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	Anses Plant Health Laboratory - Pests and Tropical Pathogens Unit Pôle de Protection des Plantes, 7 Chemin de l'IRAT, 97410 Saint Pierre, France
Short description of the test	Detection of Xanthomonas citri pv. citri by Molecular real time PCR in Leaves, Fruits
Date, reference of the validation report	2021-08-05 - XCC1
Link to other validation data	- XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular real time PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular real time PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits
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?	Other_project
If yes, please specify	VALITEST
Description of the test	
Organism(s)	Xanthomonas citri pv. citri (XANTCI)
Detection / identification	detection
Matrix(ces) tested	Fruits, Leaves Strains were obtained from international collections Citrus healthy plant materials were obtained from internal reference materials
Plant species tested	citrus (general)
Method(s)	Molecular real time PCR

Method: Molecular real time 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
Reference of the test	Mavrodieva et al., 2004 (VM3/4, SYBR Green)
Is the test modified compared to the reference test	no
Kit	
Is a kit used	no
Other information	
Reaction type	Simplex
Other details on the test	the test does not allow to distinguish Xanthomonas citri pv. citri and Xanthomonas citri pv. aurantifolii
Performance Criteria :	
Organism 1.:	**Xanthomonas citri pv. citri(XANTCI)**
Analytical sensitivity	
What is the smallest amount of target that can be detected reliably?	POD of 0.95 : 7500 CFU.ml-1
Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	84%
Standard test(s)	This a comparison with samples of known status
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	82
Specificity value	100%
Analytical specificity - exclusivity	
Number of non-target organisms tested	46
Specificity value	87%
Diagnostic Specificity	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	47%
Specify the test(s)	This a comparison with samples of known status
Reproducibility	
Provide the calculated % of agreement for a	87%

given level of the pest (see PM 7/98)	
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	92%
Test performance study	
Test performance study?	yes
Brief details of the test performance study and its output.It available, link to published article/report	Test performance study organized in the framework of the VALITEST project involving 17 laboratories from 14 countries
The following complementary files are available online:	• VALITEST TPS XCC REPORT_2021_08_05_v2

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