

**EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION**  
**ORGANISATION EUROPEENNE ET MEDITERRANEEENNE POUR LA PROTECTION DES PLANTES**  
(11-17239)

**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>Target Organism</b>	Pospiviroid	
<b>Short description</b>	Detection of pospiviroid in potato leaves by real-time RT-PCR	
<b>Laboratory contact details</b>	Dutch General Inspection Service (NAK) Randweg 14, 8304AS Emmeloord, Netherlands	
<b>Date and reference of the validation report</b>	November 2011 - Rapport van de labvalidatie: aantonen van pospivoroïden in aardappelblad m.b.v. real-time RT-PCR	
<b>Validation process according to EPPO Standard PM 7/98:</b>	No	
<b>Reference of the test description</b>	N/R M. Botermans, B.L.T.H. van de Vossenbergh, J.Th.J. Verhoeven, M. Hooftman, R. Dekter, E.T.M. Meekes (2013). Development and validation of a real-time RT-PCR assay for generic detection of pospiviroids. Journal of Virological Methods: 187:43-50	
<b>Is the test the same as described in the EPPO DP?</b>		
<b>Is the lab accredited for this test?</b>	No	
<b>Plant species tested (if relevant)</b>	Solanum tuberosum	
<b>Matrices tested (if relevant)</b>	leaves	
<b>List of methods used</b>		
<b>Method for extraction / isolation / baiting of target organism from matrix</b>		
<b>Molecular methods, e.g. hybridization, PCR and real time PCR</b>	X	real-time RT-PCR
<b>Serological methods: IF, ELISA, Direct Tissue Blot Immuno Assay</b>		
<b>Plating methods: selective isolation</b>		
<b>Bioassay methods: selective enrichment in host plants, baiting, plant test and grafting.</b>		
<b>Pathogenicity test</b>		
<b>Fingerprint methods: protein profiling, fatty acid profiling &amp; DNA</b>		

<b>profiling</b>		
<b>Morphological and morphometrical methods intended for identification</b>		
<b>Biochemical methods: e.g. enzyme electrophoresis, protein profiling</b>		
<b>Other</b>		
<b><u>Analytical sensitivity (= limit of detection)</u></b>		
<b>What is smallest amount of target that can be detected reliably?</b>	A) 1 infected leave in a pool of 100 healthy leaves B) sap of infected leave can be diluted 1: 2.500 in sap of healthy potato leaves	
<b><u>Diagnostic sensitivity</u></b>		
<b>Proportion of infected/infested samples tested positive compared to results from the standard test , see appendix 2 of PM 7/98</b>		
<b>Specify the standard test</b>		
<b><u>Analytical specificity</u></b>		
<b>Specificity value</b>	Analytical specificity: highly specific for Pospiviroid species, no cross reactions with viruses commonly occurring in potato	
<b>Number of strains/populations of target organisms tested</b>	CEVd, CLVd, CSVd, MPVd, PCFVd, PSTVd, TASVd, TCDVd, TPMVd, IrVd	
<b>Number of non-target organisms tested</b>	PVY, PVYn, PVYoc, PVA, PVX, PVS, PVM, PVV, PLRV, PepMV, PMTV, APLV, APMoV, PBRSV.	
<b>Cross reacts with (specify the species)</b>		
<b><u>Diagnostic Specificity</u></b>		
<b>Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test</b>		
<b>Specify the standard test</b>		
<b><u>Reproducibility</u></b>		
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	100%	
<b><u>Repeatability</u></b>		
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	100%	
<b><u>Test performance study</u></b>		
<b>Test performance study?</b>	No	
<b>Include brief details of the test performance study and its output.It available, provide a link to</b>		

<b>published article/report</b>	
<b><u>Other information</u></b>	
<b>Any other information considered useful e.g. robustness, ease of performing the test, etc.</b>	