

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	ILVO Institute for Agricultural and Fisheries Research Burg. Van Gansberghelaan 96, 9820 Merelbeke - Melle, Belgium
Short description of the test	Detection of <i>Phytophthora kernoviae</i> by plating infected plant material and morfological evaluation the culture
Date, reference of the validation report	2009-12-21 - F16_S09
Validation process according to EPPO Standard PM7/98?	yes
Is the lab accredited for this test?	yes
Was the validated data generated in the framework of a project?	
Description of the test	
Organism(s)	<i>Phytophthora kernoviae</i> (PHYTKE)
Detection / identification	detection
Method(s)	Isolation Morphological
Method: Isolation	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	yes
EPPO Diagnostic Protocol name	PM 7/112 <i>Phytophthora kernoviae</i> (version 1)
Name of the test	Isolation on P5ARP [H] (Jeffers & Martin, 1986)
Is the test modified compared to the reference test	yes slight modification to the semi-selective isolation medium
Other information	
Method: Morphological	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	yes
EPPO Diagnostic Protocol name	PM 7/112 <i>Phytophthora kernoviae</i> (version 1)

Name of the test	Morphological identification P5ARP [H]
Other information	
Other details on the test	Morphological identification using a microscope and a checklist (F03_S10) containing the most distinctive morphological characteristics of the organism as described in Brasier et al. (2005) Brasier C. , Beales P., Kirk S., Denman S. & Rose J. (2005). <i>Phytophthora kernoviae</i> sp. nov., an invasive pathogen causing bleeding stem lesions on forest trees and foliar necrosis of ornamentals in the UK. <i>Mycological Research</i> 109 (8): 853-859.
Are the performance characteristics included in the EPPO diagnostic protocol?	no
Performance Criteria :	
Organism 1.:	Phytophthora kernoviae(PHYTKE)
<u>Analytical sensitivity</u>	
What is smallest amount of target that can be detected reliably?	Two plated pieces of freshly infected leaf material out of 20 plated pieces
<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	100%. All samples that were analysed with real-time PCR gave identical results, i.e. there were no false negatives
Standard test(s)	Real-time PCR
<u>Analytical specificity - inclusivity</u>	
Number of strains/populations of target organisms tested	1
Specificity value	
<u>Analytical specificity - exclusivity</u>	
Number of non-target organisms tested	5 (<i>Phytophthora multivora</i> , <i>P. ramorum</i> , <i>P. hedraiaandra</i> , <i>P. syringae</i> , <i>P. lateralis</i>)
Specificity value	none known
<u>Diagnostic Specificity</u>	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	100%. All samples that were analysed with real-time PCR gave identical results, i.e. there were no false positives
Specify the test(s)	Real-time PCR
<u>Reproducibility</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
<u>Repeatability</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
Test performance study	

Test performance study?	no
Other information	
Any other information considered useful	Robustness has also been established. Participated in FAPAS proficiency testing scheme and in interlaboratory comparisons.

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