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 Clavibacter michiganensis subsp. michiganensis from symptomatic plant material by plating	
Date, reference of the validation report	2010-04-01 - BAC-2010-03 Methodevalidatie van de uitplaattoets voor Clavibacter michiganensis subsp. michiganensis uit bladstengel van tomaat	
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?		
Description of the test		
Organism(s)	Clavibacter michiganensis (CORBMI)	
Detection / identification	detection	
Method(s)	Isolation	
Method: Isolation		
Reference of the test description		
As or adapted from an EPPO diagnostic protocol	yes	
EPPO Diagnostic Protocol name	PM 7/042 Clavibacter michiganensis subsp. michiganensis (version 2)	
Name of the test	Dilution plating on semi selective media (CMMIT, SCMF or SCM) - plant tissue	
As or adapted from an IPPC diagnostic protocol	no	
Other information		
Other details on the test	Isolation plating on two semi-selective media : FSCM and CMM1	
Performance Criteria :		
Organism 1.:	Clavibacter michiganensis(CORBMI)	

Analytical sensitivity		
What is smallest amount of target that can be detected reliably?	1.0x10^3 cfu/ml for CMM1 and 9.0x10^2 cfu/ml for FSCM	
<u>Diagnostic sensitivity</u>		
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)	Isolation on the conventional media SCM and D2ANX	
Analytical specificity - inclusivity		
Number of strains/populations of target organisms tested	20 cmm strains (see details in the full validation report)	
Specificity value	95%	
Analytical specificity - exclusivity		
Number of non-target organisms tested	20 related strains (see details in the full validation report)	
Specificity value	Cross reaction was only observed for Pseudomonas corrugata on the FSCM medium, resembling the colony morphology of cmm on this medium. However, Pseudomonas corrugata could not grow on the CMM1 medium.	
Cross reacts with	Pseudomonas corrugata	
Diagnostic Specificity		
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	95%	
Specify the test(s)	Isolation on the conventional media SCM and D2ANX	
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	For the selectivity two different varieties of Solanum lycopersicum were included in this validation (Money maker and Saint Pierre). For both varieties comparable growth results were acquired.	
The following complementary files are available	Method validation of the isolation method	

online:	for Clavibacter michiganensis subsp.
	michiganensis from infected plant material,
	Plant Protection Service (in Dutch)

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