

Istituto Superiore di Sanità

Department of Infectious Diseases

Unit of Foodborne and Neglected Parasitic Diseases

European Union Reference Laboratory for Parasites



PT-09: "DETECTION OF ANTI-TRICHINELLA IQG IN SWINE SERUM SAMPLES"

PROCEDURE

PT items

Description. Each vial contains a swine serum sample positive or negative for anti-Trichinella IgG.

<u>Sample preparation.</u> Serum samples were collected from *Trichinella spp.* infected swines as well as from *Trichinella* free swines. Sera were tested for anti-*Trichinella* IgG by in house accredited ELISA method (MI-01 "Detection of anti-*Trichinella* antibodies in swine serum by indirect ELISA" rev. 9, 2024) and confirmed by in house accredited Western blotting method (MI-13 "Identification of *Trichinella* spp. proteins recognized by specific IgG in serum of infected pigs by western blotting", rev. 3, 2023).

Positive and negative serum samples were aliquoted, and preserved in 1% merthiolate at a final dilution of 1:10.000. Each item is labeled with a unique code without any other information.

Homogeneity check.

Since each PT item was collected from a single animal, homogeneity is ensured

<u>Preparation of packages</u>. Vials containing serum samples are inserted in a plastic bag sealed under vacuum, which is put inside a polystyrene carton, ready for shipment. A number of ice packs are placed in the package to maintain the inside temperature between +4 - + 15°C during transportation.

<u>Stability check and quality control</u>. The stability of the items in the package has been evaluated by ad hoc experiments made by EURLP. Serum samples with merthiolate and stored between +4-+15°C were stable up to six months from the date of preparation.

Criteria for the result evaluation. The participating laboratory has to test all items with any serological test based on the detection of anti-Trichinella IgG. Each laboratory may choose the test/s routinely used.

Participating laboratory are requested to indicate the positivity or negativity of each tested PT item, together with the IgG titer found in each positive sample. Each serum sample has to be tested in duplicated and result of each duplicate has to be reported in the on-line form. Each serum sample is reported "correctly classified" or "incorrectly classified". Final evaluation is considered "positive" if all samples are correctly classified, and "negative" in all other cases. The result evaluation is qualitative, IgG titers will be considered as additional information to compare the performance of tests used by participants.

Report. The EURLP provides both an Individual PT Report, including the following information: i) expected vs observed test classification of each serum sample; ii); the final evaluation and iii) comments and/or recommendations made by EURLP based on the laboratory performance, and a Final PT Report including the results of all participating labs. EURLP also provides the Final PT Report, including results obtained by all participants. The final report is published on the EURLP website and presented to the NRL during the annual workshop.

To guarantee confidentiality, the individual PT report is available only to the participant lab, and in the final report only the lab codes are displayed.

For any information or problem related to the PT participation, please address to:

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