**S1 Table** Recombinant constructs used in this study.

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| --- | --- | --- | --- | --- |
| **Construct name**  | **Gene Cassette**  | **Vector** |  **Description** |  **References** |
| **PVAWT** | 35S-PVAWT:RLUCint-nos  | pRD400 | RLUC-tagged full-length infectious cDNA clone ofPVA | Eskelin et al., 2010 |
| **PVAWD** | 35S-PVAWD:RLUCint-nos  | pRD400 | RLUC-tagged full-length infectious cDNA clone ofPVA with mutation in WD domain interacting motif of HCPro | This study |
| **PVAΔGDD-HCProWT** | 35S-PVA-[HCProWT- NIbΔGDD] ::RLUCint-nos | pRD400 | RLUC-tagged non-replicating variant of PVA with mutation in GDD motif of its replicase. HCPro expressed is wild type | Hafrén et al., 2015 |
| **PVAΔGDD-HCProWD** | 35S-PVA-[HCProWD- NIbΔGDD] ::RLUCint-nos | pRD400 | RLUC-tagged non-replicating variant of PVA with mutation in GDD motif of its replicase. HCPro expressed has mutation in its WD domain interacting motif | This study |
| **PVAWT-Strep-RFP** | 35S-PVA-[(2xStrep)-RFP-HCProWT]::RLUCint-nos | pRD400 | RLUC-tagged PVA expressing HCProWT fused to the red fluorescent protein (RFP) and two copies of the Strep-tag II | Hafrén et al., 2015 |
| **PVAWD-Strep-RFP** | 35S-PVA-[(2xStrep)-RFP-HCProWD]::RLUCint-nos | pRD400 | RLUC-tagged PVA expressing HCProWD fused to the red fluorescent protein (RFP) and two copies of the Strep-tag II | This study |
| **HCProWT** | 35S-[(2xStrep)-RFP-HCProWT]-nos | pRD400 | Plasmid expressing PVA HCProWT  | Hafrén et al., 2015 |
| **HCProWD** | 35S-HCProWD-nos | pRD400 | Plasmid expressing PVA HCProWD | This study |
| **HCProWT-Strep-RFP** | 35S-[(2xStrep)-RFP-HCProWT]-nos | pRD400 | Plasmid expressing PVA HCProWT tagged Two copies of Strep-tag II and RFP | This study |
| **HCProWD-Strep-RFP** | 35S-[(2xStrep)-RFP-HCProWD]-nos | pRD400 | Plasmid expressing PVA HCProWD tagged Two copies of Strep-tag II and RFP | This study |
| **PVAΔHCPro** | 35S-PVAΔHCPro::RLUC-nos | pRD400 | PVA tagged with RLUC lacking HCPro | Hafrén et al., 2015 |
| **PVAΔGDD-ΔHCPro** | 35S-PVAΔHCPro::RLUC-nos | pRD400 | RLUC-tagged non-replicating variant of PVA with a mutation in GDD motif of its replicase. This PVA construct lacks HCPro | Hafrén et al., 2015 |
| **pHG-CTRL** | 35S-(empty hp)-ocs | pHG12 | Plasmid expressing no hairpin RNA | Hafrén et al., 2013 |
| **pHG-VCS** | 35S-VCS(hp)-ocs | pHG12 | Plasmid expressing hairpin RNA targeting the VCS gene family | Hafrén et al., 2015 |
| **pHG-RLUC** | 35S-RLUC(hp)-ocs | pHG12 | Plasmid expressing hairpin RNA targeting the RLUC | Hafrén et al., 2015 |
| **VCS-A** | 35S-VCS-A-nos | pRD400 | Plasmid expressing *N. benthamiana* VCS-A | This study |
| **VCS-B** | 35S-VCS-B-nos | pRD400 | Plasmid expressing *N. benthamiana* VCS-B | This study |
| **VCS-C** | 35S-VCS-C-nos | pRD400 | Plasmid expressing *N. benthamiana* VCS-C | This study |
| **VCS-AYFP** | 35S-VCS-AYFP-nos | pRD400 | Plasmid expressing *N. benthamiana* VCS-A tagged with YFP | This study |
| **VCS-BYFP** | 35S-VCS-BYFP-nos | pRD400 | Plasmid expressing *N. benthamiana* VCS-B tagged with YFP | This study |
| **VCS-CYFP** | 35S-VCS-CYFP-nos | pRD400 | Plasmid expressing *N. benthamiana* VCS-C tagged with YFP | This study |
| **HCProSDM** | 35S-HCProSDM-RFP-nos | pSITEII-6C1 | Plasmid expressing silencing suppression deficient mutant of HCPro fused to RFP | Hafrén et al., 2015 |
| **HCPro4EBM** | 35S-HCPro4EBM-RFP-nos | pSITEII-6C1 | Plasmid expressing eIF4E binding deficient mutant of HCPro fused to RFP | Hafrén et al., 2015 |
| **VPg** | 35S-VPg-nos | pRD400 | Plasmid expressing PVA VPg | Eskelin et al., 2011 |
| **P0YFP** | 35S-P0YFP-nos | pRD400 | Plasmid expressing *N. benthamiana* P0 tagged with YFP | Hafrén et al., 2015 |
| **P0CFP** | 35S-P0YFP-nos | pRD400 | Plasmid expressing *N. benthamiana* P0 tagged with CFP | This study |
| **GUS** | 35S-GUS-nos | pRD400 | Plasmid expressing uidA gene encoding β-glucuronidase (GUS) | Eskelin et al., 2010 |
| **FLUC** | 35S-FLUC-nos | pRD400 | Plasmid expressing intron-spliced FLUC | Eskelin et al., 2010 |