National Food Chain Safety Office
Food Chain Safety Laboratory Directorate
Coordination and Methodology Department
81, Mester street, Budapest, 1095, Hungary
Post office box: 1525 Budapest Pf. 30.
Phone: +36 (1) 336-9000
korvizsgalat@nebih.gov.hu
portal.nebih.gov.hu

Proficiency testing provider accredited by NAH under No NAH-8-0005/2024.

DETECTION OF *SALMONELLA* SPP. FROM POULTRY ENVIRONMENTAL SAMPLES FOLLOWED BY 'O' SEROGROUP DETERMINATION OF THE ISOLATED *SALMONELLA* STRAINS IN ORDER TO DETERMINE THE PRESENCE OF *S.* ENTERITIDIS AND *S.* TYPHIMURIUM IN THE SAMPLE

12-2026

PROFICIENCY TESTING
FINAL REPORT

Table of contents

1 Proficiency testing data 3
1.1 Number of the proficiency testing 3
1.2 Proficiency testing provider 3
1.3 External service laboratory involved in the preparation and homogenization of proficiency test samples and the performance of homogeneity and/or stability tests 3
1.4 Place and time of publication of the final report of the proficiency test 3
1.5 The final report of the proficiency testing was approved by 3
1.6 Language versions 3
2 Introduction 4
2.1 Subject of the proficiency testing round 4
2.2 Samples issued for the proficiency testing round (PT items) 4
2.3 Preparation, packaging and distribution of the PT items 4
3 Homogeneity and stability 6
3.1 Measurements performed to assess homogeneity 6
3.2 Assessment of homogeneity 6
3.3 Measurements performed to assess stability 6
3.4 Stability assessment 6
4 Laboratories participating in the proficiency testing round 6
5 Test results and their evaluation 7
5.1 Test results, measurement uncertainties and methods submitted by participants 7
5.2 Methods of evaluating test results, statistical approaches 7
5.3 Evaluation of test results submitted by participants 7
6 Summary, assessment of the proficiency test 7
Attachments 10
Annex 1: Sample distribution sheet 10
Annex 2: Laboratories participating in the proficiency testing 11
Annex 3: Test results and methods submitted by participants 13
Annex 4: Participant performance values 29

1 Proficiency testing data

1.1 Number of the proficiency testing

12-2026

1.2 Proficiency testing provider

National Food Chain Safety Office
Food Chain Safety Laboratory Directorate
Coordination and Methodology Department
1095 Budapest, Mester u. 81., Hungary
E-mail: korvizsgalat@nebih.gov.hu

1.3 External service laboratory involved in the preparation and homogenization of proficiency test samples and the performance of homogeneity and/or stability tests

National Food Chain Safety Office
Food Chain Safety Laboratory Directorate
Microbiological National Reference Laboratory
1095 Budapest, Mester u. 81., Hungary
E-mail address: mikrobiologiai_nrl@nebih.gov.hu

1.4 Place and time of publication of the final report of the proficiency test

Budapest, 28 October 2026

1.5 The final report of the proficiency testing was approved by

Péter Bogáth, Head of Department

The Final Report is approved and authentic without signature.

1.6 Language versions

The present Final Report has been prepared and approved in both Hungarian and English. In the event of any discrepancy between the two language versions, the Hungarian version shall prevail.

2 Introduction

The Coordination and Methodology Department of the Food Chain Safety Laboratory Directorate of the National Food Chain Safety Office, which organizes proficiency tests, announced the microbiological examination of poultry environmental hygiene samples as part of the 2026 proficiency testing program.

During the organization, implementation and evaluation of the proficiency testing round, the following international regulations had been considered:

- MSZ EN ISO/IEC 17043:2023 Conformity assessment - General requirements for the competence of proficiency testing providers;
- ISO 13528:2022 Statistical methods for use in proficiency testing by interlaboratory comparisons;
- MSZ EN ISO 6579:2017 (withdrawn standard), MSZ EN ISO 6579:2002/A1:2007 (Annex D) (withdrawn standard), MSZ EN ISO 6579-1:2017/A1:2020 (withdrawn standard), MSZ EN ISO 6579-1:2024 EV;
- MSZ CEN ISO/TR 6579-3:2014.

Our proficiency testing programs are available to any laboratory, regardless of their status of accreditation.

2.1 Subject of the proficiency testing round

The subject of this proficiency testing (PT) was the detection of *Salmonella* spp. from poultry environmental test items, followed by 'O' serogroup determination of the isolated *Salmonella* strains in order to determine the presence of *S.* Enteritidis and *S.* Typhimurium in the test items.

2.2 Samples issued for the proficiency testing round (PT items)

PT items origin: The matrix used for this PT was poultry faeces. The batch of faeces was collected from a *Salmonella*-free broiler breeder flock, confirmed by pre-tests of the subcontracted laboratory.

Name of the PT items: poultry faeces samples

2.3 Preparation, packaging and distribution of the PT items

The subcontracted laboratory prepared and packed the PT items.

The batch of faeces had been autoclaved, which guaranteed that the PT items would contain only the cultures of bacteria given to them by artificial infection. These bacteria cultures were derived from dilutions of 24-hour broth cultures. The samples were given to plastic containers in an amount of 25,0 +/- 0,1 grammes. The artificial infection was carried out in the following concentrations:

Bacterial strain	Infective dosage cfu/25g PT item
S. enterica subsp. *enterica* serovar Enteritidis PT22/S5	$2{,}87*10^2$
S. enterica subsp. *enterica* serovar Typhimurium PT22/S18	$2{,}45*10^2$
S. enterica subsp. *enterica* serovar Infantis PT22/S20	$3{,}07*10^2$

Bacterial strain	Infective dosage cfu/25g PT item
S. enterica subsp. *enterica* serovar Kintambo PT22/S7	$2{,}55*10^2$
Citrobacter freundii ATCC 8090	$5{,}75*10^2$
Proteus mirabilis ATCC 29906	$3{,}90*10^2$

Each participant received five PT test item, each one of them marked with different Arabic number. These numeric codes were generated by random number generation. The codes for the PT items and the sample group identification is in the *Annex 1* (Sample Allocation Sheet).

Group I samples were infected with *Salmonella* Enteritidis, *Citrobacter freundii*, and *Proteus mirabilis* strains. *Salmonella* Enteritidis belongs to the serological O-antigen group 9.

Serotype	O-antigen	H-antigen	Serogroup
S. Enteritidis	1, **9**,12	gm:-	D_1

Group II samples were infected with *Salmonella* Typhimurium, *Citrobacter freundii* and *Proteus mirabilis* strains. *Salmonella* Typhimurium belongs to the serological O-antigen group 4.

Serotype	O-antigen	H-antigen	Serogroup
S. Typhimurium	1,**4**, [5],12	i:1,2	B

Group III samples were infected with *Salmonella* Infantis, *Citrobacter freundii* and *Proteus mirabilis* strains. *Salmonella* Infantis belongs to the serological O-antigen group 7.

Serotype	O-antigen	H-antigen	Serogroup
S. Infantis	6,**7**,14	r:1,5	C_1

Group IV samples were infected with *Salmonella* Kintambo, *Citrobacter freundii* and *Proteus mirabilis* strains. *Salmonella* Kintambo belongs to the serological O-antigen group 13.

Serotype	O-antigen	H-antigen	Serogroup
S. Kintambo	1,**13**,23	m,t:-	G

Group V samples were infected with *Citrobacter freundii* and *Proteus mirabilis* strain*S.*

The samples were handed over in person on September 22, 2026. For some of the Nébih's own laboratories the sample packages were transported by using the relevant internal routes based on the NÉBIH Authority's Sample Delivery Procedures with registration number ÉFÁT/213/2022. A sealed envelope was given to every package which contained the unique Laboratory Code in this PT (LC) of the participant.

The *Guidance* and the *Reporting form* were sent to the participants via electronic mail on the day of the sample distribution. In the *Guidance* participants were informed about the preparation of the PT items.

The unified date for the start of the tests was September 23, 2026.

3 Homogeneity and stability

3.1 Measurements performed to assess homogeneity

The external service laboratory carried out the tests necessary to determine the homogeneity on the day designated for sample processing by selecting samples with serial numbers specified in advance by the Coordination and Methodology Department (10 pieces).

Subject	Method
Detection of *Salmonella* spp.	MSZ EN ISO 6579-1:2017/A1:2020 (withdrawn standard) hátrébb ez a módszer szerepel
Guidelines for serotyping *Salmonella* spp.	MSZ CEN ISO/TR 6579-3:2014

3.2 Assessment of homogeneity

Principle: The homogeneity of the samples is considered acceptable if, upon testing 10 sample sets, each sample group (I–V) conforms to the expected property value.

Result: The detection of *Salmonella* spp., as well as be ruled out of *S.* Enteritidis and *S.* Typhimurium based on the "O" serogroup, was satisfactory for all sample groups (I–V); the material is therefore deemed suitable for use as a proficiency testing sample.

3.3 Measurements performed to assess stability

During the proficiency testing round, the samples were processed on the day following receipt, in accordance with the procedures for microbiological proficiency testing, thereby ensuring a consistent composition of the samples at the time of processing. Consequently, stability was not assessed.

3.4 Stability assessment

During the proficiency testing round, the samples were processed on the day following receipt, in accordance with the procedures for microbiological proficiency testing, thereby ensuring a consistent composition of the samples at the time of processing. Consequently, stability was not assessed.

4 Laboratories participating in the proficiency testing round

28 laboratories applied for the proficiency test, with 26 Hungarian, 1 Austrian, and 1 Scottish sites. A table containing the names and locations of the participating organizations is included in Annex 2.

The participating laboratories of the PT were asked to perform the detection of *Salmonella* spp. according to methods (MSZ EN ISO 6579:2002/A1:2007 (Annex D) (withdrawn standard) or MSZ EN ISO 6579-1:2017/A1:2020 (withdrawn standard) or MSZ EN ISO 6579-1:2024 EV). For the further examination of the isolated *Salmonella* strains - determination of serogroup ‘O’ in order to be ruled out the presence of *S.* Enteritidis and *S.* Typhimurium – we did not make any restrictions regarding the applied test method

5 Test results and their evaluation

Every figure and table containing the results is anonymized in this report, so the participating laboratories could identify the part concerning themselves from the LC known from the sealed envelope.

5.1 Test results, measurement uncertainties and methods submitted by participants

The completed result reporting forms were received from all applicant*S.* **33 results** were received **for the determination of the presence of *Salmonella* spp.,** laboratories code numbers LC0002, LC0004, LC0007, LC0010 and LC0019 submitted results tested with 2 different methods (marked /A and /B). Further testing of the isolated *Salmonella* bacterial strains to **be ruled out the presence of *S.* Enteritidis and *S.* Typhimurium, 25 results** were received for the determination of serogroup "O".

The submitted test results and methods are shown in the tables in Annex 3. During the proficiency test, *Salmonella* spp. The detection of the substance had to be carried out according to the prescribed reference methods (MSZ EN ISO 6579:2002/A1:2007 (Annex D) (withdrawn standard) or MSZ EN ISO 6579-1:2017/A1:2020 (withdrawn standard) or MSZ EN ISO 6579-1:2024 EV). The information on the participant testing methods was summarized in a table (Annex 3).

5.2 Methods of evaluating test results, statistical approaches

In the case of qualitative tests (presence-absence statement), only those results were accepted that matched the results of the sample issued for testing (with the homogeneity test of the subcontractor laboratory).

The performance of the participating laboratories was accepted as satisfactory only when every detection of *Salmonella* spp. and every determination of serogroup 'O' to be ruled out the presence of *S.* Enteritidis and *S.* Typhimurium turned out to be appropriate.

During the *Salmonella* spp. detection test, we could NOT accept the "Presumptive *Salmonella*" result for samples artificially contaminated with *S. enterica* subsp. *enterica* Kintambo serovar PT22/S7.

5.3 Evaluation of test results submitted by participants

The *evaluation* of the test results were summarized in tables (Annex 4).

6 Summary, assessment of the proficiency test

A total of 28 participants registered for the proficiency test. For the detection of *Salmonella* spp. 33 results were received (reporting based on different methods was counted separately from the same participant). 25 participants submitted results for serogroup 'O' determination in order to be ruled out the presence of *S.* Enteritidis and *S.* Typhimurium.

The tables containing the performance of the participating laboratories, can be found in Annex 4.

For the detection of *Salmonella* spp., *31 participants* received **satisfactory result**. Two participants (*LC0001, LC0008*) achieved **unsatisfactory result**.

For the serogroup 'O' determination in order to be ruled out the presence of *S.* Enteritidis and *S.* Typhimurium *23 participants* received **satisfactory** results. Two participants (*LC0001, LC0008*) achieved **unsatisfactory result**.

The summary table contains the summarized, final laboratory results. **26 participants** received **satisfactory** results, **2 participants (*LC0001, LC0008*)** achieved an **unsatisfactory** result during the **determination of *Salmonella* spp., and the serogroup 'O' determination in order to be ruled out the presence of *S.* Enteritidis and *S.* Typhimurium too.**

We respectfully ask the participating laboratories to provide the identifier of the test method submitted on the result sheet in the future accurately and correctly in all cases.

Please note that complaints regarding the results of the proficiency test can be submitted by e-mail to korvizsgalat@nebih.gov.hu within 8 calendar days of the sending of the final report, which is accepted by the PT Provider from the client/participant. If the complaint concerns the administration, the handling of the PT item, the conduct of the staff or, specifically, the activities of the PT Provider in a way that is not related to the statistical evaluation of the participant's performance, then, after proper identification of the client/participant, the complaint will be accepted within 30 calendar days from the causing event. The PT Provider will investigate the complaint in all cases within the shortest possible time. The documentation includes the corrective measures taken to eliminate the cause of the complaint, and the Provider will inform the complainant in writing about the measures taken.

The management of the Nébih Food Chain Safety Laboratory Directorate and the staff organizing the proficiency test declare that during their work, the data, code and results of the participants are treated secretly and confidentially.

We would like to draw your attention to the fact that this final report will also be displayed in its unchanged form on the Nébih website (https://portal.nebih.gov.hu/-/elelmiszerlanc-jartassagi-vizsgalatok), in compliance with the requirements for confidential handling.

The Organizer assumes no responsibility for the consequences of the results of this document.

The evaluation of the measurement result in the final report and publications is done only with the laboratory code (LC) number.

The mention of specific companies or products does not constitute an intention to infringe on proprietary rights and should not be construed as an endorsement or recommendation by the Organizer.

If requested by a regulatory authority, the results of the proficiency test will be sent to the competent Authority and the participant will be notified in writing.

We hereby inform the participants that the results of the proficiency test will be published in accordance with Regulation 180/2009 (XII.29.) FVM decree § 4 (1) point a) on certain rules for the protection against salmonellosis, and in accordance with the 2004/564/EC: Commission Decision of 20 July 2004 concerning Community reference laboratories for the epidemiology of zoonoses and for *Salmonella* and national reference laboratories for *Salmonella* on Community zoonosis epidemiology and *Salmonella* reference laboratories and national *Salmonella* reference laboratories, based on point d) of the ANNEX II, we send it to the Microbiological National Reference Laboratory of the National Food Chain Safety Office.

We thank all laboratories for their participation and cooperation!

Summary table of participant performance evaluations

Laboratory Code in this PT	Evaluation of the detection of *Salmonella* spp.	Evaluation of the be ruled out of the presence of *S.* Enteritidis and *S.* Typhimurium serovars by the determination of 'O' serogroup	Performance of the Laboratory
LC0001	Unsatisfactory	Unsatisfactory	Unsatisfactory
LC0002/A	Satisfactory	Satisfactory	Satisfactory
LC0002/B	Satisfactory	-	Satisfactory
LC0003	Satisfactory	Satisfactory	Satisfactory
LC0004	Satisfactory	Satisfactory	Satisfactory
LC0005	Satisfactory	Satisfactory	Satisfactory
LC0006	Satisfactory	Satisfactory	Satisfactory
LC0007/A	Satisfactory	Satisfactory	Satisfactory
LC0007/B	Satisfactory	-	Satisfactory
LC0008	Unsatisfactory	Unsatisfactory	Unsatisfactory
LC0009	Satisfactory	Satisfactory	Satisfactory
LC0010/A	Satisfactory	Satisfactory	Satisfactory
LC0010/B	Satisfactory	-	Satisfactory
LC0011	Satisfactory	Satisfactory	Satisfactory
LC0012	Satisfactory	Satisfactory	Satisfactory
LC0013	Satisfactory	Satisfactory	Satisfactory
LC0014	Satisfactory	Satisfactory	Satisfactory
LC0015	Satisfactory	Satisfactory	Satisfactory
LC0016	Satisfactory	-	Satisfactory
LC0017	Satisfactory	Satisfactory	Satisfactory
LC0018	Satisfactory	Satisfactory	Satisfactory
LC0019/A	Satisfactory	Satisfactory	Satisfactory
LC0019/B	Satisfactory	-	Satisfactory
LC0020	Satisfactory	Satisfactory	Satisfactory
LC0021	Satisfactory	Satisfactory	Satisfactory
LC0022	Satisfactory	Satisfactory	Satisfactory
LC0023	Satisfactory	Satisfactory	Satisfactory
LC0024	Satisfactory	-	Satisfactory
LC0025	Satisfactory	Satisfactory	Satisfactory
LC0026	Satisfactory	-	Satisfactory
LC0027	Satisfactory	Satisfactory	Satisfactory
LC0028	Satisfactory	Satisfactory	Satisfactory

Attachments

Annex 1: Sample distribution sheet

Sample package number	Laboratory Code in this PT	Sample groups				
		I.	II.	III.	IV.	V.
		*S.*Enteritidis (10^{-6}) 0,5 ml + *Citrobacter freundii* (10^{-6}) 1 ml + *Proteus mirabilis* (10^{-6}) 1 ml	*S.*Typhimurium (10^{-6}) 0,5 ml + *Citrobacter freundii* (10^{-6}) 1 ml + *Proteus mirabilis* (10^{-6}) 1 ml	*S.* Inftantis (10^{-6}) 0,5 ml+ *Citrobacter freundii* (10^{-6}) 1 ml + *Proteus mirabilis* (10^{-6}) 1 ml	*S.* Kintambo (10^{-6}) 0,5 ml+ *Citrobacter freundii* (10^{-6}) 1 ml + *Proteus mirabilis* (10^{-6}) 1 ml	*Citrobacter freundii* (10^{-6}) 1 ml + *Proteus mirabilis* (10^{-6}) 1 ml
15	LC0010	180	78	69	423	674
31	LC0009	268	615	307	110	17
30	LC0001	16	82	406	66	503
8	LC0020	142	700	80	510	161
37	LC0012	140	606	105	642	45
32	LC0025	425	603	644	311	190
36	LC0007	502	405	64	13	187
5	LC0008	600	424	704	612	20
28	LC0019	634	253	214	422	512
19	LC0003	58	675	417	645	89
1	LC0026	631	602	225	171	81
20	LC0016	19	173	211	200	86
35	LC0017	312	245	617	29	111
24	LC0005	170	623	35	126	636
13	LC0024	266	252	705	500	601
21	LC0018	85	633	511	9	702
7	LC0006	509	258	412	127	643
38	LC0015	67	133	672	637	43
3	LC0022	198	91	39	304	310
34	LC0004	121	223	49	4	616
17	LC0013	2	65	250	71	648
11	LC0014	638	168	647	400	220
18	LC0011	507	90	246	427	305
22	LC0002	11	99	145	275	413
4	LC0023	306	231	59	216	88
14	LC0021	24	84	260	515	646
26	LC0027	426	30	277	158	93
29	LC0028	664	87	517	504	10
2	H	3	401	247	152	506
6	H	278	8	703	670	301
9	H	14	257	420	188	621
10	H	613	255	134	620	22

Sample package number	Laboratory Code in this PT	Sample groups				
		I.	II.	III.	IV.	V.
		*S.*Enteritidis (10^{-6}) 0,5 ml + *Citrobacter freundii* (10^{-6}) 1 ml + *Proteus mirabilis* (10^{-6}) 1 ml	*S.*Typhimurium (10^{-6}) 0,5 ml + *Citrobacter freundii* (10^{-6}) 1 ml + *Proteus mirabilis* (10^{-6}) 1 ml	*S.* Inftantis (10^{-6}) 0,5 ml+ *Citrobacter freundii* (10^{-6}) 1 ml + *Proteus mirabilis* (10^{-6}) 1 ml	*S.* Kintambo (10^{-6}) 0,5 ml+ *Citrobacter freundii* (10^{-6}) 1 ml + *Proteus mirabilis* (10^{-6}) 1 ml	*Citrobacter freundii* (10^{-6}) 1 ml + *Proteus mirabilis* (10^{-6}) 1 ml
12	H	660	240	125	611	1
16	H	635	26	418	210	428
23	H	415	622	414	673	104
25	H	610	706	132	513	40
26	S	426	30	277	158	93
27	H	608	186	614	12	79
29	S	664	87	517	504	10
33	H	416	156	508	665	624

H: SAMPLES FOR HOMOGENEITY TESTING, S: SPARE SAMPLES

Annex 2: Laboratories participating in the proficiency testing

Szervezet	Város
"GALLUS" Baromfitenyésztő és Keltető Kft. Mikrobiológiai Laboratóriuma	Devecser
Állat-egészségügyi Labor Kft.	Békéscsaba
Aviagen UK LtD.	Broxburn
Baranya Vármegyei Kormányhivatal Népegészségügyi Főosztály Laboratóriumi Osztály Népegészségügyi, Állategészségügyi és Környezetvédelmi Laboratórium	Pécs
Baromfi-Coop Kft. Állategészségügyi Laboratóriuma	Nyírkércs
Bonafarm-Bábolna Takarmány Kft. Vizsgálólaboratórium	Nagyigmánd
DABIC NONPROFIT KFT. Minőségvizsgáló Laboratórium	Szentes
Eurofins Vetcontrol Kft.	Budapest
Gastor Foods Kft. Mikrobiológiai Laboratóriuma	Nyírbátor
Győr-Moson-Sopron Vármegyei Kormányhivatal Agrárügyi Főosztály Élelmiszerlánc-biztonsági Osztály Állategészségügyi Laboratórium	Győr
LAB-KA Kft. Mikrobiológiai Laboratóriuma	Karcag
MERTCONTROL HL-LAB Kft. Agrár- és Környezetvédelmi Laboratórium	Debrecen
MikrobiLab Bt. Mikrobiológiai Laboratóriuma	Győr
Mikrolab és SPF Mikrobiológiai Laboratórium Kft.	Dabas
NAGISZ Zrt. Központi Mikrobiológiai Laboratórium	Nádudvar
Nébih ÁDI Bakteriológiai Osztály	Budapest
Nébih ÁDI Debreceni Kórbonctani és Bakteriológiai Laboratórium	Debrecen
Nébih ÉLI Mikrobiológiai Nemzeti Referencia Laboratórium	Budapest
Nébih ÉLI Mikrobiológiai Nemzeti Referencia Laboratórium Kaposvári Telephely	Kaposvár
Nébih ÉLI Mikrobiológiai Nemzeti Referencia Laboratórium Miskloci Telephely	Miskolc
Nébih ÉLI Mikrobiológiai Nemzeti Referencia Laboratórium Székesfehérvári Telephely	Székesfehérvár
Phylaxia Labor Állategészségügyi, Diagnosztikai és Szolgáltató Kft.	Veszprém
Prophyl Állategészségügyi, Diagnosztikai, Kutató és Szolgáltató Kft. - Dr. Marek József Állategészségügyi Laboratórium	Mohács
SEQOMICS Biotechnológia Kft. Élelmiszerbiztonsági Laboratórium	Mórahalom
Szabolcs-Szatmár-Bereg Megyei Élelmiszer-mikrobiológiai és Állategészségügyi Laboratórium KFT. Laboratóriuma	Nyíregyháza

Szervezet	Város
TETRA Laboratory Kft.	Uraiújfalu
Medikátor Labor Kft.	Bábolna
Geflügelmedizin, Veterinarmedizinische Universitat Wien	Wien

Annex 3: Test results and methods submitted by participants
Annex 3.1: Test results by participants

Laboratory Code in this PT	The original sign of the sample		16	66	82	406	503
LC0001	**Results**	*Salmonella* spp.	negative	positive	positive	positive	negative
		Salmonella serogrouping	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*
Laboratory Code in this PT	The original sign of the sample		11	99	145	275	413
LC0002/A	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*
Laboratory Code in this PT	The original sign of the sample		11	99	145	275	413
LC0002/B	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative
Laboratory Code in this PT	The original sign of the sample		58	89	417	645	675

LC0003	**Results**	*Salmonella* spp.	positive	negative	positive	positive	positive
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.
Laboratory Code in this PT	The original sign of the sample		4	49	121	223	616
LC0004/A	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*
Laboratory Code in this PT	The original sign of the sample		4	49	121	223	616
LC0004/B	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative
Laboratory Code in this PT	The original sign of the sample		35	126	170	623	636
LC0005	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*

Laboratory Code in this PT	The original sign of the sample		127	258	412	509	643
LC0006	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*
Laboratory Code in this PT	The original sign of the sample		13	64	187	405	502
LC0007/A	**Results**	*Salmonella* spp.	positive	positive	negative	positive	positive
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.
Laboratory Code in this PT	The original sign of the sample		13	64	187	405	502
LC0007/B	**Results**	*Salmonella* spp.	positive	positive	negative	positive	positive
Laboratory Code in this PT	The original sign of the sample		424	612	704	20	600
LC0008	**Results**	*Salmonella* spp.	positive	presumptive *Salmonella*	positive	negative	positive

		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.
Laboratory Code in this PT	The original sign of the sample		17	110	268	307	615
LC0009	**Results**	*Salmonella* spp.	negative	positive	positive	positive	positive
		Salmonella serogrouping	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.
Laboratory Code in this PT	The original sign of the sample		69	78	180	423	674
LC0010/A	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*
Laboratory Code in this PT	The original sign of the sample		69	78	180	423	674
LC0010/B	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative

Laboratory Code in this PT	The original sign of the sample		90	246	305	427	507
LC0011	**Results**	*Salmonella* spp.	positive	positive	negative	positive	positive
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.
Laboratory Code in this PT	The original sign of the sample		45	105	140	606	642
LC0012	**Results**	*Salmonella* spp.	negative	positive	positive	positive	positive
		Salmonella serogrouping	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.
Laboratory Code in this PT	The original sign of the sample		2	65	71	250	648
LC0013	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*

Laboratory Code in this PT	The original sign of the sample		168	220	400	638	647
LC0014	**Results**	*Salmonella* spp.	positive	negative	positive	positive	positive
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.
Laboratory Code in this PT	The original sign of the sample		637	67	43	133	672
LC0015	**Results**	*Salmonella* spp.	positive	positive	negative	positive	positive
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.
Laboratory Code in this PT	The original sign of the sample		19	86	173	200	211
LC0016	**Results**	*Salmonella* spp.	positive	negative	positive	positive	positive
Laboratory Code in this PT	The original sign of the sample		29	111	245	312	617
LC0017	**Results**	*Salmonella* spp.	positive	negative	positive	positive	positive

		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.
Laboratory Code in this PT	The original sign of the sample		9	85	511	633	702
LC0018	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*
Laboratory Code in this PT	The original sign of the sample		214	253	422	512	634
LC0019/A	**Results**	*Salmonella* spp.	positive	positive	positive	negative	positive
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.
Laboratory Code in this PT	The original sign of the sample		214	253	422	512	634
LC0019/B	**Results**	*Salmonella* spp.	positive	positive	positive	negative	positive

Laboratory Code in this PT	The original sign of the sample		80	142	161	510	700
LC0020	**Results**	*Salmonella* spp.	positive	positive	negative	positive	positive
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.
Laboratory Code in this PT	The original sign of the sample		24	84	260	515	646
LC0021	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*
Laboratory Code in this PT	The original sign of the sample		39	91	198	304	310
LC0022	**Results**	*Salmonella* spp.	positive	positive	positive	positive	negative
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*

Laboratory Code in this PT	The original sign of the sample		59	88	216	231	306
LC0023	**Results**	*Salmonella* spp.	positive	negative	positive	positive	positive
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.
Laboratory Code in this PT	The original sign of the sample		252	266	500	601	705
LC0024	**Results**	*Salmonella* spp.	positive	positive	positive	negative	positive
Laboratory Code in this PT	The original sign of the sample		190	311	425	603	644
LC0025	**Results**	*Salmonella* spp.	negative	positive	positive	positive	positive
		Salmonella serogrouping	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.
Laboratory Code in this PT	The original sign of the sample		81	171	225	602	631

LC0026	**Results**	*Salmonella* spp.	negative	positive	positive	positive	positive
Laboratory Code in this PT	The original sign of the sample		30	93	158	277	426
LC0027	**Results**	*Salmonella* spp.	positive	negative	positive	positive	positive
		Salmonella serogrouping	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.
Laboratory Code in this PT	The original sign of the sample		10	87	504	517	664
LC0028	**Results**	*Salmonella* spp.	negative	positive	positive	positive	positive
		Presence of *S.* Enteritidis and *S.* Typhimurium	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.

Annex 3.2: Summary of study methodology data with additional comments

Laboratory PT code number	Parameter	Method ID	Comments by PT provider
LC0001	*Salmonella* spp.	ISO 6579	The standard designation is incomplete!
LC0001	*S.* Enteritidis és *S.* Typhimurium jelenléte	Slide agglutination using White-Kauffmann-Le Minor scheme with O and H antiserum	
LC0002/A	*Salmonella* spp.	MSZ EN ISO 6579-1:2017 (visszavont szabvány) MSZ EN ISO 6579-1:2017/A1:2020 (visszavont szabvány)	
LC0002/A	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0002/B	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0003	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0003	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0004/A	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0004/B	*Salmonella* spp.	Bio-Rad iQ-Check®*Salmonella* II PCR kit	
LC0004/A	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	

Laboratory PT code number	Parameter	Method ID	Comments by PT provider
LC0005	*Salmonella* spp.	MSZ EN ISO 6579-1:2017	The "(withdrawn standard)" designation is missing!
LC0005	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0006	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0006	*S.* Enteritidis és *S.* Typhimurium jelenléte	White-Kauffmann-Le Minor séma	
LC0007/A	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0007/A	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014 9.2.1-9.2.4. szakasz	
LC0007/B	*Salmonella* spp.	BIO-RAD-3678123 (Rugalmas terület)	
LC0008	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0008	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0009	*Salmonella* spp.	MSZ EN ISO 6579-1:2017	The "(withdrawn standard)" designation is missing!

Laboratory PT code number	**Parameter**	**Method ID**	**Comments by PT provider**
LC0009	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0010/A	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0010/A	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ EN ISO 6579-1:2024 EV, MSZ CEN ISO/TR 6579-3:2014 9.2.6-9.2.7 szakaszok kivételével	
LC0010/B	*Salmonella* spp.	GML-6 módszerrel (*Salmonella* spp. kimutatása Neogen Molecular Detection System használatával)	
LC0011	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0011	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ EN ISO 6579-3:2014	"MSZ CEN ISO/TR 6579-3:2014" is the correct standard designation.
LC0012	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0012	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0013	*Salmonella* spp.	MSZ CEN ISO 6579-1:2024 EV	
LC0013	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	

Laboratory PT code number	Parameter	Method ID	Comments by PT provider
LC0014	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0014	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0015	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0015	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0016	*Salmonella* spp.	MSZ EN ISO 6579-1:2017, MSZ EN ISO 6579-1:2017/A1:2020	The "(withdrawn standard)" designation is missing!
LC0017	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0017	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0018	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0018	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ EN ISO 6579-1:2024 EV	The specified standard is not sufficient on its own for serogroup testing!
LC0019/A	*Salmonella* spp.	MSZ EN ISO 6579-1:2024EV	

Laboratory PT code number	Parameter	Method ID	Comments by PT provider
LC0019/A	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0019/B	*Salmonella* spp.	MSZ EN ISO 6579-1:2017	The "(withdrawn standard)" designation is missing!
LC0020	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0020	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0021	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0021	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ EN ISO 6579-1:2024 EV	The specified standard is not sufficient on its own for serogroup testing!
LC0022	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0022	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0023	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	

Laboratory PT code number	Parameter	Method ID	Comments by PT provider
LC0023	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0024	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0025	*Salmonella* spp.	MSZ EN ISO 6579-1:2024	"MSZ EN ISO 6579-1:2024 EV" is the correct standard designation.
LC0025	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO/TR 6579-3:2014	
LC0026	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0027	*Salmonella* spp.	MSZ EN ISO 6579-1:2024 EV	
LC0027	*S.* Enteritidis és *S.* Typhimurium jelenléte	MSZ CEN ISO TR 6579-3:2014	"MSZ CEN ISO/TR 6579-3:2014" is the correct standard designation.
LC0028	*Salmonella* spp.	ISO 6579-1:2017 +Amd 1:2020	"ISO 6579-1:2017/Amd 1:2020" is the correct standard designation.
LC0028	*S.* Enteritidis és *S.* Typhimurium jelenléte	Serogroup SIFIN agglutination (A,B,C,D,E) (our lab), Serotyping according to White-Kauffmann-Le Minor Schema (external lab)	

Annex 4: Participant performance values

Annex 4.1: Performance values for the detection of *Salmonella* spp.

Laboratory PT code number	Results of *Salmonella* spp. detection						Evaluation of *Salmonella* spp. detection
LC0001	Sample code	16	66	82	406	503	Unsatisfactory
	Results	negative	positive	positive	positive	negative	
LC0002/A	Sample code	11	99	145	275	413	Satisfactory
	Results	positive	positive	positive	positive	negative	
LC0002/B	Sample code	11	99	145	275	413	Satisfactory
	Results	positive	positive	positive	positive	negative	
LC0003	Sample code	58	89	417	645	675	Satisfactory
	Results	positive	negative	positive	positive	positive	
LC0004/A	Sample code	4	49	121	223	616	Satisfactory
	Results	positive	positive	positive	positive	negative	
LC0004/B	Sample code	4	49	121	223	616	Satisfactory
	Results	positive	positive	positive	positive	negative	
LC0005	Sample code	35	126	170	623	636	Satisfactory
	Results	positive	positive	positive	positive	negative	
LC0006	Sample code	127	258	412	509	643	Satisfactory
	Results	positive	positive	positive	positive	negative	
LC0007/A	Sample code	13	64	187	405	502	Satisfactory
	Results	positive	positive	negative	positive	positive	
LC0007/B	Sample code	13	64	187	405	502	Satisfactory
	Results	positive	positive	negative	positive	positive	
LC0008	Sample code	424	612	704	20	600	Unsatisfactory
	Results	positive	presumptive *Salmonella*	positive	negative	positive	
LC0009	Sample code	17	110	268	307	615	Satisfactory
	Results	negative	positive	positive	positive	positive	
LC0010/A	Sample code	69	78	180	423	674	Satisfactory
	Results	positive	positive	positive	positive	negative	
LC0010/B	Sample code	69	78	180	423	674	Satisfactory
	Results	positive	positive	positive	positive	negative	
LC0011	Sample code	90	246	305	427	507	Satisfactory
	Results	positive	positive	negative	positive	positive	
LC0012	Sample code	45	105	140	606	642	Satisfactory
	Results	negative	positive	positive	positive	positive	
LC0013	Sample code	2	65	71	250	648	Satisfactory
	Results	positive	positive	positive	positive	negative	
LC0014	Sample code	168	220	400	638	647	Satisfactory
	Results	positive	negative	positive	positive	positive	
LC0015	Sample code	637	67	43	133	672	Satisfactory
	Results	positive	positive	negative	positive	positive	
LC0016	Sample code	19	86	173	200	211	Satisfactory
	Results	positive	negative	positive	positive	positive	
LC0017	Sample code	29	111	245	312	617	Satisfactory
	Results	positive	negative	positive	positive	positive	
LC0018	Sample code	9	85	511	633	702	Satisfactory
	Results	positive	positive	positive	positive	negative	

Laboratory PT code number	Results of *Salmonella* spp. detection						Evaluation of *Salmonella* spp. detection
LC0019/A	Sample code	214	253	422	512	634	Satisfactory
	Results	positive	positive	positive	negative	positive	
LC0019/B	Sample code	214	253	422	512	634	Satisfactory
	Results	positive	positive	positive	negative	positive	
LC0020	Sample code	80	142	161	510	700	Satisfactory
	Results	positive	positive	negative	positive	positive	
LC0021	Sample code	24	84	260	515	646	Satisfactory
	Results	positive	positive	positive	positive	negative	
LC0022	Sample code	39	91	198	304	310	Satisfactory
	Results	positive	positive	positive	positive	negative	
LC0023	Sample code	59	88	216	231	306	Satisfactory
	Results	positive	negative	positive	positive	positive	
LC0024	Sample code	252	266	500	601	705	Satisfactory
	Results	positive	positive	positive	negative	positive	
LC0025	Sample code	190	311	425	603	644	Satisfactory
	Results	negative	positive	positive	positive	positive	
LC0026	Sample code	81	171	225	602	631	Satisfactory
	Results	negative	positive	positive	positive	positive	
LC0027	Sample code	30	93	158	277	426	Satisfactory
	Results	positive	negative	positive	positive	positive	
LC0028	Sample code	10	87	504	517	664	Satisfactory
	Results	negative	positive	positive	positive	positive	

Annex 4.2: Performance values for be ruled out of the *S. Enteritidis* and *S. Typhimurium* serovars by the determination of 'O' serogroup

Laboratory PTcode number	Results of be ruled out *S.* Enteritidis and *S.* Typhimurium serovars by the determination of 'O' serogroup						Evaluation of be ruled out *S.* Enteritidis and *S.* Typhimurium serovars by the determination of 'O' serogroup
LC0001	Sample code	16	66	82	406	503	Unsatisfactory
	Results	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out..	Not of the genus *Salmonella*	
LC0002/A	Sample code	11	99	145	275	413	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	
LC0003	Sample code	58	89	417	645	675	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	
LC0004/A	Sample code	4	49	121	223	616	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	
LC0005	Sample code	35	126	170	623	636	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	
LC0006	Sample code	127	258	412	509	643	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	
LC0007/A	Sample code	13	64	187	405	502	Satisfactory

Laboratory PTcode number	**Results of be ruled out *S.* Enteritidis and *S.* Typhimurium serovars by the determination of 'O' serogroup**						**Evaluation of be ruled out *S.* Enteritidis and *S.* Typhimurium serovars by the determination of 'O' serogroup**
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	
LC0008	Sample code	424	612	704	20	600	Unsatisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	
LC0009	Sample code	17	110	268	307	615	Satisfactory
	Results	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	
LC0010/A	Sample code	69	78	180	423	674	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	
LC0011	Sample code	90	246	305	427	507	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	
LC0012	Sample code	45	105	140	606	642	Satisfactory
	Results	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	
LC0013	Sample code	2	65	71	250	648	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	
LC0014	Sample code	168	220	400	638	647	Satisfactory

Laboratory PTcode number	**Results of be ruled out *S.* Enteritidis and *S.* Typhimurium serovars by the determination of 'O' serogroup**						**Evaluation of be ruled out *S.* Enteritidis and *S.* Typhimurium serovars by the determination of 'O' serogroup**
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	
LC0015	Sample code	637	67	43	133	672	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	
LC0017	Sample code	29	111	245	312	617	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	
LC0018	Sample code	9	85	511	633	702	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	
LC0019/A	Sample code	214	253	422	512	634	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	
LC0020	Sample code	80	142	161	510	700	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	
LC0021	Sample code	24	84	260	515	646	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	
LC0022	Sample code	39	91	198	304	310	Satisfactory

Laboratory PTcode number	**Results of be ruled out *S.* Enteritidis and *S.* Typhimurium serovars by the determination of 'O' serogroup**						**Evaluation of be ruled out *S.* Enteritidis and *S.* Typhimurium serovars by the determination of 'O' serogroup**
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	
LC0023	Sample code	59	88	216	231	306	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	
LC0025	Sample code	190	311	425	603	644	Satisfactory
	Results	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	
LC0027	Sample code	30	93	158	277	426	Satisfactory
	Results	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out..	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	
LC0028	Sample code	10	87	504	517	664	Satisfactory
	Results	Not of the genus *Salmonella*	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium can be ruled out.	Presence of *S.* Enteritidis and *S.* Typhimurium cannot be ruled out.	

-END OF DOCUMENT-