



**Figure S1. Accumulation of wild-type (WT) pepper veinal mottle virus (PVMV) Tn and its attenuated mutants, m4-8, m10-1 and m10-11, in *Nicotiana benthamiana* plants.** Indirect enzyme-linked immunosorbent assay (ELISA) with the antiserum against the coat protein of PVMV was conducted to assess virus accumulation. Crude leaf saps of virus-inoculated plants 0-14 days post-inoculation (dpi) at a 1/100 dilution were used for virus detection. Non-inoculated systemic leaves (**A**) and inoculated leaves (**B**) were separately tested. The positions of systemic leaves (green) and inoculated leaves (red) are indicated on the right.