

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	EUPHRESCO PANTOEAE STEWARTII , , EUPHRESCO
Short description of the test	Conventional PCR (AGES primers) from corn seed macerate
Date, reference of the validation report	2011-05-31 -
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	EUPH-PANTOEAE
Description of the test	
Organism(s)	Pantoea stewartii subsp. stewartii (ERWIST)
Detection / identification	identification
Method(s)	Molecular Conventional PCR
Method: Molecular Conventional PCR	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	yes
EPPO Diagnostic Protocol name	PM 7/060 Pantoea stewartii (version 2)
Name of the test	PCR (AGES primers)
Other information	
Are the performance characteristics included in the EPPO diagnostic protocol?	no
Performance Criteria :	
Organism 1.:	Pantoea stewartii subsp. stewartii(ERWIST)
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	10 ² CFU/mL on pure culture
Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the	Not tested

standard test, see appendix 2 of PM 7/98	
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	Inclusivity tested with 15 target strains: 100% (bacterial suspension concentrations about 10 ⁷ bact./mL) <i>Pantoea stewartii</i> subsp. <i>stewartii</i> : CFBP 3167/ NCPPB 2295/ICMP 257ATCC 8199; CFBP1719/ ICPB SS104; CFBP 2502 / NCPPB 449 CFBP 3157/ NCPPB 1553; CFBP 3166 / ICMP 5930; CFBP 3393/ LMG 2716/ PDDCC 270; CFBP 3394/ LMG 2717/ PDDCC 722; CFBP 3395/ LMG 2718/ ATCC 8200; CFBP 3396/ LMG 2719/ PDDCC 5929; CFBP 3445/ NCPPB 3379; CFBP 3517; CFBP 3168; CFBP 3165; CFBP 3169; NCPPB 3253
Specificity value	Inclusivity + exclusivity= 96,7% on 30 target and no-target strains
Analytical specificity - exclusivity	
Number of non-target organisms tested	Exclusivity was performed by one lab on a list of 100 non-target strains and obtained 99% with the cross reaction of <i>P. indologenes</i>
Specificity value	Yes 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	Not tested
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
Test performance study	
Test performance study?	yes
Brief details of the test performance study and its output. If available, link to published article/report	Based on the test performance study with 5 laboratories involved, in the framework of EUPH05 <i>Pantoea stewartii</i> ssp. <i>stewartii</i> , EUPHRESCO Final Report 2010-2011 Analytical sensitivity: 70% of agreement at 7 x10 ⁴ CFU/mL Diagnostic sensitivity (10 samples/2 repeats/soak/lab): 70 % Diagnostic specificity (5 samples/2 repeats/soak/lab): 76 % (cross reaction with <i>Pantoea stewartii</i> subsp. <i>indologenes</i>) Qualitative Repeatability: 95 % Accuracy: <90% Qualitative Reproducibility: 58 %

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