VirusName_StrainName	Passage # in	Amino acid	Amino acid	Lethality in
	<i>Rag1<sup>-/-</sup></i> mice	at NS3 399	at NS4B 18	mice
ZIKV_Dakar	Parental	К	G	Low
ZIKV_Dakar	P1	N.D.	N.D.	N.D.
ZIKV_Dakar	P2	K	R	High
ZIKV_Dakar	P3	K	R	High
ZIKV_Dakar	P4	R	R	High

Table S1, Related to Figure 1. Mutations acquired by ZIKV-Dak during serial passage in mice. Table listing the passage number of ZIKV-Dak in  $Rag1^{-/-}$  mice, amino acid at position NS3 399 and NS4B G18R, and the observed lethality in 4-5 week-old C57BL/6 mice pretreated with anti-Ifnar1 antibody, of each passaged ZIKV-Dak isolate. (Lethality; Low = <75% lethality, High = > 75% lethality, N.D. = not determined).

Titering ZIKV primersZIKV RNA: Forward5'-CCACCAATGTTCTCTTGCAGACATATTG-3'ZIKV RNA: Reverse5'-TTCGGACAGCCGTTGTCCAACACAAG-3'ZIKV RNA: Reverse5'-/56-FAM/AGCCTACCT/ZEN/TGACAAGCAGTC/3IABkFQ/- 3'hSTAT2 genotyping primershSTAT2 genotyping 5079-425'- CTGAGGTAGAATCACTTTGACTTCC -3'hSTAT2 genotyping 5080-465'- GGCAAAGCCAAGACATAAACC -3'hSTAT2 genotyping 5080-465'- GGCAAAGCCAAGACATAAACC -3'hSTAT2 genotyping 5080-475'- ACAGGTTCCAGGCCATCAAG -3'nSTAT2 genotyping 5080-475'- ACAGGTTCCAGGCCATCAAG -3'gRTPCR primers0as1a Forward0as1a Forward5'-CACCCCAAGAAAGGACGAAC-3'Ifnβ Forward5'-GGCAGTGTAACTCTTCTGCAT-3'Ifnβ Reverse5'-GGCAGTGTAACTCTTCTGCAT-3'Ifnβ Reverse5'-GACCCGATATGGCGAACCGG-3'Ifnβ Reverse5'-GCACCGATGCTAATGGGGGAG-3'Ifnβ Reverse5'-GCACCGATGCCATTGGGGGAG-3'Ifnβ Reverse5'-CCATCCAATCGGTAACCCCATT-3'Ifnβ Reverse5'-CCATCCAATCGGTAACCCCATT-3'Ifnβ Reverse5'-CCATCCAATCGGTAGTAGCG-3'Ifnβ Reverse5'-CCATCCAATCGGTAGTAGCG-3'Ifnβ Reverse5'-CCATCCAATCGGTAGTAGCG-3'Ifnβ Reverse5'-CCATCCAATCGGTAGTAGCG-3'Ifnβ Reverse5'-CCATCCAATCGGTAGTGGCA3'Ifnβ Reverse5'-CCATCCAATCGGTAGTGGCG-3'Ifnβ Reverse5'-CCATCCAATCGGTAGTGGCG-3'Ifnβ Reverse5'-CCATCCAATCGGTAGTGGCG-3'Ifnβ Reverse5'-CCATCCAATCGGTAGTGGCG-3'Ifnβ Reverse5'-CCATCCAATCGGTGAACCACATT-3'Ifnβ Reverse5'-CCACCGAGGAA
ZIKV RNA: Forward   5'-CCACCAATGTTCTCTTGCAGACATATTG-3'     ZIKV RNA: Reverse   5'-TTCGGACAGCCGTTGTCCAACACAAG-3'     ZIKV RNA: Probe   5'-/56- FAM/AGCCTACCT/ZEN/TGACAAGCAGTC/3IABkFQ/- 3'     hSTAT2 genotyping primers   5'- CTGAGGTAGAATCACTTTGACTTCC -3'     hSTAT2 genotyping 5079-42   5'- GATGGCTCAGAGGTTAAGAGC -3'     hSTAT2 genotyping 5080-46   5'- GGCAAAGCCAAGACATAAACC -3'     hSTAT2 genotyping 5080-47   5'- ACAGGTTCCAGGCACTCAAG -3'     Gas1a Forward   5'-ATGGAGCACGGACTCAGGA-3'     Oas1a Forward   5'-CACCCCAAGAAAGGCAACA-3'     Ifnβ Forward   5'-CAGCTCCAAGAAGGCACGGAC-3'     Ifnβ Forward   5'-CAGCTCCAAGAAGGACGAAC-3'     Ifn7 Reverse   5'-GGACGGAATGCTTCCAGGG-3'     Ifn7 Reverse   5'-GAACCGGTTAACCCTTCGAGG-3'     Ifn7 Reverse   5'-CAACCCGAAATGCTTCCAGGG-3'     Ifn7 Reverse   5'-CCATCCAATGGTACCGCAT-3'     Ifn7 Reverse   5'-CCATCCAATCGGTAGAACCCAT-3'     Ifn7 Reverse   5'-CCATCCAATCGGTAGACCCATT-3'     IS rRNA Forward   5'- GTGACCGAATGCTTCCAGGG-3'     IS rRNA Forward   5'- GTGACCCGATGTAGCG-3'     ZIKV-Dakar 3500-7000 amplifying primer:   5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'     ZIKV-Dakar 6500 sequencing primer:   5'- TTG CCA GGA C
ZIKV RNA: Reverse   5'- TTCGGACAGCCGTTGTCCAACACAG-3'     ZIKV RNA: Probe   5'-/56-     FAM/AGCCTACCT/ZEN/TGACAAGCAGTC/3IABkFQ/-3'     hSTAT2 genotyping primers     hSTAT2 genotyping 5079-42     5'- CTGAGGTAGAATCACTTTGACTTCC -3'     hSTAT2 genotyping 5079-43     5'- GATGGCTCAGAGGTTAAGAGC -3'     hSTAT2 genotyping 5080-46     5'- GGCAAAGCCAAGACATAAACC -3'     hSTAT2 genotyping 5080-47     5'- ACAGGTTCCAGGGCCATCAAG -3'     Qas1a Forward     0as1a Forward     5'-CAGCTCCAAGAAAGGACGAAC-3'     0as1a Reverse     5'-GGCAGTGTAACTCTTGGCGC-3'     Ifnβ Forward     5'-GAGCTGGCATTAGGGAC-3'     1nf7 Reverse     5'-GAGCTGGCATTAGGGACGGACCAT-3'     Ifnβ Reverse     5'-GAGCCGAAATGCTTCCAGGG-3'     1nf7 Reverse     5'-GAGCAAAGCTATAGGGCA-3'     1nf7 Reverse     5'-CATCCAATCGTAACCCTTCCAGG-3'     1nf7 Reverse     5'-CATCCAATCGTAACCCCATT-3'     1RS rRNA Reverse     5'-CATCCAATCGGTAGTGACCCCATT-3'     1RS rRNA Reverse     5'-GTGCACGGAGTATATATCAACAAGGG-3'     2IKV-Dakar 7100-3500 amplifying <t< td=""></t<>
ZIKV RNA: Probe   5'-/56- FAM//AGCCTACCT/ZEN/TGACAAGCAGTC/3IABkFQ/- 3'     hSTAT2 genotyping primers   5'- CTGAGGTAGAATCACTTTGACTTCC -3'     hSTAT2 genotyping 5079-42   5'- CTGAGGTAGAATCACTTTGACTTCC -3'     hSTAT2 genotyping 5080-46   5'- GGCAAAGCCAAGACATAAACC -3'     hSTAT2 genotyping 5080-47   5'- ACAGGTTCCAGGCCATCAAG -3'     qRTPCR primers   0as1a Forward     Oas1a Forward   5'-ATGGAGCACGGACTCAGGAC-3'     Imβ Forward   5'-CAGCTCCAAGAAAGGACGAAC-3'     Imβ Forward   5'-GGCAGTGTAACTCTTCTGCAT-3'     Imβ Reverse   5'-GGCAGTGTAACTCTTCCAGGC-3'     Imβ Reverse   5'-GACCGAAATGCTTCCAGGGA-3'     Imβ Reverse   5'-GACCGAAATGCTTCCAGGG-3'     Imβ Reverse   5'-GACCGAATGCTTTGAGCGA-3'     Imβ Reverse   5'-GACCGAATGCTTTCAGGGA-3'     Imβ Reverse   5'-GACCGAATGCTTTCCAGGG-3'     Imβ Reverse   5'-GACCGAATGCTTCCAGGG-3'     Img Riverse   5'-GACCGAATGCTTCCAGGCA-3'     Img Riverse   5'-GACCGAATGCTTTGACCCATT-3'     Img Riverse   5'-GACCGAATGCTTCCAGGCA-3'     Img Riverse   5'-GACCGAATGCTTCCAGGCA-3'     Img Riverse   5'-GCACCATGAGCG-3'     Is rRNA Reverse   5'-GTGCCATCCAATCGGCAGC-3'
FAM/AGCCTACCT/ZEN/TGACAAGCAGTC/3IABkFQ/- 3'     hSTAT2 genotyping 5079-42   5'- CTGAGGTAGAATCACTTTGACTTCC -3'     hSTAT2 genotyping 5079-43   5'- GATGGCTCAGAGGTTAAGAGC -3'     hSTAT2 genotyping 5080-46   5'- GGCAAAGCCAAGACATAAACC -3'     hSTAT2 genotyping 5080-47   5'- ACAGGTTCCAGGCCATCAAG -3'     hSTAT2 genotyping 5080-47   5'- ACAGGTTCCAGGCCATCAAG -3'     gRTPCR primers
3'     hSTAT2 genotyping primers     hSTAT2 genotyping 5079-42   5'- CTGAGGTAGAATCACTTTGACTTCC -3'     hSTAT2 genotyping 5080-43   5'- GATGGCTCAGAGGTTAAGAGC -3'     hSTAT2 genotyping 5080-46   5'- GGCAAAGCCAAGACATAAACC -3'     hSTAT2 genotyping 5080-47   5'- ACAGGTTCCAGGCCATCAAGAC -3'     qRTPCR primers   Oas1a Forward     Oas1a Forward   5'-ATGGAGCACGGACTCAGGA-3'     Oas1a Reverse   5'-TCACACACGACATTGACGGC-3'     Imβ Forward   5'-CAGCTCCAAGAAAGGACGAAC-3'     Imβ Reverse   5'-GGCAGTGTAACTCTTCTGCAT-3'     Imβ Reverse   5'-GGCAGTGTAACTCTTCCAGGG-3'     Imβ Reverse   5'-GAACCGAAATGCTTCCAGGGAG-3'     Imβ Reverse   5'-GAACCCGATGAACCCCATT-3'     Imβ Reverse   5'-GAACCGGTGAACCCCATT-3'     Imβ Reverse   5'-CCATCCAATCGGTAGTAGCG-3'     Imβ Reverse   5'-CCATCCAATCGGTAGTAGCG-3'     Img Reverse   5'-CCATCCAATCGGTAGCG-3'     Img Reverse   5'-CCATCCAATCGGTAGCG-3'     Img Reverse   5'-CCATCCAATCGGTAGCG-3'     Is rRNA Reverse   5'-CCATCCAATCGGTAGCG-3'     ZIKV-Dakar 3500-7000 amplifying primer:   5'- GTGGTTACCGCATGTTGG-3'     ZIKV-Dakar 5500 sequencing primer:   5'-TTG CCA GGA CAC A
hSTAT2 genotyping primershSTAT2 genotyping 5079-425'- CTGAGGTAGAATCACTTTGACTTCC -3'hSTAT2 genotyping 5080-435'- GATGGCTCAGAGGTTAAGAGC -3'hSTAT2 genotyping 5080-465'- GGCAAAGCCAAGACATAAACC -3'hSTAT2 genotyping 5080-475'- ACAGGTTCCAGGCCATCAAG -3' <b>qRTPCR primers</b>
hSTAT2 genotyping 5079-425'- CTGAGGTAGAATCACTTTGACTTCC -3'hSTAT2 genotyping 5079-435'- GATGGCTCAGAGGTTAAGAGC -3'hSTAT2 genotyping 5080-465'- GGCAAAGCCAAGACATAAACC -3'hSTAT2 genotyping 5080-475'- ACAGGTTCCAGGCCATCAAG -3' <b>Qas1a</b> Forward5'-ATGGAGCACGGACTCAGGA-3'Oas1a Reverse5'-TCACACACGACATGACGGC-3'Ifnβ Forward5'-CAGCTCCAAGAAAGGACGAAC-3'Ifnβ Forward5'-GGCAGTGTAACTCTTCTGCAT-3'Ifnβ Reverse5'-GACCGAAATGCTTCCAGGG-3'Ifn7 Forward5'-GACCGAAATGCTTCCAGGG-3'If77 Reverse5'-GACCGAAATGCTTCCAGGG-3'If85 rRNA Forward5'-GTAACCCGTTGAACCCCATT-3'185 rRNA Reverse5'-CCATCCAATCGGTAGTAGCG-3'IKV-Dakar 3500-7000 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZIKV amplicon primersZIKV conserved 1For.AGTTGTTGATCTGTGTGAATCAGAC
hSTAT2 genotyping 5079-435'- GATGGCTCAGAGGTTAAGAGC -3'hSTAT2 genotyping 5080-465'- GGCAAAGCCAAGACATAAACC -3'hSTAT2 genotyping 5080-475'- ACAGGTTCCAGGCCATCAAG -3' <b>qRTPCR primers</b> 0as1a ForwardOas1a Forward5'-ATGGAGCACGGACTCAGGA-3'Oas1a Reverse5'-TCACACACGACATTGACGGC-3'Ifnβ Forward5'-CAGCTCCAAGAAAGGACGAAC-3'Ifnβ Forward5'-CAGCTCCAAGAAAGGACGAAC-3'Ifnβ Reverse5'-GAGCAGTGTAACTCTTCTGCAT-3'Ifn7 Forward5'-GAGACTGGCTATTGGGGGAG-3'If77 Forward5'-GAACCCGTTGAACCCCATT-3'18S rRNA Forward5'-GTACCCGATGAGCGC-3'18S rRNA Reverse5'-CCATCCAATCGGTAGTAGCG-3'ZIKV-Dakar 3500-7000 amplifying primer:5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 6500 sequencing primer:5'-TGCACGAGGATATATATATCAACAAGGG-3'ZIKV-Dakar 6500 sequencing primer:5'-TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primers5'-TTG CCA GGA CAC ATG ACA GAG-3'ZIKV conserved 1For.AGTTGTTGATCTGTGTGAATCAGAC
hSTAT2 genotyping 5080-465'- GGCAAAGCCAAGACATAAACC -3'hSTAT2 genotyping 5080-475'- ACAGGTTCCAGGCCATCAAG -3' <b>qRTPCR primers</b> 5'-ATGGAGCACGGACTCAGGA-3'Oas1a Forward5'-ATGGAGCACGGACTCAGGA-3'Oas1a Reverse5'-TCACACACGACATTGACGGC-3'Ifnβ Forward5'-CAGCTCCAAGAAAGGACGAAC-3'Ifnβ Reverse5'-GGCAGTGTAACTCTTCTGCAT-3'Ifn7 Forward5'-GAGACTGGCTATTGGGGGAG-3'If77 Reverse5'-GACCGAAATGCTTCCAGGG-3'If8 rRNA Forward5'-GTAACCCGTTGAACCCCATT-3'18S rRNA Reverse5'-CCATCCAATCGGTAGTAGCG-3'ZIKV-Dakar 3500-7000 amplifying primer:5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'-TTG CCA GGA CAC ATG ACA GAG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZIKV amplicon primersZIKV conserved 1For.AGTTGTTGATCTGTGTGAATCAGAC
hSTAT2 genotyping 5080-475'- ACAGGTTCCAGGCCATCAAG -3'qRTPCR primers·································
qRTPCR primersOas1a Forward5'-ATGGAGCACGGACTCAGGA-3'Oas1a Reverse5'-TCACACACGACATTGACGGC-3'Ifnβ Forward5'-CAGCTCCAAGAAAGGACGAAC-3'Ifnβ Reverse5'-GGCAGTGTAACTCTTCTGCAT-3'Ifn7 Forward5'-GAGACTGGCTATTGGGGGAG-3'Iff7 Reverse5'-GACCGAAATGCTTCCAGGG-3'18S rRNA Forward5'- GTAACCCGTTGAACCCCATT-3'18S rRNA Forward5'-CCATCCAATCGGTAGTAGCG-3'2KV-Dakar 3500-7000 amplifying primer:5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'-TGCACGAGGATATATATCAACAAGGG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZIKV amplicon primersZIKV Conserved 1For.AGTTGTTGATCTGTGTGAATCAGAC
Oas1a Forward5'-ATGGAGCACGGACTCAGGA-3'Oas1a Reverse5'-TCACACACGACATTGACGGC-3'Ifnβ Forward5'-CAGCTCCAAGAAAGGACGAAC-3'Ifnβ Reverse5'-GGCAGTGTAACTCTTCTGCAT-3'Ifr7 Forward5'-GAGACTGGCTATTGGGGGAG-3'Ifr7 Reverse5'-GACCGAAATGCTTCCAGGG-3'18S rRNA Forward5'-GTAACCCGTTGAACCCCATT-3'18S rRNA Reverse5'-CCATCCAATCGGTAGTAGCG-3'2IKV-Dakar 3500-7000 amplifying primer:5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZIKV conserved 1For.
Oas1a Reverse5'-TCACACACGACATTGACGGC-3'Ifnβ Forward5'-CAGCTCCAAGAAAGGACGAAC-3'Ifnβ Reverse5'-GGCAGTGTAACTCTTCTGCAT-3'Iff7 Forward5'-GAGACTGGCTATTGGGGGAG-3'Iff7 Reverse5'-GACCGAAATGCTTCCAGGG-3'18S rRNA Forward5'- GTAACCCGTTGAACCCCATT-3'18S rRNA Reverse5'-CCATCCAATCGGTAGTAGCG-3'2IKV-Dakar 3500-7000 amplifying primer:5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'- TGCACGAGGATATATATCAACAAGGG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primers5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV Conserved 1For.AGTTGTTGATCTGTGTGAATCAGAC
Ifnβ Forward5'-CAGCTCCAAGAAAGGACGAAC-3'Ifnβ Reverse5'-GGCAGTGTAACTCTTCTGCAT-3'Iff7 Forward5'-GAGACTGGCTATTGGGGGAG-3'Iff7 Reverse5'-GACCGAAATGCTTCCAGGG-3'18S rRNA Forward5'- GTAACCCGTTGAACCCCATT-3'18S rRNA Reverse5'-CCATCCAATCGGTAGTAGCG-3'Sequencing ZIKV primers5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 3500-7000 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'-TTG CCA GGA CAC ATG ACA GAG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZIKV amplicon primersZIKV Conserved 1For.AGTTGTTGATCTGTGTGAATCAGAC
Ifnβ Reverse5'-GGCAGTGTAACTCTTCTGCAT-3'Irf7 Forward5'-GAGACTGGCTATTGGGGGAG-3'Irf7 Reverse5'-GACCGAAATGCTTCCAGGG-3'18S rRNA Forward5'- GTAACCCGTTGAACCCCATT-3'18S rRNA Reverse5'-CCATCCAATCGGTAGTAGCG-3'Sequencing ZIKV primers5'ZIKV-Dakar 3500-7000 amplifying primer:5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'- TGCACGAGGATATATATCAACAAGGG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZ'ZIKV Conserved 1For.AGTTGTTGATCTGTGTGAATCAGAC
Irf7 Forward5'-GAGACTGGCTATTGGGGGGAG-3'Irf7 Reverse5'-GACCGAAATGCTTCCAGGG-3'18S rRNA Forward5'-GTAACCCGTTGAACCCCATT-3'18S rRNA Reverse5'-CCATCCAATCGGTAGTAGCG-3'Sequencing ZIKV primers5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 3500-7000 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'- TGCACGAGGATATATATCAACAAGGG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZIKV amplicon primersZIKV Conserved 1For.AGTTGTTGATCTGTGTGAATCAGAC
Irf7 Reverse5'-GACCGAAATGCTTCCAGGG-3'18S rRNA Forward5'- GTAACCCGTTGAACCCCATT-3'18S rRNA Reverse5'-CCATCCAATCGGTAGTAGCG-3'Sequencing ZIKV primers5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 3500-7000 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'-TGCACGAGGATATATATCAACAAGGG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZIKV Conserved 1For.
18S rRNA Forward5'- GTAACCCGTTGAACCCCATT-3'18S rRNA Reverse5'-CCATCCAATCGGTAGTAGCG-3'Sequencing ZIKV primers2ZIKV-Dakar 3500-7000 amplifying primer:5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'-TGCACGAGGATATATATCAACAAGGG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZIKV amplicon primersZIKV Conserved 1For.AGTTGTTGATCTGTGTGAATCAGAC
18S rRNA Reverse5'-CCATCCAATCGGTAGTAGCG-3'Sequencing ZIKV primers5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 3500-7000 amplifying primer:5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'-TGCACGAGGATATATATCAACAAGGG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZIKV conserved 1For.
Sequencing ZIKV primersZIKV-Dakar 3500-7000 amplifying primer:5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'-TGCACGAGGATATATATCAACAAGGG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZIKV amplicon primersZIKV Conserved 1For.AGTTGTTGATCTGTGTGAATCAGAC
ZIKV-Dakar 3500-7000 amplifying primer:5'- AGA AAG GAA CCA GAG AGC AAC TTA-3'ZIKV-Dakar 7100-3500 amplifying primer:5'- GTGGTTACCGCATGTTGG-3'ZIKV-Dakar 5500 sequencing primer:5'-TGCACGAGGATATATATCAACAAGGG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV-Dakar 6500 sequencing primer:5'- TTG CCA GGA CAC ATG ACA GAG-3'ZIKV amplicon primersZIKV amplicon primersZIKV Conserved 1For.AGTTGTTGATCTGTGTGAATCAGAC
primer:   ZIKV-Dakar 7100-3500 amplifying   5'- GTGGTTACCGCATGTTGG-3'     primer:   ZIKV-Dakar 5500 sequencing   5'-TGCACGAGGATATATATCAACAAGGG-3'     primer:   ZIKV-Dakar 6500 sequencing   5'- TTG CCA GGA CAC ATG ACA GAG-3'     primer:   ZIKV-Dakar 6500 sequencing   5'- TTG CCA GGA CAC ATG ACA GAG-3'     ZIKV amplicon primers   ZIKV conserved 1For.   AGTTGTTGATCTGTGTGAATCAGAC
ZIKV-Dakar 7100-3500 amplifying   5'- GTGGTTACCGCATGTTGG-3'     primer:   ZIKV-Dakar 5500 sequencing     primer:   5'-TGCACGAGGATATATATCAACAAGGG-3'     ZIKV-Dakar 6500 sequencing   5'- TTG CCA GGA CAC ATG ACA GAG-3'     primer:   ZIKV-Dakar 6500 sequencing     ZIKV-Dakar 6500 sequencing   5'- TTG CCA GGA CAC ATG ACA GAG-3'     primer:   ZIKV amplicon primers     ZIKV Conserved 1For.   AGTTGTTGATCTGTGTGAATCAGAC
primer:   ZIKV-Dakar 5500 sequencing     primer:   5'-TGCACGAGGATATATATCAACAAGGG-3'     primer:   5'-TTG CCA GGA CAC ATG ACA GAG-3'     primer:   5'-TTG CCA GGA CAC ATG ACA GAG-3'     primer:   ZIKV amplicon primers     ZIKV Conserved 1For.   AGTTGTTGATCTGTGTGAATCAGAC
ZIKV-Dakar 5500 sequencing   5'-IGCACGAGGATATATATCAACAAGGG-3'     primer:   ZIKV-Dakar 6500 sequencing     primer:   5'- TTG CCA GGA CAC ATG ACA GAG-3'     ZIKV amplicon primers   ZIKV conserved 1For.
primer:   ZIKV-Dakar 6500 sequencing     primer:   5'- TTG CCA GGA CAC ATG ACA GAG-3'     primer:   ZIKV amplicon primers     ZIKV Conserved 1For.   AGTTGTTGATCTGTGTGAATCAGAC
ZIKV-Dakar 6500 sequencing   5 - TTG CCA GGA CAC ATG ACA GAG-3     primer:   ZIKV amplicon primers     ZIKV Conserved 1For.   AGTTGTTGATCTGTGTGAATCAGAC
ZIKV amplicon primers     ZIKV Conserved 1For.
ZIKV amplicition primers   ZIKV Conserved 1For.   AGTTGTTGATCTGTGTGAATCAGAC
ZIKV Conserved 10140Rev GGTCGTCTCCTCAATCCACACT
ZIKV Conserved 9857For CCGCCACCAAGATGAACTGATTG
ZIKV 3' UTR end Rev AGACCCATGGATTTCCCCCACACC

Table S2. List of primers for Key Resources Table

A VirusName_StrainName	NS3 alignment									3	398										408									4	18
Passaged Zika viruses ZIKV_Dakar Parental P0		к	т	F	Е	т	E	F	QI	к	т	к	N	Q	E	w	D	F	v	ı	т	т	D	ı	s	E	м	G	А	N	F
ZIKV_Dakar P2 ZIKV_Dakar P3 ZIKV_DakarMA P4		K K	T T T	FF	E E F	T T T	E E F	F F F		K K K	T T T	K K R	N N N	Q Q Q	E E F	W W W	D D D	FF	v v v	1	T T T	T T T	D D D	1	s s	E E F	M M M	G G	A A A	N N N	F F
Other Zika viruses		 v	т		-	т	-		0	~	T	v	N	` `	-	w					т	т			ç	-		6	,	N	
ZIKV_MR766-MID ZIKV_ArB 13565		ĸ	÷	F	E	Ť	E	F	q i	ĸ	Ť	ĸ	N	q	E	w	D	F	v	÷.	τ –	÷	D	i.	S	E	M	G	Â	N	F
ZIKV_BeH819015		ĸ	Т	F	E	Т	E	F	QI	ĸ	т	ĸ	Н	Q	E	W	D	F	V	V	Т	Т	D	1	S	E	M	G	A	N	F
ZIKV_PRVABC59		ĸ	Ť	F	Ē	Ť	E	F	Q I	ĸ	Ť	к	н	Q	E	w	D	F	v	v	Ť	Ť	D	i	s	E	м	G	A	N	F
Mosquito-borne flaviviruses SPOV_Chuku	3	к	т	F	Е	т	Е	Y	QI	к	т	к	N	G	Е	w	D	F	v	v	т	т	D	ī	s	Е	м	G	А	N	F
DENV_16007		ĸ	Т	F	D	T	E	Ŷ	QI	ĸ	Т	K	N	N	D	W	D	Y	V	V	Т	Т	D	÷	S	E	M	G	A	N	F
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JEV_Nakayama		к	S	Y	D	Т	E	Ŷ	P	ĸ	c	к	N	G	D	W	D	F	v	Ĩ.	Т	т	D	i.	S	E	М	G	A	N	F
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MVEV_MVE-1-51		к	s	Ŷ	D	Ť	E	Ý	Ρİ	ĸ	c	ĸ	N	G	D	w	D	F	v	ĩ	τ.	Ť	D	i	s	E	м	G	A	N	F
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ILHV_Original		K	S	Y	D	S	E	Y	QI	ĸ	c	ĸ	G	N	D	W	D	F	V	I.	Т	Ţ	D	!	S	E	М	G	A	N	F
BAGV_DakAr B209		ĸ	s	F	D	s	E	Ý	PI	ĸ	c	ĸ	т	G	E	w	D	F	v	i	Ť	Ť	D	i	s	E	M	G	Â	N	F
IGUV_SPAn 71686 BSOV_Bean 4073		K	Т	F	D	S T	E	Y	K I	ĸ	Т	ĸ	Q	D	D	W	D	F	V	I V	Т	T	D	1	S	E	M M	G	A A	N N	F
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Tick-borne flaviviruses																															
DTV_ctb30 POWV_LB		к к	Т	F	D D	K K	D D	Y Y	GF	R R	v	R H	E	E E	K K	P P	D D	F	v	v	т	т	D D	-	S S	E	V M	G G	A A	N N	L
AHFV_200300001		к	T	F	E	к	D	Ŷ	LE	R	v	R	E	E	К	P	D	F	v	v	T	Ţ	D	į.	S	E	М	G	A	N	L
OHFV_Bogoluvovska		ĸ	Ť	F	E	ĸ	E D	Ϋ́	SI	R	v	R	D	E	ĸ	P	D	F	v	v	Ť	÷	D	÷	S	E	M	G	A	N	L
TBEV_Sofjin		ĸ	Т	F	E	ĸ	D	Y	SF	R	v	R	DF	E	ĸ	P	D	F	V	V	т	Т	D	÷	s	E	M M	G	A	N N	L
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No known insect vector flav	viviruses	0	т	F	N	N	т	v	F.	۵	•	к	т	м	F	0	G				т	т	N		s	F	м	G	4	N	~
RBV_RIMAR		ĸ	Ť	F	н	D	N	Ý	PI	ĸ	j.	Q	S	E	ĸ	P	D	F	i.	Ē	Ť	Ť	D	į.	S	E	М	G	A	N	Ĺ
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Insect only flaviviruses			N	E	c		N	v		0	•	c	c	c	E	т	т		v	v	c	т	D		c	E	м	c		N	
KKV_SK-02		^	14		5	^	N.		^ '	~	^	5	5	L	-	Ċ		-	•	v	5		U		5	-	141	0	^		-
B VirusName_StrainName	NS4B alignment	1									10										20										30
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B VirusName_StrainName Passaged Zika viruses ZIKV_Dakar Parental P0	NS4B alignment	1 N	E	L	G	w	L	E	R	т	10 К	s	D		A	н	L	м	G	R	<b>20</b> К	E	E	_	_	G	т	т	м	G	3 <u>0</u> F
B VirusName_StrainName Passaged Zika viruses ZIKV_Dakar Parental P0 ZIKV_Dakar P2 ZIKV_Dakar P3	NS4B alignment	1 N N	EEE	L L L	GGG	W W W	L L L	EEE	R R R	T T T	10 к к	s s	D D D	1	A A A	ннн	L L L	M M	G R R	RRR	<b>20</b> К К К	E E E	EEE	-	-	GGG	T T T	T T T	M M M	GGG	30 F F F
B VirusName_StrainName Passaged Zlka viruses ZlKV_Dakar Parental P0 ZlKV_Dakar P3 ZlKV_Dakar P3 ZlKV_Dakar P4	NS4B alignment	1 N N N	E E E	L L L	G G G G	W W W	L L L	E E E	R R R	T T T	1 <u>0</u> к к к	s s s	D D D D	1	A A A A	ΠΠΠ	L L L	M M M	G R R	R R R	<b>20</b> К К К К	E E E	E E E			G G G G	T T T	T T T T	M M M	G G G G	50 F F F F
B VirusName_StrainName Passaged Zika viruses ZiKV_Dakar Parental P0 ZiKV_Dakar P3 ZiKV_Dakar P3 ZiKV_Dakar P4 Other Zika viruses	NS4B alignment	1 N N N N N	EEEE		6999	w w w w		EEEE	R R R R	T T T	10 К К К К	s s s		1	A A A A A	тттт :		M M M	G R R R	RRRR	20 К К К К	EEEE	EEEE			6 6 6 6	T T T	тттт	M M M	6666	3 <u>0</u> F F F F
B VirusName_StrainName Passaged Zika viruses ZIKV_Dakar Parental P0 ZIKV_Dakar P2 ZIKV_Dakar P3 ZIKV_Dakar P3 ZIKV_MR766-NIID ZIKV_MR766-NIID ZIKV_MR766-NIID	NS4B alignment	1 N N N N N N N N	EEEEEE		000000000000000000000000000000000000000	w w w w w		E E E E E E	R R R R R R	T T T T T T T	10 К К К К К	S S S S N N N			A A A A A A A A A A A A A A A A A A A	IIII II			G R R G G	R R R R R R R	20 К К К К К R R	E E E E E	EEEE			000000000000000000000000000000000000000		T T T T T	M M M M	0000000	30 F F F F F
B VirusName_StrainName Passaged Zika viruses ZiKV_Dakar Parental P0 ZiKV_Dakar P2 ZiKV_Dakar P3 ZiKV_Dakar P3 ZiKV_Dakar P3 Other Zika viruses ZiKV_MR766-NIID ZiKV_JRP13565 ZiKV_BeH819015	NS4B alignment	1. ZZZZ ZZZZ	EEEE		0000 0000	w w w w w w w w w w w w w w w w w w w		EEEE	R R R R R R R R R R R		10 к к к к к к к к к к	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			A A A A A A A S S	<b>TTTT TTTT</b>		M M M M M	G R R R G G G G	R R R R R R R R R R	20 KKKK RRRR	EEEEE	EEEEEE			0000 0000	T T T T A V A A	Т Т Т Т Т Т Т Т Т	M M M M H H	0000 0000	30 F F F F F F F F F
B VirusName_StrainName Passaged Zika viruses ZiKV_Dakar Parental P0 ZiKV_Dakar P2 ZiKV_Dakar P3 ZiKV_Dakar P3 ZiKV_Dakar P3 ZiKV_MR766-NIID ZiKV_AR13565 ZiKV_BeH819015 ZiKV_BeH819015 ZiKV_PRVABC59	NS4B alignment	1 N N N N N N N N N N N N N	E E E E E E E E E		0000 0000	* * * * * * * * * * * * * * * * * * *		EEEEEEEE	R R R R R R R R R R R		<b>10</b> К К К К К К К К К К	S S S N N S S S			A A A A A S S S	<b>1111 1111</b>		M M M M M M	G	R R R R R R R R R R	20 KKKK RRRR R	EEEEEEE	E E E E E E E E E			00000 0000	T T T T A V A A A	T T T T T T T T	M M M M M H H H	000000000000000000000000000000000000000	30 F F F F F F F F
B VirusName_StrainName Passaged Zika viruses ZiKV_Dakar Parental P0 ZiKV_Dakar P2 ZiKV_Dakar P3 ZiKV_Dakar P3 ZiKV_Dakar P3 ZiKV_MR766-NIID ZiKV_MR766-NIID ZiKV_MR766-NIID ZiKV_BeH819015 ZiKV_BeH819015 ZiKV_BeH819015 ZiKV_PRVABC59 Mosquito-borne flaviviruses Sprv(D-twis	NS4B alignment	1 N N N N N N N N N N N N	EEEEEEEE		00000 00000	***		EEEE	RRRR RRRR P		10 ККККК ККККК К	S S S N N S S S			A A A A A S S S T	TIII IIII P		M M M M M M M	GRRR GGGGG W	RRRR RRRR P	20 KKKK RRRRR	ЕЕЕЕ	E E E E E E E E E E						M M M M M I I I P		30 F F F F F F F F F F F F F F F F F F F
B VirusName_StrainName Passagod Zika Viruses ZikV_Dakar Parental P0 ZikV_Dakar P3 ZikV_Dakar P3 ZikV	NS4B alignment		E E E E E E E E E E E E E E		00 00000 0000	**** *********************************		E E E E E E E E E E E	RRRR RRRR RT		<b>10</b> КККК КККК КККК КК	S S S S N N S S S S K			A A A A A S S S T G	HHHH HHHHH R-		M M M M M M F -	GRRR GOOOG WI	RRRR RRRR R	20 KKKK RRRR E	ЕЕЕЕ	EEEE EEEEE			00000 00000	TTTT AVAAA GH	TTTT TTTTT GV	M M M M H I I R A	A 00000 00000	30 F F F F F F F F F F F F F F F F F F F
B VirusName_StrainName Passagnd Ziko viruses ZikV_Dakar Pavental P0 ZikV_Dakar P2 ZikV_Dakar P3 ZikV_Dakar P3 ZikV_Dakar P3 ZikV_DakarMA P4 Other Zika viruses ZikV_AB 13565 ZikV_AB 13565 ZikV_AB 13565 ZikV_AB 13565 ZikV_PRVABC59 Mosquito-borne flaviviruses SPOV_Chuku DENV_16067 DENV_1681	NS4B alignment	1.	E E E E E E E E E E E E E		0000 00000 0000	WWWW WWWWW WLFL			RRRR RRRRR RTKT		<b>10</b> КККК КККК КККК	SSSS NNSSS SKKR			AAAA AASSS TG-G			M M M M M M F M	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RRRR RRRRR R-LK	20 KKKK RRRRR E-GE	Е Е Е Е Е Е Е Е Е Е Е Е Е Е Е Е Е Е Е	EEEE EEEEE A-IG	E - A V		N 201 00000 0000	TTTT AVAAA GHQS	TTTT TTTTT GVPT	M M M M M I I I R A E S	GGGG GGGGG GASY	30 FFFF FFFFFF FEN
B VirusName_StrainName Passaged Zika viruses ZiKV_Dakar Parental P0 ZiKV_Dakar Parental P0 ZiKV_Dakar P3 ZiKV_Dakar P3 ZiKV_MR766-NID ZiKV_MR766-NID ZiKV_MR766-NID ZiKV_MR766-NID ZiKV_PRVABC59 Mosquito-borne flaviviruses SPOV_Chika DENV_16007 DENV_16031 DENV_1401 DENV_1401	NS4B alignment	1			000000 000000 00000	WWW WWWW WLFLL			RRRR RRRRR RTKTK		<b>10</b> КККК КККК ККККК	SSSS NNSSS SKKRF			A A A A A S S S T G - G G	IIII IIIII RF	L L L L L L Y	MMMM MMMMM FIIMQL	GRRR GGGGG WIGN>G	RRRR RRRRR RILKK	20 KKKK RRRRR E-GETK		EEEE EEEEE A-IGT	- - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - -		TTTT AVAAA GHQS-D	TTTT TTTTT GVPT-C	MMMM MMIII RAES-C	GGGG GGGGG GASY-	30 FFFF FFFFF FEN
B VirusName_StrainName Passaged Zika viruses ZikV, Dakar Parental P0 ZikV, Dakar P2 ZikV, Dakar P2 ZikV, Dakar P3 ZikV, Dakar P3 ZikV, MR766-NIID ZikV, MR766-NIID ZikV, MR766-NIID ZikV, MR766-NIID ZikV, BeH819015 ZikV, BeH819015 ZikV, BeH819015 ZikV, PRVABC39 Mosquito-borne flaviviruses SPOV_Chiku DENV_16007 DENV_16081 DENV_H81 DENV_H81 DENV_H81 DENV_H81 DENV_H81 DENV_H81 DENV_H81	NS4B alignment	1	EEEE EEEEE EEEEEE		0000000 00000 00000	WWWW WWWW WLFLLMW			RRRR RRRRR RTKTKKK		10 КККК ККККК ККККККККК	SSSS NNSSS SKKRTES			AAAA AASSS TG-GG-S	TTTT TTTT R F - S	L L L L L L Y - L	MMMM MMMM FIIMQFF	00×00 × 00000 × 00	RRRR RRRRR RILKKKQ	20 KKKK RRRRR E-GETKR	EEEE EEEEE H-SPEN-	EEEE EEEEE A-IGTLE	E - A V T - V		тидон ополо полол	TTTT AVAAA GHQS-PN	TTTT TTTTT GVPT-SF	MMMM MMIII RAES-SS	0000 00000 0ASY-AM	30 FFFF FFFFF FEN SG
B VirusName_StrainName Passaged Zika viruses ZiKV_Dakar Parental P0 ZiKV_Dakar P2 ZiKV_Dakar P2 ZiKV_Dakar P3 ZiKV_MR766-NilD ZiKV_MR766-NilD ZiKV_MR766-NilD ZiKV_BeH819015 ZiKV_BeH819015 ZiKV_BeH819015 ZiKV_BeH819015 ZiKV_BeH819015 ZiKV_PRVABC59 Mosquito-borne flaviviruses SPOV_Chub DENV_16001 DENV_16081 DENV_1601 DENV_16031 DENV_16031 DENV_1421 YFV_Asibi WNV_NewYork99 JEV_Nakayama SIEV_De1355084	NS4B alignment	1 ZZZZ ZZZZZ ZZZZZZZ		LLL LLLL LMMMMLMYM	N00000000 00000 00000	WWWW WWWWW WLFLLMWML			RRRR RRRRR RTKTKKKXK		10 КККК ККККК ККККККККККК	SSSS NNSSS SKKRTESAS			AAAA AASSS TG-GG-SKA	IIII IIIII R-IIFISSK	L L L L L L	MMMM MMMM FIIMQEEE	0000<00 WIND	RRRR RRRRR RILKKKQGG	20 KKKK RRRRR E-GETKRKO		EEEE EEEEE A-IGTLEQG	E - A V T - V A S	P-TVKSV	001	TTTT AVAAA GHQS-PNLF	TTTT TTTTT GVPT-SFTA	MMMM MMIII RAES-SSGV	GGGG GGGGG GASY-AMLR	30 FFFF FFFFF FEN SGPT
B       VirusName_StrainName       Passagad Ziko viruses       ZikV_Dakar Parental P0       ZikV_Dakar P2       ZikV_Dakar P3       ZikV_Dakar P3       ZikV_Dakar P3       ZikV_Mart P4       District P3       Mosquito-borne flaviviruses       SPOV_Chuku       DENV_1681       DENV_H31       DENV_H31       DEV_Nakayama       SLEV_Deird355964       SEPV	NS4B alignment	1. ZZZZ ZZZZZ ZZZZZZZZZ		LLLL LLLL LMMMLMYMM.		WWWW WWWWW WLFLLMWMLM			RRRR RRRRR RTKTKKKXKK		10 КККК ККККК КККККККККККККККККККККККККК	SSSS NNSSS SKKRTESASR.			AAAA AASSS TGIGGISKAI	TITI TITI R-IIFISSKI	L L L L L L Y - L M L -	MMMM MMMM FIIMQEEEEE	וטטטטט<אסיאסיאס אושעט	RRRR RRRRR RILKKKQGGT:	20 KKKK RRRRR E-GETKRKQT		EEEE EEEEE A-IGTLEQG-	E - A V T - V A S -	P	,<00m− - v∂0+ 00000 0000	TTTT AVAAA GHQS-PNLFV	TTTT TTTTT GVPT-SFTAE:	MMMM MMIII RAES-SSGVE	GOGG GOGGG GASY-AMLRG	30 FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
B VirusName_StrainName Passaged Zika viruses ZikV_Dakar Parental Po ZikV_Dakar Ps ZikV_Dakar P3 ZikV_Dakar P3 ZikV_Dakar P3 ZikV_Dakar P3 ZikV_Passaged ZikV_Passaged ZikV_Ps ZikV_AB 1585 ZikV_AB 1585 ZikV_PPKABC59 Mosquito-borne flaviviruses SPOV_Chuku DENV_16007 DENV_1681 DENV_1682 DE	NS4B alignment	1. ZZZZ ZZZZZ ZZZZZZZZZZZ		LLLL LLLL LMMMLMYMMNY	000400000000 00000 00000	WWWW WWWWW WLFLLMWMLMYM			RRRR RRRRR RTKTKKKXKKKR		10 КККК ККККК КККККККККККККККККККККККККК	SSSS NNSSS SKKRTESASRAT			AAAA AASSS TG-GG-SKAR	דדדד דדדד מ-ייהיטטאיי 2	L L L L L L L Y - L M L L	MMMM MMMMM FIIMQEEEFEF	ื่ออออออ<หอ่⊦≷ ออออออ <mark>x x x</mark> อ	RRRR RRRRR RILKKKQGGTHK	20 KKKK RRRRR E-GETKRKQTKS	EEEE EEEEE H-SPEN-TP-QL	EEEE EEEEE A-IGTLEQG-MI	E - A V T - V A S E	P-TVKSVE	2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TTTT AVAAA GHQS-PNLFVTE	TTTT TTTTT GVPT-SFTAEMV	MMMM MMIII RAES-SSGVEPH	UGGG GGGGG GASY-AMLRGV-	30 FFFF FFFFF FENSGPTKNP
B VirusName_StrainName ZirK/_Dakar Parental P0 ZirK/_Dakar Parental P0 ZirK/_Dakar P3 ZirK/_Dakar P3 ZirK/_Dakar P3 ZirK/_MR766-NID ZirK/_MR766-NID ZirK/_MR766-NID ZirK/_BeH39505 ZirK/_BeH39505 ZirK/_BeH39505 ZirK/_BeH39505 ZirK/_BeH39505 DENV_16027 DENV_16031 DEN	NS4B alignment	1. ZZZZ ZZZZZ ZZZZZZZZZZZZZZZ		LLLL LMMMMLMYMMNYYM		WWWW WWWWW WLFLLMWMLMYMMW			RRRR RRRRR RTKTKKKXKKKRR		10	SSSS NNSSS SKKRTESASRATS			AAAA AASSS TG-GG-SKARG	בדבד דדדד ב-ייריטטאייצא	L L L L L L L Y - L M L L - Y	MMMM MMMMM FIIMQEFFFFFF	<b>₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩</b>	RRRR RRRRR RILKKKQGGTHKSC	20 KKKK RRRRR E-GETKRKQTKSTR	EEEE EEEEE HISPENTERS	EEEE EEEEE AGTLEQG-M-QG	E-AVT-VASEPT	P	1 × × × × × × × × × × × × × × × × × × ×	TTTT AVAAA GHQS-PNLFVTEAR	TTTT TTTTT GVPT-SFTAEMVLV	MMMM MMIII RAES-SSGVEPHPY	GGGG GGGGG GASY-AMLRGV-L	30 FFFFF FFFFF FEN-SGPTKNPP
B VirusName_StrainName Passaged Zika viruses ZikV, Dakar Parental P0 ZikV, Dakar P2 ZikV, Dakar P2 ZikV, Dakar P3 ZikV, Dakar P3 ZikV, MR766-NIID ZikV, MR766-NIID ZikV, MR766-NIID ZikV, MR766-NIID ZikV, BeH819015 ZikV, BeH819015 ZikV, BeH819015 ZikV, BeH819015 ZikV, BeH819015 ZikV, DeNABC39 Mosquto-borne flaviviruses SPOV_Chiku DENV_16001 DENV_16001 DENV_1601 DENV	NS4B alignment	1. ZZZZ ZZZZZ ZZZZZZZZZZZZZZZ		LLLL LMMMMLMYMMNYYMM		WWW WWWW WLFLLMWMLMYMMWW			RRRR RRRRR RTKTKKKXKKRRKT		<b>10</b>	SSSS NNSSS SKKRTESASRATSAK			AAAA AASSS TGIGGISKAIIRGSG	דדדד דדדד מ-וורואאגווצאפא	L L L L L L L Y - L M L L - V L	MMMM MMMMM FIIMQEFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	משמטטטטט א א א א א א א א א א א א א א א א א א א	RRRR RRRRR RILKKKQGGHHKSGS	20 KKKK RRRRR E-GETKRKQTKSTRS	EEEE EEEEE HISPERITPIQLRSG	EEEE EEEEE A-IGTLEQG-M-QSD	E-AVT-VASEPTT			TTTT AVAAA GHQS-PNLFVTEAPQ	TTTT TTTTT GVPT-SFTAEMVLVS	MMMM MMIII RAES-SSGVEPHPVT	GGGG GGGGG GASY - AMLRGY - L - W	30 FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
B       VirusName_StrainName       Passagad Zika viruses       ZikV_Dakar P2       ZikV_Dakar P3       ZikV_Dakar P3       ZikV_Dakar P3       ZikV_Dakar P3       ZikV_Dakar P3       ZikV_Dakar P3       ZikV_MRF6FNIID       ZikV_MR76FNIID       ZikV_MR74859       Mosquito-borne flaviviruses       SPOV_Chuku       DENV_16801       DENV_16801       DENV_1681       DENV_1802       DENV_1803       MEV_MVEN2013       DENV_1804       DENV_1931       DENV_1931       DENV_1931       DENV_1931       DENV_1931 </th <th>NS4B alignment</th> <td>1. ZZZZ ZZZZZ ZZZZZZZZZZZZZZZZZZ</td> <td></td> <td>LLLL LLLL LMMMMLMYMMNYYMMMM</td> <td><u>ຉຉຉຉຉຉຉຉຑຉຉຉຉຉຉຉຉ</u></td> <td>WWWW WWWWW WLFLLMWMLMYMMWWW</td> <td></td> <td></td> <td>RRRR RRRRR RTKTKKKXKKKRRKTTO</td> <td></td> <td>10</td> <td>SSSS NNSSS SKKRTESASRATSAKRK</td> <td></td> <td></td> <td>AAAA AASSS TGIGGISKAIIRGSGGA</td> <td>יאא≷אבייאטאיידנד מ−יייריטטלייצא€אמ</td> <td>LLLL LLLL LY-LMLL-VLLL</td> <td>MMMM MMMMM HIIMQHHHHHHHHHHHHH</td> <td>ื่อห<mark>ม่ม</mark>หอออออออรหอ⊦⊗ ออออออ <mark>มมม</mark>อ</td> <td>RRRR RRRRR RILKKKQGGTHKSGSGR</td> <td>20 KKKK RRRRR E-GETKRKQTKSTRSPA</td> <td>HHHH HHHHH HISPHZ-FPIQLRSGSH</td> <td>EEEE EEEEE A-IGTLEQG-MIQSDAH</td> <td> E-AVT-VASEPTTV-</td> <td> P-T&gt;Kv&gt;mqTqTo</td> <td></td> <td>TTTT AVAAA GHQS-PNLFVTEAPQSP</td> <td>TTTT TTTTT GVPT-SFTAEMVLVSRS</td> <td>MMMM MMIII RAES-SSGVEPHPVT-R</td> <td>00000 00000 045Y-4MLR0V-L-W-W</td> <td>30. FFFF FFFFF FEN-SGPTKNPP-Q-E</td>	NS4B alignment	1. ZZZZ ZZZZZ ZZZZZZZZZZZZZZZZZZ		LLLL LLLL LMMMMLMYMMNYYMMMM	<u>ຉຉຉຉຉຉຉຉຑຉຉຉຉຉຉຉຉ</u>	WWWW WWWWW WLFLLMWMLMYMMWWW			RRRR RRRRR RTKTKKKXKKKRRKTTO		10	SSSS NNSSS SKKRTESASRATSAKRK			AAAA AASSS TGIGGISKAIIRGSGGA	יאא≷אבייאטאיידנד מ−יייריטטלייצא€אמ	LLLL LLLL LY-LMLL-VLLL	MMMM MMMMM HIIMQHHHHHHHHHHHHH	ื่อห <mark>ม่ม</mark> หอออออออรหอ⊦⊗ ออออออ <mark>มมม</mark> อ	RRRR RRRRR RILKKKQGGTHKSGSGR	20 KKKK RRRRR E-GETKRKQTKSTRSPA	HHHH HHHHH HISPHZ-FPIQLRSGSH	EEEE EEEEE A-IGTLEQG-MIQSDAH	E-AVT-VASEPTTV-	P-T>Kv>mqTqTo		TTTT AVAAA GHQS-PNLFVTEAPQSP	TTTT TTTTT GVPT-SFTAEMVLVSRS	MMMM MMIII RAES-SSGVEPHPVT-R	00000 00000 045Y-4MLR0V-L-W-W	30. FFFF FFFFF FEN-SGPTKNPP-Q-E
B       Zik/L_pairs Parental P0       Zik/L_pairs Pairstal P0       Zik/L_pairstal P0	NS4B alignment	1. ZZZZ ZZZZZ ZZZZZZZZZZZZZZZZZZZZZZZZZ		LLLL LLLL LMMMMLMYMMNYYMMMMM		WWWW WWWWW WLFLLMWMLMYMMWWWWY:			RRRR RRRRR RTKTKKKXKKKRRKTTQK		10	SSSS NNSSS SKKRTUSASRATSAKRKN			AAAA AASSS TG-GG-SKARGSGGA-	דדדד דדדדד מ−וורוטטצווצצאצאטו	LLLL LLLL LY-LMLL-VLLL.	MMMM MMMMM FIIMQEFFFFFFFFFFFFFFFFFF	טטא <mark>אא</mark> אטטטטטטטעאיא א אאט.	RRRR RRRRR RILKKKQGGTHKSGSGRR:	20 KKKK RRRRR E-GETKRKQTKSTRSPAS	EEEE EEEEE HISPEZ-TPIQLRSGSHR	EEEE EEEEE A-IGTLEQG-M-QSDAHE	E-AVT-VASEPTTV:	P-+>Kv>m0+0+0+0	0000 0000 0000 00000 00000	TTTT AVAAA GHQS-PNLFVTEAPQSPN	TTTT TTTTT GVPT-SFTAEMVLVSRSS	MMMM MMIII RAES-SSGVEPHPVT-RTI	GGGG GGGGG GASY-AMLRGV-L-W-WL.	30. FFFFF FFFFFF FEN-SGPTKNPP-Q-EQ.
B       VirusName_StrainName       Passagnd Ziko viruses       ZikV_Dakar Parental P0       ZikV_Dakar P3       ZikV_Dakar P3       ZikV_Dakar P4       ZikV_Dakar P3       ZikV_Dakar P4       ZikV_Dakar P3       ZikV_Dakar P4       ZikV_Dakar P3       ZikV_ArB 13565       ZikV_HPF2013       ZikV_HPF2013       ZikV_HPF2013       ZikV_HPF2013       ZikV_HPR459       DENV_H00       DENV_H610       DENV_H161       DENV_H611       DENV_H611       DENV_H241       VFV_SUPH303       XEV_DeH355964       SEPV       ENT_UglL-30       WVEV_MV=151       USUV_Vienna 2001       KOK	NS4B alignment	1. ZZZZ ZZZZZ ZZZZZZZZZZZZZZZZZZZZZZZ		LLLL LLLL LMMMMLMYMMNYYMMMMMA		WWWW WWWWW WLFLLMWMLMYMMWWWWYML			RRRR RRRRR RTKTKKKXKKKRRKTTQKRR		10 ΚΚΚΚ ΚΚΚΚΚ ΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚ	SSSS NNSSS SKKRTESASRATSAKRKNQA			AAAA AASSS TG-GG-SKARGSGGA-AR	דדדד דדדדד מ−ווייוטטגווZ×¥צצטטטט	L.L	MMMM MMMMM FIIMOFFFFFFFFFFFFFFFFFFFFFFFF	אדטטא <mark>אא</mark> טטטטטטטטעיא אטטטטטטערא	RRRR RRRRR RILYYYOUGHHYNUNURRYY	20 KKKKK RRRRR E-GETKRKQTKSTRSPASTE	EEEE EEEEE HISPEZITPIQLRSGSTREE	EEEE EEEEE AI-GTLEQGIM-QSDAHERV	E-AVT-VASEPTTVK-	P-+>Ks>=Q+Q+Q-s-	- ТОШТИХХХООП- КОООО ООООО	TTTT AVAAA GHQS-PNLFVTEAPQSPNE-	TTTT TTTTT GVPT-SFTAEMVLVSRSSF-	MMMM MMIII RAES-SSGVEPHPVT-RTTN	GGGG GGGGG GASY-AMLRGV-L-W-WLLE	30. FFFFF FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
B       ZirkU_Dakar Parental P0       ZirkU_Dakar Parental P0       ZirkU_Dakar P3       ZirkU_Dakar P3       ZirkU_Dakar P4       ZirkU_Dakar P3       ZirkU_Dakar P4       ZirkU_Dakar P3       ZirkU_Dakar P4       ZirkU_Dakar P4       ZirkU_P4       ZirkU       ZirkU	NS4B alignment	1. ZZZZ ZZZZZ ZZZZZZZZZZZZZZZZZZZZZZ		LLLL LLLL LMMMMLMYMMNYYMMMMMA		WWWW WWWWW WLFLLMWMLMYMMWWWYML			RRRR RRRRR RTKTKKKXKKKRRKTTQKRR	エエエエ エエエエエ エエエエエエエエエエエエエエエエエ	10 КККК ККККК ККККККККККККККККККККККККК	SSSS NNSSS SKKRTESASRATSAKRKNQA			AAAA AASSS TG-GG-SKARGSGGA-AR	דדדד דדדד מ−ווּהוּאַאַצּיַן אַצּאַצאַאַאַטאַטט	LLLL LLLL LY-LMLL-VLLLVL	MMMM MMMMM FIIMQFFFFFFFFFFFFFFFFFFFFFFFF	אדטטטא <mark>אא</mark> יטטטטטטטט<יא טטטטט א <mark>אא</mark> ט	RRRR RRRRR RILKKKQ00THK9090RRKK	20 KKKK RRRRR E-GETKRKQTKSTRSPASTE	EEEE EEEEE HISPENITPIQLRSGSHREE	EEEE EEEEE A-IGTLEQG-M-QSDAHERV	E-AVT-VASEPTTVK-			TTTT AVAAA GHQS-PNLFVTEAPQSPNE-	TTTT TTTTT GVPT-SFTAEMVLVSRSSF-	MMMM MMIII RAESISSGVEPHPVT-RTTN	GGGG GGGGG GASY-AMLRGY-L-W-WLLE	30. FFFFF FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
B       Passaged Zika viruses       Zirk/_Dakar Parental P0       Zirk/_Dakar P1       Zirk/_Dakar P3       Zirk/_Dakar P3       Zirk/_BrithMAP4       Other Zika viruses       Zirk/_Berti3015       Zirk/_PRVABCS9       Mosquito Doorne flaviviruses       DENV_1607       DENV_1607       DENV_1607       DENV_1607       DENV_16081       DENV_1607       DENV_1607       DENV_16081       DENV_1607       DENV_1607       DENV_16081       DENV_1607       DENV_1607       DENV_16081       DENV_1607       DENV_16081       DENV_16081       DENV_16081       DENV_1610       DENV_16281       US_V_DatAra D1470       Thck-Dome flaviviruses       DTV_cdB30       DOW_J DB	NS4B alignment	1 ZZZZ ZZZZZ ZZZZZZZZZZZZZZZZZZZZZZZZZZ		LLLL LLLL LMMMLMYMMNYYMMMMMA LL	อด ออดอดอดอดอดดอดอดอดอด อดอดอ อดอด	WWWW WWWWW WLFLLMWMLMYMMWWWYML YY			RRRR RRRRR RTKTKKKXKKKRRKTTQKRR RO	エエエエ エエエエエ エエエエエエエエエエエエエエエエエエ エエ	10 κκκκ κκκκκ κκκκκκκκκκκκκκκκκκ	SSSS NNSSS SKKRTESASRATSAKRKNQA AT			AAAA AASSS TG-GG-SKARGSGGA-AR AS	דדדד דדדדד מריויריטטציוZבצוטטטט טט	LLLL LLLL LY-LMLL-VLLLVL LL	NMMM MMMMM FIIMOFFFFFFFFFFFFFFFFFFFFFFFFF	עד אדטטא <mark>אא</mark> אטטטטטטטעלאטי א טטטטט אדעטטע אדעט	RRRR RRRRR RILKKKQGGTHKSGSGRRKK YR	20 KKKKK RRRRR E-GETKRKQTKSTRSPASTE DE	EEEE EEEEE HISPENITPIQLRSGSHREE TO	EEEE EEEEE AIIGTLEQGIMIQSDAHERV QO	E-AVT-VASEPTTVK	P-+>Ks>=Q+Q+Q-s	00	TTTT AVAAA GHQS-PNLFVTEAPQSPNE- DG	TTTT TTTTT GVPT-SFTAEMVLVSRSSF- RM	MMMM MMIII RAESISSGVEPHPVTIRTTN VV	GGGG GGGGG GASY-AMLRGV-L-W-WLLE WW	30. FFFFF FFFFFF FENISGPTKNPPIQIEQLP DD
B VirusName_StrainName ZirK/_Dakar Parental P0 ZirK/_Dakar Parental P0 ZirK/_Dakar Parental P0 ZirK/_Dakar P2 ZirK/_Dakar P3 ZirK/_MR766-NIID ZirK/_MR766-NIID ZirK/_MR766-NIID ZirK/_MR766-NIID ZirK/_BeH39015 ZirK/_BeH39015 ZirK/_BeH3015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BeH4015 ZirK/_BEH4015 Zir	NS4B alignment	1. ZZZZ ZZZZZ ZZZZZZZZZZZZZZZZZZZZZZZZZ		LLLL LLLL LMMMMLMYMMNYYMMMMMMA LLM1	าดดด อดดดอดอดอดดดดอดอดอดด อดดอด อดดอ	WWWW WWWWW WLFLLMWMLMYMMWWWYML YYM.			RRRR RRRRR RTKTKKXXKKKRRKTTQKRR RQK		10 ΚΚΚΚ ΚΚΚΚΚ ΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚ	SSSS NNSSS SKKRTESASRATSAKRKNQA ATAA			AAAA AASSS TGIGGISKAIIRGSGGAIAR ASAA	יססס ססטטאא≷אביואטאוידד בידוד בידיאטאוידב	LLL LLLL LY-LMLL-VLLLVL LLL.	ΜΜΜΜ ΜΜΜΜΜ ΗΙΙΜΟΥΡΕΡΕΡΕΡΕΡΕΡΕΙ ΕΡΔΙ	יצ <mark>א אור</mark> ממט <mark>אור</mark> ממממממממ אור ארממים א <mark>אאש</mark> מ	RRRR RRRRR RILKKKQGGTHKSGSGRRKK YRR	20 KKKKK RRRRR E-GETKRKQTKSTRSPASTE DEGO	EEEE EEEEE HISPEZITPIQLRSGSHREE TDE(	EEEE EEEEE AI-GTLEQGIM-QSDAHERY QQQQ	E-AVT-VASEPTTVK-	P-T>KS>=QTQTQ-S	0000	TTTT AVAAA GHQS-PNLFVTEAPQSPNE- DGH?	TTTT TTTTT GVPT-SFTAEMVLVSRSSF- RMPV	MMMM MMIII RAESISSGVEPHPVTIRTTN VVAL	GGGG GGGGG GASY-AMLRGV-L-W-WLLE WWW	30. FFFFF FFFFFF FENISGPTKNPPIQIEQLP DDEC
B       Passagad Zika vitues       Zik/, Dakar Parental P0       Zik/, Dakar Parental P0       Zik/, Dakar Parental P0       Zik/, Dakar Parental P0       Zik/, Dakar P3       Zik/, Dakar P4       Other Zika viruses       Site/, Dakar D1015       Zik/, JPKP2013       Zik/, JPKP2013       Zik/, JPKP4059       DENV_1681       DENV_1681       DENV_1681       DENV_1681       DENV_1681       DENV_1681       DENV_1681       DENV_1681       DENV_1684       DENV_184475       BAGV DakAr 101470       Ttchoorne flaviviruses       DTV_cbis03	NS4B alignment	1. ZZZZ ZZZZZ ZZZZZZZZZZZZZZZZZZZZZZZZZ		LLLL LMMMMLMYMMNYYMMMMMA LLMMM	ดดดดด อดดดดดดดดดดดดดดดดดดด อดดดด อดดด	WWWW WWWWWLIFLWWMWWWWWWWL YYML			RRRR RRRRR RTKTKKKXKKRRKTTQKRR RQKKK		10 ΚΚΚΚ ΚΚΚΚΚ ΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚ	SSSS NNSSS SKKRTESASRATSAKRKNQA ATAAA			AAAA AASSS TGIGGISKAIIRGSGGAIAR ASAAS	ΗΤΗΗ ΗΗΗΗΗ R-ΙΙΚΙΝΝΚΙΙΖΚΣΚΝΝΟΟ ΟΟΟΑΑ	LLL LLLL LY-LMLL-VLLLVL LLLV	NMMM MMMMM HIIMQHHHHHHHHHHHHHHHHHHHHHHHHH	עדאטטטא <mark>אא</mark> טטטטטטטטעיא אוטטטט איזאטטע אאאאט אנטטע אאאאט אנעטעעעע א	RRRR RRRRR RILKKKQGGTHKSGSGRRKK YRRRS	20 KKKKK RRRRRR E-GETKRKQTKSTRSPASTE DEGDE	HEHE HEHEE HISPEZITPIQLRSGSHREE TOEQR	EEEE EEEEE AI-GTLEQGIMIQSDAHERY QQQGE	E-AVT-VASEPTTVK-		ападор – Абидики Корин – Корон Сороро Сорор	TTTT AVAAA GHQS-PNLFVTEAPQSPNE- DGHTP	TTTT TTTTT GVPT-SFTAEMVLVSRSSF- RMPVR	MMMM MMIII RAESISSOVEPHPVTIRTTN VVARV	GGGG GGGGG GASY-AMLRGV-L-W-WLLE WWWWW	30. FFFFF FFFFFF FENISGPTKNPPIQIEQLP DDEGS
B       Zik/L Datar Parental PO       Zik/L Parental Parental PO       Zik/L Parental Policity       Zik/L Parental Policity       Zik/L Parental Policity       Denv_Hat1       DENV_Hat1       DENV_Hat1       DENV_Hat1       DENV_Hat1       DENV_Hat1       DENV_Hat1       DENV_Hat1       DENV_Hat1       DENV_Hat2       DENV_Hat2       DENV_Hat2       DENV_Hat2       DENV_Hat2       DENV_Hat2       DENV_Hat2       DENV_Hat2	NS4B alignment	1. ZZZZ ZZZZZZ ZZZZZZZZZZZZZZZZZZZZZZZZ		LLLL LMMMMLMYMMNYYMMMMMA LLMMMMM	าดดดดดด อดดดดดดดดดดดดดดดดดดด อดดดด อดดดด	WWWW WWWWW WIFLLMWMJMYMWWWWWW I YYMJFFF			RRRR RRRRR RTKTKKKXKKRRKTTQKRR RQKKKKK		10 ΚΚΚΚ ΚΚΚΚΚ ΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚΚ ΚΚΚΚΚ	SSSS NNSSS SKKRTESASRATSAKRKNQA ATAAAA			AAAA AASSS TG-GG-SKARGSGGA-AR ASAASS	ΠΗΤΗ ΗΗΤΗΗ R-ΙΙΓΙΝΝΚΙΙΖΚ¥ΚΚΝΝΟΟ ΟΟΟΑΑΗ4		NMMM MMMMM FIIMOFFFFFFFFFFFFFFFFFFFFFFFFF	עדאטטטאאאיטטטטטטעראטיא אדטטטעאאעטעטעע אייאטעטעע אאאטעעעעעעעעעעעעע	RRRR RRRRR RILKKKQGGTHKSGSGRRKK YRRRSS	20 KKKKK RRRRR E-GETKRKQTKSTRSPASTE DEGDEEG	HEHE HEHEE HISPERITPICLESUSTERE FORCETJ	EEEE EEEEE AI-GTLEQGIM-QSDAHERV QQQGEEE	E-AVT-VASEPTTVK		орооо ророо нори-неликана ророо ророо	TTTT AVAAA GHQS-PNLFVTEAPQSPNE- DGHTPLI	TTTT TTTTT GVPT-SFTAEMVLVSRSSF- RMPVRRP	MMMM MMIII RAESISSGVEPHPVTIRTTN VVARVSC	GGGG GGGGG GASY-AMLRGV-L-W-WLLE WWWWWW	30. FFFFF FFFFFF FENISGPTKNPPIQIEQLP DDEGSES
B       Zik/L Datar P2       Zik/L Datar P3       Zik/L P4       Zik/L Datar P3       Zik/L P4       Datar P3       DEV_VLB       DEN/_H01	NS4B alignment	1 ZZZZ ZZZZZ ZZZZZZZZZZZZZZZZZZZZZZZZZ		LLLL LLMMMMLMYMMNYYMMMMMA LLMMMMMM	ตดดดดดดด ตดดดดดดดดดดดดดดดดดดด ดดดดด จดดด	WWWW WWWWW WLFLLMWMLMYMMWWWYML YYMLFFFM	しししし しししし しししし ししししししししししし ししししししし		RRRR RRRRR RTKTKKKXKKKRRKTTQKRR RQKKKKKK		10 κκκκ κκκκκ κκκκκκκκκκκκκκκκκκ κκκκκκκκ	SSSS NNSSS SKKRTESASRATSAKRKNQA ATAAAAAA			AAAA AASSS TG-GG-SKARGSGGA-AR ASAASSSA	ΗΗΗΗ ΗΗΗΗΗ R-ΙΙΓΙΝΝΚΙΙΖΚΎΚΚΝΝΟΟ ΟΟΟΦΑΤΑΟ	LILI ILILI IY.LMII-VILIVI IIIVVMI	MMMM MMMMM FIIMQEFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	עדאאט אדטטע און אין אין אַרטטעעעעעען אַרעען אַרעעען אַרעעעעעעעעעעעעעעעעעעעעעעעעעעעעעעעעעעעע	RRRR RRRRR RILKKKQGGTHKSGSGRRKK YRRRSSSR	20 KKKK RRRRR E-GETKRKQTKSTRSPASTE DEGDEEGG	EREE EREE TISPEZ-TPICLESGSTREE FDECETTE	EEEE EEEEE AGTLEQG-M-QSDAHER> QQQGEEEQ	E-A>T->ASEPTT>K		ооооо ооооо тооон-гоонатитист оооныник	TTTT AVAAA GHQS-PNLFVTEAPQSPNE- DGHTPLHH	TTTT TTTTT GVPT-SFTAEMVLVSRSSF- RMPVRRRP	MMMM MMIII RAESISSGVEPHPVTIRTTN VVARVSQA	GODD DODDD DANYIANLROY-LIVILL XXXXXXXXXX	30. FFFFF FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
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Figure S1, Related to Figure 1. NS3 R399 and NS4B R18 is not observed in other ZIKV strains. A-B. MUSCLE sequence alignment examining the conservation of NS3 R399 (A) and

NS4B R18 (B) among ZIKV and related flaviviruses. Amino acid positions were determined using ZIKV-Dakar as the reference sequence. Virus abbreviation, virus name (accession number): AHFV, Alkurma hemorrhagic fever virus (JF416954); APOIV, Apoi virus (AF160193); BAGV, Bagaza virus (AY632545); BSQV, Bussuquara virus (AY632536); DENV, Dengue virus (AF180818, KU725663, KU050695, KR011349); DTV, Deer tick virus (AF311056); ENTV, Entebbe bat virus (AY632537); IGUV, Iguape virus (AY632538); ILHV, Ilheus virus (NC 009028); JEV, Japanese encephalitis virus (EF571853); KEDV, Kedougou virus (AY632540); KFDV, Kyanasur Forest disease virus (JF416958); KOKV, Kokobera virus (NC\_009029); KRV, Kamiti River virus (NC 005064); LGTV, Langat virus (AF253419); LIV, Louping ill virus (Y07863); MODV, Modoc virus (AJ242984); MVEV, Murrary Valley encephalitis virus (AF161266); OHFV, Omsk Hemorrhagic fever virus (AY193805); POWV, Powassan virus (NC 003687); RBV, Rio Bravo virus (AF144692); ROCV, Rocio virus (AY632542); SEPV, Sepik virus (AY632543); SLEV, Saint Louis encephalitis virus (KM267635); SPOV, Spondweni virus (KX227369); TABV, Tamana bat virus (AF285080); USUV, Usutu virus (NC 006551); WNV, West Nile virus (HQ596519); YFV, Yellow fever virus (AY640589); ZIKV, Zika virus (KU365778, KJ776791, KU501215, LC002520, KF268948).



Figure S2, Related to Figure 5. Heatmap of genes between uninfected, ZIKV-Dak WT, and ZIKV-Dak NS4B G18R infected NSCs. Relative expression of genes representing interferon response (A), cytokine response (B), and apoptosis (C) related genes from the RNAseq experiment in Fig 5 with NSCs infected with ZIKV-Dak WT and ZIKV-Dak NS4B G18R at 0 (uninfected), 24 and 48 h.



Figure S3, Related to Figure 5. Single-cell RNAseq analysis RLRs, IFNs, and ISG expression after ZIKV-Dak WT or ZIKV-Dak NS4B G18R infection of NSCs. (A) Violin plots showing expression of selected RLRs (*Ddx58*, *Ifih1*, and *Mavs*), type I IFNs (*Ifna2* and *Ifnb1*), and ISGs (*Eif2ak2*, *Ifit1*, *Ifit3*, *Ifitm2*, *Ifitm3*, *Isg15*, *Oasl1*, *Oasl2*, and *Rsad2*) in uninfected (ZIKV RNA-negative) and infected (ZIKV-RNA-positive) cells in the culture at 48 h after inoculation with ZIKV-Dak WT or ZIKV-Dak NS4B G18R. A MAST test was used to determine the statistical difference in expression of genes between different conditions. (\*\* P adjusted < 0.01). (B) A model showing the differences in ISG production from ZIKV-Dak-infected, ZIKV-Dak NS4B G18R-infected, and uninfected cells.



**Figure S4, Related to Figure 6. ZIKV RNA in the placenta and uterine lining of hSTAT2 KI mice.** WT or hSTAT2 KI mice were uninfected (column 1) or inoculated with ZIKV (columns 2-4) at E6.5. At E13.5, placentas were harvested and subjected to RNA *in situ* hybridization with a ZIKV-specific probe. Viral RNA was detected in the junctional zone of the placenta (third column) and uterine lining (fourth column) of hSTAT2 KI dams infected with ZIKV-Dak-MA. No viral RNA was detected in WT dams. Low (scale bar, 2 mm) and high (scale bar, 200 μm) magnification images are presented in sequence with the boxes indicating regions. The images are representative of several placentas from independent dams.



**Figure S5**, **Related to Figure 6**. **Susceptibility of maternal and fetal tissues of hSTAT2 KI mice to ZIKV infection.** Viral RNA burden from maternal serum (**A**, **F**), maternal spleen (**B**, **G**), maternal brain (**C**, **H**), placenta (**D**, **I**), and fetal head (**E**, **J**) of sexually mature (>8 weeks old) hSTAT2 KI dams mated to hSTAT2 KI sires and inoculated subcutaneously with 10<sup>6</sup> FFU of ZIKV-Dak (**A-E**) or WT sires and inoculated subcutaneously with 10<sup>6</sup> FFU ZIKV-Dak-MA (**F-J**). Dams were infected on E6.5 and tissues were harvested on E13.5. Data (**A-E**) are from 2 independent experiments (n = 7 dams, n = 28 placentas and fetal heads). Data (**F-J**) are from 2 independent experiments (n = 6 dams, n = 24 placentas and fetal heads). Solid lines represent the median values, and dotted lines denote the limit of detection of the assay. (**K**) A scheme depicting the ZIKV immunocompetent mouse model. The combined effects of the ZIKV NS5 inhibiting hSTAT2 and ZIKV NS4B G18R mutation decreasing amounts of IFN-β production results in lower levels of ISG that enable increased ZIKV replication and pathogenicity.