

**EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION**  
**ORGANISATION EUROPEENNE ET MEDITERRANEENNE POUR LA PROTECTION DES PLANTES**  
(11-17239)

**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.

<b>Target Organism</b>	Globodera pallida Globodera rostochiensis	
<b>Short description</b>	Identification of Globodera pallida and G. rostochiensis by species specific PCR (Vejl 2002)	
<b>Laboratory contact details</b>	Anses Plant Health Laboratory - Nematology Unit Domaine de la Motte au Viconte BP 35327, 35653 Le Rheu, France	
<b>Date and reference of the validation report</b>	13/07/2010 - Validation report ref. 10/03	
<b>Validation process according to EPPO Standard PM 7/98:</b>	Yes	
<b>Reference of the test description</b>	N/R PM7/40, but not listed in the protocol Vejl et al. (2002). Identification of PCN species (Globodera rostochiensis, G. pallida) by using of ITS-1 region's polymorphism. Rostlinna Vyroba 48, 486-489.	
<b>Is the test the same as described in the EPPO DP?</b>	No not included in PM7/40	
<b>Is the lab accredited for this test?</b>	No	
<b>Plant species tested (if relevant)</b>		
<b>Matrices tested (if relevant)</b>		
<b>List of methods used</b>		
<b>Method for extraction / isolation / baiting of target organism from matrix</b>		
<b>Molecular methods, e.g. hybridization, PCR and real time PCR</b>	X	Species specific PCR
<b>Serological methods: IF, ELISA, Direct Tissue Blot Immuno Assay</b>		
<b>Plating methods: selective isolation</b>		
<b>Bioassay methods: selective enrichment in host plants, baiting, plant test and grafting.</b>		
<b>Pathogenicity test</b>		
<b>Fingerprint methods: protein</b>		

<b>profiling, fatty acid profiling &amp; DNA profiling</b>		
<b>Morphological and morphometrical methods intended for identification</b>		
<b>Biochemical methods: e.g. enzyme electrophoresis, protein profiling</b>		
<b>Other</b>		
<b>Analytical sensitivity (= limit of detection)</b>		
<b>What is smallest amount of target that can be detected reliably?</b>	1 J2	
<b>Diagnostic sensitivity</b>		
<b>Proportion of infected/infested samples tested positive compared to results from the standard test , see appendix 2 of PM 7/98</b>		
<b>Specify the standard test</b>		
<b>Analytical specificity</b>		
<b>Specificity value</b>	100% for <i>G. pallida</i> and 78% for <i>G. rostochiensis</i> (4 non target species populations among 18 identified as <i>G. rostochiensis</i> )	
<b>Number of strains/populations of target organisms tested</b>	11 <i>G. pallida</i> populations 4 <i>G. rostochiensis</i> populations for details see annex 2 from validation report	
<b>Number of non-target organisms tested</b>	7 nematode species populations different from <i>G. pallida</i> or <i>G. rostochiensis</i> (see Annex 2 from validation report)	
<b>Cross reacts with (specify the species)</b>	<i>Globodera tabacum</i> (all groups/ sub-species) detected as <i>G. rostochiensis</i>	
<b>Diagnostic Specificity</b>		
<b>Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test</b>		
<b>Specify the standard test</b>		
<b>Reproducibility</b>		
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	100% for <i>G. pallida</i> (1 J2) 83% for <i>G. rostochiensis</i> (1 J2)	
<b>Repeatability</b>		
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	100% for <i>G. pallida</i> (1 J2) 87.5% for <i>G. rostochiensis</i> (1 J2)	
<b>Test performance study</b>		
<b>Test performance study?</b>	No	
<b>Include brief details of the test performance study and its output.It available, provide a link to</b>		

<b>published article/report</b>	
<b><u>Other information</u></b>	
<b>Any other information considered useful e.g. robustness, ease of performing the test, etc.</b>	The full report is available upon request to the laboratory.