**S1 Table.** **Prediction of hydropathy segments.** The hydropathy segments were predicted for the stem region of alpha-, bunya-, and flavirus fusion proteins using the Wimley-White interfacial hydrophobicity scale (WWIHS). Rift Valley Fever virus (RVFV), Dengue virus type 2 (DV2), Semliki Forest virus (SFV), Chikungunya virus (CHIKV).

|  |  |  |  |
| --- | --- | --- | --- |
| **Viral fusion protein** | **GenBank accession no.** | **Hydropathy-predicted segment** | **WWIHS score\*** |
| ANDV Gc | AAO86638 | CTFKCWFTKSGEWLLGILN | 5.61 |
| RVFV Gc | P21401 | SWNFFDWFSGLMSWFGGPL | 10.20 |
| DV2 E | AIU47320 | ILGDTAWDFGSLGGVFTSI | 5.17 |
| SFV E1 | P03315 | ASHSNVVFPDMSGTALSWV | 0.75 |
| CHIKV E1 | 2V33\_A | ASHTTLGVQDISATAMSWV | 0.01 |

\* Calculated at the fusion pH, were histidine is charged and aspartate and glutamate uncharged.