

Department of Infectious, Parasitic and Immunomediated Diseases
Unit of Gastroenteric and Tissue Parasitic Diseases
Istituto Superiore di Sanità



## Final report PT-Tm 1/2017

# PT "Identification of *Trichinella* larvae at the species level by a molecular method"

## Design

Purpose	Evaluation of laboratories in charge for official control on food			
Scheme type	Single			
Participants	Public and private, European laboratories			
N. of participants	Depending on request			
Method	not regulated			
Test method	chosen by the participant			
	Matrix	not applicable		
DT 11	Item	Trichinella spp. larvae in 96% ethanol		
PT items	N. of samples	4 (10 larvae/each) or 12 (1 larva/each) 1.5 ml vials for each participant		
	Distribution	Preparation and packaging can be performed before shipment		
Subcontracted activities	NA			
Results evaluation	Qualitative			

## Implementation

N. of participants	21		DT man al 4 mala	10 larvae for each of the following species: <i>T. spiralis, T. pseudospiralis, T. nelsoni</i> and <i>T. papuae</i>	
Public laboratories	0		PT panel 4 vials		
Private laboratories	ivate laboratories 0		PT panel 12 vials	3 larvae for each of the following species: <i>T. spiralis</i> , <i>T. pseudospiralis</i> , <i>T. nelsoni</i> and <i>T. papuae</i>	
NRLs	21		Shipping	TNT Express	

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PTP N° 0005

Membro di MLA EA per gli schemi di accreditamento SGQ, SGA, PRD, PRS, ISP, GHG, LAB e LAT, di MLA IAF per gli schemi di accreditamento SGQ, SGA, SSI, FSM e PRD e di MRA ILAC per gli schemi di accreditamento LAB, MED, LAT e ISP



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	March 13, 2017
Shipping dates	

#### **Qualitative results**

The PT final evaluation was qualitative only. The PT was considered passed if all isolates or, in case of single larvae at least one of them for each isolate, were correctly identified.

Laboratory code	N. right identification	N. wrong N. missed identification		Final evaluation	
NRL1	9	3	0	negative	
NRL2	4	0	0	positive	
NRL3	9	3	0	negative	
NRL6	4	0	0	positive	
NRL7	12	0	0	positive	
NRL8	4	0	0	positive	
NRL10	12	0	0	positive	
NRL12	4	0	0	positive	
NRL14	0	4	0	negative	
NRL16	3	1	0	negative	
NRL17	4	0	0	positive	
NRL18	4	0	0	positive	
NRL21	4	0	0	positive	
NRL22	12	0	0	positive	
NRL23	4	0	0	positive	
NRL24	12	0	0	positive	
NRL25	4	0	0	positive	
NRL40	12	0	0	positive	
NRL42*	0	0	4	negative	
NRL46	12	0	0	positive	
TLE6	4	0	0	positive	

<sup>\*</sup>the lab failed the test because of technical problems

**Legend**: Laboratories that failed the PT are marked in bold.

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## Summary of qualitative results:

Total number of PT panels	21
Number of participant laboratories	21
Number of participants that passed the PT	16
Number of participants that failed the PT	5

## Overtime comparison of results

Laboratory code	PT 2011	PT 2012	PT 2013	PT 2014	PT 2015	PT 2016	PT2017
NRL1	positive	positive	positive	positive	positive	negative	negative
NRL2	-	-	-	negative	-	-	positive
NRL3	negative	-	positive	positive	positive	positive	negative
NRL4	positive	positive	positive	positive	-	positive	-
NRL6	positive	positive	negative	positive	negative	positive	positive
NRL7	-	negative	negative	positive	positive	positive	positive
NRL8	positive						
NRL9	negative	-	negative	-	-	-	-
NRL10	negative	positive	•	positive	positive	positive	positive
NRL11	positive	negative	positive	positive	1	ı	ı
NRL12	-	•	positive	•	positive	positive	positive
NRL14	-	•	•	•	•	negative	negative
NRL16	positive	positive	positive	positive	positive	positive	negative
NRL17	-	ı	•	positive	positive	negative	positive
NRL18	-	-	-	-	-	NA	positive
NRL21	positive	negative	positive	positive	positive	negative	positive
NRL22	-	positive	negative	negative	positive	positive	positive
NRL23	-	positive	positive	positive	positive	positive	positive
NRL24	negative	-	positive	positive	positive	positive	positive
NRL25	-	-	positive	positive	positive	negative	positive
NRL34	negative	negative	positive	positive	positive	negative	-
NRL35	negative	negative	-	negative	positive	negative	positive
NRL38	positive	-	-	-	-	-	
NRL40	-	positive	-	-	-	-	positive
NRL42	-	-	-	negative	-	NA	negative
NRL44	-	-	-	negative	-	-	-
NRL45	-	-	-	-	negative	-	-
NRL46	-	-	-	-			positive
TLE6	-	-	-	-	-	positive	-

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#### Comments:

The main reason for the PT failure was the incorrect identification of the band pattern of the non-European species present in the sample panel. An improvement in results interpretation is necessary.

The Director Dr. E. Pozio

#### Date 14/04/2017

#### Notes:

- 1. To guarantee confidentiality, participant laboratories are identified by alphanumeric codes. PT participant identity is kept confidential and bound by professional secrecy. If PT results have to be provided directly to a competent authority, the organizer shall send a written notice to inform the involved participants.
- 2. The organizer designates a qualified company for the transport and delivery of PT items.
- 3. Each participating laboratory receives a PT panel according to the PT scheme. Each PT item consists of 4 or 12 1.5 ml vials containing four different *Trichinella spp*. The homogeneity of PT items is ensured by an accurate control of the number of larvae spiked into each vial (item), made by two operators using a stereo microscope. PT items are stable for 5 years from the date of preparation (corresponding to the shipping date), provided that they are maintained in suitable conditions.
- 4. At the beginning of each year, the organizer draws up a PT program and makes it known by sending an email to the NRLs.
- 5. The final report issued for each PT round shows the PT program implementation.

End of the report

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