**Table S1** The specific primers of the genome of potato virus A

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Amplified fragment | Primer | Sequence (5´–3´) | Position in genome | Product size (bp) |
| PVA1 | 1-F | AAAATAAACAAACTACAAAACACAATC | 1-409 | 409 |
| 1-R | CAGCTCATGTGGTGCTTACTT |
| PVA2 | 2-F | CCTGGAGGTTAACTGTAAGCC | 200-1428 | 1229 |
| 2-R | AGCCACCAACTATCTTCAATAT |
| PVA3 | 3-F | TTTCAAAGAGTTCCAGACACA | 1259-2530 | 1272 |
| 3-R | TATGGTTGCTCATGTATTATCTC |
| PVA4 | 4-F | GAGCAACTCACTAGACTCTGAA | 2384-3630 | 1247 |
| 4-R | CTAGACTTTGAAACTGAACTGTA |
| PVA5 | 5-F | GTCTGAGCAGGTTAATTTTGAGCG | 3476-4730 | 1255 |
| 5-R | GTGGCCAATTCGTAAAGCAACC |
| PVA6 | 6-F | GATGCAGTCATAGACTTTGGGA | 4572-5824 | 1253 |
| 6-R | TTTGTTTTTCCTTTCTTTGTGTA |
| PVA7 | 7-F | CCAGAGCCAGAGATGAGAAGAT | 5725-7040 | 1316 |
| 7-R | TGCCACTGCCTGGATGTTT |
| PVA8 | 8-F | GGGGTTCATTCCATCTGC | 6889-8160 | 1272 |
| 8-R | ATAAGTCTTTCTTGTCTTTGCTA |
| PVA9 | 9-F | TGCATTATGCCTTACTTA | 7963-9345 | 1383 |
| 9-R | TCGGTTACACCCCCTTCACG |
| PVA10 | 10-F | ACCATGCAAAGCCTTCTT | 8986-9567 | 582 |
| 10-R | CCCTGACAGTTGAAACATAA |