

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	Molecular identification of <i>Globodera pallida</i> and <i>G. rostochiensis</i> - PCR-RFLP
Date, reference of the validation report	2010-07-13 - Evaluation comparative de différents outils moléculaire pour l'identification de <i>Globodera pallida</i> et <i>G. rostochiensis</i> - 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 PCR-RFLP
Method: Molecular PCR-RFLP	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	yes
EPPO Diagnostic Protocol name	PM 7/040 <i>Globodera rostochiensis</i> and <i>Globodera pallida</i> (version 2)
Name of the test	ITS PCR-RFLP test (Thiéry & Mugniéry, 1996)
Is the test modified compared to the reference test	no
Other information	
Are the performance characteristics included in the EPPO diagnostic protocol?	yes
Performance Criteria :	
Organism 1.:	<i>Globodera pallida</i>(HETDPA)
Analytical sensitivity	

What is smallest amount of target that can be detected reliably?	1 individual of J2 stage
<u>Analytical specificity - inclusivity</u>	
Number of strains/populations of target organisms tested	11 populations of <i>G. pallida</i> (refer to evaluation report 10/03 - annex 2)
Specificity value	91% for <i>G. pallida</i> (1 non target species detected among 11)
<u>Analytical specificity - exclusivity</u>	
Number of non-target organisms tested	7 populations tested (list of populations, refer to evaluation report 10/03 - annex 2)
Specificity value	no cross reaction
<u>Reproducibility</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	90% for <i>G. pallida</i> (at the level of 1 J2 stage)
<u>Repeatability</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
Organism 2.:	<i>Globodera rostochiensis</i>(HETDRO)
<u>Analytical sensitivity</u>	
What is smallest amount of target that can be detected reliably?	1 individual of J2 stage
<u>Analytical specificity - inclusivity</u>	
Number of strains/populations of target organisms tested	4 populations of <i>G. rostochiensis</i> (refer to evaluation report 10/03 - annex 2)
Specificity value	100% for <i>G. rostochiensis</i>
<u>Analytical specificity - exclusivity</u>	
Number of non-target organisms tested	7 populations tested (list of populations, refer to evaluation report 10/03 - annex 2)
Specificity value	no cross reaction
<u>Reproducibility</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	93% for <i>G. rostochiensis</i> (at the level of 1 J2 stage)
<u>Repeatability</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100% for both species
Test performance study	
Test performance study?	no
Other information	
Any other information considered useful	presence of unpublished profiles for South American populations of <i>G. pallida</i> . The full report is available upon request to the laboratory.

