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	Council for Agricultural Research and Economics–Research Centre for Plant Protection and Certification Via Carlo Giuseppe Bertero, 22, 00156 Rome, Italy
Short description of the test	Intralaboratory validation of Ceratocystis platani real-time PCR in wood of Platanus x acerifolia
Date, reference of the validation report	2025-04-21 - Intralaboratory validation of Ceratocystis platani_Real-Time PCR_EvaGreen (corresponding Pilotti M.)
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?	Other_project
If yes, please specify	ARNADIA (MIPAAF Project)
Description of the test	
Organism(s)	Ceratocystis platani (CERAFP)
Detection / identification	detection
Method(s)	Molecular real time PCR
Method: Molecular real time PCR	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	yes
EPPO Diagnostic Protocol name	PM 7/014 Ceratocystis fimbriata f. sp. platani (version 2)
Name of the test	Real-time PCR (Pilotti et al., 2012) Test version 1: intercalating dye (EvaGreen)
Is the test modified compared to the reference test	no
Kit	
Is a kit used	no
Other information	
Reaction type	Simplex

Performance Criteria :	
Organism 1.:	**Ceratocystis platani(CERAFP)**
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	3 fg per PCR reaction
Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	100%
Standard test(s)	Comparison with samples of known status
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	see Pilotti et al., 2012
Specificity value	100%
Analytical specificity - exclusivity	
Number of non-target organisms tested	see Pilotti et al., 2012
Specificity value	100%
Diagnostic Specificity	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	100%
Specify the test(s)	Comparison with samples of known status
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100% % - evaluated by two different operators; each operator performed three different experiment testing 8 replicates at the LOD (3 fg)
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100% - evaluated on 8 replicates at the LOD (3 fg). The result was also confirmed by testing the gDNA of five additional C. platani strains, each in a single experiment performed by one operator, at the limit of detection and with eight replications.
Test performance study	
Test performance study?	no
Other information	
Any other information considered useful	These data has been published in Pilotti et al (2012) and in Lumia et al (2018)
The following complementary files are available online:	• Pilotti et al 2012 • Lumia et al 2018

Creation date: 2025-04-21 19:20:50 - Last update: 2025-04-22 19:12:24