

**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, Belgium
Short description of the test	Detection of pospiviroids by means of one-step real-time PCR method
Date, reference of the validation report	2018-02-12 -
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?	
If yes, please specify	
Description of the test	
Organism(s)	Pospiviroid(1POSPG)
Detection / identification	detection
Matrix(ces) tested	Leaves, Seeds leaves and seeds
Plant species tested	Chrysanthemum sp., Solanum lycopersicum
Method(s)	Molecular real time RT PCR
Method: Molecular real time RT PCR	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	no
New test being considered for inclusion in the next version of the EPPO diagnostic protocol?	
As or adapted from an IPPC diagnostic protocol	no
Reference of the test	Botermans et al. 2013 Monger et al. 2010
Is the test modified compared to the reference test	
Kit	
Is a kit used	

Other information	
Reaction type	
Other details on the test	one-step real-time PCR procedure according to Botermans et al. 2013 and Monger et al 2010
Are the performance characteristics included in the EPPO diagnostic protocol?	no
Performance Criteria :	
Organism 1.:	Pospiviroid(1POSPG)
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	
Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	
Standard test(s)	
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	25 Potato spindle tuber viroid pospiviroid Solanum jasminoides - Belgium GBVdC_PSTVd_03 Potato spindle tuber viroid pospiviroid Solanum jasminoides - import Italy GBVdC_PSTVd_07 Potato spindle tuber viroid pospiviroid Tomato - the Netherlands GBVdC_PSTVd_08 Potato spindle tuber viroid pospiviroid Solanum jasminoides in vitro - Belgium GBVdC_PSTVd_09 Potato spindle tuber viroid pospiviroid Tomato - CRA-W (stam A) - Belgium GBVdC_PSTVd_04 Tomato chlorotic dwarf viroid pospiviroid Tomato - CRA-W (10/00085/VI) - Belgium GBVdC_TCDVd_01 Tomato chlorotic dwarf viroid pospiviroid Tomato - the Netherlands (mixed infection with PepMV) GBVdC_TCDVd_02 Tomato chlorotic dwarf viroid pospiviroid Surfinia Hot Pink - Belgium GBVdC_TCDVd_03 Tomato apical stunt viroid pospiviroid Solanum rantonetti (Lycianthes rantonetti - Belgium GBVdC_TASVd_01 Tomato apical stunt viroid pospiviroid Tomaat - Tunesië (menginfectie met PepMV) GBVdC_TASVd_02 Tomato apical stunt viroid pospiviroid Solanum jasminoides - België GBVdC_TASVd_03 Tomato apical stunt viroid pospiviroid Tomato - Italy (CRA-PAV, F. Fagioli) GBVdC_TASVd_04 Chrysanthemum stunt viroid pospiviroid Petunia Mirage Yellow - Belgium GBVdC_CSVd_03 Chrysanthemum stunt viroid pospiviroid Chrysanthemum cv Reagan - Belgium GBVdC_CSVd_03 Chrysanthemum stunt viroid pospiviroid chrysanthemum - Belgium GBVdC_CSVd_03 Chrysanthemum stunt viroid pospiviroid Chrysanthemum - Belgium GBVdC_CSVd_03 Columnea latent viroid pospiviroid Tomato - France (via CRA-W) GBVdC_CLVd_01 Citrus exocortis viroid pospiviroid Solanum jasminoides - Belgium GBVdC_CEVd_02

	Chrysanthemum chlorotic mottle viroid Pelamoviroid (Avsunviroidae) Chrysanthemum - Germany (DSMZ) GBVdC_CChMVd_01 Pepper chat fruit viroid Pospiviroid bell pepper - the Netherlands (stam NWWA 3259237) GBVdC_PCFVd_02 Mexican papita viroid Pospiviroid Solanum cardiophyllum - the Netherlands (stam OG1) GBVdC_MPVd_01 Hop stunt viroid Hostuviroid (pospiviroidae) Hop - Nederland (Ko Verhoeven, stam 4912347) GBVdC_HSVd_01 Hop stunt viroid Hostuviroid (pospiviroidae) Hop - Italië (CRA-PAV, F. Faggioli) GBVdC_HSVd_01 Iresine viroid Pospiviroid Celosia - the Netherlands (stam 4416011) GBVd_IrVd_01 Dahlia latent viroid Dahlia - the Netherlands (stam 3294243) GBVd_DLVd_01
Specificity value	
Analytical specificity - exclusivity	
Number of non-target organisms tested	
Specificity value	
Cross reacts with	
Diagnostic Specificity	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	
Specify the test(s)	
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
Test performance study	
Test performance study?	yes
Brief details of the test performance study and its output. It available, link to published article/report	Detection in seeds: Olivier et al. (2015; EJPP; DOI 10.1007/s10658-015-0803-8)
Other information	
Any other information considered useful	

Creation date: 2018-03-05 00:00:00 - Last update: 2021-05-12 17:31:41