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.

| Target Organism       | Globodera pallida  
<table>
<thead>
<tr>
<th></th>
<th>Globodera rostochiensis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short description</td>
<td>Molecular identification of Globodera pallida and G. rostochiensis - PCR-RFLP</td>
</tr>
</tbody>
</table>
| Laboratory contact details | Anses, Laboratoire de la Santé des Végétaux - Unité de Nématologie  
|                       | Domaine de la Motte au Viconte BP 35327, 35653 Le Rheu, France |
| Date and reference of the validation report | 13/07/2010 - Evaluation comparative de différents outils moléculaire pour l'identification de Globodera pallida et G. rostochiensis - ref 10/03 |
| Validation process according to EPPO Standard PM 7/98: | Yes |
| Reference of the test description | 0  
|                       | PM7/40 (2) APPENDIX 3 - PART C Thiéry & Mugniéry (1996)  
|                       | Interspecific rDNA restriction fragment length polymorphism in Globodera species, parasites of Solanaceous plants. Fundamental and Applied Nematology 19, 471-479. |
| Is the test the same as described in the EPPO DP? | Yes |
| Is the lab accredited for this test? | No |
| Plant species tested (if relevant) |  |
| Matrices tested (if relevant) | isolated nematodes |

**List of methods used**

| Method for extraction / isolation / baiting of target organism from matrix | Molecular methods, e.g. hybridization, PCR and real time PCR  
|                                                                         | PCR-RFLP |
| Serological methods: IF, ELISA, Direct Tissue Blot Immuno Assay |
| Plating methods: selective isolation |
| Bioassay methods: selective enrichment in host plants, baiting, plant test and grafting. |
| Pathogenicity test |
| Fingerprint methods: protein profiling, fatty acid profiling & DNA profiling |
| morphological and morphometrical methods intended for identification |
| biochemical methods: e.g. enzyme electrophoresis, protein profiling |
| other |

**Analytical sensitivity (= limit of detection)**

What is smallest amount of target that can be detected reliably? 1 individual of J2 stage

**Diagnostic sensitivity**

Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98

Specify the standard test

**Analytical specificity**

Specificity value 91% for G. pallida (1 non target species detected among 11) 100% for G. rostochiensis

Number of strains/populations of target organisms tested 11 populations of G. pallida and 4 populations of G. rostochiensis (refer to evaluation report 10/03 - annex 2)

Number of non-target organisms tested 7 populations tested (list of populations, refer to evaluation report 10/03 - annex 2)

Cross reacts with (specify the species) no cross reaction

**Diagnostic Specificity**

Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test

Specify the standard test

**Reproducibility**

Provide the calculated % of agreement for a given level of the pest (see PM 7/98) 90% for G. pallida (at the level of 1 J2 stage) 93% for G. rostochiensis (at the level of 1 J2 stage)

**Repeatability**

Provide the calculated % of agreement for a given level of the pest (see PM 7/98) 100% for both species

**Test performance study**

Test performance study? No

Include brief details of the test performance study and its output. If available, provide a link to
<table>
<thead>
<tr>
<th>published article/report</th>
<th>Other information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any other information considered useful e.g. robustness, ease of performing the test, etc.</td>
</tr>
</tbody>
</table>