

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	Validation of the MALDI-TOF MS test for the identification of <i>Pantoea stewartii</i> subsp. <i>stewartii</i>
Date, reference of the validation report	2022-04-25 - BAC-2020-15
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?	Other_project
If yes, please specify	Dutch phytosanitary project
Description of the test	
Organism(s)	<i>Pantoea stewartii</i> subsp. <i>stewartii</i> (ERWIST)
Detection / identification	identification
Method(s)	MALDI-TOF
Method: MALDI-TOF	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	no
As or adapted from an IPPC diagnostic protocol	no
Other information	
Other details on the test	MALDI-TOF MS analysis and the creation of MSP's were performed according to the manufacturers' manual.
Performance Criteria :	
Organism 1.:	<i>Pantoea stewartii</i> subsp. <i>stewartii</i>(ERWIST)
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	22 isolates of Pss
Specificity value	100%

Analytical specificity - exclusivity	
Number of non-target organisms tested	7 isolates of <i>P. stewartii</i> subsp. <i>indologenes</i> 10 isolates of <i>P. ananatis</i> <i>P. allii</i> <i>P. agglomerans</i> <i>P. dispersa</i> <i>Pseudomonas syringae</i> <i>Paraburkholderia andropogonis</i> <i>Dickeya zea</i>
Specificity value	Two of the <i>P. stewartii</i> subsp. <i>indologenes</i> isolates were doubtfully identified as Pss: first match was with Pss, second match was with Psi (all score values above 2).
Cross reacts with	<i>Pantoea stewartii</i> subsp. <i>indologenes</i>
Diagnostic Specificity	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	100%
Specify the test(s)	The negative control was not identified as any bacterial species.
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	Sufficient, out of 16 datapoints (consisting of the identification of 4 isolates on two different days by two different operators) one deviated from the original.
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	Good, consistently high score values. Best hits are the same for both repeats.
Test performance study	
Test performance study?	no
The following complementary files are available online:	
<ul style="list-style-type: none"> • Validation MALDI-TOF Pss 	

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