

Department of Infectious Diseases Unit of Foodborne and Neglected Parasitic Diseases European Union Reference Laboratory for Parasites



Final report PT -Td 3/2020

PT report on "Digestion method to detect *Trichinella* larvae in meat samples according to the Regulation EU 2015/1375"

Design

Purpose	Evaluation of laboratories in charge for official inspection to detect Trichinella spp. larvae in meat		
Scheme type	Single, simultaneous		
Participants	Public and private, national and international laboratories		
N. of participants	Depending on requests		
Method	Regulation EU 2015/1375 (annexes 1 and 3)		
Test method	Regulation EU 2015/1375 (annexes 1 and 3)		
	Matrix	Pork/horse meat	
DT itomo	Item	Trichinella live larvae	
PT items	N. of samples	3 for each participant	
	Distribution	Immediate shipment after preparation	
Subcontracted activities	NA		
Results evaluation	Qualitative		

Implementation

N. of participants	26*		Pork	72
Public laboratories	14		Horse meat	12
Private laboratories	12	PT items	PT panel composition	1 positive with 5 larvae and 2 negatives
*some laboratories r multiple PT panel	ne laboratories requested iple PT panel Shipping		Shipping	DHL
Shipping date		September 21, 2020		

PTP

Unit of Foodborne and Neglected Parasitic Diseases Istituto Superiore di Sanità

viale Regina Elena, 299 - 00161 Rome, Italy

Person in charge of PT: Dr Gianluca Marucci e-mail: gianluca.marucci@iss.it; tel: +39 0649902241



PTP N° 0005 P

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

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Analysis of the results

According to Regulation EU 2015/1375 of August 10, 2015, laying down specific rules on official controls for Trichinella in meat, the results of artificial digestion methods have to be expressed only qualitatively (i.e. as positive if Trichinella spp. larvae are found in the sample, or negative if no larvae are present in the sample). Then the PT is considered passed if all positive and negative samples were correctly identified by the participant.

Laboratory code	Sample type	N° of "false	N° of "false	Final evaluation
	1 400	positives"	negatives"	
LET4	pork 100g	0	0	positive
LET5	pork 100g	0	0	positive
LET6	pork 100g	0	0	positive
LET9	pork 100g	0	0	positive
LET15	pork 100g	0	0	positive
LET19	pork 100g	0	0	positive
LPT2	pork 100g	0	0	positive
LPT4	pork 100g	0	0	positive
LPT8	pork 100g	0	0	positive
LPT10	pork 100g	0	0	positive
LPT20	pork 35g	2	0	negative
LPT30	pork 100g	1	0	negative
LZT3	pork 100g	0	0	positive
LZT5	pork 100g	0	0	positive
LZT5	horse 100g	0	0	positive
LTZ6	pork 35g	0	0	positive
LTZ6	pork 100g	0	0	positive
LZT7	horse 35g	0	0	positive
LZT17	pork 100g	0	0	positive
LZT19	pork 100g	0	0	positive
LZT26	pork 100g	0	0	positive
LZT29	pork 100g	0	0	positive
LZT34	pork 100g	0	0	positive
LZT35	horse 100g	0	1	negative
LZT36	pork 100g	0	0	positive
LZT38	horse 100g	0	1	negative
LZT45	pork 100g	0	0	positive
NRL53	pork 100g	0	0	positive

- Laboratories that failed the PT are marked in red.
- Laboratories that attended more than one PT in the same year are identified by a number added after their laboratory code (i.e. TLIX-1, TLIX-2 etc.).

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Summary of results:

Number of participant laboratories	26
Number of participants that passed the PT	22
Number of participants that failed the PT	4

Overtime comparison of results (last five years)

Laboratory	2016	2017 2018		2019	2020
code	2010	2017	2010	2019	2020
LET4	-	-	positive	positive	positive
LET5	-	positive	positive	positive	positive
LET6	-	-	positive	positive	positive
LET9	-	positive	positive	ı	positive
LET15	positive	positive	negative	positive	positive
LET19	positive	positive	positive	positive	positive
LPT2	positive	-	positive	positive	positive
LPT4	-	-	-	positive	positive
LPT8	-	positive	-	positive	positive
LPT10	positive	positive	positive	positive	positive
LPT20	positive	positive	positive	positive	negative
LPT30	positive	positive	positive	positive	negative
LZT3	positive	positive	positive	positive	positive
LZT5	-	positive	-	negative	positive
LZT5-e	positive	positive	-	positive	positive
LTZ6	-	-	positive	positive	positive
LTZ6-35	-	-	positive	positive	positive
LZT7	positive	positive	positive	positive	positive
LZT17	positive	positive	positive	positive	positive
LZT19	positive	positive	positive	positive	positive
LZT26	positive	positive	positive	positive	positive
LZT29	positive	positive	positive	positive	positive
LZT34	-	-	-	positive	positive
LZT35	-	-	-	positive	negative
LZT36	-	positive	positive	positive	positive
LZT38	-	-	-	-	negative
LZT45	positive	positive	positive	positive	positive
NRL53	positive	positive	positive	positive	positive

Legend: laboratories that requested multiple set of samples are identified according to the following rules: 1) PT set of the same type are identified by a progressive number after the laboratory code (i.e. TLIX-1, TLIX-2 etc.); 2) PT set made of horse meat are identified by the letter "h" after the laboratory code (i.e.TLX-e); 3) PT set of different weigh are identified by the indication of the weight after the laboratory code (i.e.TLX-35).

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Comments: The laboratories that failed the PT were invited to investigate the causes of the failure and to implement the appropriate corrective actions. In case the labs were interested in repeating the test, the shipment of a new sample panel as EQA scheme will be arranged.

> The Director Dr. S.M. Cacciò

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Date 02/10/2020

Notes:

- To guarantee confidentiality, participant laboratories are identified by alphanumeric codes. PT participant identity is 1. 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.
- Each participating laboratory receives a PT panel according to the PT scheme. Each PT item consists of minced pork or horse meat spiked or not with live Trichinella spiralis muscle larvae. The homogeneity of PT items is ensured by an accurate control of the number of larvae spiked into each sample (item), made by two operators using a stereo microscope. PT items are stable for 5 days from the date of preparation (corresponding to the shipping date), provided that they are maintained in suitable conditions.
- At the beginning of each year, the organizer draws up a PT program and makes it known by publishing it on the EURLP website (for national, international, public and private laboratories) or by email (NRLs).
- The final report issue of each PT round shows the PT program implementation.

End of the report

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