viruses

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Supplementary Materials

Combinatorial F-G Immunogens as Nipah and Respiratory Syncytial Virus Vaccine Candidates

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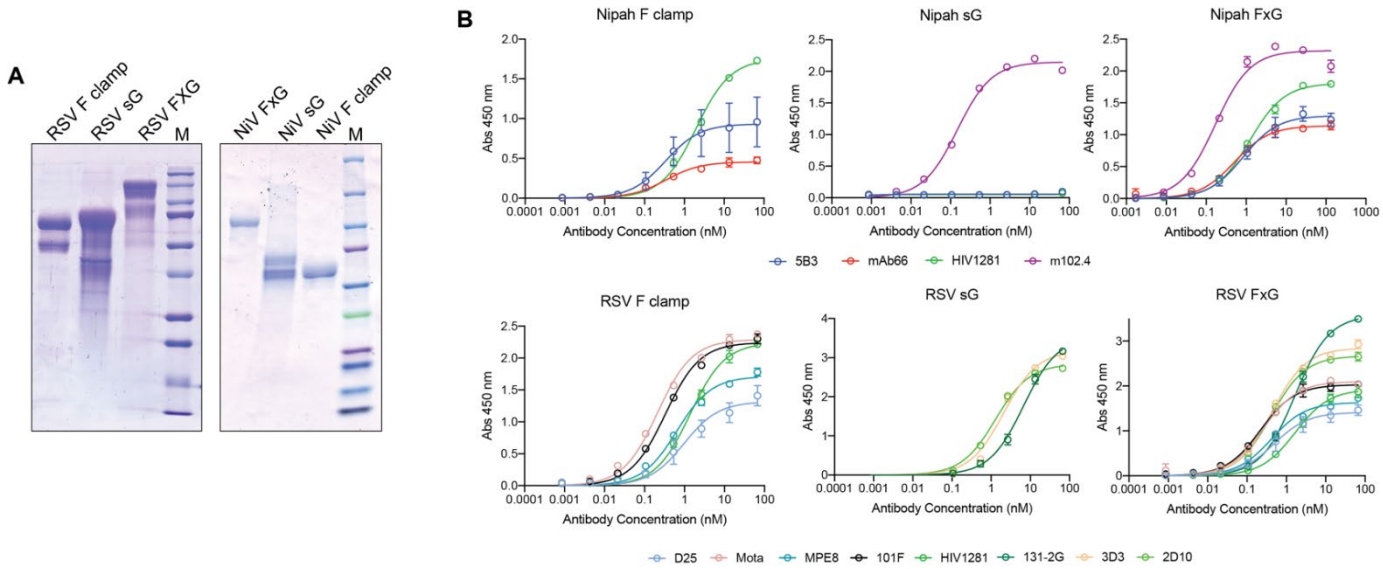

Figure S1. (**A**) SDS-PAGE of RSV and NiV antigens run under reducing conditions. M is Bio-Rad Kaleidoscope molecular marker. (**B**) Indirect ELISAs of mAbs against NiV and RSV antigens. Data shown of mean of duplicate values with standard deviation. Data fitted with one-site specific binding model to calculate K_d.

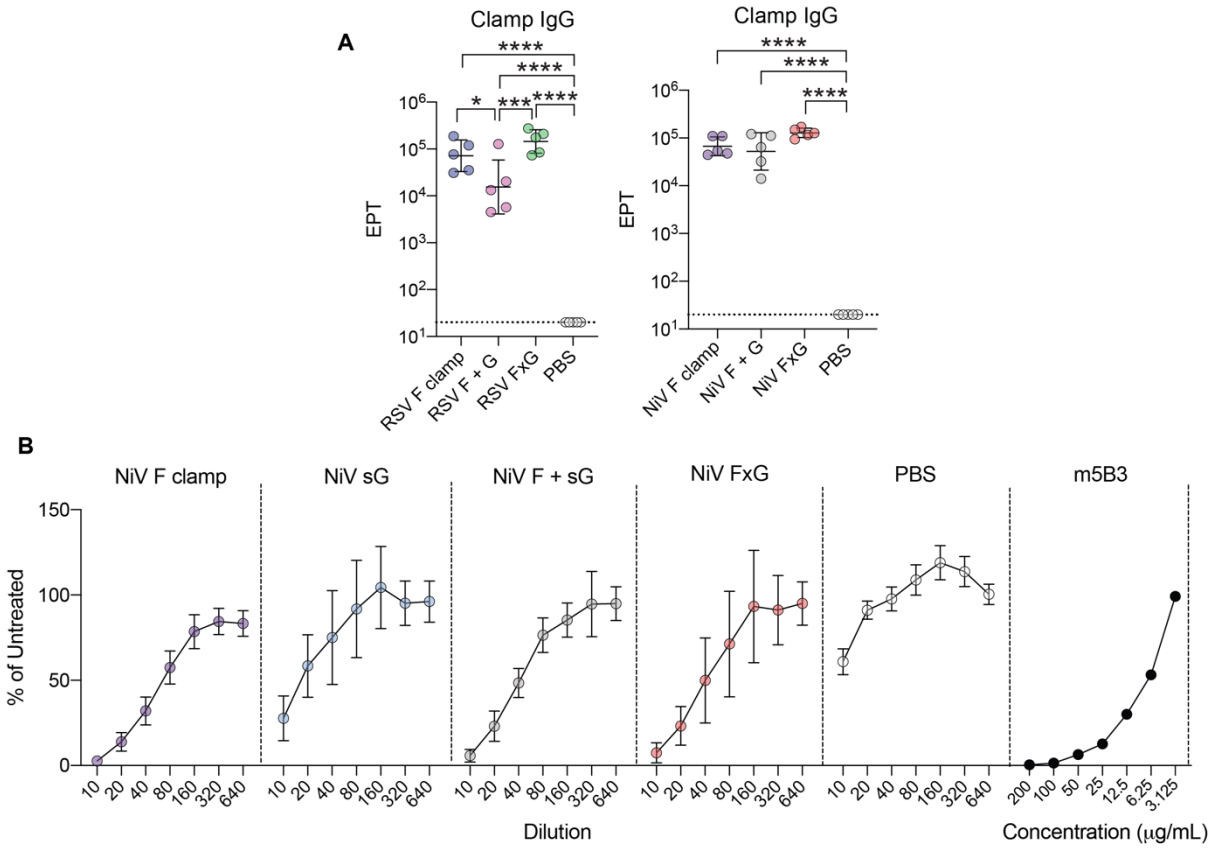

Figure S2. (**A**) Endpoint titer (EPT) of each RSV (left) and NiV (right) groups against the molecular clamp domain, assayed against a non-specific clamp-stabilised protein. Dotted line shows limit of detection and data is expressed as geometric mean with geometric standard deviation (SD). p-values calculated using a one-way Tukey's multiple comparison ANOVA on log transformed values, where * = $p < 0.05$, ** = $p < 0.005$, *** = $p < 0.0005$ and **** = $p < 0.0001$. (**B**) mFITs of NiV groups showing serial dilutions of sera from vaccinated groups as well as positive mAb controls. Each mouse sample was assayed in triplicate. Data is expressed as a percentage of the average luciferase readings seen in untreated controls (no serum) with 50% inhibition dotted line indicated (IC_{50}). Values shown are group mean (n = 5) with SD.

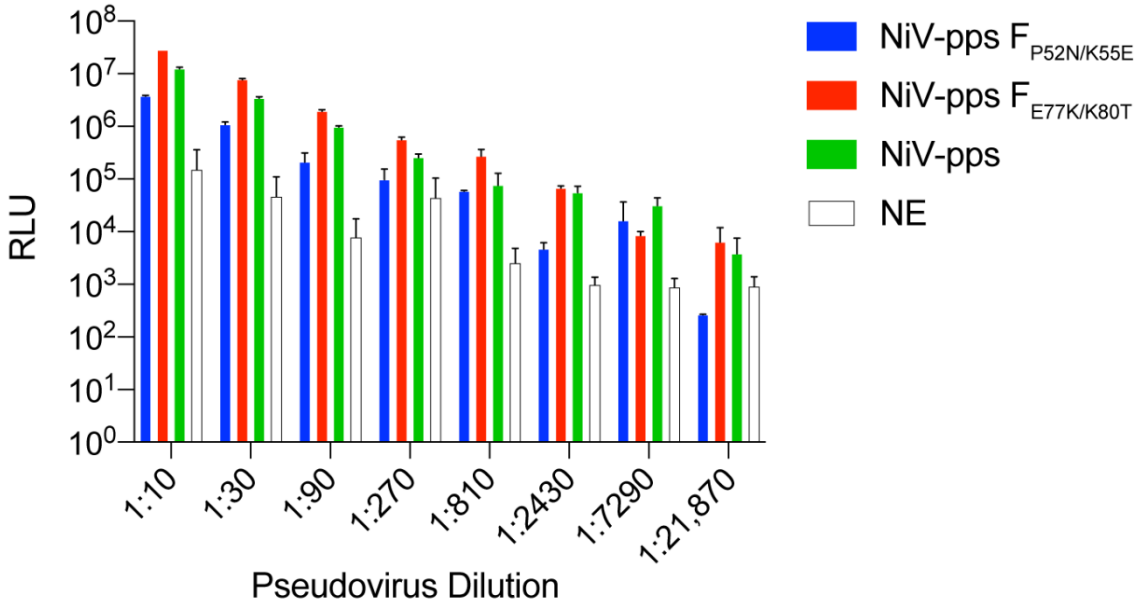

Figure S3. Titration of NiV pseudovirus (NiV-pps) wild-type or mutant F variants on BHK-21 cells. Titer is measured as relative light units (RLU) emitted by firefly luciferase reporter. Non-enveloped (NE) virus is included as background control.

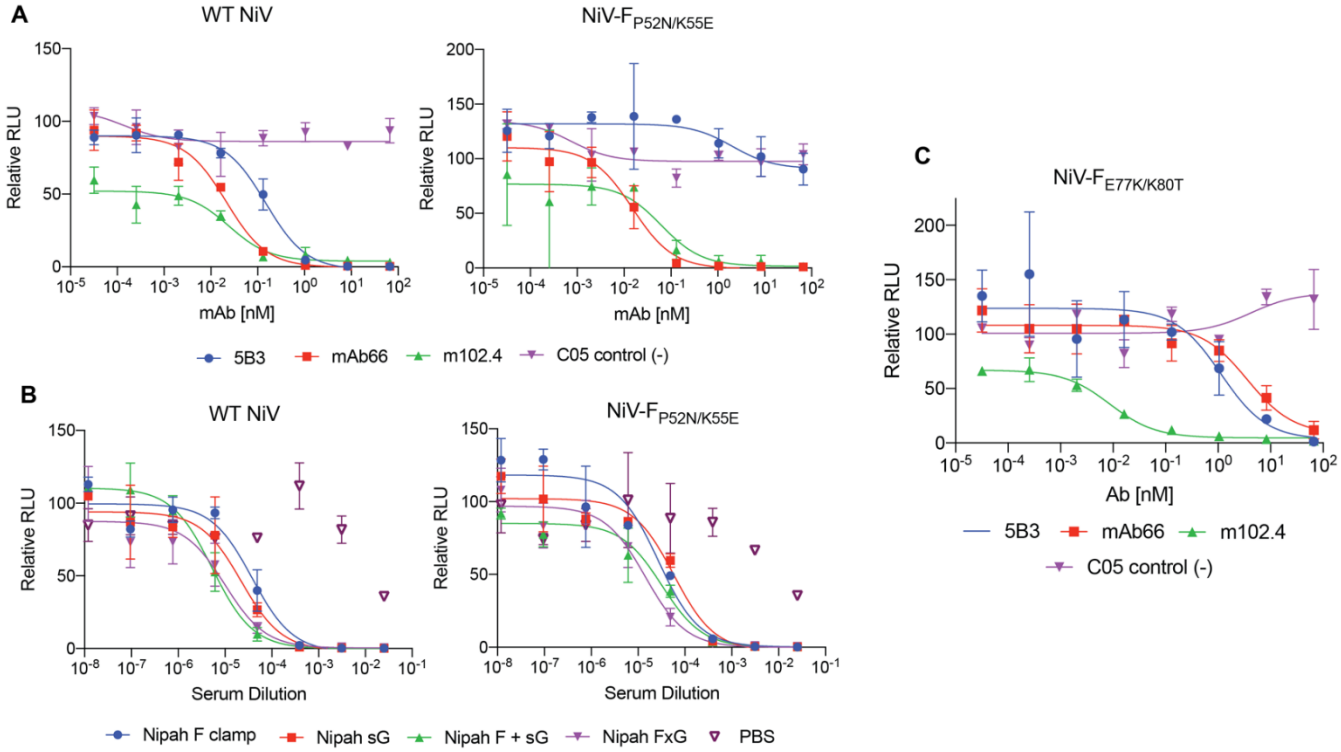

Figure S4. NiV pseudovirus neutralisation assays of mAbs (**A**) and sera (**B**) against wild-type NiV (WT) or NiV-$F_{P52N/K55E}$ mutant knockout. (**C**) NiV pseudovirus neutralisation assay of mAbs against NiV- $F_{E77K/K80T}$ mutant knockout. Data shown is duplicate values of pooled sera or duplicate values of mAbs expressed as percent inhibition relative to virus only readings (relative RLU). C05 is a non-specific antibody control.

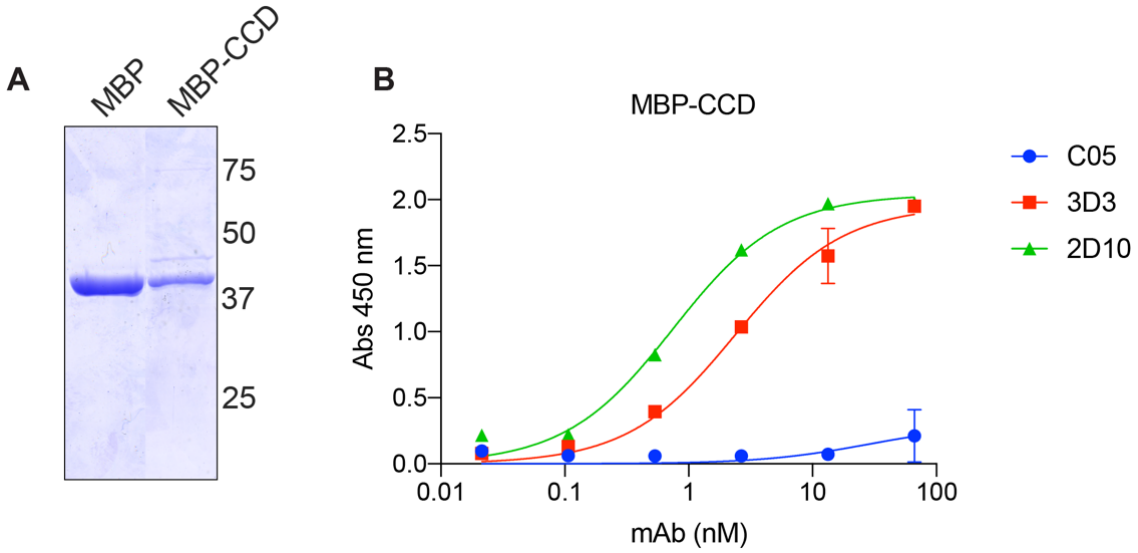

Figure S5. (**A**) SDS-PAGE of MBP and MBP-CCD purified protein run under reducing conditions. (**B**) Indirect ELISA of CCD-specific mAbs or non-specific control (C05) against MBP-CCD protein. Data shown is average of duplicate values with SD and background binding to MBP only subtracted.