

**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>	Council for Agricultural Research and Economics– Research Centre for Plant Protection and Certification Via Carlo Giuseppe Bertero, 22, 00156 Rome, Italy
<b>Short description of the test</b>	detection of Tomato leaf curl New Delhi virus Tomato leaf curl New Delhi virus by Molecular real time PCR in Leaves
<b>Date, reference of the validation report</b>	2022-05-05 - Proficiency test for detection of tomato leaf curl New Delhi virus (EURL- Virology_2020-02-ToLCNDV)
<b>Link to other validation data</b>	- Proficiency test for detection of tomato leaf curl New Delhi virus (EURL-Virology_2020-02-ToLCNDV) detection of Tomato leaf curl New Delhi virus Tomato leaf curl New Delhi virus by Serological DAS- ELISA in Leaves
<b>Validation process according to EPPO Standard PM7/98?</b>	yes
<b>Is the lab accredited for this test?</b>	no
<b>Was the validated data generated in the framework of a project?</b>	EURL
<b>If yes, please specify</b>	PT-02_2022 EURL Virology
<b>Description of the test</b>	
<b>Organism(s)</b>	Tomato leaf curl New Delhi virus / Begomovirus solanumdelhiense (TOLCND)
<b>Detection / identification</b>	detection
<b>Method(s)</b>	Molecular real time PCR
<b>Method: Molecular real time PCR</b>	
<b>Reference of the test description</b>	
<b>As or adapted from an EPPO diagnostic protocol</b>	no
<b>New test being considered for inclusion in the next version of the EPPO diagnostic protocol?</b>	yes
<b>As or adapted from an IPPC diagnostic protocol</b>	no
<b>Reference of the test</b>	Simon et al., 2018 (ToIA primer pairs)

Is the test modified compared to the reference test	no
<b>Kit</b>	
Is a kit used	no
<b>Other information</b>	
Reaction type	Simplex
<b>Performance Criteria :</b>	
Organism 1.:	<b>Begomovirus solanumdelhiense(TOLCND)</b>
<b>Analytical sensitivity</b>	
What is smallest amount of target that can be detected reliably?	10 <sup>-5</sup>
<b>Diagnostic sensitivity</b>	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	100%
Standard test(s)	From a comparison of samples of known status. The tests was performed by three different laboratories
<b>Analytical specificity - inclusivity</b>	
Number of strains/populations of target organisms tested	- ToLCNDV (italian isolate 102) - ToLCNDV (Italian isolate 126) - ToLCNDV isolate from DSMZ PV1109 - ToLCNDV isolate from DSMZ PV1111)
Specificity value	100%
<b>Analytical specificity - exclusivity</b>	
Number of non-target organisms tested	TYLCV (M; IL); TYLCSV; TYLCThV; SLCV; WmCSV; ChaYMV
Specificity value	100%
<b>Diagnostic Specificity</b>	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	60%
Specify the test(s)	From a comparison of samples of known status. The tests was performed by three different laboratories
<b>Reproducibility</b>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
<b>Repeatability</b>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
<b>Test performance study</b>	
Test performance study?	yes

<b>Brief details of the test performance study and its output. It available, link to published article/report</b>	The TPS was organized in the frame of EURL Virology activities and the 3 laboratories from the EURL consortium participates
<b>Other information</b>	
<b>Any other information considered useful</b>	The test was succesfully used also in testing Bemisia tabaci specimens

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