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**PROTOCOL OF THE 16<sup>TH</sup> EURL-SALMONELLA  
INTERLABORATORY COMPARISON STUDY (NOVEMBER 2011) ON  
SEROTYPING AND PHAGE TYPING OF SALMONELLA STRAINS,  
FOR THE NRL-SALMONELLA LABORATORIES**

### **Introduction**

The European Union Reference Laboratory (EURL) - *Salmonella* organises the sixteenth interlaboratory comparison study on the typing of *Salmonella* strains amongst the National Reference Laboratories for *Salmonella* (NRLs-*Salmonella*).

The main objective of this typing study is to test the performance of the participating laboratories for serotyping and phage typing of *Salmonella* spp.

The study will take place in week 45 (starting on 7 November 2011). The timetable can be found on the last page of this protocol.

All data have to be reported in the test report, and in the relevant Excell sheets and sent by e-mail to the EURL-*Salmonella*. The data on phage typing will be forwarded by the EURL-*Salmonella* to the Health Protection Agency (HPA, London, United Kingdom) for further analyses.

### **Transportation of the *Salmonella* strains to the laboratories**

The strains for the serotyping part and the phage typing part of the study will be transported in a separate parcel. The strains will be sent as Biological Substance Category B (UN 3373) with a door-to-door courier to your laboratory.

### **Serotyping**

A total number of 20 *Salmonella* strains (coded S1 - S20) have to be serotyped. The method routinely performed in your laboratory can be used in this study. Each laboratory is allowed to send strains for serotyping to another reference laboratory in their country, if this is part of the normal routine procedure. An additional strain from a reptile source (S-21) is included in the package and serotyping of this strain is optional.

The results for each strain have to be reported with the formula for the O-antigens and H-antigens **and** the serovar names according to the White-Kauffman-le Minor scheme of 2007 (<http://www.pasteur.fr/ip/portal/action/WebdriveActionEvent/oid/01s-000036-089>). Laboratoria have to report only those results, on which the identification of serovar names is based.

Definite conclusions can only be based on agglutination with mono-specific antisera. Otherwise it is better to identify the strains by giving the antigenic formula as far as detected.

The evaluation of the serotyping results will be performed by the EURL-*Salmonella* according to Table 1.

*Table 1 Evaluation of serotyping results*

Results	Evaluation	Abbreviation
Auto-agglutination or Incomplete set of antisera (outside range of antisera)	Not typable	NT
Partly typable due to incomplete set of antisera or Part of the formula (for the name of the serovar) or No name serovar	Partly correct	+/-
Wrong serovar or mixed sera formula	Incorrect	-

**Phage typing**

A total number of 20 *Salmonella* strains have to be phage typed:

- 10 strains of *S. Enteritidis* coded E1 - E10
- 10 strains of *S. Typhimurium* coded T1 - T10

The evaluation of the phage typing results will be done in collaboration with the *Salmonella* Reference Unit of the HPA, London, UK.

Please record all test results in the separately provided Test Report and Excel sheet file and return this file by e-mail to [Irene.Pol@rivm.nl](mailto:Irene.Pol@rivm.nl) on 9 **December 2011 at the latest**.

A check-up by the participants of the submitted results is no longer needed when the results are sent by email in the provided file format. This will save time, *but participants need to be sure to fill in the right results at once*.

If you have questions or remarks about this study, please contact:

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If you have questions or remarks on the phage typing, please contact:

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**Timetable of the 16<sup>th</sup> EURL-*Salmonella* interlaboratory comparison study  
(2011) on serotyping and phage typing of *Salmonella* spp.  
for NRLs-*Salmonella***

Week	Date	Topic
43	31 October- 3 November	Mailing of the protocol and test report 2011 to the NRLs.
45	7-11 November	Mailing of the parcels to the participants as diagnostic specimens by door-to-door courier service. After arrival at the laboratory the strains need to be sub-cultured and stored until the performance of the typing. If you did not receive the parcel <b>by 11 November</b> , do contact the EURL- <i>Salmonella</i> immediately.
46	14-18 November	Starting with the identification of the strains.
49	9 December	Send the electronically completed test report by email to the EURL- <i>Salmonella</i> . <b>Deadline: 9 December 2011</b>
50	12-16 December	Data input at the EURL- <i>Salmonella</i> . A check-up of the submitted results by the NRLs is no longer needed when the results are sent by email in the provided excel file format. This will save time, but NRLs need to be sure to fill out the right results at once.
	January 2012	Reporting of individual laboratory results.
	March 2012	Interim Summary Report.
	Summer 2012	Final report.