Supplemental Material

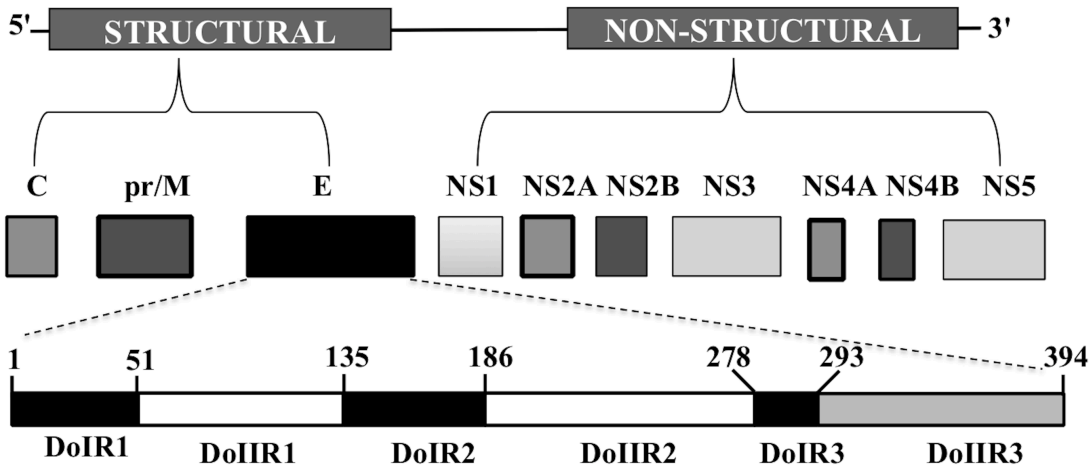

Figure S1. Schematic representation of YFV genome and sub-division of the polyprotein. The YFV E protein was sub-divided into six fragments following the segments derived from DENV-2 soluble E-protein ectodomain crystal structure. Individual fragments were cloned into pMAL-c5X plasmid vector for *E. coli* expression and purification as MBP-fusion proteins for use in epitope mapping. The six fragments were designated as DoIR1, DoIR2, DoIR3, DoIIR1, DoIIR2 and DoIIR3. The corresponding amino acid position for each fragment in the YFV protein is indicated.

Table S1. Envelope protein fragments showing corresponding nucleotide positions of the coding region of the whole genome, the positions of the amino acids, specific primers for PCR amplification and the amino acid sequence of the protein fragment.

Fragment designation	Nucleotide Position	Amino acid position[a]	Primer pairs	Amino acid sequence
DoIR1	973-1125	1-51	Forward 5'-atggatcctcagctcactgcattggaa -3' Reverse 5'-ataagcttttaatcaatggctactgtctctagtg -3'	AHCIGITDRDFIEGVHGGTWVSATLEQD KCVTVMAPDKPSLDISLETVAID
DoIR2	1381-1534	136-186	Forward 5'-gcggatccgtatgtcatcagagcacaat-3' Reverse 5'-ataagcttttaccgcagtttgcacctggcat-3'	QYVIRAQLHVGAKQENWNTDIKTLKFD ALSGSQEVEFIGYGKATLECQVQTA
DoIR3	1815-1845	279-293	Forward 5'-gcggatcctcttgcagagtgaaattgtcag-3' Reverse 5'-gcaagcttttacattttgtcagtgcatatt-3'	SCRVKLSALTLKGTSYK
DoIIR1	1126-1380	52-135	Forward 5'-gtggatccagacctgctgaggtgaggaa-3' Reverse 5'-ataagcttttatgaattttggtctgatcaacctcaaacaa-3'	RPAEVRKVCYNAVLTHVKINDKCPSTG EAHLAEENEGDNACKRTYSDRGWGNG CGLFGKGSIVACAKFTCAKSMSLFEVD QTKI
DoIIR2	1535-1814	187-278	Forward 5'-gcggatcctggactttggtaacagttacat-3' Reverse 5'-gcaagcttttaagaaacatgtccaccatgta-3'	VDFGNSYIAEMETESWIVDRQWAQDLT LPWQSGSGGVWREMHHLVEFEPPHAA TIRVLALGNQEGSLKTALTGAMRVTKD TNDNNLYKLHGGHV
DoIIR3	1846-1947	294-394	Forward 5'-tcaggatcctgcattggaattact-3' Reverse 5'-caacaagcttattgagcttccct -3'	ICTDKMFFVKNPTDTGHGTVVMQVKVS KGAPCRIPVIVADDLTAAINKGILVTVNP IASTNDDEVLIEVNPPFGDSYIIVGRGDS RLTYQWHKEGSSIGKLF

[a] Position 1 represents the first amino acid of the YFV envelope protein