

**Table S1. Characteristics of antigenic peptides from ZIKV identified in this study**

Peptide <sup>a</sup>	Sequence <sup>b</sup>	Donors <sup>c</sup>	HLA <sup>d</sup>	SFC/million PBMC <sup>e</sup>		Predicted epitope	Predicted HLA	Score (rank) <sup>f</sup>
				15-mer	9-mer			
C <sub>13-27</sub>	IVNML <u>MLKRG</u> VARVSPF	28 (C)	A <u>02</u> ,29; B40,44; C03,16; DRB104,07	170	<20	MLKRGVARV	A0217	1.9
		60 (B)	A <u>02</u> ,69; B55,58; C01,07; DRB111,13	50	60		A0205	1.3
C <sub>85-99</sub>	KKDLA <u>AAMLRI</u> INARK	26 (D)	A <u>02</u> ,24; B07,48; C01,07; DRB114,15	100	<20	AAMLRIINA	A0201	4.5
		60 (B)	A <u>02</u> ,69; B55,58; C01,07; DRB111,13	<20	75	KDLAAMLRI	B5501	1.4
	KKDLA <u>AAMLRI</u> INARK	28 (C)	A <u>02</u> ,29; B40,44; C03,16; DRB104,07	230	65		B4002	2.0
E <sub>455-469</sub>	GMSWFSQILIGTLLM	1 (B)	A <u>02</u> ,24; B35, <u>51</u> ; C01,01; DRB104,12	120	NT	GMSWFSQILI	A0201	0.9
		77 (B)	A <u>02</u> , <u>02</u> ; B40, <u>51</u> ; C04,07; DRB113,14	35	NT	MSWFSQILI	B5101	0.12
NS1 <sub>63-77</sub>	MENIMWRSVEGELNA MENIMWRSVEGELNA	21 (B)	A31,03; B35,18; C01,17; DRB1 <u>04</u> ,03	65	50	MENIMWRSVEGELNA	DRB10405	50
		28 (C)	A <u>02</u> ,29; B40,44; C03,16; DRB1 <u>04</u> ,07	245	58	IMWRSVEGEL	A0217	0.5
		56 (D)	A <u>02</u> , <u>02</u> ; B15,18; C05,07; DRB103,11	70	148		A0201	1.2
NS1 <sub>83-97</sub>	GVQLTVVVGSVKNPM	26 (D)	A <u>02</u> ,24; B07,48; C01,07; DRB114,15	145	23	VQLTVVVGSV	A0201	1.7
		28 (C)	A <u>02</u> ,29; B40,44; C03,16; DRB104,07	165	35		A0217	3
NS1 <sub>163-177</sub>	FHTSVWLVKREDYSL FHTSVWLVKREDYSL	28 (C)	A02,29; B40,44; C03,16; DRB1 <u>04</u> ,07	230	75	HTSVWLKVREDY	A0101	0.4
		55 (C)	A03,11; B35,51; C04,15; DRB101,07	110	125	HTSVWLKVR	A3101	0.4
		46 (B)	A32,68; B39,50; C06,07; DRB1 <u>04</u> ,07	50	32		A6801	0.6
		20 (E)	A01,31; B07,39; C07,07; DRB1 <u>04</u> ,15	310	105	VWLKVREDY	A2902	1.3
						FHTSVWLKV	B3905	0.4
							B3901	0.4
NS1 <sub>275-289</sub>	IRFEECPGTKVHVEE	33 (C)	A24,24; B15, <u>35</u> ; C01,03; DRB104,04	215	55	CPGTKVHVE	B3501	8.5
		55 (C)	A03,11; B <u>35</u> ,51; C04,15; DRB101,07	130	115		B3531	6.5

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**Table S1. Characteristics of antigenic peptides from ZIKV identified in this study – cont'd**

Peptide <sup>a</sup>	Sequence <sup>b</sup>	Donors <sup>c</sup>	HLA <sup>d</sup>	SFC/million PBMC <sup>e</sup>		Predicted epitope	Predicted HLA	Score (rank) <sup>f</sup>
				15-mer	9-mer			
NS2B <sub>117-131</sub>	AAGAWYVYVKTGKRS	55 (C)	A03,11; B35,51; C04,15; DRB101,07	445	NT	AAGAWYVYVK	A0301	0.6
							A1101	0.12
						YVYVKTGKR	A0301	1.8
NS3 <sub>219-233</sub>	TVILAPTRVVAAEME	53 (D)	A23,31; B40,44; C01,04; DRB107,08	100	NT	TVILAPTRVVAAEME	DRB10802	1.5
		66 (C)	A02,03; B39,40; C03,07; DRB108,15	65	NT	ILAPTRVVAA	A0201	1.6
NS3 <sub>271-285</sub>	LQPIRVPNYNLYIMD	42 (B)	A26,26; B35,38; C05,06; DRB104,11	165	NT	VPNYNLYIM	B3501	0.06
NS3 <sub>311-325</sub>	AAIFMTATPPGTRDA	28 (C)	A02,29; B40,44; C03,16; DRB104,07	255	85	AAIFMTATPPGTRDA	DRB10401	4
						FMTATPPGT	A0217	5.5
	AAIFMTATPPGTRDA	33 (C)	A24,24; B15,35; C01,03; DRB104,04	215	30	IFMTATPPG	A2402	5
NS4A <sub>86-100</sub>	VTLGASAWLMWLSEI	55 (C)	A03,11; B35,51; C04,15; DRB101,07	178	NT	SAWLMWLSEI	B5101	0.9
		60 (B)	A02,69; B55,58; C01,07; DRB111,13	125	NT	VTLGASAWL	A6901	1.3
						LGASAWLMW	B5801	0.07
NS4B <sub>112-126</sub>	AIILLVAHYMYLIPG	28 (C)	A02,29; B40,44; C03,16; DRB104,07	60	58	AIILLVAHY	A2902	0.6
		37 (B)	A02,11; B35,50; C04,06; DRB101,13	75	30		A1101	3.5
	AIILLVAHYMYLIPG	60 (B)	A02,69; B55,58; C01,07; DRB111,13	100	68	LLVAHYMYL	A0205	0.3
	AIILLVAHYMYLIPG	60 (B)	A02,69; B55,58; C01,07; DRB111,13	100	35	LVAHYMYLI	A6901	0.15
							A0205	0.2
NS5 <sub>13-27</sub>	KARLNQMSALEFYYSY	55 (C)	A03,11; B35,51; C04,15; DRB101,07	260	NT	MSALEFYYSY	B3501	0.15
		69 (E)	A01,24; B35,35; C01,04; DRB104,13	145	NT		A0101	0.09

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**Table S1. Characteristics of antigenic peptides from ZIKV identified in this study – cont'd**

Peptide <sup>a</sup>	Sequence <sup>b</sup>	Donors <sup>c</sup>	HLA <sup>d</sup>	SFC/million PBMC <sup>e</sup>		Predicted epitope	Predicted HLA	Score (rank) <sup>f</sup>
				15-mer	9-mer			
NS5 <sub>293-307</sub>	WFFDEN <u>HPYRTWAYH</u>	55 (C)	A03,11; B <u>35</u> ,51; C04,15; DRB101,07	1580	308	HPYRTWAYH	B3501	0.4
	W <u>FFDENHPYRTWAYH</u>	69 (E)	A01,24; B <u>35,35</u> ; C01,04; DRB104,13	40	218	FFDENHPY	A0101	1.6
NS5 <sub>297-311</sub>	<u>ENHPYRTWAYH</u> GSGYE	55 (C)	A03,11; B <u>35</u> ,51; C04,15; DRB101,07	1280	358	NHPYRTWAY	B3501	3
	ENHP <u>YRTWAYHGS</u> YE	69 (E)	A01,24; B <u>35,35</u> ; C01,04; DRB104,13	75	188	YRTWAYHGSY	B3501	1.7
	ENHPY <u>RTWAYHGS</u> YE	69 (E)	A01,24; B <u>35,35</u> ; C01,04; DRB104,13	75	205	RTWAYHGSY	A0101	0.3
NS5 <sub>345-359</sub>	TDT <u>TPYGQQRVF</u> KEK	33 (C)	A24,24; B15, <u>35</u> ; C01,03; DRB104,04	1315	395	TPYGQQRVF	B3531	0.7
		55 (C)	A03,11; B <u>35</u> ,51; C04,15; DRB101,07	2095	523		B3501	0.3
		69 (E)	A01,24; B <u>35</u> ,35; C01,04; DRB104,13	785	763			
NS5 <sub>425-439</sub>	<u>EAVNDPRFW</u> ALVDKE	28 (C)	A02,29; B40,44; C03,16;DRB104,07	150	100	AVNDPRFWALVDK	A0301	1.1
		55 (C)	A03,11; B35,51; C04,15; DRB101,07	120	125		A1101	0.6
		56 (D)	A02,02; B15,18; C05,07; DRB103,11	90	240			
NS5 <sub>461-475</sub>	KKQGEFGKAKGSRAI	28 (C)	A02,29; B <u>40</u> ,44; C03,16;DRB104, <u>07</u>	300	NT	KKQGEFGKAKGSRAI	DRB10701	32
		53 (D)	A23,31; B <u>40</u> ,44; C01,04; DRB1 <u>07</u> ,08	105	NT	GEFGKAKGSRAI	B4002	0.7
NS5 <sub>473-487</sub>	RAIWMWLGARFLEF	28 (C)	A02,29; B40,44; C03,16; DRB104, <u>07</u>	210	NT	YMWLGARFL	A0217	0.03
		55 (C)	A03,11; B35,51; C04,15; DRB101, <u>07</u>	295	NT	AIWYMWLGAR	A0301	1.3
						RAIWMWLGARFLEF	DRB10701	16

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**Table S1. Characteristics of antigenic peptides from ZIKV identified in this study – cont'd**

Peptide <sup>a</sup>	Sequence <sup>b</sup>	Donors <sup>c</sup>	HLA <sup>d</sup>	SFC/million PBMC <sup>e</sup>		Predicted epitope	Predicted HLA	Score (rank) <sup>f</sup>
				15-mer	9-mer			
NS5 <sub>546-560</sub>	RFDLENEALITNQME	28 (C)	A02,29; <b>B40</b> ,44; C03,16; DRB104,07	245	NT	NEALITNQM	B4002	0.8
		53 (D)	A23,31; <b>B40</b> ,44; C01,04; DRB107,08	190	NT		B4403	0.6
		66 (C)	A02,03; B39, <b>40</b> ; C03,07; DRB108,15	80	NT		B3901	1.8
NS5 <sub>565-579</sub>	LALAIKYYTYQNKVV	28 (C)	A02,29; <b>B40</b> ,44; C03,16; DRB104,07	240	NT	LALAIKYYTY	A2902	0.5
		53 (D)	A23,31; <b>B40</b> ,44; C01,04; DRB107,08	120	NT	ALAIKYYTY	A2902	0.25
		56 (D)	A02,02; B15,18; C05,07; DRB103,11	150	NT	LALAIKYYTY	B1517	1.2
NS5 <sub>605-619</sub>	QVVTY <u>ALNTFTNL</u> VV	33 (C)	A <u>24,24</u> ; B15,35; C01,03; DRB104,04	240	NT	TYALNTFTNL	A24:02	0.09
		59 (B)	A03, <b>24</b> ; B35,40; C01,03; DRB104,04	50	42	YALNTFTNL	B35:43	0.4
							B35:31	0.25

<sup>a</sup> The position of peptides were determined according to NCBI Reference Sequence YP\_002790881.1; <sup>b</sup> The underlined and in bold sequence correspond to the 9-mer peptide tested; <sup>c</sup> The letters in brackets refer to the group of donors indicated in Table 1; <sup>d</sup> The common alleles between donors are underlined and in bold; <sup>e</sup> Cumulative SFC/million PBMC; NT, not tested; <sup>f</sup> Calculated using NetMHCpan 3.0 Server: strong binders <0.5, weak binders <2.