**S1 Table.** Cloning and primer sequences for the DENV2, ZIKV, and WNV NS1 constructs.

|  |  |  |
| --- | --- | --- |
| **Construct #** | **PCR Template** | **Primer Sequences\*** |
| DENV WT | DENV WT  PCR amplicons | CTGCAGAACGACGCGTGCCGCCACCATGCC |
| GGATCCCTGCAGCTCGAGTCAGTGATGGTGATGG TGATG |
| DENV N130Q | PCR1: DENV WT | GCTGTTTCGGGGCCATCAATGAGAAAGGTCTGttg ATGAGACTCTGTAGA |
| PCR2: DENV WT | TCTACAGAGTCTCATcaaCAGACCTTTCTCATTGAT GGCCCCGAAACAGC |
| DENV N207Q | PCR1: DENV WT | CTTTCTCTATCTTCCACGTGTCttgGAGTGCACTTT CTATC |
| PCR2: DENV WT | GATAGAAAGTGCACTCcaaGACACGTGGAAGATA GAGAAAG |
| DENV (N130Q+N207Q) | PCR1: N130Q | Same as N207Q primer |
| PCR2: N130Q | Same as N207Q primer |
| WNV WT | WNV WT  PCR amplicons | CTGCAGAACGACGCGTGCCGCCACCATGCC |
| GGATCCCTGCAGCTCGAGTCAGTGATGGTGATGG TGATG |
| WNV N207Q | PCR1: WNV WT | CTT CCA CGT ATC TTG GAG CCT GCT TTC |
| PCR2: WNV WT | GAA AGC AGG CTC CAA GAT ACG TGG AAG |
| ZIKV WT | ZIKV WT  synthesized fragment | CTGCAGAACGACGCGTGCCGCCACCATGCC |
| GGATCCCTGCAGCTCGAGTCAGTGATGGTGATGG TGATG |
| ZIKV N207Q | PCR1: ZIKV WT | CAG CCA TGT GTC TTG CTT CTC ACT CTC |
| PCR2: ZIKV WT | GAG AGT GAG AAG CAA GAC ACA TGG CTG |

# S1 Table. Related to Fig 1 and Fig 8. Cloning and primer sequences for the DENV2, ZIKV, and WNV NS1 constructs.

\* Underlined letters indicate the restriction enzyme sites of MluI (ACGCGT) and XhoI (CTCGAG); lower case letters highlight nucleotide changes where the point mutations were introduced.