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 - Bacteriology, Virology and GMO Unit 7 rue Jean Dixméras, 49044 Angers, France
Short description of the test	Detection of 'Candidatus Phytoplasma phoenicium' with an internal control by real time PCR adapted from Jawhari et al. (2015)
Date, reference of the validation report	2024-12-20 - Cousseau-Suhard P., Loiseau M., Rolland M., 2024. RV Détection de 'Candidatus Phytoplasma phoenicium' par PCR en temps réel. version 01
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?	no
Description of the test	
Organism(s)	'Candidatus Phytoplasma phoenicium' (PHYPPH)
Detection / identification	detection and identification
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
New test being considered for inclusion in the next version of the EPPO diagnostic protocol?	no
EPPO Diagnostic Protocol name	PM 7/150 ‘Candidatus Phytoplasma phoenicium’ (version 1)
Name of the test	Specific real time PCR (Jawhari et al., 2015)
As or adapted from an IPPC diagnostic protocol	no
Is the test modified compared to the reference test	yes Adition of an internal control (CyOXID primers from Papayiannis et al, 2021) and optimization for routine analysis in lab conditions
Kit	

Is a kit used	no
Other information	
Reaction type	Duplex
Other details on the test	Target ITS and 23SrDNA of 'Ca. P. phoenicium'.
Performance Criteria :	
Organism 1.:	**'Candidatus Phytoplasma phoenicium'(PHYPPH)**
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	Last levet at 100% of detection: 1x10^-4 for almond tree and 1x10^-5 for apricot.
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	10 DNA extracts of different Prunus sp. infected by 'Ca. P. phoenicium'
Specificity value	100%
Analytical specificity - exclusivity	
Number of non-target organisms tested	5 DNA extracts of healthy prunus, 10 DNA extracts of plants contaminated by other phytoplasmas of prunus or other bacteria or viruses of prunus
Specificity value	100%
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	76%
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	95.2%
Test performance study	
Test performance study?	no
Other information	
Any other information considered useful	More information can be obtained on request from Anses, Plant Health Laboratory.

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