

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.

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| Laboratory contact details | National Institute of Biology, Department of Biotechnology and Systems Biology Vecna pot 121, 1000 Ljubljana, Slovenia |
| Short description of the test | Detection and identification of tomato spotted wilt tospovirus by ELISA Agdia in symptomatic tomato leaves (prevalidation study) |
| Date, reference of the validation report | 2020-12-14 - TSWV V1.0 |
| Link to other validation data | - TSWV V1.0 Detection and identification of tomato spotted wilt tospovirus by ELISA Bioreba in symptomatic tomato leaves (TPS) - TSWV V1.0 Detection and identification of tomato spotted wilt tospovirus by ELISA Bioreba in symptomatic tomato leaves (prevalidation study) - TSWV V1.0 Detection and identification of tomato spotted wilt tospovirus by ELISA Agdia in symptomatic tomato leaves (TPS) |
| 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? | Other_project |
| If yes, please specify | VALITEST |
| Description of the test | |
| Organism(s) | Orthotospovirus tomatomaculae(TSWV00) |
| Detection / identification | detection and identification |
| 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 7/139 Tospoviruses (genus Orthotospovirus) (version 1) |
| Name of the test | DAS ELISA Generic or Specific antisera (Appendix 2) |
| Is the test modified compared to the reference test | no |

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| Kit | |
| Is a kit used | yes |
| Manufacturer name | AGDIA |
| Specify the kit used | ELISA Reagent set for TSWV (SRA 39300) |
| Kit used following the manufacturer's instructions? | yes |
| Other information | |
| Performance Criteria : | |
| Organism 1.: | Orthotospovirus tomatomaculae(TSWV00) |
| Analytical sensitivity | |
| What is smallest amount of target that can be detected reliably? | 10,000x dilution of the isolates TSWV-PV-0182, TSWV-PV-0389 and TSWV-PV-1175 |
| Analytical specificity - inclusivity | |
| Number of strains/populations of target organisms tested | 13 TSWV isolates (5 isolates from DSMZ collection and 8 isolates from other collections) |
| Specificity value | 100% |
| Analytical specificity - exclusivity | |
| Number of non-target organisms tested | 10 other tospovirus species, represented with 17 isolates (ANSV00 isolate PV-1027; CaCV isolate PV-0864; CSNV00 isolate PV-0529 and NIB V 038; GRSV00 isolate PV-0205; INSV00 isolates PV-0281, PV-0280, PV-0485, PV-1123, and PV-1189; IYSV isolate PV-0528; MSMV isolate VE440; TCSV00 isolates PV-0390 and PV-0391; TYRV00 isolates PV-0526, and PV-0535, WSMoV isolate PV-0283). |
| Specificity value | 76% |
| Cross reacts with | Alstroemeria necrotic streak virus Groundnut ringspot orthotospovirus Tomato chlorotic spot orthotospovirus |
| Test performance study | |
| Test performance study? | no |
| Brief details of the test performance study and its output.It available, link to published article/report | Preparation for test performance study organized in the framework of the VALITEST project |

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