

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 | Anses Plant Health Laboratory - Pests and Tropical Pathogens Unit Pôle de Protection des Plantes, 7 Chemin de l'IRAT, 97410 Saint Pierre, France |
| Short description of the test | Detection of <i>Xanthomonas citri</i> pv. <i>citri</i> by Molecular Conventional PCR in Leaves, Fruits |
| Date, reference of the validation report | 2021-08-05 - XCC1 |
| Link to other validation data | - XCC1 Detection of <i>Xanthomonas citri</i> pv. <i>citri</i> by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of <i>Xanthomonas citri</i> pv. <i>citri</i> by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of <i>Xanthomonas citri</i> pv. <i>citri</i> by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of <i>Xanthomonas citri</i> pv. <i>citri</i> by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of <i>Xanthomonas citri</i> pv. <i>citri</i> by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of <i>Xanthomonas citri</i> pv. <i>citri</i> by Molecular real time PCR in Leaves, Fruits - XCC1 Detection of <i>Xanthomonas citri</i> pv. <i>citri</i> by Molecular real time PCR in Leaves, Fruits - XCC1 Detection of <i>Xanthomonas citri</i> pv. <i>citri</i> by Molecular real time PCR in Leaves, Fruits - XCC1 Detection of <i>Xanthomonas citri</i> pv. <i>citri</i> by Molecular Conventional PCR in Leaves, Fruits |
| 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) | <i>Xanthomonas citri</i> pv. <i>citri</i> (XANTCI) |
| Detection / identification | detection |
| Matrix(ces) tested | Fruits, Leaves Strains were obtained from international collections Citrus healthy plant materials were obtained from internal reference materials |
| Plant species tested | citrus (general) |
| Method(s) | Molecular Conventional PCR |

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| Method: Molecular Conventional PCR | |
| Reference of the test description | |
| As or adapted from an EPPO diagnostic protocol | no |
| New test being considered for inclusion in the next version of the EPPO diagnostic protocol? | no |
| As or adapted from an IPPC diagnostic protocol | no |
| Reference of the test | Cubero et al., 2002 (J-pth1/2) |
| Is the test modified compared to the reference test | no |
| Kit | |
| Is a kit used | no |
| Other information | |
| Reaction type | Simplex |
| Other details on the test | the test does not allow to distinguish <i>Xanthomonas citri</i> pv. <i>citri</i> and <i>Xanthomonas citri</i> pv. <i>aurantifolii</i> |
| Performance Criteria : | |
| Organism 1.: | Xanthomonas citri pv. citri(XANTCI) |
| Analytical sensitivity | |
| What is the smallest amount of target that can be detected reliably? | POD of 0.95 : 6200 CFU.ml-1 |
| Diagnostic sensitivity | |
| Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98 | 76% |
| Standard test(s) | This a comparison with samples of known status |
| Analytical specificity - inclusivity | |
| Number of strains/populations of target organisms tested | 82 |
| Specificity value | 100% |
| Analytical specificity - exclusivity | |
| Number of non-target organisms tested | 46 |
| Specificity value | 87% |
| Diagnostic Specificity | |
| Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test | 54% |
| Specify the test(s) | This a comparison with samples of known status |
| Reproducibility | |
| Provide the calculated % of agreement for a | 77% |

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| given level of the pest (see PM 7/98) | |
| Repeatability | |
| Provide the calculated % of agreement for a given level of the pest (see PM 7/98) | 91% |
| Test performance study | |
| Test performance study? | yes |
| Brief details of the test performance study and its output. It available, link to published article/report | Test performance study organized in the framework of the VALITEST project involving 16 laboratories from 13 countries |
| The following complementary files are available online: | |
| | <ul style="list-style-type: none"> • VALITEST TPS XCC REPORT_2021_08_05_v2 |

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