

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.

Target Organism	Nacobbus aberrans	
Short description	PCR detection of Nacobbus aberrans	
Laboratory contact details	Anses Plant Health Laboratory - Nematology Unit Domaine de la Motte au Viconte BP 35327, 35653 Le Rheu, France	
Date and reference of the validation report	2009-01-19 - 09/07	
Validation process according to EPPO Standard PM 7/98:	No	
Reference of the test description	0 Atkins et al. 2005. A molecular diagnosis method for detecting Nacobbus in soil and in potato tubers. Nematology 7(2), 193-202.	
Is the test the same as described in the EPPO DP?	No Not in EPPO DP.	
Is the lab accredited for this test?	No	
Plant species tested (if relevant)	Not relevant.	
Matrices tested (if relevant)	Isolated nematodes	
List of methods used		
Method for extraction / isolation / baiting of target organism from matrix		
Molecular methods, e.g. hybridization, PCR and real time PCR	X	Species specific conventional PCR
Serological methods: IF, ELISA, Direct Tissue Blot Immuno Assay		
Plating methods: selective isolation		
Bioassay methods: selective enrichment in host plants, baiting, plant test and grafting.		
Pathogenicity test		
Fingerprint methods: protein profiling, fatty acid profiling & DNA profiling		

Morphological and morphometrical methods intended for identification		
Biochemical methods: e.g. enzyme electrophoresis, protein profiling		
Other		
<u>Analytical sensitivity (= limit of detection)</u>		
What is smallest amount of target that can be detected reliably?	Not evaluated	
<u>Diagnostic sensitivity</u>		
Proportion of infected/infested samples tested positive compared to results from the standard test , see appendix 2 of PM 7/98	Not evaluated	
Specify the standard test	Not relevant	
<u>Analytical specificity</u>		
Specificity value	70%	
Number of strains/populations of target organisms tested	8	
Number of non-target organisms tested	10	
Cross reacts with (specify the species)	Pratylenchus crenatus, Globodera rostochiensis, Hirschmaniella sp.	
<u>Diagnostic Specificity</u>		
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test		
Specify the standard test		
<u>Reproducibility</u>		
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	Not evaluated	
<u>Repeatability</u>		
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	Not evaluated	
<u>Test performance study</u>		
Test performance study?	No	
Include brief details of the test performance study and its output.It available, provide a link to published article/report		
<u>Other information</u>		
Any other information considered	The specificity evaluation was conducted to define if other	

useful e.g. robustness, ease of performing the test, etc.	performance criteria should be evaluated. As the specificity is not good enough, the other criteria were not evaluated.
The following complementary files are available online:	<ul style="list-style-type: none"> • Validation data populations set Nacobbus aberrans Atkins