

Table S1. Induction of anti-CHIKV IgG antibodies in BALB/c mice.

| Groups | Mean \pm standard deviation (UA) | <i>p</i> |
|--------------|---|----------|
| D2 vs. CG | 66.98 \pm 19.10 vs. 1.69 \pm 0.7956 | 0.0004 |
| D2 vs. D2-CH | 66.98 \pm 19.10 vs. 52.64 \pm 3.099 | 0.05 |
| CH vs. CG | 88 \pm 19.34 vs. 1.69 \pm 0.7956 | 0.0004 |
| CH vs. D2 | 88 \pm 19.34 vs. 66.98 \pm 19.10 | 0.0462 |
| CH vs. D2-CH | 88 \pm 19.34 vs. 52.64 \pm 3.099 | 0.0002 |
| CH-D2 vs. CG | 84.41 \pm 15.15 vs. 1.69 \pm 0.7956 | 0.0004 |

Table S2. Induction of anti-DENV2 IgG antibodies in BALB/c mice.

| Groups | Mean \pm standard deviation (UA) | <i>p</i> |
|--------------|---|----------|
| D2 vs. CG | 29.7 \pm 16.63 vs. 2.549 \pm 1.35 | < 0.0001 |
| D2 vs. CH | 29.7 \pm 16.63 vs. 14.21 \pm 4.604 | 0.0464 |
| D2-CH vs. CG | 19.67 \pm 10.25 vs. 2.549 \pm 1.35 | < 0.0001 |
| CH vs. CG | 14.21 \pm 4.604 vs. 2.549 \pm 1.35 | 0.0001 |
| CH-D2 vs. CG | 24.43 \pm 10.14 vs. 2.549 \pm 1.35 | < 0.0001 |
| CH-D2 vs. CH | 24.43 \pm 10.14 vs. 14.21 \pm 4.604 | 0.0415 |

Table S3. Titration of anti-CHIKV IgG antibodies obtained from BALB/c mice.

| Groups/Dilution | Mean \pm standard deviation (UA) | <i>p</i> |
|---------------------------|---|----------|
| D2 vs. D2-CH / 1:900 | 54.860 \pm 2.644 vs. 47.865 \pm 0.374 | < 0.001 |
| D2 vs. CH / 1:900 | 54.860 \pm 2.644 vs. 45.575 \pm 0.459 | < 0.001 |
| CH-D2 vs. D2 / 1:8100 | 14.070 \pm 0.353 vs. 5.68 \pm 0.0001 | < 0.001 |
| CH-D2 vs. D2-CH / 1:24300 | 3.16 \pm 0.155 vs. 0.085 \pm 0.120 | < 0.05 |
| CH-D2 vs. CH / 1:8100 | 14.070 \pm 0.353 vs. 5.340 \pm 0.480 | < 0.001 |

Table S4. Titration of anti-DENV-2 IgG antibodies from BALB/c mice.

| Groups/Dilution | Mean \pm standard deviation (UA) | <i>p</i> |
|-------------------------|---|----------|
| D2 vs. D2-CH / 1:300 | 78.065 \pm 1.269 vs. 72.043 \pm 0.241 | < 0.001 |
| D2 vs. CH / 1:8100 | 3.158 \pm 0.022 vs. 0.356 \pm 0.044 | < 0.01 |
| D2 vs. CH-D2 / 1:900 | 38.189 \pm 0.263 vs. 33.452 \pm 0.526 | < 0.001 |
| D2-CH vs. CH / 1:8100 | 3.266 \pm 0.175 vs. 0.356 \pm 0.044 | < 0.01 |
| D2-CH vs. CH-D2 / 1:900 | 37.012 \pm 0.131 vs. 33.452 \pm 0.526 | < 0.001 |
| CH-D2 vs. CH / 1:8100 | 3.622 \pm 0.197 vs. 0.356 \pm 0.044 | < 0.001 |