PT-03: "Identification of *Trichinella* larvae at the species level by a molecular method"

Procedure

PT items

Description. The PT items consist of four tubes containing larvae of different *Trichinella* species. Each tube contains larvae of the same species that can be analyzed singularly or as a pool, depending on the sensitivity of the method used as well as on the experience of the technical staff.

Sample preparation. All larvae, obtained by artificial digestion of a mouse carcass infected with a *Trichinella* reference strain, are supplied by the International Trichinella Reference Center (ITRC). Larvae are counted under the stereo microscope, transferred into the tubes, and then each tube is filled with 96% ethanol and checked for the presence of the larvae.

Homogeneity check. All larvae of each species used in the PT belong to the same *Trichinella* reference strain as guaranteed by the ITRC. Moreover homogeneity is also ensured by an accurate control of the presence of larvae made by two operators.

Preparation of packages. The 1.5 ml tubes are filled with ethanol, plugged and sealed with plastic paraffin film, individually identified with a number and put in a plastic bag sealed under vacuum. Items are put inside a polystyrene carton, ready for shipment. No temperature control is needed.

Stability check and quality control. The stability of the samples in the package has been evaluated by ad hoc experiments carried out by EURLP. Larvae preserved in 96% ethanol, and stored between -20 and +20° C maintain their stability up to 5 years after the date of preparation.

Criteria for result evaluation

Results evaluation is only qualitative, the participant have to correctly identify larvae in the samples at species level. Final evaluation is considered as "positive" if all the four species are correctly identified.

Report

Within 10 working days after the due date to submit the results of samples analysis, the EURLP provides an Individual PT Report including the following information: i) species expected; ii) species identified by the laboratory; iii) final evaluation and iv) recommendation based on the laboratory performance. The Individual PT Report will be delivered as .pdf file via e-mail or fax.

EURLP also provides the Final PT Report, including results obtained by all participants. The final report is published on the EURLP website 30 working days after the due date to submit the results of samples analysis and presented to the NRL during the annual workshop.

To guarantee confidentiality, in the final report laboratories are identified by alphanumeric codes.
The PT Reports are retained by EURLP for 10 years.

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

Dr. Gianluca Marucci; e-mail: gianluca.marucci@iss.it