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	EUPH DNA Barcoding , , EUPHRESCO
Short description of the test	DNA Barcoding - Optimizing and validating DNA barcoding protocols for Bacteria
Date, reference of the validation report	2016-06-30 - Final_report_DNA barcoding.doc
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?	Euphresco
If yes, please specify	EUPHRESCO DNA Barcoding - Optimizing and validating DNA barcoding protocols for plant pests
Description of the test	
Organism(s)	Clavibacter michiganensis (CORBMI) Xanthomonas axonopodis pv. dieffenbachiae (XANTDF) Ralstonia solanacearum (RALSSL) Xylella fastidiosa (XYLEFA) Xanthomonas axonopodis pv. begoniae (XANTBE)
Detection / identification	identification
Method(s)	Molecular other
Method: Molecular other	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	yes
EPPO Diagnostic Protocol name	PM 7/129 DNA barcoding as an identification tool for a number of regulated pests (version 1)
As or adapted from an IPPC diagnostic protocol	no
Is the test modified compared to the reference test	no
Kit	
Is a kit used	no
Other information	

Other details on the test	BIO-X-ACT™ Short Mix (Bioline) See report for details about the primers & protocols
Are the performance characteristics included in the EPPO diagnostic protocol?	**yes**
Performance Criteria :	
Organism 1.:	**Clavibacter michiganensis(CORBMI)**
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	See report
Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	55% (91% after re-analysing the consensus sequence data provided by TPS participants)
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	See report
Specificity value	
Analytical specificity - exclusivity	
Number of non-target organisms tested	See report
Specificity value	
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	See report
Organism 2.:	**Xanthomonas axonopodis pv. dieffenbachiae(XANTDF)**
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	See report
Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	45% (100% after re-analysing the consensus sequence data provided by TPS participants)
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	See report
Specificity value	
Analytical specificity - exclusivity	
Number of non-target organisms tested	See report
Specificity value	
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	See report

Organism 3.:	**Ralstonia solanacearum(RALSSL)**
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	See report
Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	91% (100% after re-analysing the consensus sequence data provided by TPS participants)
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	See report
Specificity value	
Analytical specificity - exclusivity	
Number of non-target organisms tested	See report
Specificity value	
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	See report
Organism 4.:	**Xylella fastidiosa(XYLEFA)**
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	See report
Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	100% (100% after re-analysing the consensus sequence data provided by TPS participants)
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	See report
Specificity value	
Analytical specificity - exclusivity	
Number of non-target organisms tested	See report
Specificity value	
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	See report
Organism 5.:	**Xanthomonas axonopodis pv. begoniae(XANTBE)**
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	See report

Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	45% (100% after re-analysing the consensus sequence data provided by TPS participants)
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	See report
Specificity value	
Analytical specificity - exclusivity	
Number of non-target organisms tested	See report
Specificity value	
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	See report
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 involving 14 laboratories (11 of which provided data). See report for more information.
The following complementary files are available online:	• EUPHRESCO DNA Barcoding - report

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