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	Netherlands Institute for Vectors, Invasive plants and Plant health P.O. Box 9102, 6700 HC Wageningen, Netherlands
Short description of the test	Detection of pepino mosaic virus Pepino mosaic virus by Serological DAS-ELISA in leaves
Date, reference of the validation report	2015-08-24 - Validatie DAS-ELISA Pepino mosaic virus met antiserum Prime Diagnostics (in dutch)
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)	Pepino mosaic virus / Potexvirus pepini (PEPMV0)
Detection / identification	detection and identification
Method(s)	Serological DAS-ELISA
Method: Serological DAS-ELISA	
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 7/113 Pepino mosaic virus (version 1)
Name of the test	DAS ELISA
As or adapted from an IPPC diagnostic protocol	no
Is the test modified compared to the reference test	no
Kit	
Is a kit used	no
Other information	
Other details on the test	Followed PM 7/113 (1) with minor modifications: 1. All used buffers are described in Giesbers et al.,

	2023 (https://doi.org/10.1371/journal.pone.0277840). 2. ± 0.7 gram of leaf tissue was ground in 7 ml buffer using extraction bags and a hand-held homogenizer (Bioreba). 3. An additional negative control is used, consisting of homogenization buffer only. 4. Since a large variety of samples and targets is tested, the result assessment is based on a fixed decision threshold (OD 0.150 at 405nm).
Performance Criteria :	
Organism 1.:	**Potexvirus pepini(PEPMV0)**
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	10-fold serial dilutions series were made for 4 PepMV isolates. Based on the fixed detection limit (OD 0.150), three isolates could be detected up to a 10-4 dilution and one isolate up to 10-3.
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	Isolates obtained from Wageningen Plant Research (WPR): PepMV CH2 strain, PepMV US 1 strain, PepMV BB1137 (Peru) and a European isolate.
Specificity value	100%
Analytical specificity - exclusivity	
Number of non-target organisms tested	One isolate of the following viruses was tested: cucumber mosaic virus (CMV), potato aucuba mosaic virus (PAMV), potato virus X (PVX), potato virus Y (PVY), tomato spotted wilt virus (TSWV). The CMV, PVX, PVY and TSWV isolates tested in positive their specific DAS-ELISA test.
Specificity value	
Test performance study	
Test performance study?	no

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