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 - Bacteriology, Virology and GMO Unit 7 rue Jean Dixméras, 49044 Angers, France
Short description of the test	Detection of BNYVV by ELISA in host plant material
Date, reference of the validation report	2014-11-01 - 122 ; Renaudin I., Loiseau M. (2014). Evaluation des méthodes de détection du Beet necrotic yellow vein virus (BNYVV).
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?	no
Description of the test	
Organism(s)	Benyvirus necrobetae(BNYVV0)
Detection / identification	detection
Method(s)	Serological DAS-ELISA
Method: Serological DAS-ELISA	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	yes
EPPO Diagnostic Protocol name	PM 7/030 Beet necrotic yellow vein virus (version 2)
Is the test modified compared to the reference test	no
Other information	
Are the performance characteristics included in the EPPO diagnostic protocol?	**no**
Performance Criteria :	
Organism 1.:	**Benyvirus necrobetae(BNYVV0)**
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	in our condition and with our infected material, between a dilution of 1/100 and 1/250 of an infected material in an healthy material. Approximatly, 40 times less sensitive than real-time RT-PCR (Harju et al., 2005)

Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	1
Standard test(s)	20 samples agreement/20 (2 replicate for each sample)
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	10 different samples infected by BNYVV isolated in France
Specificity value	
Analytical specificity - exclusivity	
Number of non-target organisms tested	4 healthy Beta vulgaris subsp. vulgaris Healthy Spinacia oleracea Tobacco rattle virus Beet black scrotch virus Beet mosaïc virus Beet western yellows virus Beet yellows virus Beet soil-borne mosaic virus Soil-borne wheat mosaic virus Potato mop top virus
Specificity value	Cross react with: Beet yellows virus Beet black scorch virus Potato mop top virus Soil borne wheat mosaic virus
Cross reacts with	Beet yellows virus Beet black scorch virus Potato mop-top virus Wheat mosaic virus
Diagnostic Specificity	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	0,75
Specify the test(s)	72 samples agreement/96
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	Not evaluated
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100% in the range of dilution described for analytical sensitivity
Test performance study	
Test performance study?	no

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