

## Supplementary Materials

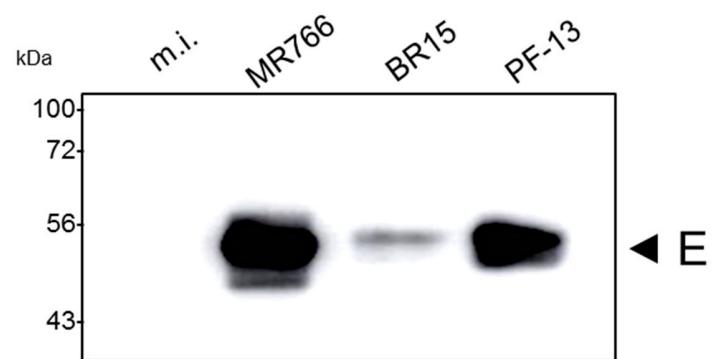
<b>ZIKV</b>	DVGCSVDFSKETRCGTGVFVYNDVEAWRDRYKYHPDSPRRLAAAVKQAWEDGICGISSV	60
<b>YFV</b>	: :   :   :   :   :   :   :   :   :   :   :   :   :   :   :   :	60
<b>ZIKV</b>	DQGCACINFKGRELKCGDGIFIFRDSDDWLNKYSYYPEDPVKLASIVKASFEEGKCGLNSV	60
<b>YFV</b>		
<b>ZIKV</b>	SRMENIMWRSVEGELNAILEENGVQLTVVGSVKNPWMWRGPQRLPVPVNELPHGWKAWGK	120
<b>YFV</b>	:: ::     :: ::     ::     ::     ::     ::     ::     ::     ::	120
<b>ZIKV</b>	DSLEHEMWRSRADEINAIFEENEVDISVVVQDPKNVYQRGTHPFSRIRDGLQYGWKTWKG	120
<b>YFV</b>		
<b>ZIKV</b>	SYFVRAAKTNNSFVVDGDTLKECPLKHRAWNSFLVEDHGFGVFHTSVWLKVREDYSLECD	180
<b>YFV</b>	: : : : :         : :     : :     :   :     :   : : : :   :	180
<b>ZIKV</b>	NLVFSPGRKNGSFIIDGKSRECPFSNRVWNFSQIEEFGTGVFTTRVYMDAVFEYTIDCD	180
<b>YFV</b>		
<b>ZIKV</b>	PAVIGTAVKGKEAVHSDLGYWIESEKNDTWRLKRAHLIEMKTCEWPKSHTLWTDGIEESD	240
<b>YFV</b>	: :      :    : :   : :   : :   : : : : : : : : : : : :	240
<b>ZIKV</b>	GSILGAAVNGKKSAHGSPTFWMGSHEVNGTWMHTLEALDYKECEWPLTHTIGTSVEESE	240
<b>YFV</b>		
<b>ZIKV</b>	LIIPKSLAGPLSHHNTREGYRTQMKGPHSEELEIRFEECPGTVHVEETCGTRGPSLRS	300
<b>YFV</b>	:: ::   :    :    : :    :   :    : :    :    :    :    :    :	300
<b>ZIKV</b>	MFMPRSIGGPVSSHNHIPGYKVQTNGPQMVPLEVKREACP GTSVIIDGNCDGRGKSTRS	300
<b>YFV</b>		
<b>ZIKV</b>	TTASGRVIEEWCCRECTMPPLSFRAKDGWCYGMEIRPRKEPESNLVRSMVTA	352
<b>YFV</b>	:    :    :    :    :    :    :    :    :    :    :    :    :	352
<b>ZIKV</b>	TTDSGKVIPEWCCRSCTMPPVSFHGSDGCWYPMEIRPRKTHESHLVRSWVTA	352
<b>YFV</b>		

**Figure S1.** Comparative analysis of ZIKV and YFV NS1 proteins. Sequence alignment of NS1 (352 amino acids) from clinical isolate PF13/25013-18 of ZIKV (Genbank access number KX369547) and live attenuated 17D-204 strain of YFV (Genbank access number KF693015). The conserved sequences are shown by bar (I) and amino acids that are strongly similar are indicated by a double dot (:). The analysis was performed unsing SerialCloner software.

atgCTCGCTCTGGAGGAGTGCTCATCTCCTGTCCACCGCTGTGTCGCTGATGTGGATGTTCCGTGGATTCTCAA  
GAAGGAGACCGCTCGGAACCGGAGTGTTCGTCTAACACGACGTGGAGGCATGGAGAGACAGGTACAAGTACCACTCG  
ACTCCCCCAGCGCTTGGCTGCAGCAGTCAGCAGGCCCTGGGAAGATGGAATCTGATGGGATCTCCTCCGTGTCACGGATG  
GAGAACATCATGTGGCGGTCCGTGGAGGGGGAAATTGAACGCCATCCTGAGGAGAACGGGTGAGCTTACCGTCGTGGT  
GGGGTCTGTCAAAAACCTATGTGGCGGGGCCACAAAGACTCCCTGTGCTGTGAACGAACCTCCTCACGGCTGGAGG  
CCTGGGGAAATCTTACTCGTCCGGGCCAAGACAAACAACCTCCTCGTCGTGGATGGCGATACTTGAAGGGAGTGC  
CCACTGAACACCAGGGCTGGAAATTCTTTCTGGTGAGATCACGGGTTGGGTCTTCACACCAGCGCTGGCTCAA  
GGTGCAGGGAGGACTACAGCCTGGAGTGCAGTCAGCCGTGATCGGGACAGCCGTGAAAGGGAGGAAGGCCATAGTG  
ATCTGGGCTACTGGATCGAGAGCAGAACGACACCTGGAGGTTGAAGAGGGCCCACCTGATCGAGATGAAGACCTGC  
GAGTGGCCAAGAGCCACACACTGTGGACAGACGGGATTGAGGAGAGCGACCTGATTATTCCAAGAGGCCCTGGCGGCC  
ACTCAGCCACCAACACACAGGGCTACAGAACACAGATGAAGGGCCCTGGCATAGCGAGGAGCTGAAATTAGGT  
TTGAGGAGTGCCCGCACTAAGGTCCATGTGGAGGAGACATGCGGCACTGGGCCCCAGTCAGAAGTACAACGTGCC  
TCAGGCAGAGTGATTGAGGAGTGGTGCTGCAGGGAGTGCACAATGCCCCCTGTCATTAGGGCAAGGACGGCTGTTG  
GTATGGCATGGAGATTGGCCAGGAAAGAACCCGAAACCTGGTCAGGAGCATGGTCAGCAGCACTGGCAGCACTGGCG  
CGGGCAGCGCGCGACTACAAAGACGATGACGACAAGTAATGACTCGAGtaatga

**MLALGGVLIFLSTAVSADVGCSVDFSKKETRCGTGVFVNDVEAWRDRYKYHPDSPRLAAVKQAW  
EDGICGISSVSRMENIMWRSVEGELNAILEENGVQLTVVGSVKNPMWRGPQRLLPVNELPHGWKA  
WGKSYFVRAAKTNNSFVDGDTLKECPLKHRAWNSFLVEDHGFGVFHTSVWLKVREDYSLECDPAV  
IGTAVKGKEAVHSDLGYWIESEKNDTWRLKRAHЛИМКТCEWPKSHTLWTDIEESDLIIPKSLAGPLS  
HHNTREGYRTQMKGPHSEELEIRFEECPGTKVHVEETCGTRGPSLRSTTASGRVIEEWCCRECTMP  
PLSFRAKDGWCYGMEMIRPRKEPESNLVRSMVTAGSTGGSGGGDYKDDDDK**

**Figure S2.** Sequences of ZIKV NS1 genes and translated proteins used in this study. In top, sequence of mammalian-codon optimized NS1 gene derived from ZIKV strain BeH819015 (Genebank access : KU365778). The sequence encoding the glycine–serine spacer followed by a FLAG tag is underlined. The exogenous initiation and terminaison codons of NS1 sequence are indicated in small letters. In bottom, the sequence of recombinant full-length NS1 protein is indicated in bold. The signal peptide of NS1 is indicated in italic. The sequence of the glycine–serine spacer followed by a FLAG tag at the C-terminus of NS1 is underlined.



**Figure S3.** Detection of intracellular E protein in ZIKV-infected Vero cells. The lysates of ZIKV-infected Vero cells or mock-infected cells that are described in Fig.6 were probed with anti-E Mab 4G2.