

**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.

<b>Laboratory contact details</b>	Netherlands Institute for Vectors, Invasive plants and Plant health P.O. Box 9102, 6700 HC Wageningen, Netherlands
<b>Short description of the test</b>	Validation of the MALDI-TOF MS test for the identification of <i>Pantoea stewartii</i> subsp. <i>stewartii</i>
<b>Date, reference of the validation report</b>	2022-04-25 - BAC-2020-15
<b>Validation process according to EPPO Standard PM7/98?</b>	yes
<b>Is the lab accredited for this test?</b>	yes
<b>Was the validated data generated in the framework of a project?</b>	Other_project
<b>If yes, please specify</b>	Dutch phytosanitary project
<b>Description of the test</b>	
<b>Organism(s)</b>	<i>Pantoea stewartii</i> subsp. <i>stewartii</i> (ERWIST)
<b>Detection / identification</b>	identification
<b>Method(s)</b>	MALDI-TOF
<b>Method: MALDI-TOF</b>	
<b>Reference of the test description</b>	
<b>As or adapted from an EPPO diagnostic protocol</b>	no
<b>As or adapted from an IPPC diagnostic protocol</b>	no
<b>Other information</b>	
<b>Other details on the test</b>	MALDI-TOF MS analysis and the creation of MSP's were performed according to the manufacturers' manual.
<b>Performance Criteria :</b>	
<b>Organism 1.:</b>	<b><i>Pantoea stewartii</i> subsp. <i>stewartii</i>(ERWIST)</b>
<b>Analytical specificity - inclusivity</b>	
<b>Number of strains/populations of target organisms tested</b>	22 isolates of Pss
<b>Specificity value</b>	100%

<b>Analytical specificity - exclusivity</b>	
<b>Number of non-target organisms tested</b>	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>
<b>Specificity value</b>	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).
<b>Cross reacts with</b>	<i>Pantoea stewartii</i> subsp. <i>indologenes</i>
<b>Diagnostic Specificity</b>	
<b>Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test</b>	100%
<b>Specify the test(s)</b>	The negative control was not identified as any bacterial species.
<b>Reproducibility</b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	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.
<b>Repeatability</b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	Good, consistently high score values. Best hits are the same for both repeats.
<b>Test performance study</b>	
<b>Test performance study?</b>	no
The following complementary files are available online:	
<ul style="list-style-type: none"> <li>• <a href="#">Validation MALDI-TOF Pss</a></li> </ul>	

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