		100	3	5			100	6		
	K8	10	43	40	460	2.66	10	47	460	2.66
		100	8	2			100	4		
	K4	100	51	44	4900	3.69	100	73	7000	3.85
		1000	3	4			1000	4		
	K6	100	53	47	5200	3.72	100	59	5900	3.77
		1000	4	7			1000	6		
L	L1	10	0	0	<10	<1.00	10	0	<10	<1.00
		100	0	0			100	0		
	L7	10	0	0	<10	<1.00	10	0	<10	<1.00
		100	0	0			100	0		
	L2	10	4	3	45	1.65 Ne	10	5	45	1.65 Ne
		100	1	0			100	0		
	L5	10	5	5	45	1.65 Ne	10	5	45	1.65 Ne
		100	0	0			100	0		
	L3	10	40	47	400	2.60	10	35	350	2.54
		100	4	4			100	3		
	L8	10	40	53	410	2.61	10	54	560	2.75
		100	5	7			100	7		
	L4	100	35	64	3500	3.54	100	52	5400	3.73
		1000	3	4			1000	7		
	L6	100	58	71	5700	3.76	100	56	5500	3.74
		1000	5	9			1000	5		

Collaborator	N° sample	Reference method: ISO 16649-2					Alternative method: CHROMID Coli - 37°C			
		Dilution	CFU/ plate a	CFU/ plate b	CFU/mL (rounded)	Log CFU/mL (2025)	Dilution	CFU/ plate	CFU/mL (rounded)	Log CFU/mL (2025)
M	M1	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	M7	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	M2	1	43	35	44	1.64	1	46	45	1.65
		10	5	3			10	4		
	M5	1	47	39	46	1.66	1	43	44	1.64
		10	4	5			10	5		
	M3	10	42	52	420	2.62	10	41	450	2.65
		100	4	6			100	8		
	M8	10	41	44	430	2.63	10	41	410	2.61
		100	6	6			100	4		
	M4	100	54	52	5200	3.72	100	64	6100	3.79
		1000	3	9			1000	3		
	M6	100	42	47	4000	3.60	100	37	3700	3.57
		1000	2	2			1000	4		
N	N1	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	N7	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	N2	1	21	24	23	1.36	1	49	47	1.67
		10	4	4			10	3		
	N5	1	18	19	18	1.26	1	48	46	1.66
		10	2	6			10	3		
	N3	10	33	59	330	2.52	10	54	540	2.73
		100	3	4			100	5		
	N8	10	47	26	470	2.67	10	55	540	2.73
		100	5	2			100	4		
	N4	100	28	46	2600	3.41	100	60	6000	3.78
		1000	1	5			1000	6		
	N6	100	30	45	3000	3.48	100	63	6300	3.80
		1000	3	3			1000	6		

Collaborator	N° sample	Reference method: ISO 16649-2					Alternative method: CHROMID Coli - 37°C			
		Dilution	CFU/ plate a	CFU/ plate b	CFU/mL (rounded)	Log CFU/mL (2025)	Dilution	CFU/ plate	CFU/mL (rounded)	Log CFU/mL (2025)
ADRIA	O1	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0	<1	<0.00
	O7	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0	<1	<0.00
	O2	1	48	42	47	1.67	1	44	46	1.66
		10	4	3			10	7	46	1.66
	O5	1	44	49	46	1.66	1	40	42	1.62
		10	7	5			10	6	42	1.62
	O3	10	48	26	460	2.66	10	49	490	2.69
		100	2	1			100	5	490	2.69
	O8	10	38	39	380	2.58	10	39	430	2.63
		100	4	4			100	8	430	2.63
	O4	100	43	46	4300	3.63	100	57	5500	3.74
		1000	4	2			1000	3	5500	3.74
	O6	100	45	36	4300	3.63	100	62	6200	3.79
		1000	2	2			1000	6	6200	3.79

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