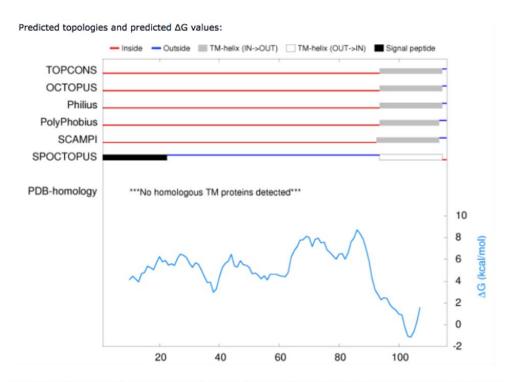


**Supplementary Figure S1** Photographed PVX constructs infiltrated leaf pictures stained with DAB, NBT and trypan blue (at 5 dpi).



Predicted signal peptide and TM-helix positions (position starting from 1):

```
TOPCONS
TM1: 94-114

OCTOPUS
TM1: 94-114

Philius
TM1: 94-114

PolyPhobius
TM1: 94-113

SCAMPI
TM1: 93-113

SPOCTOPUS
SP: 1-23,
TM1: 94-114

PDB-homology
***No homologous TM proteins detected***
```

**Supplementary Figure S2** βV1 protein topology prediction.

Transmembrane topology derived using TOPCONS web server, the consensus prediction of transmembrane domain by individual sub-method are represented and predicted G values are indicated in the graph