

EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION
ORGANISATION EUROPEENNE ET MEDITERRANEENNE POUR LA PROTECTION DES PLANTES
Summary sheet of validation data for a diagnostic test

The EPPO Standard PM 7/98 *Specific requirements for laboratories preparing accreditation for a plant pest diagnostic activity* describes how validation should be conducted. It also includes definitions of performance criteria.

Laboratory contact details	Anses Plant Health Laboratory - Nematology Unit Domaine de la Motte au Viconte BP 35327, 35653 Le Rheu, France
Short description of the test	Identification of <i>Globodera pallida</i> and <i>G. rostochiensis</i> by species specific PCR - Fullaondo 1999
Date, reference of the validation report	2010-07-13 - ref. 10/03
Validation process according to EPPO Standard PM7/98?	yes
Is the lab accredited for this test?	no
Was the validated data generated in the framework of a project?	
Description of the test	
Organism(s)	<i>Globodera pallida</i> (HETDPA) <i>Globodera rostochiensis</i> (HETDRO)
Detection / identification	identification
Method(s)	Molecular Conventional PCR
Method: Molecular Conventional PCR	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	no
As or adapted from an IPPC diagnostic protocol	no
Reference of the test	Fullaondo et al. (1999). Identification of potato cyst nematode species <i>Globodera rostochiensis</i> and <i>G. pallida</i> by PCR using specific primer combination. Nematology 1, 157-163
Other information	
Are the performance characteristics included in the EPPO diagnostic protocol?	no
Performance Criteria :	
Organism 1.:	<i>Globodera pallida</i>(HETDPA)
Analytical sensitivity	

What is smallest amount of target that can be detected reliably?	1 J2
<u>Analytical specificity - inclusivity</u>	
Number of strains/populations of target organisms tested	11 populations of <i>G. pallida</i> (for details see validation report annex 2)
Specificity value	91% for <i>G. pallida</i> (1 non target species detected as <i>G. pallida</i> among 11 non target species)
<u>Analytical specificity - exclusivity</u>	
Number of non-target organisms tested	7 populations nematodes species other than <i>G. pallida</i> or <i>G. rostochiensis</i>
Specificity value	cross reaction with "" <i>G. mexicana</i> "" population (even if <i>G. mexicana</i> is not recognised as a validated species).
Cross reacts with	<i>Globodera mexicana</i>
<u>Reproducibility</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	86% for <i>Globodera pallida</i> (at 1 J2 level)
<u>Repeatability</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100% for <i>Globodera pallida</i> (at 1 J2 level)
Organism 2.:	<i>Globodera rostochiensis</i>(HETDRO)
<u>Analytical sensitivity</u>	
What is smallest amount of target that can be detected reliably?	1 J2
<u>Analytical specificity - inclusivity</u>	
Number of strains/populations of target organisms tested	4 populations for <i>G. rostochiensis</i> (for details see validation report annex 2)
Specificity value	100 % for <i>G. rostochiensis</i>
<u>Analytical specificity - exclusivity</u>	
Number of non-target organisms tested	7 populations nematodes species other than <i>G. pallida</i> or <i>G. rostochiensis</i>
Specificity value	cross reaction with "" <i>G. mexicana</i> "" population (even if <i>G. mexicana</i> is not recognised as a validated species).
Cross reacts with	<i>Globodera mexicana</i>
<u>Reproducibility</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	0% for <i>G. rostochiensis</i> (at 1 J2 level)
<u>Repeatability</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	0% for <i>G. rostochiensis</i> (at 1 J2 level)

Test performance study	
Test performance study?	no
Other information	
Any other information considered useful	The full report is available upon request to the laboratory.

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