

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 12/05 - 01/99)

**for the enumeration of β -glucuronidase-positive *Escherichia coli*
at 44°C in a broad range of food**

Quantitative method

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This report consists of 64 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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1	INTRODUCTION	5
2	METHODS DESCRIPTION	6
2.1	Alternative method	6
2.1.1	<i>Principle</i>	6
2.1.2	<i>Protocol</i>	6
2.1.3	<i>Restrictions</i>	6
2.2	Reference method	6
2.3	Protocols applied during the initial validation and the renewal study	7
3	METHOD COMPARISON STUDY	7
3.1	Relative trueness study	7
3.1.1	<i>Number and nature of the samples</i>	7
3.1.2	<i>Artificial and natural contamination of the samples</i>	8
3.1.3	<i>Raw data</i>	9
3.1.4	<i>Statistical interpretation</i>	12
3.1.5	<i>Discordant results</i>	17
3.1.6	<i>Conclusion</i>	17
3.2	Accuracy profile study	18
3.2.1	<i>Matrices</i>	18
3.2.2	<i>Calculation and interpretation</i>	18
3.2.3	<i>Conclusion</i>	21
3.3	Inclusivity and exclusivity studies	21
3.4	Practicability	22
4	INTER-LABORATORY STUDY ORGANISATION AND RESULTS	22
4.1	Experimental parameters controls	23
4.2	Logistic conditions	23
4.3	Result analysis	24
4.3.1	<i>Results obtained by the expert Lab.</i>	24
4.3.2	<i>Results obtained by the collaborators</i>	24
4.4	Calculation and interpretation	26
4.4.1	<i>Visual linearity checking</i>	26
4.4.2	<i>Accuracy profile calculation</i>	26
4.4.3	<i>Conclusion</i>	28
5	CONCLUSION	29

>	Appendix 1 – Flow diagram of the alternative method: CHROMID Coli (Coli ID-F) for enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 44°C _____	30
>	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 <i>Escherichia coli</i> – Part 2: colony-count technique at 44°C using 5-bromo-4-chloro-3 indolyl β -D-glucuronate _____	31
>	Appendix 3 – Artificial contaminations of samples _____	32
>	Appendix 4 - Relative trueness study: raw data _____	35
>	Appendix 5 - Relative trueness study: data plotted for each category _____	47
>	Appendix 6 - Relative trueness study: Bland-Altman difference plot for each category _____	48
>	Appendix 7 - Accuracy profile study: raw data _____	49
>	Appendix 8 - Accuracy profile study: summarized results _____	54
>	Appendix 9 – Inclusivity / Exclusivity: raw data _____	56
>	Appendix 10 - Results obtained by the collaborative laboratories and the expert laboratory _____	59

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 44°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 44°C** was validated in 2006 according to the ISO 16140:2003 protocol and the AFNOR technical rules (Certificate number: BIO 12/05 - 01/99).

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

Table 1 - Steps of the validation AFNOR Certification

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) 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 2002, 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 44°C ± 1°C.

> *Interpretation*

Initial and renewal studies were carried out with an enumeration using two plates. For the extension performed in 2025, the data were reanalysed using only one plate, one dilution as follow:

- Only first replicate “replicate 1” was kept for samples tested in 2002.
- 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. The repartition per category and type is provided in Table 2.

Results obtained in the extension performed in 2025 with the single plate interpretation were compared to the results obtained with two plate interpretations.

239 samples were analysed, leading to 174 interpretable results for both interpretations (based on one and two plates).

Table 2 – Categories and types

Category		Type		CHROMID Coli 44°C		
				Analysed	Interpretable 22h	
					2 plates	1 plate
1	Meat and meat products	a	Raw (unseasoned)	34	19	19
		b	Raw and cooked delicatessen	17	14	14
		c	RTE, RTRH	14	11	11
		Total		65	44	44
2	Milk and dairy products	a	Raw milk	6	5	5
		b	Cream, desserts and cheeses	28	22	22
		c	Milk powder	10	6	6
		Total		44	33	33
3	Seafood products	a	Raw fish	35	28	28
		b	Smoked and marinated	7	5	5
		c	RTE, RTRH	11	5	5
		Total		53	38	38
4	Vegetables	a	Raw vegetables	15	15	15
		b	Frozen, dehydrated	12	6	6
		c	RTE, RTRH	9	8	8
		Total		36	29	29
5	Eggs and egg-based products	a	Eggs	23	19	19
		b	Egg-based products	9	6	6
		c	Pastries	9	5	5
		Total		41	30	30
All categories				239	174	174

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.

64 samples were artificially contaminated using spiking or seeding protocols. 59 samples gave interpretable results by both methods. 115 samples giving interpretable results by both methods were naturally contaminated.

For both interpretations (using 1 or 2 plates) 66.1 % of the interpretable samples were naturally contaminated.

3.1.3 Raw data

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

The samples were analyzed 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 44°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)	34	19	19	0	0	9	9	6	6
		b	Raw and cooked delicatessen	17	14	14	0	0	2	2	1	1
		c	RTE, RTRH	14	11	11	0	0	2	2	1	1
		Total		65	44	44	0	0	13	13	8	8
2	Milk and dairy products	a	Raw milk	6	5	5	0	0	1	1	0	0
		b	Cream, desserts and cheeses	28	22	22	0	0	1	1	5	5
		c	Milk powder	10	6	6	0	0	2	2	2	2
		Total		44	33	33	0	0	4	4	7	7
3	Seafood products	a	Raw fish	35	28	28	0	0	1	1	6	6
		b	Smoked and marinated	7	5	5	0	0	0	0	2	2
		c	RTE, RTRH	11	5	5	0	0	0	0	6	6
		Total		53	38	38	0	0	1	1	14	14
4	Vegetables	a	Raw vegetables	15	15	15	0	0	0	0	0	0
		b	Frozen, dehydrated	12	6	6	0	0	2	2	4	4
		c	RTE, RTRH	9	8	8	0	0	1	1	0	0
		Total		36	29	29	0	0	3	3	4	4
5	Eggs and egg-based products	a	Eggs	23	19	19	0	0	2	2	2	2
		b	Egg-based products	9	6	6	0	0	0	0	3	3
		c	Pastries	9	5	5	0	0	1	1	3	3
		Total		41	30	30	0	0	3	3	8	8
All categories				239	174	174	0	0	24	24	41	41

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 44°C		Category	Type
			22 h			
			2 plates	1 plate		
124	Raw veal meat	<1.00	<1.00	<1.00	1	a
125	Raw veal meat	<1.00	<1.00	<1.00	1	a
128	Raw poultry meat	1.00*	1.00*	1.00*	1	a
131	Raw ground beef	<1.00	<1.00	<1.00	1	a
142	Raw veal meat	1.65	1.00*	1.00*	1	a
144	Raw veal meat	1.96	1.48*	1.48*	1	a
145	Raw veal meat	1.48*	1.30*	1.30*	1	a
148	Raw beef meat	<1.00	<1.00	<1.00	1	a
152	Raw meat	1.30*	1.56	1.60	1	a
153	Raw meat	1.48*	1.00*	1.00*	1	a
154	Raw meat	1.00*	1.00*	1.00*	1	a
171	Raw poultry meat	1.48*	1.86	1.85	1	a
173	Raw horse meat	<1.00	<1.00	<1.00	1	a
178	Chicken meat	<1.00	<1.00	<1.00	1	a
271	Raw duck meat	1.30*	1.30*	1.30*	1	a
151	Delicatessen	<1.00	<1.00	<1.00	1	b
172	Delicatessen	1.48*	1.48*	1.48*	1	b
2185	Sausage	2.20	1.30*	1.30*	1	b
122	RTRH meat	1.30*	1.65	1.60	1	c
138	RTRH Veal meat	1.56	1.30*	1.30*	1	c
146	RTE Chicken meat	<1.00	<1.00	<1.00	1	c
164	Raw milk	0.30*	0.95	0.90	2	a
165	Cheese	<1.00	<1.00	<1.00	2	b
167	Cheese	1.48*	1.74	1.78	2	b
211	Cheese	<1.00	<1.00	<1.00	2	b
214	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
247	Milk powder	1.48*	1.48*	1.48*	2	c
248	Milk powder	1.48*	1.00*	1.00*	2	c
272	Milk powder	<1.00	<1.00	<1.00	2	c
273	Milk powder	<1.00	<1.00	<1.00	2	c
149	Raw fish	<1.00	<1.00	<1.00	3	a
150	Raw fish	<1.00	<1.00	<1.00	3	a
237	Raw seafood	<1.00	1.00*	1.00*	3	a
270	Raw seafood	1.48*	1.48*	1.48*	3	a
274	Raw fish	<1.00	<1.00	<1.00	3	a
6169	Raw fish	<1.00	<1.00	<1.00	3	a
6290	Trout	<3.00	<3.00	<3.00	3	a
6286	Smoked bacon	<1.00	<1.00	<1.00	3	b

Sample No	Product	ISO	CHROMID Coli 44°C		Category	Type
			22 h			
			2 plates	1 plate		
6288	Smoked herring	<2.00	<2.00	<2.00	3	b
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
133	Dehydrated mushroom	3.30	<1.00	<1.00	4	b
134	Dehydrated mushroom	<1.00	<1.00	<1.00	4	b
135	Dehydrated mushroom	<1.00	<1.00	<1.00	4	b
136	Dehydrated mushroom	<1.00	<1.00	<1.00	4	b
185	Frozen vegetables mix	1.81	1.30*	1.30*	4	b
245	Flour	1.00*	1.00*	1.00*	4	b
140	Raw vegetables mix	1.74	1.48*	1.48*	4	c
139	Egg	<1.00	<1.00	<1.00	5	a
156	Liquid egg	1.00*	1.30*	1.30*	5	a
252	Whole liquid egg	2.48*	2.81	2.85	5	a
255	Whole liquid egg	<1.00	<1.00	<1.00	5	a
123	Galette	<1.00	<1.00	<1.00	5	b
137	Crepes	<1.00	<1.00	<1.00	5	b
6278	Quiche with eggs	<1.00	<1.00	<1.00	5	b
126	Pastry	<1.00	<1.00	<1.00	5	c
2062	Pastry	2.34	1.48*	1.48*	5	c
6171	Pastry	<1.00	<1.00	<1.00	5	c
6281	Pastry	<1.00	<1.00	<1.00	5	c

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

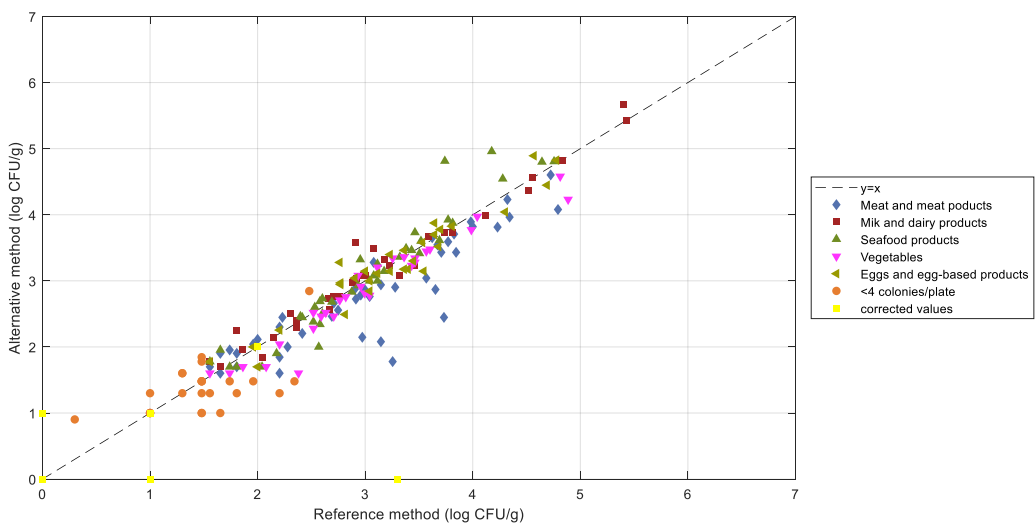
3.1.4 Statistical interpretation

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

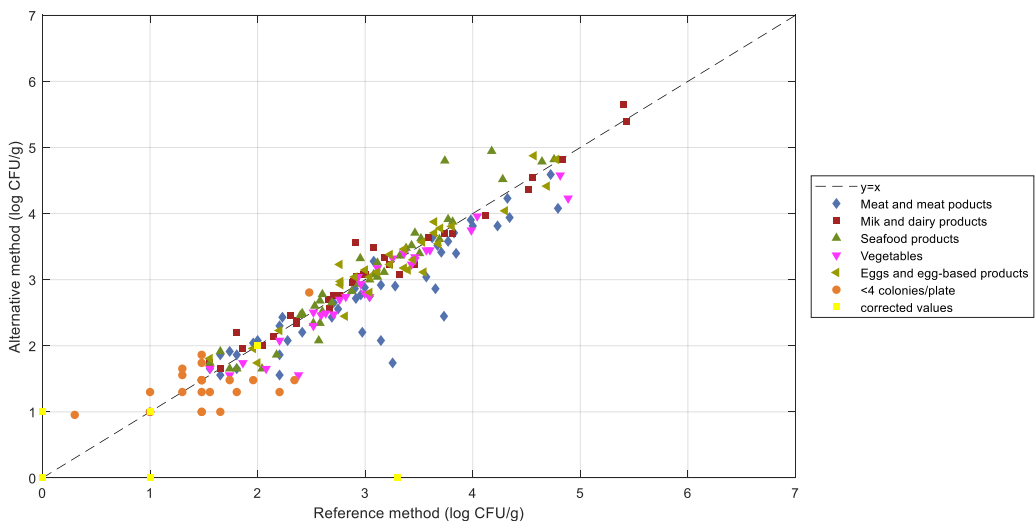
The data plotted for each individual category are given in **Appendix 5** and for all the products Figure 1.

Figure 1 - Data plotted for **all the products**

1 plate



2 plates



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

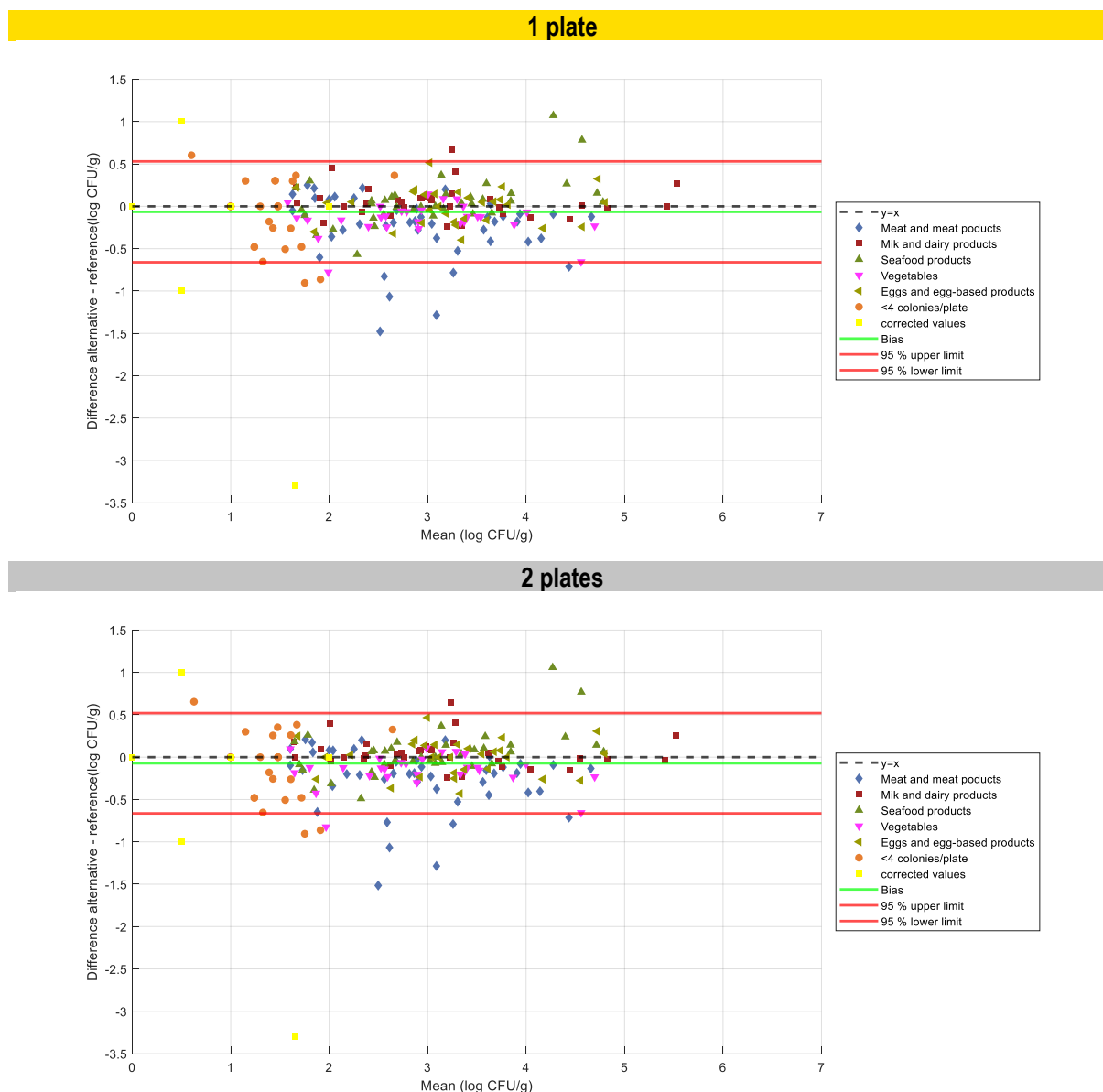
CHROMID Coli 44°C										
Category	n		Average difference (bias)		Standard deviation of differences (SD)		95% lower limit		95% upper limit	
	2 plates	1 plate	2 plates	1 plate	2 plates	1 plate	2 plates	1 plate	2 plates	1 plate
1	44	44	-0.26	-0.25	0.38	0.38	-1.03	-1.03	0.51	0.53
2	33	33	0.05	0.06	0.18	0.19	-0.32	-0.34	0.43	0.46
3	38	38	0.06	0.06	0.27	0.28	-0.50	-0.51	0.62	0.63
4	29	29	-0.16	-0.16	0.20	0.20	-0.58	-0.56	0.26	0.25
5	30	30	-0.01	0.00	0.21	0.21	-0.45	-0.44	0.44	0.44
All categories	174	174	-0.07	-0.07	0.30	0.30	-0.66	-0.66	0.52	0.53

The average differences (bias) between the alternative method and the reference method is closed to 0 (-0.07). It varies from – 0.26 log₁₀ (meat and meat products) to 0.06 log₁₀ (milk and dairy products and seafood products).

The average difference values are exactly the same between both interpretations (1 or 2 plates).

The Bland-Altman difference plots for each individual category are given in **Appendix 6** and for all the samples is given 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 44°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	-0.66/ 0.52	-0.66/ 0.53
	1	b	2369	Cooked ham	3.26	1.74	1.78	/	/	2.50	2.52	-1.51	-1.48		
	1	b	2479	Ham	4.79	4.08	4.08	/	/	4.44	4.44	-0.71	-0.71		
	1	c	2066	RTRH pork meat	3.15	2.08	2.08	/	/	2.61	2.61	-1.07	-1.07		
	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	6736	Semi skimmed milk powder	2.91	3.56	3.58	/	/	3.24	3.25	0.64	0.67		
	3	a	6728	Raw shrimps	3.74	4.80	4.81	/	/	4.27	4.28	1.06	1.07		
	3	a	6729	Scallops	4.18	4.94	4.96	/	/	4.56	4.57	0.77	0.78		
	4	c	2365	RTE vegetables mix	2.38	1.56	1.60	/	/	1.97	1.99	-0.82	-0.78		
<4 CFU/plate	1	b	2185	Sausage	2.20	1.30	1.30	/	/	1.75	1.75	-0.90	-0.90	-0.66/ 0.52	-0.66/ 0.53
	2	a	164	Raw milk	0.30	0.95	0.90	/	/	0.63	0.60	0.65	0.60		
	5	c	2062	Pastry	2.34	1.48	1.48	/	/	1.91	1.91	-0.86	-0.86		
< or > limit of quantification	2	b	6284	Raw milk cheese	0.00	1.00	1.00	1.00	1.00	0.50	0.50	1.00	1.00		
	3	a	237	Raw seafood	0.00	1.00	1.00	1.00	1.00	0.50	0.50	1.00	1.00		
	3	c	6398	RTRH mussels	1.00	0.00	0.00	1.00	1.00	0.50	0.50	-1.00	-1.00		
	4	b	133	Dehydrated mushroom	3.30	0.00	0.00	1.00	1.00	1.65	1.65	-3.30	-3.30		

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 44°C – 22 h	
		2 plates	1 plate
Interpretable results by both methods	< LCL	7	7
	> UCL	3	3
	Total	10	10
<4 CFU/plate	< LCL	2	2
	> UCL	1	1
	Total	3	3
< or > the quantification limit	< LCL	2	2
	> UCL	2	2
	Total	4	4
Total < LCL		11	11
Total >UCL		6	6
TOTAL		17	17

Same number of samples outside the confidence limits were obtained by single plate interpretation and two plates interpretations.

For samples with interpretable results by both methods, the number of samples with higher enumeration observed with the reference method is more important than the number of samples with higher enumeration using the alternative method (7 vs 3). For the non-interpretable results, the results can be considered equivalent.

For both interpretations, for one sample (133: Dehydrated mushroom), an important enumeration difference was observed between both methods. An *Escherichia coli* strain was isolated from TBX plates which gave non-typical colonies on CHROMID plates. This could explain the difference observed between both methods. Despite those differences, the overall bias between the reference and the alternative method is closed to 0 (- 0.07 log₁₀).

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.

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	

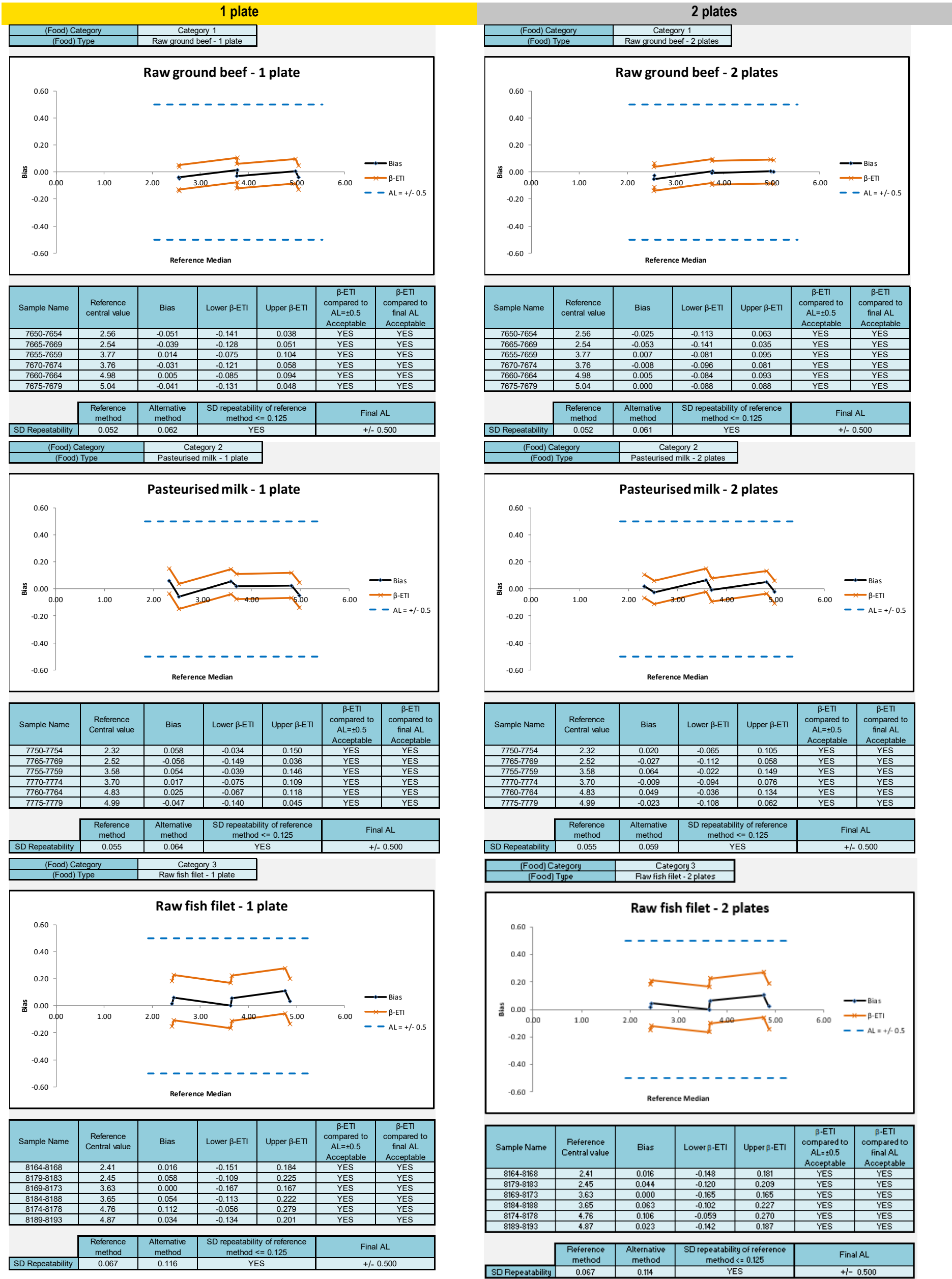
3.2.2 Calculation and interpretation

The single plate interpretation was compared to the two-plates interpretation.

The raw data are provided in **Appendix 7** The summary tables (in log₁₀ CFU/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





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 validation study performed in 2006 according to the ISO 16140 (2003), 30 target and 20 non-target strains were tested in duplicate on PCA, VRBL and CHROMID Coli (44°C).

20 additional target strains and 10 non-target strains were tested in 2017, once on PCA, VRBL and CHROMID Coli (44°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* Adria 12
- *Escherichia coli* Adria 20
- *Escherichia coli* ATCC 43888
- *Escherichia coli* Ad1816
- *Escherichia coli* Ad1999
- *Escherichia coli* Ad1386

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; 1 strain gave doubtful colonies on CHROMID Coli plates: *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
	Sampling analysis	D0	D0
	Enumeration	D1	D1
Common step with the reference method	Preparation of initial suspension		

The *Escherichia coli* enumeration is available in one day for 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 the 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

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

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

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	1.76	1.68
2 to 3	2.66	2.58	2.70	2.69
3 to 4	3.63	3.63	3.83	3.79

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																
Collaborator	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	40	80	400	550	550	520	3600	4500	4400	4300
B	<1	<1	<1	<1	41	39	53	58	650	530	670	630	5300	4600	6600	5300
C	<10	<10	<10	<10	64	64	45	45	330	350	350	460	5000	4200	4900	4800
D	<10	<10	<10	<10	36	55	55	73	460	340	500	570	3700	3900	4100	4500
E	<1	<1	<1	<1	32	37	50	40	440	400	540	560	5000	4300	5900	5600
F	<1	<1	<1	<1	25	38	52	49	450	630	620	610	4500	7300	5400	5800
G	<10	<10	<10	<10	45	55	30	30	330	340	190	410	3100	3200	3300	5400
H	<1	<1	<1	<1	23	46	39	38	460	360	480	400	3800	5100	4500	3500
I	<1	<1	<1	<1	41	38	50	47	340	510	570	520	4100	4500	5600	6400
J	<1	<1	<1	<1	36	27	44	43	380	370	490	290	5600	4700	3700	5000
K	<10	<10	<10	<10	45	45	55	20	540	460	480	460	4900	5200	5900	4800
L	<10	<10	<10	<10	45	45	30	45	400	410	590	470	3500	5700	4800	3900
M	<1	<1	<1	<1	44	46	55	43	420	430	500	480	5200	4000	5700	5100
N	<1	<1	<1	<1	23	18	47	42	330	470	420	410	2600	3000	5800	6600
ADRIA	<1	<1	<1	<1	47	46	58	48	460	380	500	490	4300	4300	6700	6200

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

Log ₁₀ CFU/g																
Collaborator	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	1.60	1.90	2.60	2.74	2.74	2.72	3.56	3.65	3.64	3.63
B	<0.00	<0.00	<0.00	<0.00	1.61	1.59	1.72	1.76	2.81	2.72	2.83	2.80	3.72	3.66	3.82	3.72
C	<1.00	<1.00	<1.00	<1.00	1.81	1.81	1.65	1.65	2.52	2.54	2.54	2.66	3.70	3.62	3.69	3.68
D	<1.00	<1.00	<1.00	<1.00	1.56	1.74	1.74	1.86	2.66	2.53	2.70	2.76	3.57	3.59	3.61	3.65
E	<0.00	<0.00	<0.00	<0.00	1.51	1.57	1.70	1.60	2.64	2.60	2.73	2.75	3.70	3.63	3.77	3.75
F	<0.00	<0.00	<0.00	<0.00	1.40	1.58	1.72	1.69	2.65	2.80	2.79	2.79	3.65	3.86	3.73	3.76
G	<1.00	<1.00	<1.00	<1.00	1.65	1.74	1.48	1.48	2.52	2.53	2.28	2.61	3.49	3.51	3.52	3.73
H	<0.00	<0.00	<0.00	<0.00	1.36	1.66	1.59	1.58	2.66	2.56	2.68	2.60	3.58	3.71	3.65	3.54
I	<0.00	<0.00	<0.00	<0.00	1.61	1.58	1.70	1.67	2.53	2.71	2.76	2.72	3.61	3.65	3.75	3.81
J	<0.00	<0.00	<0.00	<0.00	1.56	1.43	1.64	1.63	2.58	2.57	2.69	2.46	3.75	3.67	3.57	3.70
K	<1.00	<1.00	<1.00	<1.00	1.65	1.65	1.74	1.30	2.73	2.66	2.68	2.66	3.69	3.72	3.77	3.68
L	<1.00	<1.00	<1.00	<1.00	1.65	1.65	1.48	1.65	2.60	2.61	2.77	2.67	3.54	3.76	3.68	3.59
M	<0.00	<0.00	<0.00	<0.00	1.64	1.66	1.74	1.63	2.62	2.63	2.70	2.68	3.72	3.60	3.76	3.71
N	<0.00	<0.00	<0.00	<0.00	1.36	1.26	1.67	1.62	2.52	2.67	2.62	2.61	3.41	3.48	3.76	3.82
ADRIA	<0.00	<0.00	<0.00	<0.00	1.67	1.66	1.76	1.68	2.66	2.58	2.70	2.69	3.63	3.63	3.83	3.79

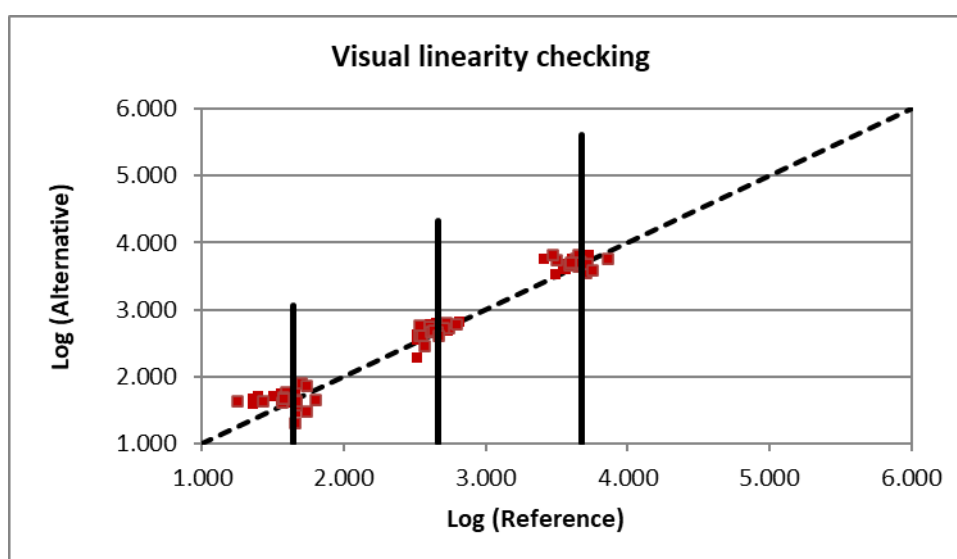
Some labs enumerated the dilution -1, -2, -3 instead of the dilution 0, -1, -2, -3 this explains the results obtained for level 0 (< 1 or < 10 CFU/ml).

4.4 Calculation and interpretation

4.4.1 Visual linearity checking

Figure 4 shows the data points after $\log_{10}$ 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

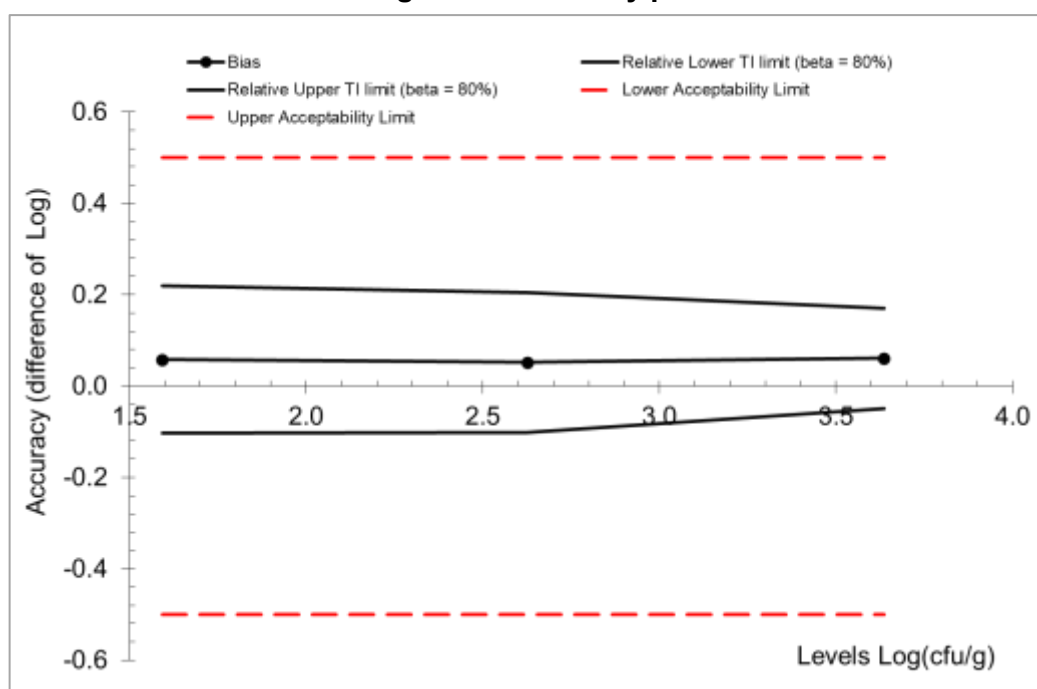
Statistical calculations were done according to the Excel spreadsheet available on <http://standards.iso.org/ISO/16140>. A summary of the statistical test is provided in Table 14.

Table 14 - Summary of statistical tests

Accuracy profile				0.5		
Study Name	CHROMID coli - <i>E. coli</i> 44°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	1.651	2.679	3.697	1.593	2.627	3.636
Repeatability standard deviation (sr)	0.113	0.085	0.063	0.086	0.071	0.074
Between-labs standard deviation (sL)	0.042	0.075	0.051	0.103	0.048	0.064
Reproducibility standard deviation (sR)	0.120	0.113	0.081	0.134	0.085	0.098
Corrected number of dof	26.322	22.012	22.787	19.430	24.038	22.159
Coverage factor	1.341	1.355	1.352			
Interpolated Student t	1.315	1.321	1.320			
Tolerance interval standard deviation	0.1228	0.1159	0.0832			
Lower TI limit	1.489	2.526	3.587			
Upper TI limit	1.812	2.832	3.807			
Bias	0.058	0.052	0.061			
Relative Lower TI limit (beta = 80%)	-0.103	-0.101	-0.049			
Relative Upper TI limit (beta = 80%)	0.220	0.205	0.171			
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 statically 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:

- 239 samples were analysed for the relative trueness study, providing 174 interpretable results, which clearly satisfied the required criteria for quantitative method comparison per ISO 16140-2 and 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. 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

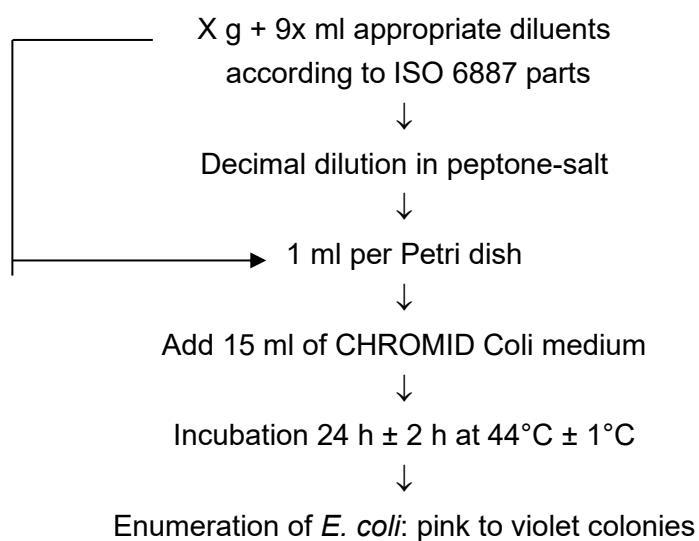
Manager

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 44°C**



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

```

graph TD
    A[Decimal dilution in peptone-salt] --> B[1 ml per Petri dish]
    B --> C[Add TBX medium]
    C --> D[Injured micro-organisms]
    C --> E[Non injured micro-organisms]
    D --> F["Incubation for 4 h  
at 37°C ± 1°C"]
    F --> G["Incubation for 18 - 24 h  
at 44°C ± 1°C"]
    G --> H[Enumeration of characteristic colonies (blue)]
    E --> I["Incubation for 18 - 24 h  
at 44°C ± 1°C"]
    I --> H

```

Appendix 3 – Artificial contaminations of samples

Analysis date	Sample N°	Product (French name)	Product	Artificial contamination				Category	Type
				Strain	Origin	Injury	Injury measurement		
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	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 nature	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 10min 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	RTRH	Heat treatment 10 min 56°C	/	1	c
2011	2066	Ravioli chinois au porc	RTRH pork meat	<i>Escherichia coli</i> 108	RTRH	Heat treatment 15 min 56°C	/	1	c
2011	2151	Sandwich jambon œuf crudités	Sandwich with ham	<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 at 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 meat	7 days 4°C	/	1	c
2011	2481	Sandwich poulet rôti mayonnaise	Sandwich with chicken	<i>Escherichia coli</i> Ad 218	Poultry meat	7 days 4°C	/	1	c
2011	2482	Farfalles poulet rôti tomates	RTE salad with chicken	<i>Escherichia coli</i> 108	RTRH	Heat treatment 10 min 56°C	/	1	c
2018	6721	Lait cru fermier	Raw milk	<i>Escherichia coli</i> 16	Dairy product	Seeding 48 h 3 ± 2°C	/	2	a
2018	6722	Lait cru fermier	Raw milk	<i>Escherichia coli</i> 16	Dairy product	Seeding 48 h 3 ± 2°C	/	2	a

Analysis date	Sample N°	Product (French name)	Product	Artificial contamination				Category	Type
				Strain	Origin	Injury	Injury measurement		
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 fraîche entière	Cream	<i>Escherichia coli</i> 15	Dairy product	Seeding 48 h 3 ± 2°C	/	2	b
2018	6734	Poudre de lait demi écrémé	Semi skimmed milk powder	<i>Escherichia coli</i> 94	Dairy product	Spiking HT 56°C 8 min	0,7	2	c
2018	6735	Poudre de lait écrémé	Skimmed milk powder	<i>Escherichia coli</i> 94	Dairy product	Spiking HT 56°C 8 min	0,7	2	c
2018	6736	Poudre de lait demi écrémé	Semi skimmed milk powder	<i>Escherichia coli</i> 94	Dairy product	Spiking HT 56°C 8 min	0,7	2	c
2018	6290	Truite	Trout	<i>Escherichia coli</i> 93	Fish product	Seeding 48 h 3 ± 2°C	/	3	a
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	6285	Lardons de saumon fumé	Smoked bacon	<i>Escherichia coli</i> Ad228	Fish product	Seeding 48 h 3 ± 2°C	/	3	b
2018	6286	Lardons de saumon fumé	Smoked bacon	<i>Escherichia coli</i> 93	Fish product	Seeding 48 h 3 ± 2°C	/	3	b
2018	6287	Harengs fumés au naturel	Smoked herring	<i>Escherichia coli</i> Ad228	Fish product	Seeding 48 h 3 ± 2°C	/	3	b
2018	6288	Harengs fumés au naturel	Smoked herring	<i>Escherichia coli</i> 93	Fish product	Seeding 48 h 3 ± 2°C	/	3	b
2018	6289	Harengs fumés doux	Smoked herring	<i>Escherichia coli</i> Ad228	Fish product	Seeding 48 h 3 ± 2°C	/	3	b
2018	6291	Anchois marinés	Marinated anchovy	<i>Escherichia coli</i> Ad228	Fish product	Seeding 48 h 3 ± 2°C	/	3	b
2018	6294	Anchois marinés à l'orientale	Marinated anchovy	<i>Escherichia coli</i> Ad228	Fish product	Seeding 48 h 3 ± 2°C	/	3	b
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

Analysis date	Sample N°	Product (French name)	Product	Artificial contamination				Category	Type
				Strain	Origin	Injury	Injury measurement		
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 at -20°C	/	4	c
2011	2363	Salade carotte céleri	RTE salad with carrots and celery	<i>Escherichia coli</i> 19	Grated carrots	7 days at 4°C	/	4	c
2011	2364	Salade de céleri rémoulade	RTE salad with celery	<i>Escherichia coli</i> 144	Paella	7 days at 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 (COLI ID-F) for the enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 44°C								Category	Type
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1	Enumeration			2 plates interpretation		1 plate interpretation					
					CFU/plate	CFU/plate	CFU/plate	CFU/plate		Dilution	Replicate 1	Replicate 2	Interpretation 2025 Replicate 1		CFU/g	log (CFU/g)	log(CFU/g) 1 plate - 2 plates			
													a	b				c		
2002	D122	Palette à la diable	RTRH meat	10	2	2	3	2	20	1.30*	10	4	1	45	1.65	40	1.60	-0.05	1	c
	2002	D124	Collier de veau	Raw veal meat	100	0	0	0	0		100	1	0		Ne		Ne			
					10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	1
	2002	D125	Collier de veau	Raw veal meat	100	0	0	0	0		100	0	0							
					10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	1
	2002	D128	Canette de Barbarie	Raw poultry meat	100	0	0	0	0		100	0	0							
					10	1	4	1	0	10	1.00*	10	1	1	10	1.00*	10	1.00*	0.00	1
	2002	D129	Filet de dinde	Raw turkey meat	100	0	0	0	0		100	0	0							
					10	28	24	14	13	260	2.41	10	16	19	160	2.20	160	2.20	0.00	1
	2002	D130	Cuisse de dinde	Raw turkey meat	100	0	0	0	0		100	1	0							
					10	19	27	24	27	170	2.23	10	28	22	270	2.43	280	2.45	0.02	1
	2002	D131	Haché de bœuf	Raw ground beef	100	0	0	0	0		100	2	1							
					10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	1
	2002	D132	Foie de volaille	Raw poultry meat	100	0	0	0	0		100	0	0							
					10	127	111	133	111	1200	3.08	10	>150	>150	1900	3.28	1900	3.28	0.00	1
	2002	D138	Sauté de collier de veau	RTRH Veal meat	100	9	24	16	24		100	19	31							
					10	4	0	3	1	36	1.56	10	2	2	20	1.30*	20	1.30*	0.00	1
	2002	D141	Steak haché de veau	Raw veal meat	100	0	0	0	0		100	0	0							
					10	4	8	5	5	64	1.81	10	8	4	73	1.86	80	1.90	0.04	1
	2002	D142	Steak haché de veau	Raw veal meat	100	3	0	0	0		100	0	2		Ne		Ne			
					10	4	2	6	4	45	1.65	10	1	1	10	1.00*	10	1.00*	0.00	1
	2002	D143	Steak haché de veau	Raw veal meat	100	1	1	0	0		100	1	0							
					10	5	8	4	5	45	1.65	10	4	5	36	1.56	40	1.60	0.05	1
	2002	D144	Steak haché de veau	Raw veal meat	100	0	0	1	0		100	0	0		Ne		Ne			
					10	9	0	2	2	91	1.96	10	3	3	30	1.48*	30	1.48*	0.00	1
	2002	D145	Steak haché de veau	Raw veal meat	100	1	0	2	0		100	0	0							
					10	3	6	4	4	30	1.48*	10	2	6	20	1.30*	20	1.30*	0.00	1
	2002	D146	Blanc de poulet cuit	RTE Chicken meat	100	0	0	0	0		100	1	0							
					10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	1
	2002	D147	Steak haché de bœuf surgelé	Raw beef meat	100	0	0	0	0		100	0	0							
					10	16	15	14	20	160	2.20	10	7	11	73	1.86	70	1.85	-0.02	1
	2002	D148	Steak haché de bœuf	Raw beef meat	100	1	1	3	1		100	1	1		Ne		Ne			
					10	0	1	1	0	<10	<1.00	10	0	1	<10	<1.00	<10	<1.00	0.00	1
	2002	D151	Jambonneau cuit	Delicatessen	100	0	0	0	0		100	0	0							
					10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	1
	2002	D152	Escalope (sous noix)	Raw meat	100	0	0	0	0		100	0	0							
					10	2	7	3	4	20	1.30*	10	4	4	36	1.56	40	1.60	0.05	1
	2002	D153	Escalope (sous noix)	Raw meat	100	1	0	0	0		100	0	0		Ne		Ne			
					10	3	1	0	2	30	1.48*	10	1	0	10	1.00*	10	1.00*	0.00	1
	2002	D154	Escalope (sous noix)	Raw meat	100	0	1	0	0		100	0	0							
					10	1	0	1	0	10	1.00*	10	1	1	10	1.00*	10	1.00*	0.00	1
	2002	D161	Tête de veau	RTRH veal meat	100	0	0	0	0		100	0	0							
					100	100	106	108	92	9600	3.98	100	78	71	8000	3.90	7800	3.89	-0.01	1
					1000	6	11	13	9		1000	10	9							

* 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 (COLI ID-F) for the enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 44°C								Category	Type	
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1		Enumeration			2 plates interpretation		1 plate interpretation				
					CFU/plate	CFU/plate	CFU/plate	CFU/plate			Dilution	Replicate 1	Replicate 2	Interpretation 2025 Replicate 1		CFU/g	log (CFU/g)			log(CFU/g) 1 plate - 2 plates
									a	b				c	d					
2002	D162	Tête de veau	RTRH veal meat	100	>150	>150	231	220	22000	4.34	100	92	120	8700	3.94	9200	3.96	0.02	1	c
				1000	22	24	5	11			1000	4	0							
2002	D171	Suprême de pintade	Raw poultry meat	10	3	11	7	10	30	1.48*	10	7	4	73	1.86	70	1.85	-0.02	1	a
				100	0	1	0	0			100	1	1		Ne		Ne			
2002	D172	Chipos, merguez, chipos aux herbes	Delicatessen	10	3	8	6	5	30	1.48*	10	3	3	30	1.48*	30	1.48*	0.00	1	b
				100	0	0	0	0			100	0	0							
2002	D173	Steak de cheval surgelé	Raw horse meat	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	1	a
				100	0	0	0	0			100	0	0							
2002	D175	Sauté de veau	Raw veal meat	10	4	2	5	5	36	1.56	10	5	4	45	1.65	50	1.70	0.05	1	a
				100	0	0	0	0		Ne	100	0	0		Ne		Ne			
2002	D176	Muscle de veau sous noix	Raw veal meat	10	10	8	9	8	91	1.96	10	11	11	110	2.04	110	2.04	0.00	1	a
				100	0	0	2	1			100	1	1							
2002	D177	Saucisserie de volaille	Poultry sausage	10	8	12	12	10	100	2.00	10	13	10	120	2.08	130	2.11	0.03	1	b
				100	3	0	0	0		Ne	100	0	0							
2002	D178	Filet de poulet	Chicken meat	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	1	a
				100	0	0	0	0			100	0	0							
2002	D179	Brochettes	Raw meat	10	5	10	9	5	45	1.65	10	8	4	73	1.86	80	1.90	0.04	1	a
				100	0	0	0	0		Ne	100	0	0		Ne		Ne			
2002	D271	Filet de canard	Raw duck meat	10	2	3	5	0	20	1.30*	10	2	2	20	1.30*	20	1.30*	0.00	1	a
				100	1	0	0	0			100	0	0							
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								
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				1900	3.28	10	>150		800	2.90	800	2.90	0.00	1	c
				100	19						100	8		Ne		Ne				
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								

MEAT AND MEAT PRODUCTS																				
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*							Alternative method: CHROMID Coli (COLI ID-F) for the enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 44°C								Category	Type
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1		Enumeration			2 plates interpretation		1 plate interpretation				
					CFU/plate	CFU/plate	CFU/plate	CFU/plate			Dilution	Replicate 1	Replicate 2	Interpretation 2025 Replicate 1		CFU/g	log (CFU/g)	log(CFU/g) 1 plate - 2 plates		
									a	b				c	d					
2011	2066	Ravioli chinois au porc	RTRH pork meat	10	135				1400	3.15	10	12		120	2.08	120	2.08	0.00	1	c
				100	15						100	1								
2011	2151	Sandwich jambon œuf crudités	Sandwich with ham	100	50				5100	3.71	100	27		2600	3.41	2700	3.43	0.02	1	c
				1000	6						1000	2								
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	16				160	2.20	10	2		20	1.30*	20	1.30*	0.00	1	b
				100	2						100	2								
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 with 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				1800	3.26	10	6		55	1.74	60	1.78	0.04	1	b
				100	18						100	0		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								
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	14				160	2.20	10	4		36	1.56	40	1.60	0.05	1	c
				100	4						100	0			Ne		Ne			
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 (COLI ID-F) for the enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 44°C								Category	Type
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1		Enumeration			2 plates interpretation		1 plate interpretation				
					CFU/plate	CFU/plate	CFU/plate	CFU/plate	CFU/g	log CFU/g	Dilution	Replicate 1	Replicate 2	Interpretation 2025 Replicate 1		CFU/g	log (CFU/g)	log(CFU/g) 1 plate - 2 plates		
					a	b	c	d						CFU/g (	log CFU/g					
2002	D163	Lait cru	Raw milk	10	50	31	39	40	470	2.67	10	37	54	370	2.57	370	2.57	0.00	2	a
2002	D164	Lait cru	Raw milk	100	2	1	2	5	2	0.30*	100	4	3	9	0.95 Ne	8	0.90 Ne	-0.05	2	a
				1	2	5	4	3			1	8	1							
2002	D165	Brie de Meaux	Cheese	10	0	0	0	0	<10	<1.00	10	2	0	<10	<1.00	<10	<1.00	0.00	2	b
				100	0	0	0	0			10	0	0							
2002	D166	Bethmal	Cheese	10	47	38	42	44	460	2.66	10	54	38	510	2.71	540	2.73	0.02	2	b
				100	3	4	1	4			100	2	1							
2002	D167	Tomme du Nevet	Cheese	10	3	6	5	4	30	1.48*	10	6	4	55	1.74 Ne	60	1.78 Ne	0.04	2	b
				100	0	0	1	0			100	0	0							
2002	D174	Crème fraiche	Cream	10	82	69	83	80	830	2.92	10	109	123	1100	3.04	1100	3.04	0.00	2	b
				100	9	10	15	12			100	13	16							
2002	D180	Crème	Cream	10	104	96	98	98	1000	3.00	10	123	145	1200	3.08	1200	3.08	0.00	2	b
				100	9	10	12	7			100	13	8							
2002	D181	Crème	Cream	10	99	119	112	102	960	2.98	10	122	110	1200	3.08	1200	3.08	0.00	2	b
				100	7	11	9	8			100	8	4							
2002	D201	Pyrénées	Dessert	10	21	23	24	15	200	2.30	10	32	19	290	2.46	320	2.51	0.04	2	b
				100	1	1	1	0			100	0	2							
2002	D202	Brie de Meaux	Cheese	10	24	24	17	23	230	2.36	10	25	26	240	2.38	250	2.40	0.02	2	b
				100	1	1	1	1			100	1	5							
2002	D203	Tomme de Savoie	Cheese	10	180	136	142	161	1200	3.08	10	272	229	3100	3.49	3100	3.49	0.00	2	b
				100	12	17	4	12			100	31	27							
2002	D204	Reblochon	Cheese	10	11	10	6	4	110	2.04	10	7	3	100	2.00 Ne	70	1.85 Ne	-0.15	2	b
				100	1	0	0	0			100	4	2							
2002	D205	Brie de Meaux	Cheese	100	14	18	25	17	1500	3.18	100	21	25	2200	3.34	2100	3.32	-0.02	2	b
				1000	2	2	1	1			1000	3	0							
2002	D206	Raclette	Cheese	10	82	75	69	68	780	2.89	10	98	85	940	2.97	980	2.99	0.02	2	b
				100	4	7	12	9			100	5	6							
2002	D207	St Nectaire	Cheese	10	170	184	177	144	2100	3.32	10	119	137	1200	3.08	1200	3.08	0.00	2	b
				100	21	13	11	13			100	10	7							
2002	D208	Tomme de montagne	Cheese	100	57	52	52	41	5500	3.74	100	53	42	5000	3.70	5300	3.72	0.03	2	b
				1000	4	1	5	0			1000	2	2							
2002	D209	Pyrénées	Dessert	100	122	137	132	141	13000	4.11	100	96	88	9300	3.97	9600	3.98	0.01	2	b
				1000	18	10	11	9			1000	6	7							
2002	D210	Tomme de Savoie	Cheese	10	81	60	69	64	770	2.89	10	95	90	910	2.96	950	2.98	0.02	2	b
				100	4	5	8	5			100	5	10							
2002	D211	Brie de Melun	Cheese	10	0	1	0	1	<10	<1.00	10	0	1	<10	<1.00	<10	<1.00	0.00	2	b
				100	0	0	0	0			100	0	0							
2002	D212	Coulommiers	Cheese	10	179	184	186	166	1700	3.23	10	192	196	1700	3.23	1700	3.23	0.00	2	b
				100	17	13	11	16			100	17	20							
2002	D213	Reblochon	Cheese	100	436	392	436	436	33000	4.52	100	264	336	23000	4.36	23000	4.36	0.00	2	b
				1000	33	38	32	21			1000	23	33							
2002	D214	Bouchon de Sancerre	Cheese	10	0	1	0	0	<10	<1.00	10	0	1	<10	<1.00	<10	<1.00	0.00	2	b
				100	0	0	0	0			100	0	0							
2002	D215	Tomme de brebis	Cheese	100	28	20	22	17	2900	3.46	100	17	15	1700	3.23	1700	3.23	0.00	2	b
				1000	4	2	4	2			1000	2	1							
2002	D216	Munster	Cheese	100	63	73	76	59	6500	3.81	100	53	55	5000	3.70	5300	3.72	0.03	2	b
				1000	8	6	6	4			1000	2	3							

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

MILK AND DAIRY PRODUCTS																				
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*							Alternative method: CHROMID Coli (COLI ID-F) for the enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 44°C								Category	Type
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1		Enumeration			2 plates interpretation		1 plate interpretation				
					CFU/plate	CFU/plate	CFU/plate	CFU/plate			Interpretation 2025 Replicate 1	CFU/g (	log CFU/g	CFU/g	log (CFU/g)	log(CFU/g) 1 plate - 2 plates				
									a	b							c	d		
2002	D246	Poudre de lait	Milk powder	10	49	41	37	42	510	2.71	10	57	62	570	2.76	570	2.76	0.00	2	c
				100	7	10	2	2			100	6	9							
2002	D247	Poudre de lait	Milk powder	10	3	2	2	1	30	1.48*	10	3	8	30	1.48*	30	1.48*	0.00	2	c
				100	1	1	0	0			100	0	0							
2002	D248	Poudre de lait	Milk powder	10	3	1	2	2	30	1.48*	10	1	3	10	1.00*	10	1.00*	0.00	2	c
				100	0	1	0	0			100	0	0							
2002	D249	Poudre de lait	Milk powder	10	4	3	3	0	36	1.56	10	6	7	55	1.74	60	1.78	0.04	2	c
				100	0	0	0	0		Ne	100	0	0		Ne		Ne			
2002	D250	Poudre de lait	Milk powder	10	6	6	4	3	64	1.81	10	18	11	160	2.20	180	2.26	0.05	2	c
				100	1	1	0	1		Ne	100	0	5							
2002	D272	Poudre de lait	Milk powder	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	2	c
				100	0	0	0	0			100	0	0							
2002	D273	Poudre de lait	Milk powder	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	2	c
				100	0	0	0	0			100	0	0							
2018	6167	Lait cru	Raw milk	10	8				73	1.86	10	9		91	1.96	90	1.95	0.00	2	a
				100	0					Ne	100	1			Ne		Ne			
2018	6168	Lait cru	Raw milk	10	15				140	2.15	10	14		140	2.15	140	2.15	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	1		10	1.00*	10	1.00*	0.00	2	b
				100	0						100	0								
2018	6717	Riz au lait saveur vanille	Dessert (rice pudding)	10	56				580	2.76	10	57		570	2.76	570	2.76	0.00	2	b
				100	8						100	6								
2018	6718	Riz au lait à la vanille	Dessert (rice pudding)	100	38				3900	3.59	100	47		4400	3.64	4700	3.67	0.03	2	b
				1000	5						1000	1								
2018	6719	Panna cotta coulis de framboise	Panna cotta	1000	37				36000	4.56	1000	37		35000	4.54	37000	4.57	0.02	2	b
				10000	3						10000	2								
2018	6720	Crème fraiche entière	Cream	10000	25				250000	5.40	10000	47		450000	5.65	470000	5.67	0.02	2	b
				100000	3						100000	3								
2018	6721	Lait cru fermier	Raw milk	1000	68				69000	4.84	1000	66		65000	4.81	66000	4.82	0.01	2	a
				10000	8						10000	6								
2018	6722	Lait cru fermier	Raw milk	10000	25				270000	5.43	10000	27		250000	5.40	270000	5.43	0.03	2	a
				100000	5						100000	1								
2018	6734	Poudre de lait demi écrémé	Semi skimmed milk powder	10	5				45	1.65	10	5		45	1.65	50	1.70	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	20		220	2.34	200	2.30	-0.04	2	c
				100	2						100	4								
2018	6736	Poudre de lait demi écrémé	Semi skimmed milk powder	100	8				820	2.91	100	38		3600	3.56	3800	3.58	0.02	2	c
				1000	1					Ne	1000	2								

SEAFOOD PRODUCTS																				
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2♦							Alternative method: CHROMID Coli (COLI ID-F) for the enumeration of β-glucuronidase-positive <i>Escherichia coli</i> at 44°C								Category	Type
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1		Enumeration			2 plates interpretation		1 plate interpretation				
					CFU/plate	CFU/plate	CFU/plate	CFU/plate			Interpretation 2025 Replicate 1	CFU/g (	log CFU/g	CFU/g	log (CFU/g)	log(CFU/g) 1 plate - 2 plates				
					a	b	c	d	CFU/g	log CFU/g							CFU/plate	CFU/plate		
2002	D149	Filet d'églefin	Raw fish	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	3	a
				100	0	0	0	0			100	0	0							
2002	D150	Filet de lieu noir	Raw fish	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	3	a
				100	0	0	0	0			100	0	0							
2002	D192	Merlan	Raw fish filet	10	37	26	27	19	370	2.57	10	10	21	120	2.08	100	2.00	-0.08	3	a
				100	0	2	1	0			100	3	1							
2002	D193	Filet de merlan	Raw fish filet	100	12	19	19	22	1300	3.11	100	18	11	1800	3.26	1800	3.26	0.00	3	a
				1000	2	2	4	1			100	2	3							
2002	D194	Pavé haché de merlu	Raw fish filet	10	12	4	6	3	110	2.04	10	5	3	45	1.65	50	1.70	0.05	3	a
				100	0	0	0	0			100	0	0		Ne		Ne			
2002	D195	Lotte	Raw fish filet	10	4	2	2	2	36	1.56	10	6	5	55	1.74	60	1.78	0.04	3	a
				100	0	0	0	0		Ne	100	0	0		Ne		Ne			
2002	D196	Truite saumonée	Raw trout	10	6	2	1	2	64	1.81	10	5	2	45	1.65	50	1.70	0.05	3	a
				100	1	0	0	0		Ne	10	0	0		Ne		Ne			
2002	D197	Petites palourdes	Raw seafood	10	15	7	4	14	150	2.18	10	8	4	73	1.86	80	1.90	0.04	3	a
				100	1	0	0	1			100	0	0		Ne		Ne			
2002	D198	Coques	Raw seafood	10	24	32	24	29	250	2.40	10	29	25	290	2.46	290	2.46	0.00	3	a
				100	3	3	3	7			100	3	3							
2002	D199	Grosses palourdes	Raw seafood	10	33	53	28	37	340	2.53	10	40	24	400	2.60	400	2.60	0.00	3	a
				100	4	4	2	5			100	4	4							
2002	D200	Palourdes	Raw seafood	100	14	18	22	14	1300	3.11	100	10	11	1100	3.04	1000	3.00	-0.04	3	a
				1000	0	5	0	0			1000	2	0							
2002	D227	Truite	Trout filet	10	5	6	12	4	45	1.65	10	9	5	82	1.91	90	1.95	0.04	3	a
				100	0	1	0	1		Ne	100	0	0		Ne		Ne			
2002	D228	Thon	Raw fish	10	>150	>150	>150	>150	4900	3.69	10	>150	>150	4100	3.61	4100	3.61	0.00	3	a
				100	49	49	37	46			100	41	42							
2002	D229	Tacaud	Raw fish	10	50	38	46	40	490	2.69	10	48	40	450	2.65	480	2.68	0.03	3	a
				100	4	5	2	2			100	1	3							
2002	D231	Maquereaux	Raw fish	10	>150	>150	>150	>150	2100	3.32	10	>150	>150	2300	3.36	2300	3.36	0.00	3	a
				100	21	27	17	21			100	23	19							
2002	D235	Crabe	Crab	10	150	121	144	138	1500	3.18	10	136	139	1300	3.11	1400	3.15	0.03	3	a
				100	19	15	13	14			100	9	14							
2002	D236	Filet de lieu noir	Raw fish	10	33	31	31	25	330	2.52	10	24	20	220	2.34	240	2.38	0.04	3	a
				100	3	2	2	4			100	0	3							
2002	D237	Sardine	Raw seafood	10	0	5	1	2	<10	<1.00	10	1	3	10	1.00*	10	1.00*	0.00	3	a
				100	0	0	0	0			100	0	0							
2002	D238	Huitre plate	Raw seafood	10	38	49	50	37	380	2.58	10	49	44	480	2.68	490	2.69	0.01	3	a
				100	4	6	3	6			100	4	2							
2002	D239	Huitre creuse	Raw seafood	10	114	128	121	121	1100	3.04	10	102	120	1000	3.00	1000	3.00	0.00	3	a
				100	8	9	15	11			100	12	10							
2002	D240	Amande	Raw seafood	10	90	94	85	101	860	2.93	10	85	88	860	2.93	850	2.93	-0.01	3	a
				100	5	10	12	14			100	10	10							
2002	D241	Praire	Raw seafood	10	25	36	41	35	260	2.41	10	28	39	310	2.49	280	2.45	-0.04	3	a
				100	4	2	3	1			100	6	2							
2002	D242	Coque	Raw seafood	10	71	68	70	62	750	2.88	10	68	63	670	2.83	680	2.83	0.01	3	a
				100	11	11	11	4			100	6	7							
2002	D243	Moule	Raw seafood	10	43	31	38	35	400	2.60	10	32	38	330	2.52	320	2.51	-0.01	3	a
				100	1	3	6	5			100	4	3							

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

SEAFOOD PRODUCTS																				
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*							Alternative method: CHROMID Coli (COLI ID-F) for the enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 44°C								Category	Type
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1		Enumeration			2 plates interpretation		1 plate interpretation				
					CFU/plate	CFU/plate	CFU/plate	CFU/plate			Interpretation 2025 Replicate 1	CFU/g (	log CFU/g	CFU/g	log (CFU/g)	log(CFU/g) 1 plate - 2 plates				
					a	b	c	d	CFU/g	log CFU/g							Dilution	CFU/plate		
2002	D270	Huitres plates	Raw seafood	10	3	1	3	2	30	1.48*	10	3	3	30	1.48*	30	1.48*	0.00	3	a
				100	0	1	2	2			100	1	1							
2002	D274	Colin	Raw fish	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	3	a
				100	0	0	0	0			100	0	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	6285	Lardons de saumon fumé	Smoked bacon	10	175				900	2.95	10	225		2100	3.32	2100	3.32	0.00	3	b
				100	9					Ne	100	21								
2018	6286	Lardons de saumon fumé	Smoked bacon	10	0				<10	<1.00	10	0		<10	<1.00	<10	<1.00	0.00	3	b
				100	0						100	0								
2018	6287	Harengs fumés au naturel	Smoked herring	100	31				3200	3.51	100	26		2500	3.40	2600	3.41	0.02	3	b
				1000	4						1000	1								
2018	6288	Harengs fumés au naturel	Smoked herring	100	0				<100	<2.00	100	0		<100	<2.00	<100	<2.00	0.00	3	b
				1000	0						1000	0								
2018	6289	Harengs fumés doux	Smoked herring	100	59				5900	3.77	100	84		8200	3.91	8400	3.92	0.01	3	b
				1000	6						1000	6								
2018	6290	Truite	Trout	1000	0				<1000	<3.00	1000	0		<1000	<3.00	<1000	<3.00	0.00	3	a
				10000	0						10000	0								
2018	6291	Anchois marinés	Marinated anchovy	10	118				1200	3.08	10	120		1200	3.08	1200	3.08	0.00	3	b
				100	14						100	9								
2018	6292	Bâtonnet gourmand	RTE surimi	100	24				2400	3.38	100	31		3000	3.48	3100	3.49	0.01	3	c
				1000	2						1000	2								
2018	6293	Bâtonnet gourmand	RTE surimi	10	39				380	2.58	10	22		220	2.34	220	2.34	0.00	3	c
				100	3						100	2								
2018	6294	Anchois marinés à l'orientale	Marinated anchovy	100	34				3300	3.52	100	40		4200	3.62	4000	3.60	-0.02	3	b
				1000	2						1000	6								
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	64		66000	4.82	64000	4.81	-0.01	3	c
				10000	2						10000	9								
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								
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	5		45	1.65	50	1.70	0.05	3	c
				100	0					Ne	100	0			Ne		Ne			
2018	6723	Filet de julienne	Raw fish	10	38				400	2.60	10	54		600	2.78	540	2.73	-0.05	3	a
				100	6						100	12								
2018	6724	Filet de Merlan	Raw fish	100	29				2700	3.43	100	29		3300	3.52	2900	3.46	-0.06	3	a
				1000	1						1000	7								
2018	6725	Bar	Raw fish	1000	20				19000	4.28	1000	35		33000	4.52	35000	4.54	0.03	3	a
				10000	1						10000	1								

SEAFOOD PRODUCTS																				
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*						Alternative method: CHROMID Coli (COLI ID-F) for the enumeration of β-glucuronidase-positive <i>Escherichia coli</i> at 44°C								Category	Type	
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1	Enumeration			2 plates interpretation		1 plate interpretation					
					CFU/plate	CFU/plate	CFU/plate	CFU/plate		Dilution	Replicate 1	Replicate 2	Interpretation 2025 Replicate 1		CFU/g	log (CFU/g)	log(CFU/g) 1 plate - 2 plates			
													a	b						c
2018	6726	Lamelles d'encornet géant	Raw seafood	100	27				2900	3.46	100	54		5100	3.71	5400	3.73	0.02	3	a
				1000	5					1000	2		61000	4.79	63000	4.80	0.01			
2018	6727	Encornet criée	Raw seafood	1000	46				44000	4.64	1000	63		61000	4.79	63000	4.80	0.01	3	a
				10000	2					10000	4									
2018	6728	Crevettes crues décortiquées	Raw shrimps	1000	5				5500	3.74	1000	65		63000	4.80	65000	4.81	0.01	3	a
				10000	1						Ne	10000	4							
2018	6729	Noix de saint jacques	Scallops	1000	16				15000	4.18	1000	91		88000	4.94	91000	4.96	0.01	3	a
				10000	1							10000	6							

VEGETABLES																					
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*							Alternative method: CHROMID Coli (COLI ID-F) for the enumeration of β-glucuronidase-positive <i>Escherichia coli</i> at 44°C									Category	Type
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1		Enumeration			2 plates interpretation		1 plate interpretation					
					CFU/plate	CFU/plate	CFU/plate	CFU/plate			Dilution	Replicate 1	Replicate 2	Interpretation 2025 Replicate 1		CFU/g	log (CFU/g)	log(CFU/g) 1 plate - 2 plates			
					a	b	c	d	CFU/g	log CFU/g				CFU/plate	CFU/plate				CFU/g (		
2002	D127	Farine de blé noir	Flour	10	8	8	6	7	73	1.86	10	5	6	55	1.74	50	1.70	-0.04	4	b	
				100	0	1	1	0		Ne	100	1	0		Ne						
2002	D133	Trompettes déshydratées	Dehydrated mushroom	100	21	20	32	27	2000	3.30	10	0	0	<10	<1.00	<10	<1.00	0.00	4	b	
				1000	1	0	0	0			100	0	0								
2002	D134	Bolets déshydratés	Dehydrated mushroom	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								
2002	D135	Cèpes déshydratés	Dehydrated mushroom	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								
2002	D136	Bolets déshydratés	Dehydrated mushroom	10	0	0	1	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								
2002	D140	Mix de crudités	Raw vegetables mix	10	6	2	3	3	55	1.74	10	3	1	30	1,48*	30	1,48*	0.00	4	c	
				100	0	0	0	0		Ne	100	0	1								
2002	D168	Poireaux	Leeks	100	12	11	8	12	1300	3.11	100	16	9	1500	3.18	1600	3.20	0.03	4	a	
				1000	2	0	2	1			1000	1	3								
2002	D169	Betterave rouge	Beet	100	16	25	22	20	1800	3.26	100	22	15	2100	3.32	2200	3.34	0.02	4	a	
				1000	4	2	0	0			1000	1	0								
2002	D170	Courgette	Zucchini	10	91	83	89	79	860	2.93	10	116	122	1100	3.04	1200	3.08	0.04	4	a	
				100	4	2	0	0			100	10	4								
2002	D182	Poêlée de petits légumes surgelés	Frozen vegetables mix	10	98	68	88	89	990	3.00	10	65	42	620	2.79	650	2.81	0.02	4	b	
				100	11	7	13	10			100	3	3								
2002	D183	Julienne de légumes surgelés	Frozen vegetables mix	10	12	12	18	18	120	2.08	10	5	10	45	1.65	50	1.70	0.05	4	b	
				100	1	0	1	0			100	0	0		Ne		Ne				
2002	D184	Légumes pot au feu	Frozen vegetables mix	10	34	37	36	31	330	2.52	10	33	31	320	2.51	330	2.52	0.01	4	a	
				100	2	3	2	1			100	2	2								
2002	D185	Printanière de légumes surgelés	Frozen vegetables mix	10	7	2	6	5	64	1.81	10	2	3	20	1.30*	20	1.30*	0.00	4	b	
				100	0	1	0	0		Ne	100	0	0								
2002	D186	Poêlée méridionale surgelée	Frozen vegetables mix	10	4	1	4	6	55	1.74	10	4	3	36	1.56	40	1.60	0.05	4	b	
				100	2	0	3	0		Ne	100	0	0		Ne		Ne				
2002	D187	Brocolis	Brocoli	100	42	32	36	38	4000	3.60	100	30	32	2800	3.45	3000	3.48	0.03	4	a	
				1000	2	6	2	2			1000	1	4								
2002	D188	Epinards	Spinach	10	32	32	26	24	330	2.52	10	19	22	200	2.30	190	2.28	-0.02	4	a	
				100	4	2	3	7			100	3	5								
2002	D189	Haricots verts	Green beans	10	38	66	56	57	390	2.59	10	29	28	290	2.46	290	2.46	0.00	4	a	
				100	5	2	5	1			100	3	5								
2002	D190	Choux de Bruxelles	Brussel sprout	100	98	109	85	120	9700	3.99	100	59	67	5600	3.75	5900	3.77	0.02	4	a	
				1000	9	10	12	10			1000	3	8								
2002	D191	Courgettes	Zucchini	100	12	8	15	11	1100	3.04	100	6	5	550	2.74	600	2.78	0.04	4	a	
				1000	0	1	1	1			1000	0	0		Ne		Ne				
2002	D217	Salade	Salad	10	>150	>150	>150	>150	3700	3.57	10	>150	>150	2800	3.45	2800	3.45	0.00	4	a	
				100	37	43	39	36			100	28	36								
2002	D218	Haricots "beurre"	Beans	10	>150	>150	>150	>150	2900	3.46	10	>150	>150	2200	3.34	2200	3.34	0.00	4	a	
				100	29	26	30	23			100	22	21								
2002	D219	Oignons	Onions	10	90	106	109	101	910	2.96	10	82	85	860	2.93	820	2.91	-0.02	4	a	
				100	10	8	8	7			100	12	9								
2002	D220	Poireaux	Leeks	10	63	64	60	80	660	2.82	10	57	64	550	2.74	570	2.76	0.02	4	a	
				100	10	2	7	7			100	3	4								
2002	D221	Betterave rouge	Beet	10	59	77	60	62	580	2.76	10	51	41	500	2.70	510	2.71	0.01	4	a	
				100	5	6	4	6			100	4	3								

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

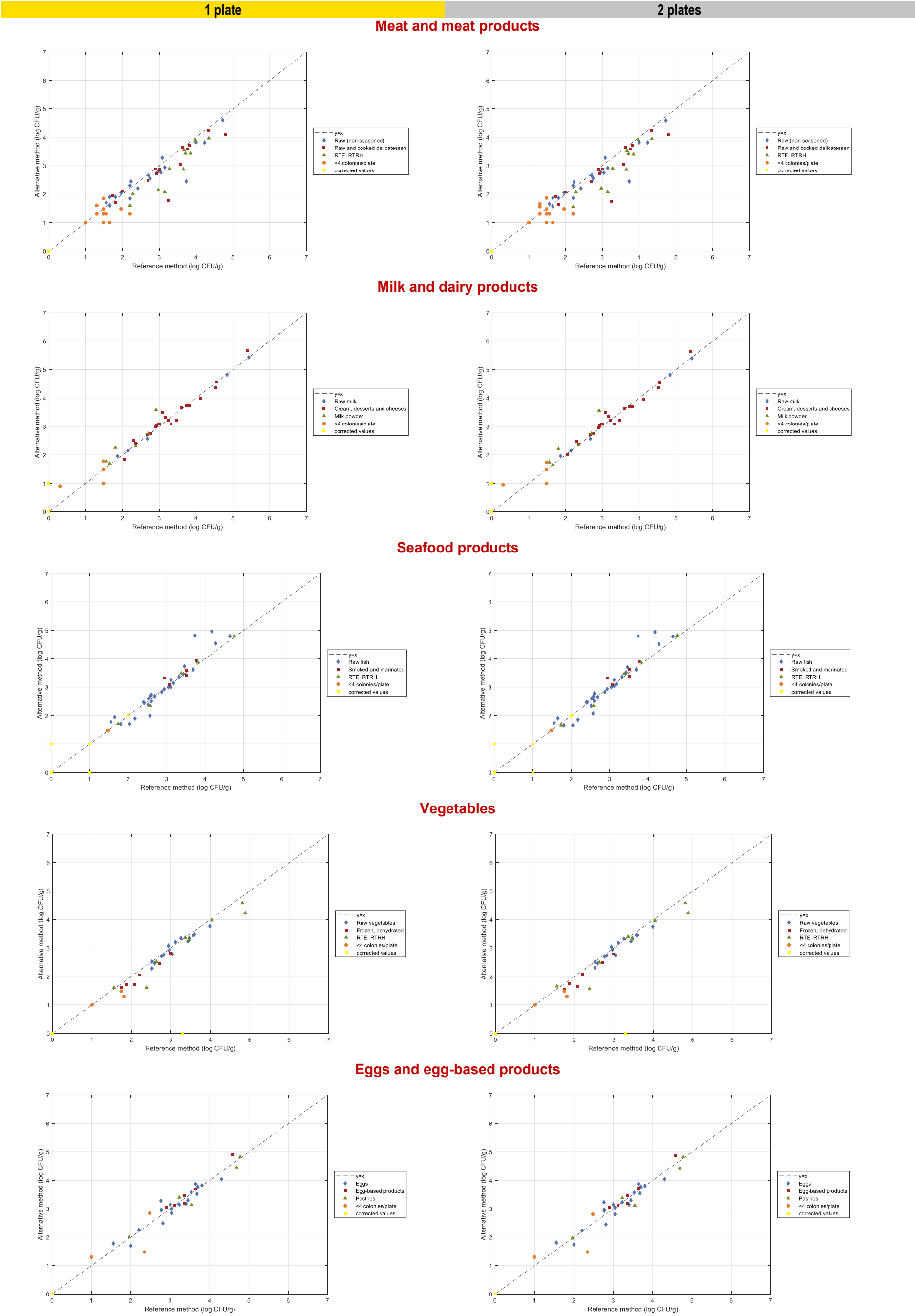
VEGETABLES																				
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*							Alternative method: CHROMID Coli (COLI ID-F) for the enumeration of β-glucuronidase-positive <i>Escherichia coli</i> at 44°C								Category	Type
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1		Enumeration			2 plates interpretation		1 plate interpretation				
					CFU/plate	CFU/plate	CFU/plate	CFU/plate			Dilution	Replicate 1	Replicate 2	Interpretation 2025 Replicate 1		CFU/g	log (CFU/g)	log(CFU/g) 1 plate - 2 plates		
									a	b				c	d					
2002	D224	Haricots "beurre"	Beans	10	>150	>150	>150	>150	2700	3.43	10	>150	>150	1700	3.23	1700	3.23	0.00	4	a
				100	27	19	24	19			100	17	18							
2002	D244	Farine de blé noir	Flour	10	17	9	10	6	160	2.20	10	11	13	120	2.08	110	2.04	-0.04	4	b
				100	1	1	2	1			100	2	1							
2002	D245	Farine de blé noir	Flour	10	1	2	2	3	10	1.00*	10	1	2	10	1.00*	10	1.00*	0.00	4	b
				100	1	0	0	1			100	1	0							
2011	2058	Ratatouille	RTRH vegetables mix	10	4				36	1.56	10	4		45	1.65	40	1.60	-0.05	4	c
				100	0					Ne	100	1			Ne		Ne			
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								
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 (COLI ID-F) for the enumeration of β-glucuronidase-positive <i>Escherichia coli</i> at 44°C								Category	Type	
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1		Enumeration			2 plates interpretation		1 plate interpretation					
					CFU/plate	CFU/plate	CFU/plate	CFU/plate			Dilution	Replicate 1	Replicate 2	Interpretation 2025 Replicate 1		CFU/g	log (CFU/g)	log(CFU/g) 1 plate - 2 plates			
														a	b						c
2002	D121	Coule d'œuf crue	Liquid egg	10	15	11	15	15	160	2.20	10	18	22	170	2.23	180	2.26	0.02	5	a	
				100	2	1	0	0			100	1	0								
2002	D123	Galette	Galette	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								
2002	D126	Charlotte aux poires	Pastry	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	5	c	
				100	0	0	0	0			100	0	0								
2002	D137	Crêpes	Crepes	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								
2002	D139	Œufs dur hachés	Egg	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	5	a	
				100	0	0	0	0			100	0	0								
2002	D155	Coule d'œuf crue	Liquid egg	10	98	129	142	164	1000	3.00	10	167	173	1400	3.15	1400	3.15	0.00	5	a	
				100	16	9	15	10			100	14	14								
2002	D156	Coule d'œuf crue	Liquid egg	10	1	1	0	1	10	1.00*	10	2	1	20	1.30*	20	1.30*	0.00	5	a	
				100	1	0	0	0			100	0	0								
2002	D157	Coule d'œuf crue	Liquid egg	10	62	60	61	47	590	2.77	10	88	82	840	2.92	880	2.94	0.02	5	a	
				100	3	2	2	5			100	4	3								
2002	D158	Coule d'œuf crue	Liquid egg	10	59	61	49	55	590	2.77	10	93	86	940	2.97	930	2.97	0.00	5	a	
				100	6	2	6	6			100	10	5								
2002	D159	Coule d'œuf crue	Liquid egg	100	48	38	37	45	4800	3.68	100	33	60	3500	3.54	3300	3.52	-0.03	5	a	
				1000	0	1	5	2			1000	6	2								
2002	D160	Coule d'œuf crue	Liquid egg	100	44	43	47	53	4400	3.64	100	75	64	7500	3.88	7500	3.88	0.00	5	a	
				1000	4	4	5	3			1000	1	3								
2002	D251	Coule d'œuf entier	Whole liquid egg	100	25	34	30	21	2500	3.40	100	15	19	1400	3.15	1500	3.18	0.03	5	a	
				1000	3	1	3	1			100	0	0								
2002	D252	Coule d'œuf entier	Whole liquid egg	100	3	3	3	6	300	2.48*	100	7	7	640	2.81	700	2.85	0.04	5	a	
				1000	2	0	0	0			1000	0	0		Ne		Ne				
2002	D253	Coule d'œuf entier	Whole liquid egg	100	Background microflora >300				5000	3.70	100	Background microflora >300			6000	3.78	6000	3.78	0.00	5	a
				1000	5	3	5	7			1000	6	4		Ne		Ne				
2002	D254	Coule d'œuf entier	Whole liquid egg	100	Background microflora >300				20000	4.30	100	Background microflora >300			11000	4.04	11000	4.04	0.00	5	a
				1000	20	20	13	16			1000	11	12								
2002	D255	Coule d'œuf entier	Whole liquid egg	10	0	0	0	0	<10	<1.00	10	0	0	<10	<1.00	<10	<1.00	0.00	5	a	
				100	0	0	0	0			100	0	0								
2002	D256	Jaune d'œuf	Egg yolk	100	17	15	8	14	1700	3.23	100	14	14	1700	3.23	1400	3.15	-0.08	5	a	
				1000	2	1	2	1			1000	5	2								
2002	D257	Jaune d'œuf	Egg yolk	10	68	95	92	93	650	2.81	10	31	34	280	2.45	310	2.49	0.04	5	a	
				100	3	1	6	4			100	0	4								
2002	D258	Jaune d'œuf	Egg yolk	100	28	36	35	30	2800	3.45	100	20	38	2000	3.30	2000	3.30	0.00	5	a	
				1000	3	2	7	6			1000	2	6								
2002	D259	Jaune d'œuf	Egg yolk	100	31	32	42	33	3400	3.53	100	38	42	3700	3.57	3800	3.58	0.01	5	a	
				1000	6	3	4	5			1000	3	3								
2002	D260	Jaune d'œuf	Egg yolk	100	11	13	18	10	1100	3.04	100	7	5	640	2.81	700	2.85	0.04	5	a	
				1000	1	1	3	4			1000	0	1		Ne		Ne				
2002	D261	Jaune d'œuf	Egg yolk	100	61	66	64	61	6400	3.81	100	67	68	6400	3.81	6700	3.83	0.02	5	a	
				1000	9	0	3	6			1000	3	8								
2002	D262	Blanc d'œuf	Egg white	10	57	54	43	47	580	2.76	100	19	12	1700	3.23	1900	3.28	0.05	5	a	
				100	7	7	7	7			1000	0	1								

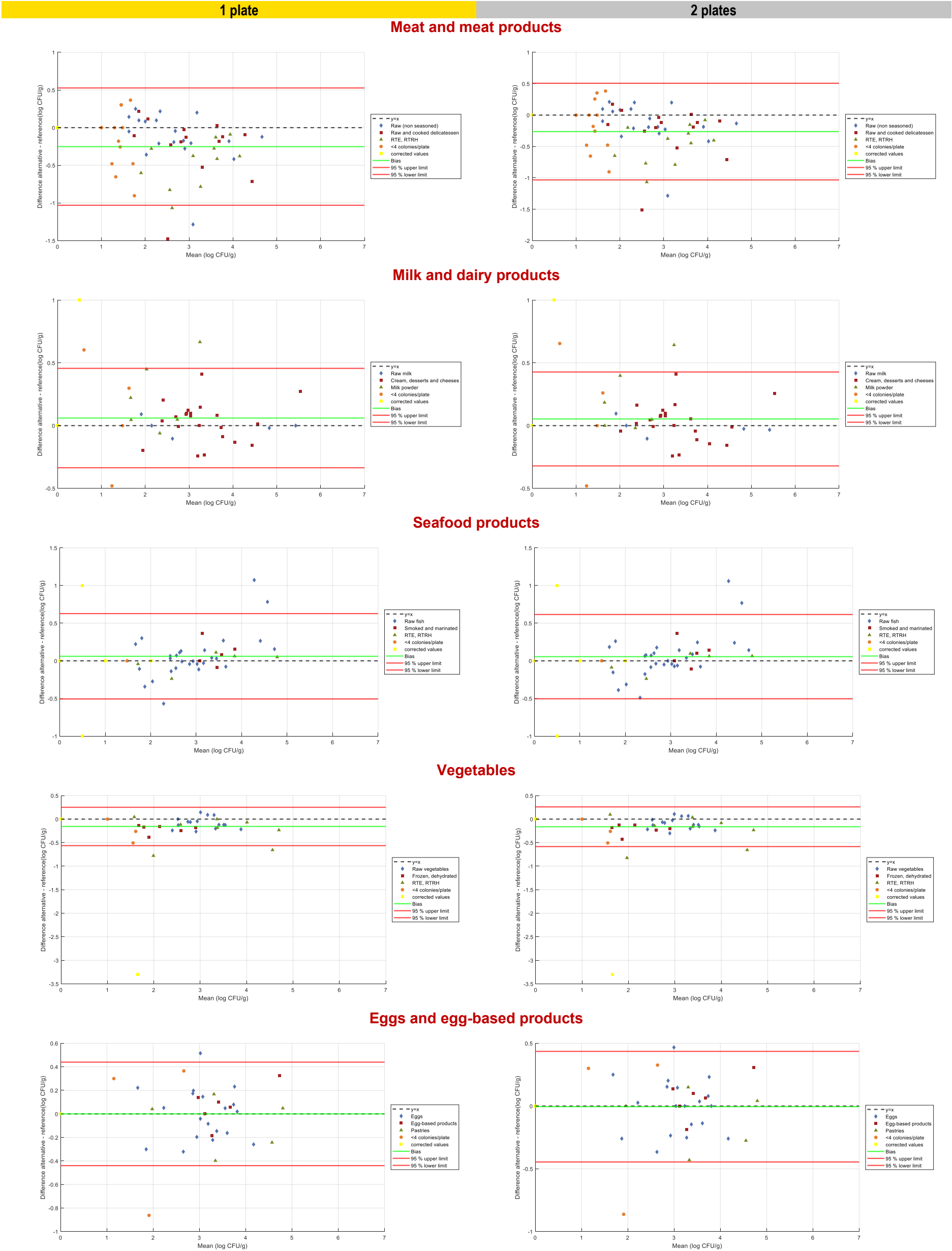
♦ Analyses performed according to the COFRAC accreditation (Accreditation Testing n°1-0144, scope available on www.cofrac.fr)

EGG AND EGG-BASED PRODUCTS																					
Year of analysis	N° Sample	Product (French name)	Product	Reference method: ISO 16649-2*						Alternative method: CHROMID Coli (COLI ID-F) for the enumeration of β -glucuronidase-positive <i>Escherichia coli</i> at 44°C								Category	Type		
				Dilution	Replicate 1		Replicate 2		Interpretation 2025 Replicate 1		Enumeration			2 plates interpretation		1 plate interpretation					
					CFU/plate	CFU/plate	CFU/plate	CFU/plate			Interpretation 2025 Replicate 1		CFU/g	log (CFU/g)	log(CFU/g) 1 plate - 2 plates						
					a	b	c	d	CFU/g	log CFU/g	Dilution	CFU/plate				CFU/plate	CFU/g (			log CFU/g	
2002	D263	Blanc d'œuf	Egg white	100	12	14	15	13	1100	3.04	100	10	9	1100	3.04	1000	3.00	-0.04	5	a	
				1000	0	1	3	0			1000	2	1								
2002	D264	Blanc d'œuf	Egg white	10	8	3	0	2	100	2.00	10	5	13	55	1.74	50	1.70	-0.04	5	a	
				100	3	2	0	2		Ne	100	1	0		Ne		Ne				
2002	D265	Blanc d'œuf	Egg white	10	4	3	5	5	36	1.56	10	6	5	64	1.81	60	1.78	-0.03	5	a	
				100	0	0	0	0		Ne	100	1	0		Ne		Ne				
2002	D266	Mayonnaise	Mayonnaise	10	131	141	128	147	1300	3.11	10	131	126	1300	3.11	1300	3.11	0.00	5	b	
				100	13	14	10	11			100	12	14								
2002	D267	Mayonnaise	Mayonnaise	10	Background microflora >300				800	2.90	10	Background microflora >300			1100	3.04	1100	3.04	0.00	5	b
				100	8	17	7	12		Ne	100	11	10								
2002	D268	Mayonnaise	Mayonnaise	10	Background microflora >300				2300	3.36	10	Background microflora >300			2900	3.46	2900	3.46	0.00	5	b
				100	23	22	27	19			100	29	34								
2002	D269	Mayonnaise	Mayonnaise	10	Background microflora >300				2300	3.36	10	Background microflora >300			1500	3.18	1500	3.18	0.00	5	b
				100	23	18	19	14			100	15	22								
2011	2062	Tartelette cocktail	Pastry	10	21				220	2.34	10	3		30	1.48*	30	1.48*	0.00	5	c	
				100	3						100	0									
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	0		<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	Patisserie aux fruits	Pastry with fruits	10	10				91	1.96	10	10		91	1.96	100	2.00	0.04	5	c	
				100	0						100	0									
2018	6730	Mayonnaise fraiche	Mayonnaise	100	46				4400	3.64	100	50		5100	3.71	5000	3.70	-0.01	5	b	
				1000	2						1000	6									
2018	6731	Tortilla espagnole aux oignons	Tortilla with onions	1000	39				37000	4.57	1000	78		75000	4.88	78000	4.89	0.02	5	b	
				10000	2						10000	4									
2018	6732	Eclair au chocolat	Pastry	100	16				1700	3.23	100	25		2400	3.38	2500	3.40	0.02	5	c	
				1000	3						1000	1									
2018	6733	Millefeuille	Pastry	1000	57				60000	4.78	1000	67		66000	4.82	67000	4.83	0.01	5	c	
				10000	9						10000	6									

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°	Reference method: ISO 16649-2*				Alternative method: CHROMID Coli 44°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	43	410	2.61	430	2.63	0.02
				100	2			100	2					
			7651	10	32	340	2.53	10	29	280	2.45	290	2.46	0.02
				100	5			100	2					
			7652	10	34	360	2.56	10	35	340	2.53	350	2.54	0.01
				100	6			100	2					
			7653	10	41	390	2.59	10	32	340	2.53	320	2.51	-0.03
				100	2			100	5					
			7654	10	36	350	2.54	10	30	270	2.43	300	2.48	0.05
				100	2			100	0					
		2	7655	100	65	6200	3.79	100	52	5300	3.72	5200	3.72	-0.01
				1000	3			1000	6					
			7656	100	79	7600	3.88	100	61	6300	3.80	6100	3.79	-0.01
				1000	5			1000	8					
			7657	100	61	5900	3.77	100	65	6400	3.81	6500	3.81	0.01
				1000	4			1000	5					
			7658	100	55	5500	3.74	100	50	5200	3.72	5000	3.70	-0.02
				1000	6			1000	7					
			7659	100	56	5800	3.76	100	62	6000	3.78	6200	3.79	0.01
				1000	8			1000	4					
		3	7660	1000	94	95000	4.98	1000	96	96000	4.98	96000	4.98	0.00
				10000	11			10000	10					
			7661	1000	86	88000	4.94	1000	88	93000	4.97	88000	4.94	-0.02
				10000	11			10000	14					
			7662	1000	93	98000	4.99	1000	70	68000	4.83	70000	4.85	0.01
				10000	15			10000	5					
			7663	1000	115	110000	5.04	1000	107	100000	5.00	110000	5.04	0.04
				10000	9			10000	7					
			7664	1000	88	88000	4.94	1000	110	110000	5.04	110000	5.04	0.00
				10000	0			10000	11					
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	27	260	2.41	270	2.43	0.02
				100	5			100	1					
			7667	10	34	340	2.53	10	28	290	2.46	280	2.45	-0.02
				100	3			100	4					
			7668	10	35	350	2.54	10	36	370	2.57	360	2.56	-0.01
				100	3			100	5					
			7669	10	35	370	2.57	10	40	370	2.57	400	2.60	0.03
				100	6			100	1					
		2	7670	100	66	6400	3.81	100	59	6300	3.80 N'	5900	3.77	-0.03
				1000	4			1000	10					
			7671	100	56	5500	3.74	100	48	4900	3.69 N'	4800	3.68	-0.01
				1000	5			1000	6					
			7672	100	56	5800	3.76	100	63	6000	3.78 N'	6300	3.80	0.02
				1000	8			1000	3					
			7673	100	56	5500	3.74	100	54	5500	3.74 N'	5400	3.73	-0.01
				1000	5			1000	6					
			7674	100	58	5900	3.77	100	52	5700	3.76 N4	5200	3.72	-0.04
				1000	7			1000	11					
		3	7675	1000	118	120000	5.08	1000	103	100000	5.00	100000	5.00	0.00
				10000	16			10000	8					
			7676	1000	100	110000	5.04	1000	108	110000	5.04	110000	5.04	0.00
				10000	17			10000	16					
			7677	1000	125	130000	5.11	1000	104	110000	5.04	100000	5.00	-0.04
				10000	23			10000	14					
			7678	1000	100	110000	5.04	1000	104	110000	5.04	100000	5.00	-0.04
				10000	16			10000	16					
			7679	1000	86	93000	4.97	1000	85	83000	4.92	85000	4.93	0.01
				10000	16			10000	6					

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

Matrix	Strain	Level	Sample N°	Reference method: ISO 16649-2*				Alternative method: CHROMID Coli 44°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	36	350	2.54	360	2.56	0.01
				100	3			100	2					
			7751	10	29	320	2.51	10	28	290	2.46	280	2.45	-0.02
				100	6			100	4					
			7752	10	26	240	2.38	10	21	220	2.34	210	2.32	-0.02
				100	0			100	3					
		2	7753	10	22	210	2.32	10	20	200	2.30	200	2.30	0.00
				100	1			100	2					
			7754	10	16	170	2.23	10	24	220	2.34	240	2.38	0.04
				100	3			100	0					
			7755	100	37	3600	3.56	100	30	3300	3.52	3000	3.48	-0.04
				1000	3			1000	6					
			7756	100	36	3800	3.58	100	48	4700	3.67	4800	3.68	0.01
				1000	6			1000	4					
			7757	100	43	4500	3.65	100	43	4200	3.62	4300	3.63	0.01
				1000	6			1000	3					
			7758	100	43	4400	3.64	100	47	4400	3.64	4700	3.67	0.03
				1000	5			1000	1					
			7759	100	38	3700	3.57	100	40	4500	3.65	4000	3.60	-0.05
				1000	3			1000	9					
		3	7760	1000	56	55000	4.74	1000	71	73000	4.86	71000	4.85	-0.01
				10000	5			10000	9					
			7761	1000	67	67000	4.83	1000	71	77000	4.89	71000	4.85	-0.04
				10000	7			10000	14					
			7762	1000	68	68000	4.83	1000	68	71000	4.85	68000	4.83	-0.02
				10000	7			10000	10					
			7763	1000	72	75000	4.88	1000	72	77000	4.89	72000	4.86	-0.03
				10000	10			10000	13					
			7764	1000	65	67000	4.83	1000	72	75000	4.88	72000	4.86	-0.02
				10000	9			10000	11					
Pasteurized milk - Batch 2 (<1 CFU/g)	<i>Escherichia coli</i> 94	1	7765	10	34	320	2.51	10	25	260	2.41	250	2.40	-0.02
				100	1			100	3					
			7766	10	30	330	2.52	10	29	290	2.46	290	2.46	0.00
				100	6			100	3					
			7767	10	33	330	2.52	10	29	310	2.49	290	2.46	-0.03
				100	3			100	5					
		2	7768	10	35	340	2.53	10	36	340	2.53	360	2.56	0.02
				100	2			100	1					
			7769	10	31	330	2.52	10	36	370	2.57	360	2.56	-0.01
				100	5			100	5					
			7770	100	51	4900	3.69	100	55	5200	3.72	5500	3.74	0.02
				1000	3			1000	2					
			7771	100	52	5100	3.71	100	48	4900	3.69	4800	3.68	-0.01
				1000	4			1000	6					
			7772	100	51	5000	3.70	100	52	4900	3.69	5200	3.72	0.03
				1000	4			1000	2					
			7773	100	48	5000	3.70	100	45	4700	3.67	4500	3.65	-0.02
				1000	7			1000	7					
			7774	100	58	6000	3.78	100	55	5700	3.76	5500	3.74	-0.02
				1000	8			1000	8					
		3	7775	1000	94	97000	4.99	1000	101	110000	5.04	100000	5.00	-0.04
				10000	13			10000	11					
			7776	1000	106	110000	5.04	1000	85	93000	4.97	85000	4.93	-0.04
				10000	13			10000	17					
			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	94	87000	4.94	94000	4.97	0.03
				10000	17			10000	2					
			7779	1000	93	94000	4.97	1000	86	92000	4.96	86000	4.93	-0.03
				10000	10			10000	15					

Matrix	Strain	Level	Sample N°	Reference method: ISO 16649-2*				Alternative method: CHROMID Coli 44°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 (5.2x10³CFU/g)	<i>Escherichia coli</i> Ad228	1	8164	10	37	370	2.57	10	27	270	2.43	270	2.43	0.00
				100	0			100	3					
			8165	10	32	290	2.46	10	22	220	2.34	220	2.34	0.00
				100	0			100	2					
			8166	10	25	260	2.41	10	21	220	2.34	210	2.32	-0.02
				100	3			100	3					
		2	8167	10	24	240	2.38	10	82	770	2.89	820	2.91	0.03
				100	2			100	3					
			8168	10	20	190	2.28	10	31	350	2.54	310	2.49	-0.05
				100	1			100	7					
			8169	100	52	4900	3.69	100	43	4300	3.63	4300	3.63	0.00
				1000	2			1000	4					
		3	8170	100	47	4600	3.66	100	43	4200	3.62	4300	3.63	0.01
				1000	4			1000	3					
			8171	100	38	4300	3.63	100	41	4000	3.60	4100	3.61	0.01
				1000	9			1000	3					
			8172	100	43	4200	3.62	100	53	5000	3.70	5300	3.72	0.03
				1000	3			1000	2					
Fish fillet - Batch 2 (2.5x10³CFU/g)	<i>Escherichia coli</i> Ad228	1	8173	100	40	4200	3.62	100	46	4600	3.66	4600	3.66	0.00
				1000	6			1000	5					
			8174	1000	58	58000	4.76	1000	72	71000	4.85	72000	4.86	0.01
				10000	6			10000	6					
			8175	1000	57	56000	4.75	1000	75	74000	4.87	75000	4.88	0.01
				10000	5			10000	6					
		2	8176	1000	62	65000	4.81	1000	77	77000	4.89	77000	4.89	0.00
				10000	10			10000	8					
			8177	1000	59	59000	4.77	1000	60	57000	4.76	60000	4.78	0.02
				10000	6			10000	3					
			8178	1000	56	55000	4.74	1000	92	91000	4.96	92000	4.96	0.00
				10000	4			10000	8					
		3	8179	10	35	370	2.57	10	46	470	2.67	460	2.66	-0.01
				100	6			100	6					
			8180	10	27	280	2.45	10	27	250	2.40	270	2.43	0.03
				100	4			100	0					
			8181	10	29	260	2.41	10	32	310	2.49	320	2.51	0.01
				100	0			100	2					
		2	8182	10	27	250	2.40	10	25	240	2.38	250	2.40	0.02
				100	0			100	1					
			8183	10	46	430	2.63	10	33	350	2.54	330	2.52	-0.03
				100	1			100	5					
			8184	100	50	4700	3.67	100	46	4600	3.66	4600	3.66	0.00
				1000	2			1000	5					
		3	8185	100	54	5500	3.74	100	51	5200	3.72	5100	3.71	-0.01
				1000	6			1000	6					
			8186	100	45	4500	3.65	100	58	5900	3.77	5800	3.76	-0.01
				1000	5			1000	7					
			8187	100	45	4500	3.65	100	59	5900	3.77	5900	3.77	0.00
				1000	4			1000	6					
		3	8188	100	37	4100	3.61	100	42	4200	3.62	4200	3.62	0.00
				1000	8			1000	4					
			8189	1000	79	78000	4.89	1000	85	82000	4.91	85000	4.93	0.02
				10000	7			10000	5					
			8190	1000	79	85000	4.93	1000	67	68000	4.83	67000	4.83	-0.01
				10000	14			10000	8					
		3	8191	1000	70	74000	4.87	1000	75	75000	4.88	75000	4.88	0.00
				10000	11			10000	8					
			8192	1000	70	70000	4.85	1000	80	78000	4.89	80000	4.90	0.01
				10000	7			10000	6					
			8193	1000	66	68000	4.83	1000	86	85000	4.93	86000	4.93	0.01
				10000	9			10000	7					

Matrix	Strain	Level	Sample N°	Reference method: ISO 16649-2*				Alternative method: CHROMID Coli 44°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	17	170	2.23	170	2.23	0.00
				100	3			100	2					
			8240	10	25	240	2.38	10	23	230	2.36	230	2.36	0.00
				100	1			100	21					
			8241	10	15	150	2.18	10	25	240	2.38	250	2.40	0.02
				100	1			100	1					
		2	8242	10	21	200	2.30	10	27	260	2.41	270	2.43	0.02
				100	1			100	1					
			8243	10	21	220	2.34	10	22	240	2.38	220	2.34	-0.04
				100	3			100	4					
			8244	100	25	2500	3.40	100	41	4200	3.62	4100	3.61	-0.01
				1000	3			1000	5					
			8245	100	29	2700	3.43	100	39	3700	3.57	3900	3.59	0.02
				1000	1			1000	2					
			8246	100	38	3700	3.57	100	26	2500	3.40	2600	3.41	0.02
				1000	3			1000	2					
			8247	100	36	3800	3.58	100	43	4000	3.60	4300	3.63	0.03
				1000	6			1000	1					
			8248	100	29	2800	3.45	100	41	4100	3.61	4100	3.61	0.00
				1000	2			1000	4					
		3	8249	1000	46	48000	4.68	1000	54	53000	4.72	54000	4.73	0.01
				10000	7			10000	4					
			8250	1000	59	63000	4.80	1000	63	64000	4.81	63000	4.80	-0.01
				10000	10			10000	7					
			8251	1000	60	58000	4.76	1000	54	52000	4.72	54000	4.73	0.02
				10000	4			10000	3					
			8252	1000	46	45000	4.65	1000	47	46000	4.66	47000	4.67	0.01
				10000	4			10000	4					
			8253	1000	48	49000	4.69	1000	46	47000	4.67	46000	4.66	-0.01
				10000	6			10000	6					
Grated carrots - Batch 2 (>3.0x10 ⁵ CFU/g)	<i>Escherichia coli</i> 19	1	8254	10	13	160	2.20	10	22	240	2.38	220	2.34	-0.04
				100	5			100	4					
			8255	10	31	290	2.46	10	27	280	2.45	270	2.43	-0.02
				100	1			100	4					
			8256	10	19	180	2.26	10	19	190	2.28	190	2.28	0.00
				100	1			100	2					
		2	8257	10	18	200	2.30	10	29	300	2.48	290	2.46	-0.01
				100	4			100	4					
			8258	10	25	250	2.40	10	18	170	2.23	180	2.26	0.02
				100	2			100	1					
			8259	100	24	2500	3.40	100	41	4100	3.61	4100	3.61	0.00
				1000	4			1000	4					
			8260	100	22	2600	3.41	100	39	3700	3.57	3900	3.59	0.02
				1000	7			1000	2					
			8261	100	37	3500	3.54	100	35	3600	3.56	3500	3.54	-0.01
				1000	2			1000	5					
			8262	100	31	3200	3.51	100	34	3100	3.49	3400	3.53	0.04
				1000	4			1000	0					
		3	8263	100	33	3300	3.52	100	39	3600	3.56	3900	3.59	0.03
				1000	3			1000	1					
			8264	1000	48	48000	4.68	1000	47	45000	4.65	47000	4.67	0.02
				10000	0			10000	3					
			8265	1000	49	48000	4.68	1000	58	56000	4.75	58000	4.76	0.02
				10000	4			10000	4					
			8266	1000	45	45000	4.65	1000	58	59000	4.77	58000	4.76	-0.01
				10000	5			10000	7					
			8267	1000	43	45000	4.65	1000	38	39000	4.59	38000	4.58	-0.01
				10000	7			10000	5					
			8268	1000	44	44000	4.64	1000	47	45000	4.65	47000	4.67	0.02
				10000	4			10000	3					

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

Matrix	Strain	Level	Sample N°	Reference method: ISO 16649-2*				Alternative method: CHROMID Coli 44°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	
Liquid egg product – Batch 1 (20 CFU/g)	Escherichia coli 142	1	8051	10	32	330	2.52	10	28	300	2.48	280	2.45	-0.03	
				100	4			100	5						
			8052	10	31	330	2.52	10	44	430	2.63	440	2.64	0.01	
				100	5			100	3						
			8053	10	42	420	2.62	10	31	320	2.51	310	2.49	-0.01	
				100	4			100	4						
			8054	10	32	320	2.51	10	40	420	2.62	400	2.60	-0.02	
				100	3			100	6						
			8055	10	42	400	2.60	10	26	260	2.41	260	2.41	0.00	
				100	2			100	2						
			2	8056	100	50	5200	3.72	100	57	5800	3.76	5700	3.76	-0.01
					1000	7			1000	7					
		8057		100	45	4600	3.66	100	56	5500	3.74	5600	3.75	0.01	
				1000	6			1000	4						
		8058		100	51	4900	3.69	100	59	5800	3.76	5900	3.77	0.01	
				1000	3			1000	5						
		8059		100	55	5300	3.72	100	50	5500	3.74	5000	3.70	-0.04	
				1000	3			1000	10						
		8060		100	43	4100	3.61	100	48	4600	3.66	4800	3.68	0.02	
				1000	2			1000	3						
		3	8061	1000	79	83000	4.92	1000	80	80000	4.90	80000	4.90	0.00	
				10000	12			10000	8						
			8062	1000	57	59000	4.77	1000	73	75000	4.88	73000	4.86	-0.01	
				10000	8			10000	9						
			8063	1000	75	75000	4.88	1000	96	95000	4.98	96000	4.98	0.00	
				10000	17			10000	8						
			8064	1000	81	84000	4.92	1000	94	95000	4.98	94000	4.97	0.00	
				10000	11			10000	11						
			8065	1000	87	90000	4.95	1000	101	110000	5.04	100000	5.00	-0.04	
				10000	12			10000	16						
Liquid egg product - Batch 2 (20CFU/g)	Escherichia coli 142	1	8066	10	20	210	2.32	10	27	280	2.45	270	2.43	-0.02	
				100	3			100	4						
			8067	10	34	340	2.53	10	27	260	2.41	270	2.43	0.02	
				100	3			100	1						
			8068	10	27	270	2.43	10	30	300	2.48	300	2.48	0.00	
				100	3			100	3						
			8069	10	46	450	2.65	10	37	360	2.56	370	2.57	0.01	
				100	3			100	3						
			8070	10	41	410	2.61	10	43	410	2.61	430	2.63	0.02	
				100	4			100	2						
			2	8071	100	44	4200	3.62	100	38	3700	3.57	3800	3.58	0.01
					1000	2			1000	3					
		8072		100	58	6100	3.79	100	45	4400	3.64	4500	3.65	0.01	
				1000	9			1000	3						
		8073		100	56	5700	3.76	100	57	5700	3.76	5700	3.76	0.00	
				1000	7			1000	6						
		8074		100	59	6100	3.79	100	63	6500	3.81	6300	3.80	-0.01	
				1000	8			1000	8						
		8075		100	43	4500	3.65	100	48	4700	3.67	4800	3.68	0.01	
				1000	7			1000	4						
		3	8076	1000	118	120000	5.08	1000	104	110000	5.04	100000	5.00	-0.04	
				10000	12			10000	18						
			8077	1000	86	90000	4.95	1000	96	95000	4.98	96000	4.98	0.00	
				10000	13			10000	8						
			8078	1000	93	91000	4.96	1000	73	75000	4.88	73000	4.86	-0.01	
				10000	7			10000	10						
			8079	1000	83	85000	4.93	1000	93	100000	5.00	93000	4.97	-0.03	
				10000	11			10000	17						
		8080	1000	101	110000	5.04	1000	97	95000	4.98	97000	4.99	0.01		
		10000	16	10000			7								

♦ 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	430	290	350	320	300
7665-7669	Ground beef	1	470	270	340	350	370	320	270	280	360	400
7655-7659	Ground beef	2	6200	7600	5900	5500	5800	5200	6100	6500	5000	6200
7670-7674	Ground beef	2	6400	5500	5800	5500	5900	5900	4800	6300	5400	5200
7660-7664	Ground beef	3	95000	88000	98000	110000	88000	96000	88000	70000	110000	110000
7675-7679	Ground beef	3	120000	110000	130000	110000	93000	100000	110000	100000	100000	85000
(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	270	220	210	820	310
8179-8183	Raw fish fillet	1	370	280	260	250	430	460	270	320	250	330
8169-8173	Raw fish fillet	2	4900	4600	4300	4200	4200	4300	4300	4100	5300	4600
8184-8188	Raw fish fillet	2	4700	5500	4500	4500	4100	4600	5100	5800	5900	4200
8174-8178	Raw fish fillet	3	58000	56000	65000	59000	55000	72000	75000	77000	60000	92000
8189-8193	Raw fish fillet	3	78000	85000	74000	70000	68000	85000	67000	75000	80000	86000
(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	280	440	310	400	260
8066-8070	Liquid egg products	1	210	340	270	450	410	270	270	300	370	430
8056-8060	Liquid egg products	2	5200	4600	4900	5300	4100	5700	5600	5900	5000	4800
8071-8075	Liquid egg products	2	4200	6100	5700	6100	4500	3800	4500	5700	6300	4800
8061-8065	Liquid egg products	3	83000	59000	75000	84000	90000	80000	73000	96000	94000	100000
8076-8080	Liquid egg products	3	120000	90000	91000	85000	110000	100000	96000	73000	93000	97000

(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	360	280	210	200	240
7765-7769	Pasteurised milk	1	320	330	330	340	330	250	290	290	360	360
7755-7759	Pasteurised milk	2	3600	3800	4500	4400	3700	3000	4800	4300	4700	4000
7770-7774	Pasteurised milk	2	4900	5100	5000	5000	6000	5500	4800	5200	4500	5500
7760-7764	Pasteurised milk	3	55000	67000	68000	75000	67000	71000	71000	68000	72000	72000
7775-7779	Pasteurised milk	3	97000	110000	100000	93000	94000	100000	85000	87000	94000	86000
(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	170	230	250	270	220
8254-8258	Grated carrots	1	160	290	180	200	250	220	270	190	290	180
8244-8248	Grated carrots	2	2500	2700	3700	3800	2800	4100	3900	2600	4300	4100
8259-8263	Grated carrots	2	2500	2600	3500	3200	3300	4100	3900	3500	3400	3900
8249-8253	Grated carrots	3	48000	63000	58000	45000	49000	54000	63000	54000	47000	46000
8264-8268	Grated carrots	3	48000	48000	45000	45000	44000	47000	58000	58000	38000	47000

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	410	280	340	340	270
7665-7669	Ground beef	1	470	270	340	350	370	310	260	290	370	370
7655-7659	Ground beef	2	6200	7600	5900	5500	5800	5300	6300	6400	5200	6000
7670-7674	Ground beef	2	6400	5500	5800	5500	5900	6300	4900	6000	5500	5700
7660-7664	Ground beef	3	95000	88000	98000	110000	88000	96000	93000	68000	100000	110000
7675-7679	Ground beef	3	120000	110000	130000	110000	93000	100000	110000	110000	110000	83000
(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	300	430	320	420	260
8179-8183	Raw fish fillet	1	370	280	260	250	430	280	260	300	360	410
8169-8173	Raw fish fillet	2	4900	4600	4300	4200	4200	5800	5500	5800	5500	4600
8184-8188	Raw fish fillet	2	4700	5500	4500	4500	4100	3700	4400	5700	6500	4700
8174-8178	Raw fish fillet	3	58000	56000	65000	59000	55000	80000	75000	95000	95000	110000
8189-8193	Raw fish fillet	3	78000	85000	74000	70000	68000	110000	95000	75000	100000	95000
(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	300	430	320	420	260
8066-8070	Liquid egg products	1	210	340	270	450	410	280	260	300	360	410
8056-8060	Liquid egg products	2	5200	4600	4900	5300	4100	5800	5500	5800	5500	4600
8071-8075	Liquid egg products	2	4200	6100	5700	6100	4500	3700	4400	5700	6500	4700
8061-8065	Liquid egg products	3	83000	59000	75000	84000	90000	80000	75000	95000	95000	110000
8076-8080	Liquid egg products	3	120000	90000	91000	85000	110000	110000	95000	75000	100000	95000

(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	350	290	220	200	220
7765-7769	Pasteurised milk	1	320	330	330	340	330	260	290	310	340	370
7755-7759	Pasteurised milk	2	3600	3800	4500	4400	3700	3300	4700	4200	4400	4500
7770-7774	Pasteurised milk	2	4900	5100	5000	5000	6000	5200	4900	4900	4700	5700
7760-7764	Pasteurised milk	3	55000	67000	68000	75000	67000	73000	77000	71000	77000	75000
7775-7779	Pasteurised milk	3	97000	110000	100000	93000	94000	110000	93000	86000	87000	92000
(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	170	230	240	260	240
8254-8258	Grated carrots	1	160	290	180	200	250	240	280	190	300	170
8244-8248	Grated carrots	2	2500	2700	3700	3800	2800	4200	3700	3600	3100	3600
8259-8263	Grated carrots	2	2500	2600	3500	3200	3300	4100	3700	3600	3100	3600
8249-8253	Grated carrots	3	48000	63000	58000	45000	49000	53000	64000	52000	46000	47000
8264-8268	Grated carrots	3	48000	48000	45000	45000	44000	45000	56000	59000	39000	45000

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 44°C	
					CFU/plate (1ml -7)	CFU/plate (1ml -7)	CFU/plate (1ml -7)	Description of the colonies
1998 VRBL 44.5°C	1	<i>Escherichia coli</i>	Adria 1	Sausage	57	39/40	49/37	Pink
	2	<i>Escherichia coli</i>	Adria 2B	Sausage	41	61/52	44/61	Pink
	3	<i>Escherichia coli</i>	Adria 3A	Sausage	49	52/40	62/55	Pink
	4	<i>Escherichia coli</i>	Adria 6	Sausage	140	58/66	69/55	Pink
	5	<i>Escherichia coli</i>	Adria 9	Goose rillettes	92	71/49	67/60	Pink
	6	<i>Escherichia coli</i>	Adria 12	Raw poultry meat	67	44/61 (white colonies on TBX)	51/58	Blue
	7	<i>Escherichia coli</i>	Adria 13	Ground beef	74	46/53	56/68	Pink
	8	<i>Escherichia coli</i>	Adria 14	Raw milk	230	68/62	40/40	Pink
	9	<i>Escherichia coli</i>	Adria 15	Raw milk	210	36/42	23/18	Pink
	10	<i>Escherichia coli</i>	Adria 16	Raw milk	210	51/42	46/45	Pink
	11	<i>Escherichia coli</i>	Adria 17	Water	240	78/90	52/62	Pink
	12	<i>Escherichia coli</i>	Adria 18	Water	180	34/52	36/23	Pink
	13	<i>Escherichia coli</i>	Adria 19	Grated carrots	100	59/45	58/39	Pink
	14	<i>Escherichia coli</i>	Adria 20	Water	160	113/131 (white colonies on TBX)	153/155	Blue
	15	<i>Escherichia coli</i>	Adria 21	Cured pork meat	92	55/42	46/61	Pink
	16	<i>Escherichia coli</i>	Adria 70	Ground meat	190	145/131	143/120	Pink
	17	<i>Escherichia coli</i>	CIP 54117	/	160	114/146	137/150	Pink
	18	<i>Escherichia coli</i>	CIP 54127	/	110	100/96	86/92	Pink
	19	<i>Escherichia coli</i>	ATCC 43888	Bovine faeces	120	61/69 (white colonies on TBX)	62/74	Blue
	20	<i>Escherichia coli</i>	CIP 7624	/	180	137/143	141/125	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 44°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 testing	N°	Strain	Reference	Origin	PCA	V08-017 (VRBL 44.5°C) OR ISO 16649-2 (TBX)	CHROMID Coli 44°C	
					CFU/ plate (1ml -7)	CFU/ plate (1ml -7)	CFU/ plate (1ml -7)	Description of the colonies
1998 VRBL 44.5°C	1	<i>Enterobacter aerogenes</i>	CIP6086	/	69	55/56	67/58	Pale blue
	2	<i>Enterobacter aerogenes</i>	CIP 103659	/	90	53/37	43/58	White
	3	<i>Citrobacter freundii</i>	Adria 23	Sausage	73	µcolonies	64/46	Dark blue
	4	<i>Citrobacter freundii</i>	Adria 24	Seafood cocktail	41	0/0 (-6)	16/23	Dark blue
	5	<i>Klebsiella oxytoca</i>	Adria 42	/	28	0/0 (-6)	21/31	Blue
	6	<i>Klebsiella oxytoca</i>	CIP 7932	/	33	0/0 (-6)	18/17	Dark blue
	7	<i>Serratia liquefaciens</i>	Adria 26	Beetroot	60	0/0 (-6)	0/0 (-6)	/
	8	<i>Serratia liquefaciens</i>	Adria 81	Ham	30 (-5)	0/0 (-5)	0/0 (-5)	/
	9	<i>Shigella flexneri</i>	CIP 8248	/	41	0/0 (-6)	51/47	White
	10	<i>Proteus vulgaris</i>	Adria 43	Ham	30	0/0 (-6)	0 (-6)	/
	11	<i>Proteus vulgaris</i>	Adria 56	Food product	170	0/0 (-6)	43/29	White
	12	<i>Erwinia carotovora</i>	CIP 103762	Salad	280	0/0 (-6)	0 (-6)	/
	13	<i>Erwinia carotovora</i>	CIP 8283	Potatoes	14	0/0 (-6)	0/0 (-6)	/
	14	<i>Bacillus polymyxa</i>	CIP A39	/	32 (-6)	0/0 (-6)	0/0 (-6)	/
	15	<i>Enterococcus faecalis</i>	Adria 25	Chicken leg	120	0/0 (-6)	0/0 (-6)	/
	16	<i>Staphylococcus aureus</i>	Adria 501	Raw milk	77	0/0 (-6)	0/0 (-6)	/
	17	<i>Lactobacillus plantarum</i>	A159	/	53	0/0 (-6)	0/0 (-6)	/
	18	<i>Hafnia alvei</i>	Adria 50	Ground meat	100	0/0 (-6)	76/71	Small white
	19	<i>Candida guilliermondii</i>	Adria 381	Bier	160 (-5)	0/0 (-5)	0/0 (-5)	/
	20	<i>Candida lipolytica</i>	CIP 81663	/	43 (-5)	0/0 (-5)	0/0 (-5)	/
	21	<i>Salmonella Enteritidis</i>	CIP 8297	/	160	135/137	100/95	White
	22	<i>Escherichia vulneris</i>	Adria 151	Raw milk	17	0/0 (-6)	0/0 (-6)	/
	23	<i>Plesiomonas shigelloides</i>	Add 673	Fish	53 (-6)	77/63 (-6)	47/56 (-6)	White/pink
2018 TBX 44°C	24	<i>Escherichia vulneris</i>	Adria 127	Dairy product	16/15	0/0 (-7)	0/0 (-7)	/
	25	<i>Escherichia vulneris</i>	Adria 132	Meat product	40/30	0/0 (-7)	0/0 (-7)	/
	26	<i>Escherichia vulneris</i>	Adria 134	Meat product	45/44	0/0 (-7)	0/0 (-7)	/
	27	<i>Buttiauxella agrestis</i>	Ad1328	Egg product	30 (-6)	0/0 (-6)	0/0 (-6)	/
	28	<i>Kluyvera ascorbata</i>	Ad229	Fish	177 (-6)	0/0 (-6)	0/0 (-6)	/
	29	<i>Escherichia fergusonii</i>	Ad1381	Water	184 (-6)	0/0 (-6)	0/0 (-6)	/
	30	<i>Escherichia hermanii</i>	Ad464	Raw milk	248 (-6)	0/0 (-6)	0/0 (-6)	/
	31	<i>Escherichia 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 ID 44°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	/	40	1.60 Ne
		10	4	3			10	4		
	A5	1			50	1.70 Ne	1	/	80	1.90 Ne
		10	5	3			10	8		
	A3	10	40	39	400	2.60	10	53	550	2.74
		100	4	3			100	7		
	A8	10	54	50	550	2.74	10	53	520	2.72
		100	6	3			100	4		
B	A4	100	38	29	3600	3.56	100	45	4400	3.64
		1000	2	1			1000	3		
	A6	100	43	32	4500	3.65	100	42	4300	3.63
		1000	6	3			1000	5		
	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	55	53	1.72
		10	5	5			10	3		
	B5	1	38	45	39	1.59	1	61	58	1.76
		10	5	4			10	3		
	B3	10	69	60	650	2.81	10	68	670	2.83
		100	2	5			100	6		
	B8	10	51	55	530	2.72	10	61	630	2.80
		100	7	7			100	8		
	B4	100	53	58	5300	3.72	100	67	6600	3.82
		1000	5	6			1000	6		
	B6	100	48	52	4600	3.66	100	54	5300	3.72
		1000	3	4			1000	4		
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	5	45	1.65
		100	1	0			100	0		
	C5	10	6	5	64	1.81 Ne	10	4	45	1.65 Ne
		100	1	0			100	1		
	C3	10	31	43	330	2.52	10	33	350	2.54
		100	5	4			100	5		
	C8	10	34	41	350	2.54	10	43	460	2.66
		100	4	8			100	7		
	C4	100	47	60	5000	3.70	100	52	4900	3.69
		1000	8	2			1000	2		
	C6	100	42	46	4200	3.62	100	49	4800	3.68
		1000	4	4			1000	4		

Collaborator	N° sample	Reference method: ISO 16649-2					Alternative method: CHROMID Coli ID 44°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	6	55	1.74 Ne
		100	0	0			100	0		
	D5	10	6	4	55	1.74 Ne	10	8	73	1.86 Ne
		100	0	0			100	0		
	D3	10	44	43	460	2.66	10	49	500	2.70
		100	6	3			100	6		
	D8	10	35	38	340	2.53	10	56	570	2.76
		100	2	3			100	7		
	D4	100	39	22	3700	3.57	100	43	4100	3.61
		1000	2	3			1000	2		
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	48	50	1.70
		10	6	6			10	7		
	E5	1	37	50	37	1.57	1	39	40	1.60
		10	4	8			10	5		
	E3	10	45	52	440	2.64	10	55	540	2.73
		100	3	5			100	4		
	E8	10	41	37	400	2.60	10	58	560	2.75
		100	3	3			100	4		
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	49	52	1.72
		10	4	2			10	8		
	F5	1	36	41	38	1.58	1	49	49	1.69
		10	6	7			10	5		
	F3	10	44	49	450	2.65	10	60	620	2.79
		100	5	9			100	8		
	F8	10	65	58	630	2.80	10	61	610	2.79
		100	4	5			100	6		
	F4	100	48	59	4500	3.65	100	53	5400	3.73
		1000	2	5			1000	6		
	F6	100	77	68	7300	3.86	100	58	5800	3.76
		1000	3	6			1000	6		

Collaborator	N° sample	Reference method: ISO 16649-2					Alternative method: CHROMID Coli ID 44°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	3	30	1.48 Ne
		100	1	0			100	0		
	G5	10	3	6	55	1.74 Ne	10	3	30	1.48 Ne
		100	1	0			100	0		
	G3	10	31	39	330	2.52	10	16	190	2.28
		100	5	5			100	5		
	G8	10	32	33	340	2.53	10	41	410	2.61
		100	5	3			100	4		
	G4	100	30	39	3100	3.49	100	32	3300	3.52
		1000	4	4			1000	4		
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	35	39	1.59
		10	3	5			10	8		
	H5	1	45	40	46	1.66	1	37	38	1.58
		10	6	3			10	5		
	H3	10	46	26	460	2.66	10	49	480	2.68
		100	4	4			100	4		
	H8	10	36	44	360	2.56	10	38	400	2.60
		100	3	4			100	6		
	H4	100	40	40	3800	3.58	100	43	4500	3.65
		1000	2	5			1000	6		
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	52	50	1.70
		10	3	2			10	3		
	I5	1	39	39	38	1.58	1	44	47	1.67
		10	3	4			10	8		
	I3	10	32	51	340	2.53	10	58	570	2.76
		100	5	5			100	5		
	I8	10	52	48	510	2.71	10	53	520	2.72
		100	4	7			100	4		
	I4	100	41	39	4100	3.61	100	55	5600	3.75
		1000	4	3			1000	7		
	I6	100	45	53	4500	3.65	100	66	6400	3.81
		1000	4	6			1000	4		

Collaborator	N° sample	Reference method: ISO 16649-2					Alternative method: CHROMID Coli ID 44°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	43	44	1.64
		10	1	5			10	5		
	J5	1	27	36	27	1.43	1	44	43	1.63
		10	3	9			10	3		
	J3	10	37	48	380	2.58	10	47	490	2.69
		100	5	7			100	7		
	J8	10	36	41	370	2.57	10	30	290	2.46
		100	5	6			100	2		
	J4	100	58	68	5600	3.75	100	38	3700	3.57
		1000	4	5			1000	3		
	J6	100	50	51	4700	3.67	100	54	5000	3.70
		1000	2	6			1000	1		
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	6	55	1.74 Ne
		100	0	0			100	0		
	K5	10	5	4	45	1.65 Ne	10	2	20	1.30 Ne
		100	0	0			100	0		
	K3	10	56	65	540	2.73	10	50	480	2.68
		100	3	5			100	3		
	K8	10	43	40	460	2.66	10	48	460	2.66
		100	8	2			100	3		
	K4	100	51	44	4900	3.69	100	57	5900	3.77
		1000	3	4			1000	8		
	K6	100	53	47	5200	3.72	100	50	4800	3.68
		1000	4	7			1000	3		
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	3	30	1.48 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	56	590	2.77
		100	4	4			100	9		
	L8	10	40	53	410	2.61	10	49	470	2.67
		100	5	7			100	3		
	L4	100	35	64	3500	3.54	100	48	4800	3.68
		1000	3	4			1000	5		
	L6	100	58	71	5700	3.76	100	38	3900	3.59
		1000	5	9			1000	5		

Collaborator	N° sample	Reference method: ISO 16649-2					Alternative method: CHROMID Coli ID 44°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	57	55	1.74
		10	5	3			10	4		
	M5	1	47	39	46	1.66	1	44	43	1.63
		10	4	5			10	3		
	M3	10	42	52	420	2.62	10	50	500	2.70
		100	4	6			100	5		
	M8	10	41	44	430	2.63	10	47	480	2.68
		100	6	6			100	6		
	M4	100	54	52	5200	3.72	100	57	5700	3.76
		1000	3	9			1000	6		
	M6	100	42	47	4000	3.60	100	53	5100	3.71
		1000	2	2			1000	3		
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	46	47	1.67
		10	4	4			10	6		
	N5	1	18	19	18	1.26	1	42	42	1.62
		10	2	6			10	4		
	N3	10	33	59	330	2.52	10	41	420	2.62
		100	3	4			100	5		
	N8	10	47	26	470	2.67	10	41	410	2.61
		100	5	2			100	4		
	N4	100	28	46	2600	3.41	100	55	5800	3.76
		1000	1	5			1000	9		
	N6	100	30	45	3000	3.48	100	67	6600	3.82
		1000	3	3			1000	6		

Collaborator	N° sample	Reference method: ISO 16649-2♦					Alternative method: CHROMID Coli ID 44°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		
	O7	1	0	0	<1	<0.00	1	0	<1	<0.00
		10	0	0			10	0		
	O2	1	48	42	47	1.67	1	57	58	1.76
		10	4	3			10	7		
	O5	1	44	49	46	1.66	1	48	48	1.68
		10	7	5			10	5		
	O3	10	48	26	460	2.66	10	48	500	2.70
		100	2	1			100	7		
	O8	10	38	39	380	2.58	10	50	490	2.69
		100	4	4			100	4		
	O4	100	43	46	4300	3.63	100	69	6700	3.83
		1000	4	2			1000	5		
	O6	100	45	36	4300	3.63	100	62	6200	3.79
		1000	2	2			1000	6		

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