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	Naktuinbouw Sotaweg 22, 2371 GD Roelofarendsveen, Netherlands
Short description of the test	Detection of Orthotospovirus chrysanthinecrocaulis (CSNV) by molecular real time RT PCR in leaves
Date, reference of the validation report	2026-07-14 - SPN-V057 v1
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)	Chrysanthemum stem necrosis virus / Orthotospovirus chrysanthinecrocaulis (CSNV00)
Detection / identification	detection
Matrix(ces) tested	Leaves Focus on Chrysanthemum and some Solanaceae
Plant species tested	Capsicum annuum, Chrysanthemum, Gerbera, Solanum lycopersicum
Method(s)	Molecular Extraction DNA RNA Molecular real time RT PCR
Method: Molecular Extraction DNA RNA	
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?	yes
EPPO Diagnostic Protocol name	PM 7/139 Tospoviruses (genus Orthotospovirus) (version 1)
As or adapted from an IPPC diagnostic protocol	yes
IPPC diagnostic Protocol name	(version)
Name of the test	Also in DP_36, EPPO PM 7/138(1), PM 7/32(2)

Is the test modified compared to the reference test	no
Kit	
Is a kit used	yes
Manufacturer name	LGC
Specify the kit used	sbeadex maxi plant
Kit used following the manufacturer's instructions?	yes
Other information	
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?	yes
As or adapted from an IPPC diagnostic protocol	no
Is the test modified compared to the reference test	no
Kit	
Is a kit used	yes
Manufacturer name	QuantaBio
Specify the kit used	UltraPlexTM 1-step ToughMix® (4X)
Kit used following the manufacturer's instructions?	yes
Other information	
Reaction type	Triplex
Other details on the test	2 target target CSNV approach plus internal control
Performance Criteria :	
Organism 1.:	**Orthotospovirus chrysanthinecrocaulis(CSNV00)**
Analytical sensitivity	
What is the smallest amount of target that can be detected reliably?	0.001% infected material could be detected consistently with both targets for CSNV.
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	NVWA 3265004, NVWA 4412741, PV-0529, PV-1219, synthetic DNA construct based on KC525102 (target 1).
Specificity value	100%
Analytical specificity - exclusivity	
Number of non-target organisms tested	ANSV (3), INSV (1), GRSV (3), TCSV (3), TSWV (1); IYSV (2), CaCV (3), TNRV (1), TYRV (1), CVB, TAV, CSVd, CChMVd

Specificity value	100%
Cross-reacts with	
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?	no
Other information	
Any other information considered useful	PCR is based on CSNV S-segment (target-1/set-1) and M-segment (target-2/set-2)
The following complementary files are available online:	• Validation triplex PCR for detection CSNV

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