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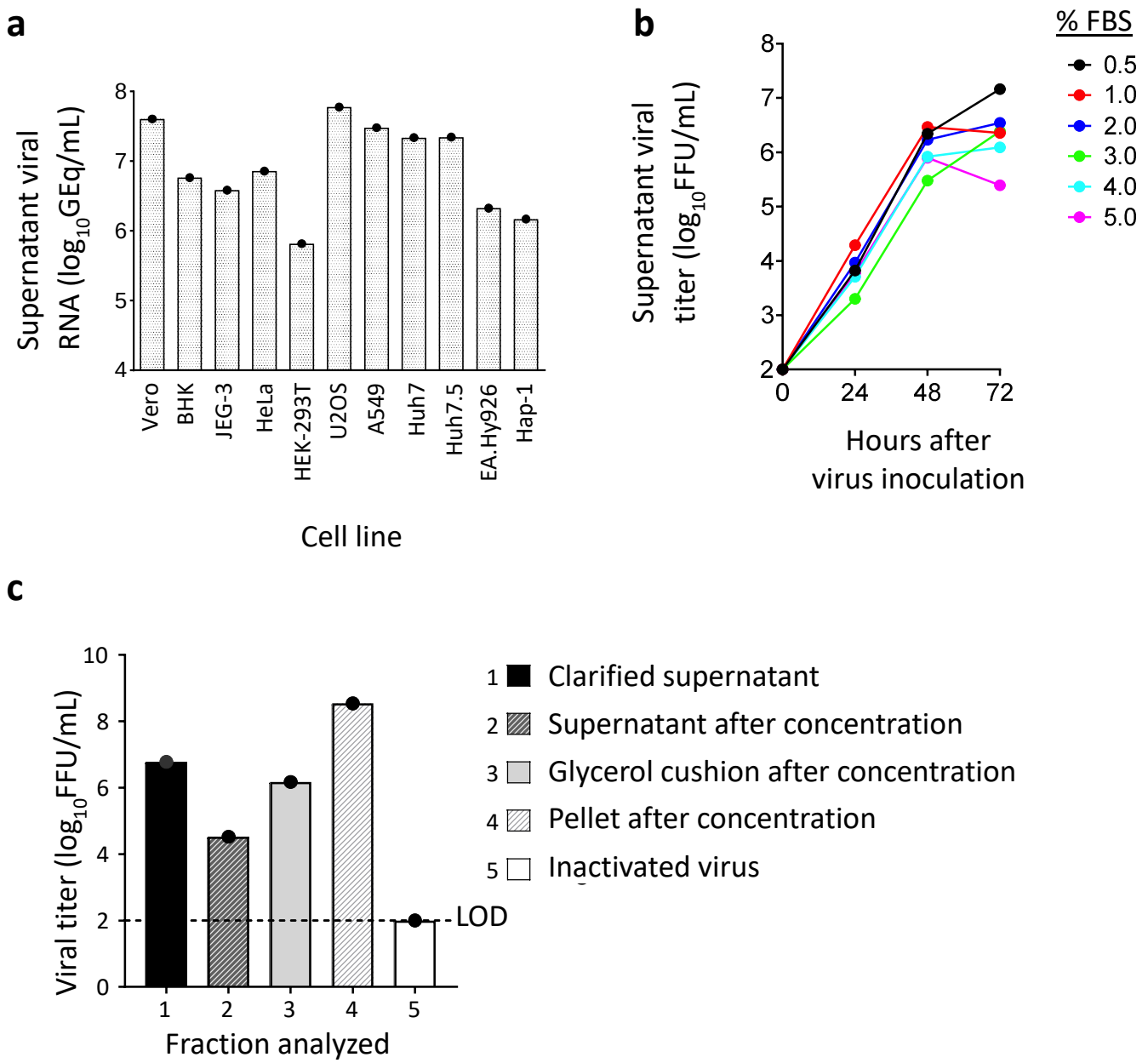
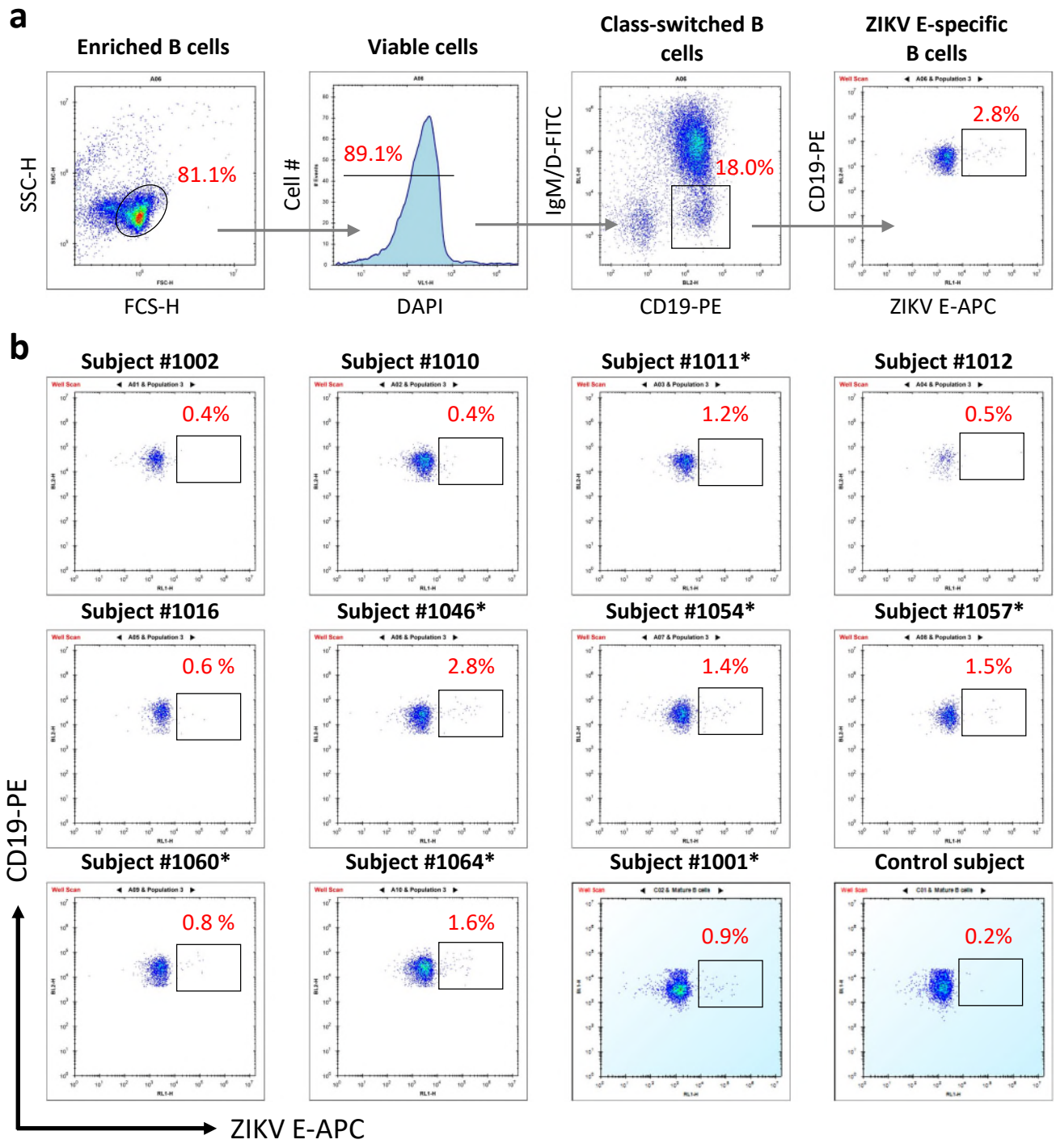
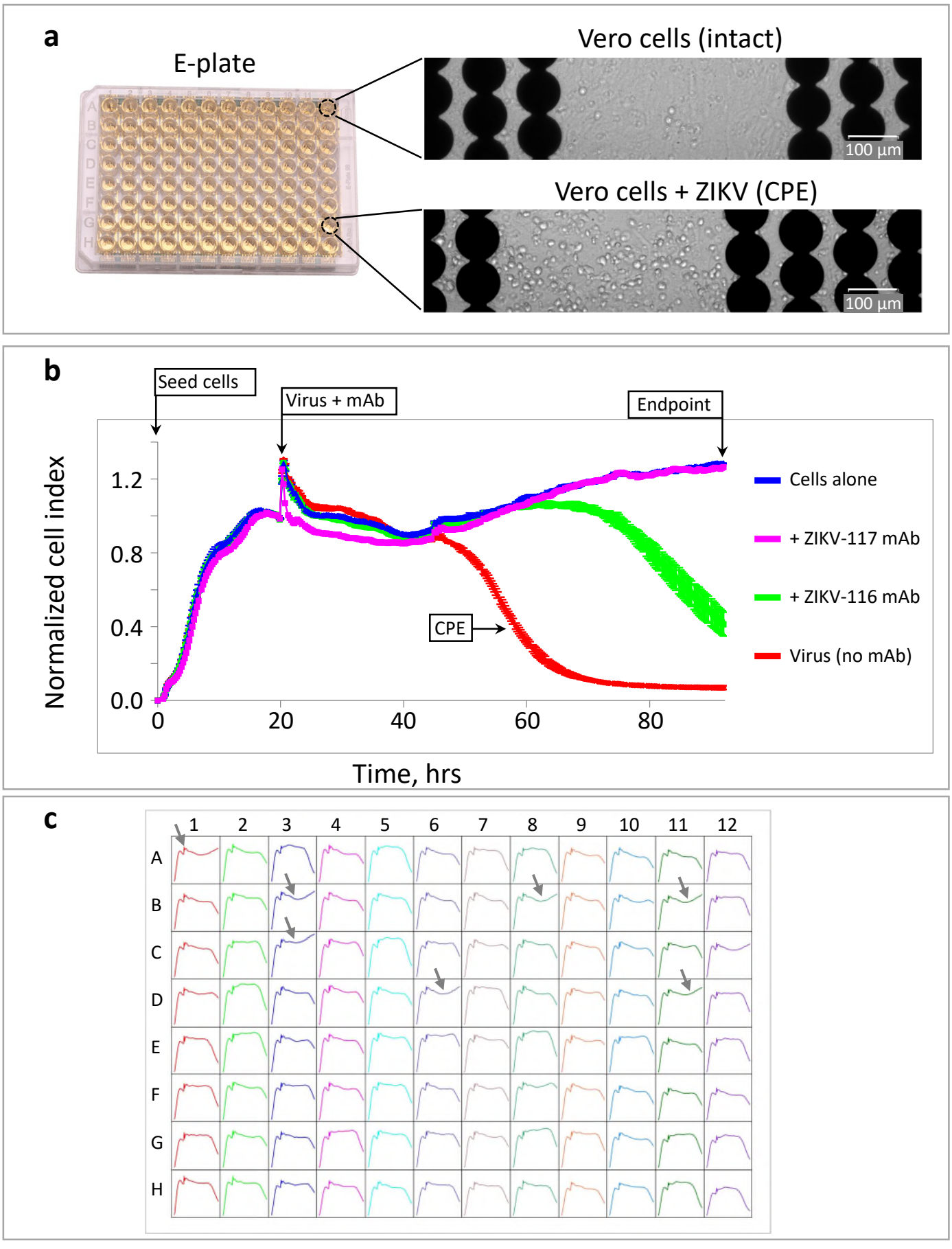


Supplementary Figure 1. ZIKV stock production.
(a) Propagation of ZIKV Dakar MA was assessed in a panel of immortalized cell lines. Viral growth was assessed by qRT-PCR from clarified cell culture supernatants harvested 72 hrs after virus inoculation. Data represented a single measurement from one experiment. **(b)** Propagation of ZIKV Dakar MA in Vero cells grown in roller bottles was determined at various FBS concentrations. Viral growth was measured by FFA of culture supernatants. Data represented mean ± SD values of technical duplicates from a single experiment. **(c)** Concentration and inactivation of ZIKV Dakar MA was assessed in indicated fractions obtained after ultra-centrifugation of infected Vero cell culture supernatant (72 hrs after virus inoculation), as well as following treatment with hydrogen peroxide. Viral titer was measured by FFA. LOD was 100 FFU/mL. Data represented a single measurement from one experiment.



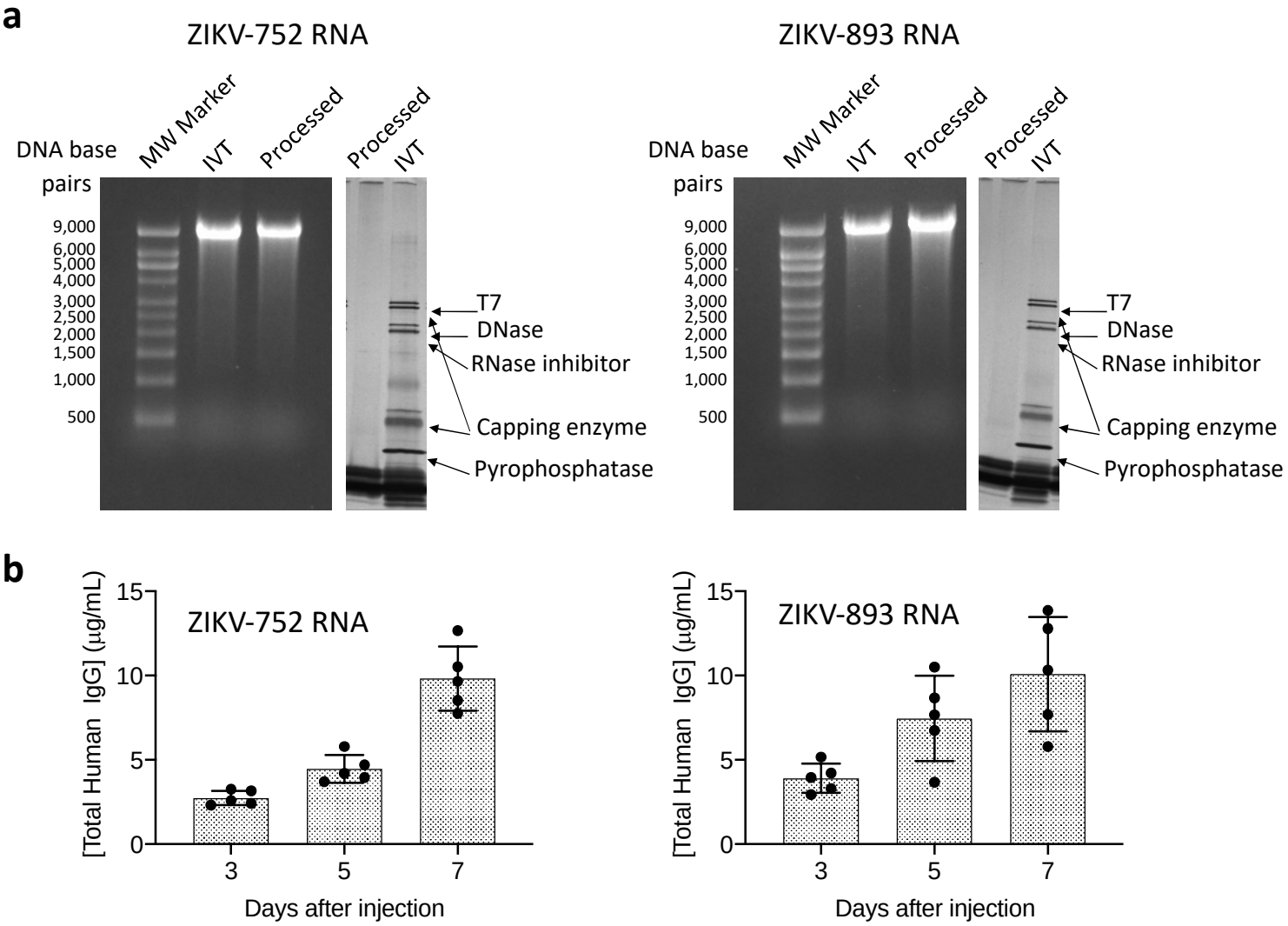
Supplementary Figure 2. Frequency of ZIKV E-reactive memory B cells identified from previously infected subjects. (a) Flow cytometric identification of target-specific B cells after labeling of magnetically enriched total B cells with phenotyping antibodies, biotinylated ZIKV E protein, and fluorochrome-conjugated streptavidin (see **Methods**). **(b)** Percent (%) of ZIKV E-reactive B cells from each subject was assessed by analytical flow cytometry using an iQue Plus Screener flow cytometer. Up to 10,000 enriched B cells were analyzed for each subject. Plots represent viable $CD19^{+}IgM^{-}IgD^{-}$ population and are gated as in **a.** Subject with no history for ZIKV exposure served as a control for background E protein staining, and subject #1001 described previously[1] served as a positive control for E protein staining (blue background plots). Seven subjects selected for ZIKV-specific mAb discovery are indicated with "*" symbol.

Supplementary Figure 3



Supplementary Figure 3. Rapid RTCA screening for neutralizing activity of mAbs to identify lead candidates for *in vivo* protection studies.

(a) Enlarged brightfield image (right) of shadowed electrodes and adherent Vero cells (with or without virus to visualize CPE) from single wells of 96-well E-plates (left). Single well Vero cell images are representative of five or more images taken for each condition. **(b)** Representative sensograms for Vero cells that were inoculated with ZIKV (Brazil strain) in the presence of fully neutralizing ZIKV-117 (magenta) and partially neutralizing ZIKV-116 (green). mAbs ZIKV-117 and ZIKV-116 were described previously [1]. Uninfected cells (blue) and infected cells without antibody addition (red) served as controls for intact monolayer and full CPE, respectively. Data represented mean ± SD values of technical duplicates. **(c)** Example sensograms from one 96-well E-plate analysis showing rapid identification of mAbs that fully neutralize ZIKV (indicated with grey arrows). Neutralization was assessed for 1:25 micro-scale purified mAbs dilution (see **Methods**) using ZIKV Brazil strain. Plates were measured continuously for 45 hrs after applying virus and mAb mixtures to the Vero cell monolayers.



Supplementary Figure 4. Large-scale production and qualification of ZIKV-753 and ZIKV-893 RNAs.
(a) Quality and purity of large-scale produced RNA. Following large-scale *in vitro* transcription (IVT) and capping, ZIKV-752 and ZIKV-893 RNA were purified and concentrated by Capto Core chromatography and tangential flow filtration, prior to sterile-filtration and storage at -80°C. ZIKV-752 and -893 RNA were analyzed by denaturing gel electrophoresis as well as silver-stain SDS-PAGE to assess quality and purity of post-processed RNA. The experiment was repeated independently at least three times and for several post-processed RNA preparations with similar results in addition to ZIKV-752 and -893 analysis shown here **(b)** Human IgG concentration in mouse plasma after RNA delivery. To verify function, processed ZIKV-752 and -893 were formulated with NLC, and 40 µg of formulation was injected intramuscularly into C57BL/6 mice (n=5 mice per group). Blood was collected on days 3, 5, and 7, and concentrations of total human IgG protein were determined in serum by ELISA using recombinant ZIKV-752 and -893 mAbs to generate a standard curve. Dots show measurements from individual mice and mean ± SD values are shown.

Supplementary Tables

Supplementary Table 1. Research subject demographics and ZIKV exposure history.

Subject ID	Gender	Age	Ethnicity	ZIKV strain lineage*	Year infected	Country in which infection occurred	PBMCs collection timepoint
1001**	Male	41	Hispanic or Latino	Asian	2015	Brazil	7 months after infection
1011**	Female	25	Not Hispanic or Latino	Asian	2016	Haiti	March 2016
1046**	Female	58	Hispanic or Latino	Asian	2016	Dominican Republic	>90 days after infection
1054**	Female	62	Not Hispanic or Latino	Asian	2016	Puerto Rico	>90 days after infection
1057**	Male	40	Not Hispanic or Latino	Asian	2016	Nicaragua	5 weeks and six months post 1st symptom
1060**	Female	35	Not Hispanic or Latino	Asian	2016	Guatemala	>90 days after infection
1064**	Male	19	Not Hispanic or Latino	Asian	2016	Guatemala	>90 days after infection
1002	Female	42	Not Hispanic or Latino	Asian	2016	Mexico	>90 days after infection
1010	Female	25	Not Hispanic or Latino	Asian	2016	Haiti	>90 days after infection
1012	Female	19	Not Hispanic or Latino	Asian	2016	Haiti	>90 days after infection
1016	Female	21	Not Hispanic or Latino	Asian	2016	Haiti	>90 days after infection
269***	Male	58	Not Hispanic or Latino	NA	NA	NA	NA

* - The subjects likely had been infected with a strain of Asian lineage of ZIKV, since they contracted the disease during the recent outbreak in South America. Flavivirus immune status at the time of ZIKV infection for these subjects is unknown. ** - subjects selected for ZIKV-specific mAb discovery. *** -uninfected control subject. NA – not applicable.

Supplementary Table 2. Summary of antibody discovery approaches and characterization assays.

Clone ID	*Sorting method to isolate mAb	Microscale-purified mAb analysis to identify candidates for *in vivo* study																	Analysis of midiscale-purified mAb that were used for *in vivo* studies	
		**Purified mAb yield (µg)	***ELISA binding O.D. 450 nm to ZIKV E2 assessed for 1:10 CHO culture supernatant dilution	***ELISA binding O.D.450 nm to ZIKV E2 assessed for 1:100 purified mAb dilution	****Antigenic site determined by competition binding with reference mAb	ZIKV Brazil neutralization assessed by RTCA for 1:10 CHO culture supernatant dilution (+/-)	ZIKV Brazil neutralization assessed by RTCA for 1:25 purified mAb dilution (+/-)	ZIKV Dakar neutralization assessed by FRNT for 1:16 purified mAb dilution (+/-)	ZIKV Brazil neutralization assessed by FRNT for 1:16 purified mAb dilution (+/-)	ZIKV Dakar neutralization reassessed by RTCA for neutralizing mAbs	ZIKV Brazil neutralization reassessed by RTCA for neutralizing mAbs	ZIKV Dakar IC50 (ng/mL) assessed by RTCA for purified mAbs (ng/mL)	ZIKV Brazil IC50 (ng/mL) assessed by RTCA for purified mAbs	ZIKV Dakar IC50 (ng/mL) assessed by FRNT for purified mAbs	ZIKV Brazil IC50 (ng/mL) assessed by FRNT for purified mAbs	***** ADCP assessed for purified mAbs (Z-score)	*****ADNP assessed for purified mAbs (Z-score)	*****ADCD assessed for purified mAbs (Z-score)	ZIKV Dakar IC50 (ng/mL) assessed by RTCA for purified mAbs	ZIKV Brazil IC50 (ng/mL) assessed by RTCA for purified mAbs
ZIKV-117 control	-	232	**3.4**	**4.2**	ND	+	+	+	+	+	+	**42**	**7**	**34**	**34**	2.3	0.8	2.6	ND	ND
ZIKV-403	ND	23	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	-0.6	-0.2	ND	ND
ZIKV-406	ND	41	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.4	-0.2	ND	ND
ZIKV-407	ND	6	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.3	-0.2	ND	ND
ZIKV-408	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	-0.4	-0.2	ND	ND
ZIKV-409	ND	178	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	0.0	-0.2	ND	ND
ZIKV-411	ND	46	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.8	-0.4	-0.2	ND	ND
ZIKV-412	ND	125	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.2	-0.2	ND	ND
ZIKV-413	ND	25	-	-	ND	-	-	+	+	ND	ND	ND	ND	**8,582**	**3,692**	-0.2	-0.4	-0.1	ND	ND
ZIKV-414	ND	17	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.4	-0.2	ND	ND
ZIKV-415	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.2	-0.2	ND	ND
ZIKV-416	ND	24	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.1	-0.2	ND	ND
ZIKV-417	ND	93	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	0.3	-0.2	ND	ND
ZIKV-418	ND	25	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.1	-0.2	ND	ND
ZIKV-419	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.3	-0.2	ND	ND
ZIKV-420	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.3	-0.2	ND	ND
ZIKV-421	ND	158	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.0	-0.2	ND	ND
ZIKV-422	ND	196	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	0.2	-0.2	ND	ND
ZIKV-423	ND	113	**3.0**	**4.2**	116	+	+	+	+	+	+	ND	**55**	ND	**1,212**	0.9	0.3	-0.2	**>3,000**	**305**
ZIKV-424	ND	40	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.0	-0.2	ND	ND
ZIKV-425	ND	37	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.1	0.0	-0.2	ND	ND
ZIKV-426	ND	30	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	0.1	-0.2	ND	ND
ZIKV-427	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.2	-0.2	ND	ND
ZIKV-428	ND	5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.4	-0.2	ND	ND
ZIKV-429	ND	4	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.2	ND	ND
ZIKV-430	ND	102	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.2	-0.2	ND	ND
ZIKV-431	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.0	-0.2	ND	ND
ZIKV-432	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.0	-0.2	ND	ND
ZIKV-433	ND	3	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.9	0.0	-0.2	ND	ND
ZIKV-434	ND	92	-	-	ND	+	+	+	+	+	+	**411**	**447**	**730**	**715**	0.2	0.2	-0.2	**112**	**308**
ZIKV-435	ND	33	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.1	0.0	-0.2	ND	ND
ZIKV-436	ND	53	**3.7**	**4.2**	**FL**	-	-	-	-	ND	ND	ND	ND	ND	ND	3.4	1.8	5.2	ND	ND
ZIKV-437	Sub-panel 2	209	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.3	-0.2	ND	ND
ZIKV-438	ND	38	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.7	-0.3	-0.2	ND	ND
ZIKV-439	Sub-panel 1	22	**3.1**	**4.1**	**Unknown**	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.1	-0.2	ND	ND
ZIKV-440	ND	46	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	0.0	-0.2	ND	ND
ZIKV-441	ND	108	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	0.2	-0.2	ND	ND
ZIKV-442	ND	12	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.3	-0.2	ND	ND
ZIKV-443	Sub-panel 1	5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	-0.3	-0.2	ND	ND
ZIKV-445	ND	74	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.4	-0.2	ND	ND
ZIKV-447	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.1	-0.3	-0.2	ND	ND
ZIKV-448	ND	13	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.2	-0.2	ND	ND
ZIKV-451	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.1	-0.2	ND	ND
ZIKV-452	ND	113	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	0.1	-0.2	ND	ND
ZIKV-453	ND	68	-	-	ND	+	+	-	-	-	+	ND	ND	ND	ND	-1.0	-0.1	-0.2	ND	ND
ZIKV-454	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.1	-0.2	ND	ND
ZIKV-455	ND	153	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.1	-0.2	ND	ND
ZIKV-456	ND	107	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.9	0.2	-0.2	ND	ND
ZIKV-457	ND	19	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.2	-0.2	ND	ND
ZIKV-458	ND	8	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.2	-0.2	ND	ND
ZIKV-459	ND	43	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.8	-0.3	-0.2	ND	ND
ZIKV-460	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.1	-0.2	ND	ND
ZIKV-461	Sub-panel 1	43	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	0.0	-0.2	ND	ND
ZIKV-462	ND	33	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.1	-0.2	ND	ND
ZIKV-463	Sub-panel 1	80	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	0.2	-0.2	ND	ND
ZIKV-464	ND	142	-	-	116	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.1	-0.1	ND	ND
ZIKV-465	Sub-panel 1	2	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.4	-0.2	ND	ND
ZIKV-467	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.2	-0.2	ND	ND
ZIKV-468	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.2	-0.2	ND	ND
ZIKV-469	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.1	-0.2	ND	ND
ZIKV-470	Sub-panel 2	14	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	0.1	-0.2	ND	ND
ZIKV-471	Sub-panel 1	69	**3.4**	**4.0**	**Unknown**	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.2	-0.2	ND	ND
ZIKV-472	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	-0.1	-0.2	ND	ND
ZIKV-473	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.4	-0.2	ND	ND
ZIKV-474	ND	1	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.3	-0.2	ND	ND
ZIKV-475	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.2	-0.2	ND	ND
ZIKV-476	ND	47	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.2	-0.2	ND	ND
ZIKV-477	Sub-panel 2	88	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	0.1	-0.2	ND	ND
ZIKV-478	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.7	0.0	-0.2	ND	ND
ZIKV-479	Sub-panel 2	67	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.3	-0.2	ND	ND
ZIKV-480	Sub-panel 2	117	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	1.4	0.3	-0.2	ND	ND
ZIKV-481	Sub-panel 1	84	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.5	-0.2	ND	ND
ZIKV-482	Sub-panel 1	11	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.4	-0.2	ND	ND
ZIKV-483	ND	8	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.3	-0.2	ND	ND
ZIKV-484	ND	59	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.8	-0.2	-0.2	ND	ND
ZIKV-485	Sub-panel 1	31	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.3	-0.2	ND	ND
ZIKV-486	ND	23	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.2	-0.2	ND	ND
ZIKV-487	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.3	-0.2	ND	ND
ZIKV-488	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.3	-0.2	ND	ND
ZIKV-489	Sub-panel 1	61	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.8	-0.8	-0.2	ND	ND
ZIKV-491	ND	30	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.4	-0.2	ND	ND
ZIKV-492	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.5	-0.2	ND	ND
ZIKV-493	Sub-panel 2	80	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.1	-0.2	ND	ND
ZIKV-494	ND	10	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.5	-0.1	ND	ND
ZIKV-495	Sub-panel 2	38	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.8	-0.5	-0.2	ND	ND
ZIKV-496	Sub-panel 1	13	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.6	-0.2	ND	ND
ZIKV-497	Sub-panel 1	109	**0.4**	**0.8**	116	-	+	-	-	-	-	ND	ND	ND	ND	-0.8	-0.4	-0.1	ND	ND
ZIKV-498	ND	17	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.8	-0.1	ND	ND
ZIKV-499	ND	8	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.4	-0.2	ND	ND
ZIKV-500	Sub-panel 1	98	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.3	-0.2	ND	ND
ZIKV-501	Sub-panel 2	4	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.3	-0.2	ND	ND
ZIKV-502	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.3	-0.2	ND	ND
ZIKV-503	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	-0.3	-0.2	ND	ND
ZIKV-504	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	-0.5	-0.2	ND	ND
ZIKV-505	ND	46	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.5	-0.2	ND	ND
ZIKV-506	ND	268	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.3	-0.2	ND	ND
ZIKV-507	ND	25	**1.7**	**3.4**	**Unknown**	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.0	-0.2	ND	ND
ZIKV-508	Sub-panel 1	28	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.1	-0.2	ND	ND
ZIKV-509	Sub-panel 1	45	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	0.0	-0.1	ND	ND
ZIKV-510	Sub-panel 1	7	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.7	-0.1	-0.2	ND	ND
ZIKV-511	Sub-panel 2	4	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.1	-0.2	ND	ND
ZIKV-512	ND	<0.5	-	-	ND	+	+	-	-	-	-	ND	ND	ND	ND	0.3	-0.4	-0.2	ND	ND
ZIKV-513	Sub-panel 2	20	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.1	-0.3	-0.2	ND	ND
ZIKV-514	Sub-panel 2	150	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.9	-0.4	-0.1	ND	ND
ZIKV-515	ND	48	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.2	-0.1	ND	ND
ZIKV-516	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.1	-0.2	ND	ND
ZIKV-517	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.0	-0.2	ND	ND
ZIKV-519	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.9	0.1	-0.2	ND	ND
ZIKV-520	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.0	-0.2	ND	ND
ZIKV-521	Sub-panel 2	128	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.1	-0.2	ND	ND
ZIKV-525	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.3	-0.2	ND	ND
ZIKV-526	Sub-panel 2	49	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.1	-0.3	-0.1	ND	ND
ZIKV-527	Sub-panel 1	78	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.3	-0.2	ND	ND
ZIKV-528	Sub-panel 1	133	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	0.3	-0.2	ND	ND
ZIKV-529	Sub-panel 2	7	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.2	-0.2	ND	ND
ZIKV-530	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.0	-0.2	ND	ND
ZIKV-531	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.0	-0.2	ND	ND
ZIKV-532	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.1	-0.2	ND	ND
ZIKV-533	Sub-panel 1	84	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.9	-0.3	-0.2	ND	ND
ZIKV-534	Sub-panel 1	88	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.4	-0.1	ND	ND
ZIKV-536	Sub-panel 2	42	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.2	-0.2	ND	ND
ZIKV-537	Sub-panel 1	7	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.1	-0.2	ND	ND
ZIKV-538	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.0	-0.2	ND	ND
ZIKV-539	Sub-panel 2	2	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.7	0.1	-0.2	ND	ND
ZIKV-540	Sub-panel 2	72	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	0.1	-0.2	ND	ND
ZIKV-541	Sub-panel 2	94	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.3	-0.2	ND	ND
ZIKV-543	Sub-panel 1	92	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.3	-0.2	ND	ND
ZIKV-544	Sub-panel 2	98	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.4	-0.4	-0.2	ND	ND
ZIKV-545	Sub-panel 2	89	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.1	-0.2	ND	ND
ZIKV-546	ND	35	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	0.3	-0.2	ND	ND
ZIKV-547	Sub-panel 1	47	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.8	0.2	-0.2	ND	ND
ZIKV-548	Sub-panel 1	13	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.1	-0.2	ND	ND
ZIKV-549	ND	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.0	-0.2	ND	ND
ZIKV-550	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.7	-0.1	-0.2	ND	ND
ZIKV-551	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.3	-0.2	ND	ND
ZIKV-552	Sub-panel 1	118	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.1	-0.3	-0.1	ND	ND
ZIKV-553	Sub-panel 2	44	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	-0.3	-0.2	ND	ND
ZIKV-554	Sub-panel 2	2	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.3	-0.2	ND	ND

Supplementary Table 2 continued. Summary of antibody discovery approaches and characterization assays.

2WV-555	Sub-panel 1	5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.0	-0.3	ND	ND
2WV-556	Sub-panel 1	220	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.2	-0.3	ND	ND
2WV-557	Sub-panel 1	166	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.0	0.7	-0.2	ND	ND
2WV-558	Sub-panel 2	73	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.7	-0.2	-0.3	ND	ND
2WV-559	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.3	-0.2	ND	ND
2WV-560	Sub-panel 1	63	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.4	-0.5	ND	ND
2WV-561	Sub-panel 1	4	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.1	-0.2	ND	ND
2WV-562	Sub-panel 1	1	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.1	-0.3	ND	ND
2WV-563	Sub-panel 1	1	**4.0**	**3.9**	**FL**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.0	-0.2	ND	ND
2WV-564	Sub-panel 2	133	**1.8**	**2.4**	**Unknown**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	2.9	0.5	0.1	ND	ND
2WV-566	Sub-panel 2	53	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.4	0.4	-0.2	ND	ND
2WV-567	Sub-panel 1	235	**3.6**	**4.1**	**DIII**	+	-	-	-	-	ND	ND	ND	ND	ND	ND	5.5	6.3	5.6	ND	ND
2WV-568	N/D	158	**3.6**	**4.0**	**Unknown**	+	-	-	-	-	ND	ND	ND	ND	ND	ND	2.0	1.8	1.5	ND	ND
2WV-569	Sub-panel 1	4	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.4	-0.2	ND	ND
2WV-570	N/D	4	**2.3**	**3.5**	**DIII**	+	+	-	+	-	-	+	ND	**674**	ND	**61**	0.3	-0.2	-0.2	ND	ND
2WV-571	Sub-panel 1	96	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.1	-0.2	ND	ND
2WV-572	Sub-panel 1	3	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.0	-0.2	ND	ND
2WV-574	Sub-panel 2	21	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.0	-0.2	ND	ND
2WV-575	Sub-panel 1	205	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.7	-0.2	ND	ND
2WV-576	N/D	<0.5	-	-	ND	-	-	-	+	-	ND	ND	ND	ND	ND	ND	0.4	0.3	-0.2	ND	ND
2WV-577	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.5	-0.2	ND	ND
2WV-579	Sub-panel 1	5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.5	-0.2	ND	ND
2WV-580	Sub-panel 2	110	-	-	**Unknown**	+	+	+	+	-	+	+	ND	**492**	**5,931**	**3,368**	0.3	0.1	-0.2	ND	ND
2WV-583	N/D	2	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	-0.2	-0.2	ND	ND
2WV-584	Sub-panel 1	1	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.3	-0.2	ND	ND
2WV-585	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	0.1	-0.2	ND	ND
2WV-586	Sub-panel 1	41	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.0	-0.2	ND	ND
2WV-587	N/D	172	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.0	0.3	0.1	ND	ND
2WV-589	Sub-panel 1	2	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.6	-0.2	ND	ND
2WV-591	Sub-panel 2	6	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.6	0.1	ND	ND
2WV-592	Sub-panel 1	3	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.4	0.1	ND	ND
2WV-593	Sub-panel 1	6	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.7	0.1	ND	ND
2WV-595	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.7	0.1	ND	ND
2WV-597	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.6	0.0	ND	ND
2WV-599	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.7	0.7	0.1	ND	ND
2WV-600	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.7	0.8	0.1	ND	ND
2WV-601	Sub-panel 1	43	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.8	0.1	ND	ND
2WV-602	Sub-panel 1	66	-	-	ND	-	-	-	+	-	ND	ND	ND	ND	ND	ND	0.6	0.6	0.2	ND	ND
2WV-604	Sub-panel 1	50	-	-	ND	-	-	-	+	-	ND	ND	ND	ND	ND	ND	0.1	0.5	0.2	ND	ND
2WV-605	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.5	0.0	ND	ND
2WV-606	Sub-panel 2	112	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.1	0.2	ND	ND
2WV-608	Sub-panel 1	122	**2.8**	**3.8**	**DIII**	+	+	-	+	-	+	+	ND	**75**	**2,165**	**5,661**	2.7	0.1	0.2	**>3,000**	**118**
2WV-610	Sub-panel 1	87	-	-	ND	-	-	-	+	-	ND	ND	ND	ND	ND	ND	0.5	0.4	0.2	ND	ND
2WV-612	Sub-panel 1	2	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.7	0.0	ND	ND
2WV-613	Sub-panel 1	28	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.7	0.2	ND	ND
2WV-614	Sub-panel 1	18	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.5	0.2	ND	ND
2WV-616	Sub-panel 2	23	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.4	0.2	ND	ND
2WV-618	Sub-panel 2	52	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.0	0.2	ND	ND
2WV-619	Sub-panel 1	26	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.2	0.2	ND	ND
2WV-620	Sub-panel 1	64	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.0	0.2	ND	ND
2WV-621	Sub-panel 2	24	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.0	0.5	0.3	ND	ND
2WV-622	Sub-panel 1	<0.5	**1.1**	-	**Unknown**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.6	0.2	ND	ND
2WV-623	Sub-panel 2	40	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.1	0.9	0.3	ND	ND
2WV-625	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.5	0.2	ND	ND
2WV-626	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.4	0.2	ND	ND
2WV-628	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.1	0.2	ND	ND
2WV-629	Sub-panel 1	12	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.0	0.2	ND	ND
2WV-630	Sub-panel 1	128	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.2	0.2	ND	ND
2WV-634	N/D	50	**3.3**	**3.5**	1:16	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.9	0.0	0.3	ND	ND
2WV-635	Sub-panel 2	145	**0.6**	**0.6**	**Unknown**	+	+	+	+	-	+	+	**258**	**127**	**333**	**647**	1.8	0.3	0.2	**90**	**171**
2WV-636	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.8	0.2	ND	ND
2WV-637	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.5	0.2	ND	ND
2WV-638	Sub-panel 1	8	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.3	0.2	ND	ND
2WV-639	Sub-panel 1	28	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.1	0.2	ND	ND
2WV-640	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.0	0.2	ND	ND
2WV-641	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.2	0.2	ND	ND
2WV-642	Sub-panel 2	28	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.3	0.2	ND	ND
2WV-643	Sub-panel 1	5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.5	0.2	ND	ND
2WV-644	Sub-panel 2	178	**3.2**	**2.9**	**Unknown**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.2	0.3	ND	ND
2WV-646	Sub-panel 1	48	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.5	0.2	ND	ND
2WV-647	Sub-panel 1	24	**2.9**	**2.3**	**Unknown**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.2	0.2	ND	ND
2WV-648	Sub-panel 2	99	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.3	0.2	0.2	ND	ND
2WV-649	Sub-panel 1	<0.5	**2.8**	**2.2**	**DIII**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.1	0.2	ND	ND
2WV-650	Sub-panel 1	105	**3.2**	**4.0**	**FL**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	5.8	7.9	4.7	ND	ND
2WV-651	Sub-panel 1	114	**3.3**	**4.1**	**FL**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	5.8	7.4	4.4	ND	ND
2WV-653	Sub-panel 1	56	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.0	0.5	0.2	ND	ND
2WV-655	Sub-panel 1	13	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.8	0.2	ND	ND
2WV-657	Sub-panel 1	118	-	-	ND	+	+	+	+	-	-	+	ND	153	ND	**1,143**	0.7	0.2	0.2	ND	ND
2WV-658	Sub-panel 1	89	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.7	0.2	0.2	ND	ND
2WV-659	Sub-panel 1	87	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.3	0.2	ND	ND
2WV-661	Sub-panel 2	26	-	**0.6**	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.2	0.2	ND	ND
2WV-662	Sub-panel 1	79	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.1	0.2	ND	ND
2WV-663	Sub-panel 1	116	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.1	0.3	ND	ND
2WV-664	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.5	0.2	ND	ND
2WV-665	Sub-panel 1	200	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.3	0.2	ND	ND
2WV-666	Sub-panel 1	213	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.0	0.2	ND	ND
2WV-667	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.3	0.2	ND	ND
2WV-668	Sub-panel 1	84	**0.6**	**0.3**	**Unknown**	+	+	+	+	-	+	+	**158**	**109**	**262**	**272**	0.4	0.1	0.2	**128**	**195**
2WV-669	Sub-panel 1	11	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.0	0.2	ND	ND
2WV-670	Sub-panel 1	174	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.2	0.2	ND	ND
2WV-671	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	0.2	0.2	ND	ND
2WV-673	Sub-panel 2	143	**3.1**	**2.8**	**DIII**	+	-	-	-	-	ND	ND	ND	ND	ND	ND	2.2	0.9	0.2	ND	ND
2WV-674	Sub-panel 1	7	**3.5**	**3.4**	**Unknown**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.7	0.2	ND	ND
2WV-677	Sub-panel 1	52	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.1	0.4	0.2	ND	ND
2WV-679	Sub-panel 1	190	**1.9**	**1.8**	1:16	+	+	+	+	-	+	+	ND	**1,300**	ND	**2,809**	2.0	0.1	0.2	ND	ND
2WV-680	Sub-panel 1	75	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.1	0.2	ND	ND
2WV-681	Sub-panel 2	128	**3.2**	**3.5**	1:16	+	+	+	+	-	+	+	ND	**184**	**1,891**	**1,114**	2.7	0.8	0.2	**>3,000**	**420**
2WV-683	Sub-panel 1	3	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.2	0.2	ND	ND
2WV-685	Sub-panel 2	31	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.2	0.2	ND	ND
2WV-686	Sub-panel 2	33	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.1	0.4	0.2	ND	ND
2WV-687	Sub-panel 2	116	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.6	0.3	ND	ND
2WV-689	Sub-panel 2	89	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.4	0.2	ND	ND
2WV-690	Sub-panel 1	150	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.0	0.2	0.2	ND	ND
2WV-692	Sub-panel 1	33	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.7	0.3	0.2	ND	ND
2WV-693	Sub-panel 1	30	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.3	0.3	ND	ND
2WV-694	Sub-panel 1	4	**1.0**	**0.7**	1:16	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.3	0.2	ND	ND
2WV-695	Sub-panel 1	114	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.3	0.2	ND	ND
2WV-696	Sub-panel 1	4	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.7	0.8	0.3	ND	ND
2WV-697	Sub-panel 1	64	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.4	0.3	ND	ND
2WV-698	Sub-panel 1	21	-	-	ND	-	+	-	-	-	-	-	ND	ND	ND	ND	0.6	0.5	0.3	ND	ND
2WV-699	Sub-panel 1	138	**1.6**	**1.4**	**DIII**	+	+	+	+	-	-	-	ND	ND	ND	**1,421**	2.0	0.2	0.3	ND	ND
2WV-700	Sub-panel 1	126	**3.6**	**3.5**	**Unknown**	+	-	-	-	-	ND	ND	ND	ND	ND	ND	2.2	1.1	1.3	ND	ND
2WV-701	Sub-panel 1	58	**3.4**	**3.2**	**DII**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.1	0.3	0.3	ND	ND
2WV-702	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.5	0.2	ND	ND
2WV-704	Sub-panel 1	44	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.4	0.8	0.2	ND	ND
2WV-705	Sub-panel 1	15	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.8	0.3	ND	ND
2WV-706	Sub-panel 1	110	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.1	0.9	0.3	ND	ND
2WV-707	Sub-panel 1	108	**3.6**	**3.9**	**FL**	-	-	-	+	-	ND	ND	ND	ND	ND	ND	5.8	4.8	4.4	ND	ND
2WV-708	Sub-panel 1	127	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.2	0.6	0.3	ND	ND
2WV-709	Sub-panel 1	174	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.7	0.3	ND	ND
2WV-711	Sub-panel 1	3	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.9	0.3	ND	ND
2WV-714	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.3	0.3	ND	ND
2WV-715	Sub-panel 1	130	**1.8**	**1.8**	**Unknown**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.0	0.8	0.3	ND	ND
2WV-716	Sub-panel 1	155	**3.3**	**4.2**	**FL**	-	-	-	-	-	ND	ND	ND	ND	ND	ND	2.3	5.7	7.6	ND	ND
2WV-717	Sub-panel 1	43	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.4	0.2	ND	ND
2WV-718	N/D	45	**3.7**	**4.1**	**FL**	+	+	-	+	-	-	+	ND	ND	ND	**1,639**	4.4	4.7	5.0	ND	ND
2WV-719	Sub-panel 1	99	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.1	0.4	ND	ND
2WV-720	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.2	0.3	ND	ND
2WV-721	Sub-panel 1	27	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.1	0.3	ND	ND
2WV-722	Sub-panel 2	127	-	-	ND	-	+	+	-	-	-	-	ND	ND	ND	ND	0.6	0.1	0.3	ND	ND
2WV-723	Sub-panel 1	18	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.5	0.3	ND	ND
2WV-724	Sub-panel 1	1	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.6	0.3	ND	ND
2WV-726	Sub-panel 1	4	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.3	0.2	ND	ND
2WV-727	Sub-panel 1	105	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.0	0.2	ND	ND
2WV-728	Sub-panel 1	53	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.1	0.4	ND	ND
2WV-729	Sub-panel 2	45	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.0	0.3	ND	ND
2WV-730	Sub-panel 1	105	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.2	0.3	ND	ND
2WV-731	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.2	0.3	ND	ND
2WV-733	Sub-panel 1	80	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.2	0.3	ND	ND
2WV-734	Sub-panel 1	162	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.2	0.3	ND	ND
2WV-736	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.2	0.3	ND	ND
2WV-737	Sub-panel 1	107	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.7	0.3	ND	ND
2WV-738	Sub-panel 1	21	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.0	0.4	ND	ND
2WV-739	Sub-panel 1	<0.5	**2.6**	**1.0**	1:16	+	+	+	+	-	+	+	ND	ND	**1,676**	**1,678**	0.3	0.0	0.2	ND	ND
2WV-741	Sub-panel 1	31	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.2	0.3	ND	ND
2WV-742	Sub-panel 1	83	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.1	0.0	0.3	ND	ND
2WV-743	Sub-panel 1	40	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	1.0	0.4	0.3	ND	ND
2WV-752	Sub-panel 1	203	**3.6**	**3.8**	**DIII**	+	+	+	+	-	+	+	**7**	**16**	**15**	**16**	3.1	1.2	0.8	**7**	**16**
2WV-754	Sub-panel 1	191	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.2	0.3	ND	ND
2WV-760	Sub-panel 1	55	-	-	ND	-	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.2	0.3	ND	ND

Supplementary Table 2 continued. Summary of antibody discovery approaches and characterization assays.

ZAV-764	Sub-panel 1	44	**3.6**	**4.0**	**FL**	-	-	-	-	ND	ND	ND	ND	ND	ND	4.6	2.4	-0.4	ND	ND
ZAV-770	Sub-panel 1	2	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.1	-0.3	ND	ND
ZAV-771	Sub-panel 1	2	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.4	0.1	-0.3	ND	ND
ZAV-772	Sub-panel 1	3	**3.7**	**2.7**	1:17	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.2	-0.2	ND	ND
ZAV-773	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	-0.4	-0.2	ND	ND
ZAV-774	Sub-panel 1	82	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.1	ND	ND
ZAV-775	Sub-panel 1	45	**0.4**	**0.5**	**Unknown**	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	-0.2	-0.2	ND	ND
ZAV-776	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.1	-0.3	ND	ND
ZAV-777	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.3	-0.4	ND	ND
ZAV-778	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.2	-0.3	ND	ND
ZAV-779	Sub-panel 1	27	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.2	-0.3	ND	ND
ZAV-780	Sub-panel 1	84	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.3	-0.3	ND	ND
ZAV-781	Sub-panel 1	43	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.2	-0.2	ND	ND
ZAV-782	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.3	-0.2	ND	ND
ZAV-784	Sub-panel 1	4	-	-	ND	+	+	-	+	-	-	ND	ND	ND	ND	0.7	0.1	-0.2	ND	ND
ZAV-786	Sub-panel 1	74	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	0.3	-0.4	ND	ND
ZAV-789	Sub-panel 1	83	**3.5**	**3.5**	**Unknown**	-	-	-	-	ND	ND	ND	ND	ND	ND	4.2	3.3	2.7	ND	ND
ZAV-790	Sub-panel 1	16	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.2	-0.3	ND	ND
ZAV-792	Sub-panel 1	78	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	0.3	-0.2	ND	ND
ZAV-793	Sub-panel 1	189	**3.8**	**4.0**	**FL**	-	-	-	-	ND	ND	ND	ND	ND	ND	8.9	6.7	7.6	ND	ND
ZAV-794	Sub-panel 2	133	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	1.8	0.4	-0.3	ND	ND
ZAV-795	Sub-panel 1	218	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	0.1	-0.2	ND	ND
ZAV-796	Sub-panel 2	13	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.2	-0.2	ND	ND
ZAV-797	Sub-panel 1	78	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	0.2	-0.4	ND	ND
ZAV-798	Sub-panel 1	115	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.9	0.7	-0.3	ND	ND
ZAV-799	Sub-panel 1	142	**1.9**	**1.5**	**Unknown**	-	-	-	-	ND	ND	ND	ND	ND	ND	0.9	1.1	0.2	ND	ND
ZAV-800	Sub-panel 1	24	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.3	-0.2	ND	ND
ZAV-801	Sub-panel 1	75	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.1	-0.2	ND	ND
ZAV-802	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.4	-0.4	ND	ND
ZAV-803	Sub-panel 1	4	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.3	-0.2	ND	ND
ZAV-804	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	0.3	-0.3	ND	ND
ZAV-805	Sub-panel 1	83	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	0.2	-0.4	ND	ND
ZAV-806	Sub-panel 1	14	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.1	-0.3	ND	ND
ZAV-807	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.3	-0.1	ND	ND
ZAV-810	Sub-panel 1	54	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.4	-0.2	-0.2	ND	ND
ZAV-811	Sub-panel 1	143	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.9	0.1	-0.2	ND	ND
ZAV-813	Sub-panel 1	19	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.2	ND	ND
ZAV-814	Sub-panel 2	22	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.8	-0.2	-0.2	ND	ND
ZAV-815	Sub-panel 1	10	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.6	-0.2	ND	ND
ZAV-816	Sub-panel 1	115	**3.6**	**3.8**	1:16	+	+	+	+	+	+	ND	**218**	**1,761**	**513**	9.2	0.8	-0.4	**>3,000**	**299**
ZAV-817	Sub-panel 1	10	**3.5**	**3.0**	**Unknown**	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.1	-0.2	ND	ND
ZAV-818	Sub-panel 1	79	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	0.2	-0.1	ND	ND
ZAV-819	Sub-panel 1	12	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	-0.1	-0.2	ND	ND
ZAV-820	Sub-panel 1	14	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.2	-0.2	ND	ND
ZAV-821	Sub-panel 1	2	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.5	-0.3	ND	ND
ZAV-822	Sub-panel 1	300	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.3	-0.2	ND	ND
ZAV-826	Sub-panel 1	35	**3.7**	**4.0**	**FL**	-	-	-	-	ND	ND	ND	ND	ND	ND	3.3	1.2	1.5	ND	ND
ZAV-830	Sub-panel 1	4	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.3	-0.4	ND	ND
ZAV-832	Sub-panel 1	35	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.1	-0.2	ND	ND
ZAV-841	Sub-panel 1	62	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.3	-0.3	ND	ND
ZAV-842	Sub-panel 2	72	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.3	ND	ND
ZAV-843	Sub-panel 2	46	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.3	-0.4	ND	ND
ZAV-844	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.8	-0.3	ND	ND
ZAV-845	Sub-panel 1	282	**3.8**	**4.0**	**Unknown**	+	+	+	+	-	+	ND	ND	ND	ND	2.7	3.9	1.4	ND	ND
ZAV-846	Sub-panel 1	34	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.7	-0.3	ND	ND
ZAV-847	Sub-panel 1	71	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.3	-0.8	-0.4	ND	ND
ZAV-848	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.8	-0.2	ND	ND
ZAV-849	Sub-panel 1	57	**3.3**	**3.5**	**Unknown**	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.5	-0.2	ND	ND
ZAV-850	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.8	-0.2	ND	ND
ZAV-851	Sub-panel 1	36	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.8	-0.6	-0.2	ND	ND
ZAV-852	Sub-panel 2	48	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.3	-0.2	ND	ND
ZAV-853	Sub-panel 2	23	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.2	-0.2	ND	ND
ZAV-854	Sub-panel 1	45	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.1	-0.1	-0.1	ND	ND
ZAV-855	Sub-panel 1	40	**1.8**	**1.6**	**Unknown**	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	0.0	-0.2	ND	ND
ZAV-856	Sub-panel 1	102	**3.5**	**3.9**	**FL**	-	-	-	-	ND	ND	ND	ND	ND	ND	4.8	6.1	5.9	ND	ND
ZAV-857	Sub-panel 1	47	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.0	-0.2	ND	ND
ZAV-858	Sub-panel 1	26	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.1	-0.3	ND	ND
ZAV-859	Sub-panel 1	177	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.2	-0.2	ND	ND
ZAV-860	Sub-panel 2	84	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.2	-0.3	ND	ND
ZAV-861	Sub-panel 1	53	**3.8**	**4.1**	**FL**	-	-	-	-	ND	ND	ND	ND	ND	ND	4.4	2.3	3.9	ND	ND
ZAV-862	Sub-panel 1	52	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	0.0	-0.3	ND	ND
ZAV-863	Sub-panel 1	73	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	0.1	-0.2	ND	ND
ZAV-864	Sub-panel 2	8	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.1	-0.3	ND	ND
ZAV-865	Sub-panel 1	125	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	0.5	-0.3	ND	ND
ZAV-866	Sub-panel 1	41	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.1	-0.3	ND	ND
ZAV-867	Sub-panel 1	28	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.2	-0.2	ND	ND
ZAV-868	Sub-panel 1	234	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.2	-0.3	ND	ND
ZAV-869	Sub-panel 1	73	-	-	ND	+	+	+	+	+	+	**640**	**66**	**945**	**343**	-0.7	-0.2	-0.3	**283**	**215**
ZAV-870	Sub-panel 1	18	**2.0**	**0.9**	**Unknown**	-	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.3	-0.3	ND	ND
ZAV-871	Sub-panel 1	64	**3.2**	**3.1**	**Unknown**	+	+	+	+	-	+	ND	ND	ND	ND	0.5	0.3	-0.2	ND	ND
ZAV-872	Sub-panel 1	63	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.3	0.0	-0.2	ND	ND
ZAV-873	Sub-panel 1	97	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	0.1	-0.3	ND	ND
ZAV-874	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.1	-0.2	ND	ND
ZAV-875	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.4	-0.2	ND	ND
ZAV-876	Sub-panel 1	1	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.2	-0.3	ND	ND
ZAV-877	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.2	-0.3	ND	ND
ZAV-878	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	0.2	-0.2	ND	ND
ZAV-879	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	0.1	-0.3	ND	ND
ZAV-880	Sub-panel 2	72	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	0.1	-0.2	ND	ND
ZAV-881	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.1	-0.3	ND	ND
ZAV-882	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.3	-0.2	ND	ND
ZAV-883	Sub-panel 1	<0.5	**3.7**	**3.7**	1:16	+	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.4	-0.2	ND	ND
ZAV-884	Sub-panel 2	126	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.1	-0.3	ND	ND
ZAV-885	Sub-panel 1	8	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.2	-0.5	ND	ND
ZAV-886	Sub-panel 1	45	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	0.0	-0.2	ND	ND
ZAV-887	Sub-panel 2	20	**3.2**	**3.3**	**Unknown**	+	-	-	-	-	-	ND	ND	ND	ND	0.6	0.1	-0.2	ND	ND
ZAV-888	Sub-panel 1	5	**3.5**	**3.8**	**FL**	+	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.0	-0.2	ND	ND
ZAV-889	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.1	-0.2	ND	ND
ZAV-890	Sub-panel 1	64	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.3	-0.2	ND	ND
ZAV-891	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.2	-0.2	ND	ND
ZAV-892	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.2	-0.2	ND	ND
ZAV-893	Sub-panel 2	14	**0.8**	-	**Unknown**	+	+	+	+	+	+	**<183**	**<174**	**113**	**124**	0.2	0.2	-0.2	**33**	**64**
ZAV-894	Sub-panel 1	4	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	0.1	-0.2	ND	ND
ZAV-895	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.1	0.1	-0.2	ND	ND
ZAV-896	Sub-panel 1	143	**1.5**	**1.3**	**DIII**	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.9	0.1	ND	ND
ZAV-897	Sub-panel 2	14	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.0	0.0	-0.2	ND	ND
ZAV-898	Sub-panel 2	2	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.3	-0.2	ND	ND
ZAV-900	Sub-panel 2	2	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.2	-0.2	ND	ND
ZAV-901	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.2	-0.3	ND	ND
ZAV-902	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.1	-0.2	ND	ND
ZAV-903	Sub-panel 1	2	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	0.2	-0.2	ND	ND
ZAV-905	Sub-panel 1	34	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	0.1	-0.2	ND	ND
ZAV-906	Sub-panel 2	1	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.1	-0.3	ND	ND
ZAV-907	Sub-panel 1	47	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.1	-0.2	ND	ND
ZAV-908	Sub-panel 1	43	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.3	-0.4	-0.2	ND	ND
ZAV-909	Sub-panel 1	10	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.3	-0.3	ND	ND
ZAV-910	Sub-panel 1	7	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.0	-0.2	ND	ND
ZAV-911	Sub-panel 1	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.1	0.0	-0.3	ND	ND
ZAV-912	Sub-panel 1	1	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	0.1	-0.2	ND	ND
ZAV-913	Sub-panel 1	8	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	0.1	-0.3	ND	ND
ZAV-914	Sub-panel 1	17	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.0	-0.2	ND	ND
ZAV-915	Sub-panel 1	11	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.2	-0.2	ND	ND
ZAV-916	Sub-panel 1	85	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.3	-0.2	ND	ND
ZAV-917	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.3	-0.3	ND	ND
ZAV-918	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.2	-0.2	ND	ND
ZAV-919	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.1	-0.3	ND	ND
ZAV-920	Sub-panel 2	<0.5	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.1	-0.2	ND	ND
ZAV-921	Sub-panel 2	<0.5	**2.1**	**2.5**	**DIII**	+	+	+	+	+	+	ND	**42**	ND	ND	-0.2	-0.1	-0.3	ND	ND
ZAV-922	Sub-panel 2	4	**3.2**	**3.7**	**DIII**	+	+	+	+	+	+	ND	**<205**	ND	**479**	-0.3	-0.1	-0.2	**>3,000**	**235**
ZAV-923	Sub-panel 2	7	-	-	ND	-	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.1	-0.2	ND	ND
ZAV-924	Sub-panel 2	11	**1.5**	**2.7**	**DIII**	+	+	+	+	+	+	ND	**587**	**2,729**	**821**	-0.6	-0.4	-0.2	ND	ND
DMV-117 control	-	116	**4.0**	**3.9**	DII	+	ND	+	+	+	+	**3**	**5**	**53**	**55**	0.4	1.6	2.3	ND	ND
ZAV-804	ND	3	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.5	-0.4	ND	ND
ZAV-805	ND	53	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.5	-0.4	ND	ND
ZAV-844	Sub-panel 2	103	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.3	-0.4	ND	ND
ZAV-846	ND	<0.5	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	0.1	-0.5	-0.4	ND	ND
ZAV-849	ND	37	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.4	ND	ND
ZAV-850	ND	<0.5	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.5	-0.4	ND	ND
ZAV-866	ND	4	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.1	-0.4	-0.4	ND	ND
ZAV-880	Sub-panel 2	54	-	-	ND	+	ND	+	+	-	+	ND	ND	ND	ND	1.2	-0.3	-0.4	ND	ND
ZAV-918	Sub-panel 1	71	**3.6**	**3.5**	**DIII**	+	ND	+	+	+	+	ND	**59**	ND	**1,970**	0.8	0.3	-0.4	ND	ND
ZAV-522	Sub-panel 2	<0.5	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.4	-0.4	ND	ND
ZAV-523	Sub-panel 2	88	**4.1**	**3.6**	ND	+	ND	-	-	-	+	ND	ND	ND	ND	1.3	0.6	-0.4	ND	ND
ZAV-524	Sub-panel 1	23	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.4	-0.4	ND	ND
ZAV-535	ND	<0.5	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.4	ND	ND
ZAV-542	Sub-panel 1	31	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.4	-0.4	ND	ND
ZAV-565	ND	<0.5	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.5	-0.4	ND	ND
ZAV-578	Sub-panel 2	20	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.5	-0.4	ND	ND
ZAV-581	Sub-panel 1	78	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.4	-0.4	ND	ND
ZAV-582	Sub-panel 1	45	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.4	-0.4	ND	ND

Supplementary Table 2 continued. Summary of antibody discovery approaches and characterization assays.

ZHV-588	Sub-panel 1	26	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.5	-0.4	-0.4	ND	ND
ZHV-590	Sub-panel 1	43	**3.5**	**3.1**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.3	0.8	1.5	ND	ND
ZHV-594	Sub-panel 1	40	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.4	-0.4	ND	ND
ZHV-596	Sub-panel 1	53	**0.9**	**0.8**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.5	1.5	0.8	ND	ND
ZHV-598	Sub-panel 2	53	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.9	-0.4	-0.4	ND	ND
ZHV-603	Sub-panel 1	65	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.1	-0.4	-0.4	ND	ND
ZHV-607	Sub-panel 2	33	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.5	-0.4	ND	ND
ZHV-609	Sub-panel 1	56	**4.1**	**4.0**	**DII**	+	ND	+	+	+	+	+	**36**	**38**	**367**	**115**	2.1	3.4	3.8	**204**	**125**
ZHV-615	Sub-panel 1	28	**3.8**	**3.3**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	2.9	1.7	1.6	ND	ND
ZHV-617	Sub-panel 2	37	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.5	-0.4	-0.4	ND	ND
ZHV-624	Sub-panel 2	78	-	-	**Unknown**	+	ND	+	+	+	+	+	**5**	**20**	**127**	**466**	1.2	0.5	-0.1	689	160
ZHV-627	Sub-panel 1	38	**3.5**	**2.5**	ND	+	ND	-	+	-	+	+	ND	ND	ND	**2,669**	1.6	0.7	1.3	ND	ND
ZHV-631	Sub-panel 2	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.4	-0.4	ND	ND
ZHV-632	Sub-panel 1	89	**4.0**	**3.2**	ND	+	ND	-	+	-	+	+	ND	ND	ND	ND	0.6	0.1	-0.4	ND	ND
ZHV-633	Sub-panel 1	47	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.5	-0.4	ND	ND
ZHV-645	Sub-panel 1	44	**4.0**	**3.8**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.6	3.8	3.3	ND	ND
ZHV-652	Sub-panel 2	51	**3.8**	**3.7**	**DII**	+	ND	+	+	+	+	+	**49**	**71**	**567**	**156**	2.7	2.7	3.1	**309**	**192**
ZHV-654	Sub-panel 1	57	**3.9**	**4.0**	ND	-	ND	-	+	-	ND	ND	ND	ND	ND	ND	1.2	3.2	1.6	ND	ND
ZHV-656	Sub-panel 1	0	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.6	-0.4	-0.4	ND	ND
ZHV-660	Sub-panel 2	38	**3.7**	**3.4**	ND	+	ND	+	+	+	+	+	ND	**26**	ND	**204**	1.1	0.3	-0.4	ND	ND
ZHV-672	Sub-panel 1	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.3	-0.5	-0.4	ND	ND
ZHV-675	Sub-panel 1	33	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.5	-0.4	ND	ND
ZHV-676	Sub-panel 1	43	**4.0**	**4.1**	ND	-	ND	-	+	-	ND	ND	ND	ND	ND	ND	1.2	2.7	3.5	ND	ND
ZHV-678	Sub-panel 1	17	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	2.6	0.1	0.6	ND	ND
ZHV-682	Sub-panel 1	12	**3.9**	**3.6**	**Unknown**	+	ND	+	+	+	+	+	**178**	**221**	**2,071**	**839**	2.4	1.8	2.3	**221**	**204**
ZHV-684	Sub-panel 1	52	**4.0**	**3.7**	**DIII**	+	ND	+	+	+	+	+	**59**	**215**	**602**	**1,399**	1.6	0.7	-0.3	ND	ND
ZHV-688	Sub-panel 1	60	**3.9**	**3.9**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.5	4.3	2.8	ND	ND
ZHV-703	Sub-panel 1	19	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	2.7	-0.5	-0.4	ND	ND
ZHV-710	Sub-panel 1	35	**4.0**	**3.8**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	2.6	4.0	2.5	ND	ND
ZHV-712	Sub-panel 1	30	**4.0**	**3.8**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	2.1	2.8	2.4	ND	ND
ZHV-713	Sub-panel 1	24	**0.7**	**0.3**	ND	+	ND	+	+	+	+	+	ND	**329**	ND	**2,150**	0.1	-0.2	-0.4	ND	ND
ZHV-725	Sub-panel 2	16	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.4	-0.4	ND	ND
ZHV-732	Sub-panel 1	21	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.4	-0.4	ND	ND
ZHV-735	Sub-panel 1	29	-	-	ND	-	ND	+	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.4	ND	ND
ZHV-740	Sub-panel 1	42	-	-	ND	-	ND	+	-	-	ND	ND	ND	ND	ND	ND	0.8	-0.4	-0.4	ND	ND
ZHV-744	Sub-panel 2	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.1	-0.5	-0.4	ND	ND
ZHV-745	Sub-panel 1	32	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.4	ND	ND
ZHV-746	Sub-panel 1	46	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.5	-0.4	ND	ND
ZHV-747	Sub-panel 2	35	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.2	-0.5	-0.4	ND	ND
ZHV-748	Sub-panel 1	43	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.5	-0.4	ND	ND
ZHV-749	Sub-panel 1	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.5	-0.4	ND	ND
ZHV-750	Sub-panel 1	0	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.5	-0.4	ND	ND
ZHV-751	Sub-panel 1	<0.5	-	-	ND	-	ND	+	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.4	-0.4	ND	ND
ZHV-753	Sub-panel 1	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.5	-0.4	ND	ND
ZHV-755	Sub-panel 1	35	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.1	-0.4	-0.4	ND	ND
ZHV-756	Sub-panel 1	12	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.4	-0.4	ND	ND
ZHV-757	Sub-panel 1	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.5	-0.4	ND	ND
ZHV-758	Sub-panel 2	39	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.4	-0.4	ND	ND
ZHV-759	Sub-panel 1	7	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	2.9	-0.2	-0.4	ND	ND
ZHV-761	Sub-panel 2	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.4	-0.4	ND	ND
ZHV-762	Sub-panel 2	2	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.0	-0.5	-0.4	ND	ND
ZHV-763	Sub-panel 1	54	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.0	-0.4	-0.4	ND	ND
ZHV-765	Sub-panel 2	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.5	-0.4	ND	ND
ZHV-766	Sub-panel 1	24	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.5	-0.4	ND	ND
ZHV-767	Sub-panel 1	53	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.5	-0.4	ND	ND
ZHV-768	Sub-panel 2	34	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.8	-0.4	-0.4	ND	ND
ZHV-769	Sub-panel 2	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.5	-0.4	ND	ND
ZHV-783	Sub-panel 2	20	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.4	-0.4	ND	ND
ZHV-785	Sub-panel 1	28	**4.1**	**3.9**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.8	3.5	3.3	ND	ND
ZHV-787	Sub-panel 1	56	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.1	-0.4	-0.4	ND	ND
ZHV-788	Sub-panel 1	78	**4.1**	**3.4**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.8	3.7	2.7	ND	ND
ZHV-791	Sub-panel 1	48	**0.5**	**0.3**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.2	0.3	-0.1	ND	ND
ZHV-808	Sub-panel 1	32	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.2	-0.4	-0.4	ND	ND
ZHV-809	Sub-panel 1	76	**2.0**	**1.9**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.1	1.2	2.7	ND	ND
ZHV-812	Sub-panel 1	39	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.4	-0.4	ND	ND
ZHV-823	Sub-panel 1	85	**3.9**	**3.2**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.6	1.0	2.3	ND	ND
ZHV-824	Sub-panel 1	52	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.4	-0.4	ND	ND
ZHV-825	Sub-panel 1	11	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.5	-0.4	ND	ND
ZHV-827	Sub-panel 2	50	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.4	-0.4	ND	ND
ZHV-828	Sub-panel 1	32	**0.6**	**0.7**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	2.6	1.5	2.1	ND	ND
ZHV-829	Sub-panel 1	16	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.1	-0.4	-0.4	ND	ND
ZHV-831	Sub-panel 1	68	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.4	-0.4	ND	ND
ZHV-833	Sub-panel 1	33	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.9	-0.4	-0.4	ND	ND
ZHV-834	Sub-panel 1	51	**0.2**	**0.2**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.8	0.0	0.6	ND	ND
ZHV-835	Sub-panel 1	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.1	-0.5	-0.4	ND	ND
ZHV-836	Sub-panel 1	35	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.4	-0.4	ND	ND
ZHV-837	Sub-panel 1	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.1	-0.5	-0.4	ND	ND
ZHV-838	Sub-panel 2	58	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.4	-0.4	ND	ND
ZHV-926	Sub-panel 3	44	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.3	-0.4	-0.4	ND	ND
ZHV-927	Sub-panel 3	31	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.4	-0.4	ND	ND
ZHV-928	Sub-panel 3	45	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.1	-0.4	-0.4	ND	ND
ZHV-929	Sub-panel 3	3	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.7	-0.4	-0.4	ND	ND
ZHV-930	Sub-panel 3	50	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.3	-0.4	ND	ND
ZHV-931	Sub-panel 3	1	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.3	-0.4	ND	ND
ZHV-932	Sub-panel 3	92	**3.5**	**3.0**	ND	+	ND	+	+	+	+	+	ND	ND	ND	**1,475**	0.6	0.0	-0.4	ND	ND
ZHV-933	Sub-panel 3	67	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.4	-0.4	ND	ND
ZHV-934	Sub-panel 3	28	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.4	-0.4	ND	ND
ZHV-935	Sub-panel 3	23	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.4	ND	ND
ZHV-936	Sub-panel 3	42	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.5	-0.4	ND	ND
ZHV-937	Sub-panel 3	34	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.3	-0.4	-0.4	ND	ND
ZHV-938	Sub-panel 3	19	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.4	-0.4	ND	ND
ZHV-939	Sub-panel 3	30	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.1	-0.4	-0.4	ND	ND
ZHV-940	Sub-panel 3	79	**2.9**	**1.4**	**Unknown**	+	ND	+	+	+	+	+	**8**	**22**	**72**	**81**	0.6	-0.2	0.4	**22**	**52**
ZHV-941	Sub-panel 3	95	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.4	-0.4	ND	ND
ZHV-942	Sub-panel 3	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.4	ND	ND
ZHV-943	Sub-panel 3	29	**3.9**	**3.8**	ND	+	ND	-	-	-	+	+	ND	ND	ND	ND	1.6	1.8	2.1	ND	ND
ZHV-944	Sub-panel 3	25	**4.0**	**3.8**	ND	+	ND	-	-	-	+	+	ND	ND	ND	ND	1.5	1.6	1.7	ND	ND
ZHV-945	Sub-panel 3	1	**4.0**	**3.5**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	1.7	1.2	1.3	ND	ND
ZHV-946	Sub-panel 3	2	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.4	-0.5	-0.4	ND	ND
ZHV-947	Sub-panel 3	38	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.4	-0.4	ND	ND
ZHV-948	Sub-panel 3	1	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.5	-0.4	ND	ND
ZHV-949	Sub-panel 3	56	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.3	-0.5	-0.4	ND	ND
ZHV-950	Sub-panel 3	28	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.4	-0.4	ND	ND
ZHV-951	Sub-panel 3	39	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.8	-0.4	-0.4	ND	ND
ZHV-952	Sub-panel 3	67	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.4	-0.4	ND	ND
ZHV-953	Sub-panel 3	53	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.4	-0.4	ND	ND
ZHV-954	Sub-panel 3	56	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.4	ND	ND
ZHV-955	Sub-panel 3	58	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.4	ND	ND
ZHV-956	Sub-panel 3	56	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.5	-0.4	ND	ND
ZHV-957	Sub-panel 3	82	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.2	-0.5	-0.4	ND	ND
ZHV-958	Sub-panel 3	53	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.3	-0.4	-0.4	ND	ND
ZHV-959	Sub-panel 3	13	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.4	-0.4	ND	ND
ZHV-961	Sub-panel 3	1	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.8	-0.5	-0.4	ND	ND
ZHV-962	Sub-panel 3	44	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.4	-0.4	ND	ND
ZHV-964	Sub-panel 3	63	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.4	-0.4	ND	ND
ZHV-965	Sub-panel 3	49	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.9	-0.4	-0.4	ND	ND
ZHV-966	Sub-panel 3	62	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.9	-0.4	-0.4	ND	ND
ZHV-969	Sub-panel 3	4	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.4	-0.4	ND	ND
ZHV-968	Sub-panel 3	0	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.4	-0.4	ND	ND
ZHV-970	Sub-panel 3	3	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.4	-0.4	-0.4	ND	ND
ZHV-971	Sub-panel 3	3	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.9	-0.5	-0.4	ND	ND
ZHV-972	Sub-panel 3	4	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.4	-0.4	ND	ND
ZHV-973	Sub-panel 3	8	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.5	-0.4	ND	ND
ZHV-974	Sub-panel 3	6	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.4	-0.4	ND	ND
ZHV-975	Sub-panel 3	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.2	-0.5	-0.4	ND	ND
ZHV-976	Sub-panel 3	5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.4	-0.4	ND	ND
ZHV-977	Sub-panel 3	1	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.3	-0.5	-0.4	ND	ND
ZHV-978	Sub-panel 3	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.9	-0.4	-0.4	ND	ND
ZHV-979	Sub-panel 3	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.5	-0.4	ND	ND
ZHV-980	Sub-panel 3	27	**1.8**	**1.2**	**Unknown**	+	ND	+	+	+	+	+	**17**	**33**	**51**	**50**	2.4	0.8	-0.4	**101**	**45**
ZHV-981	Sub-panel 3	4	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.4	-0.4	ND	ND
ZHV-982	Sub-panel 3	6	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.4	-0.4	ND	ND
ZHV-983	Sub-panel 3	5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.5	-0.4	ND	ND
ZHV-984	Sub-panel 3	13	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.4	-0.4	-0.4	ND	ND
ZHV-985	Sub-panel 3	7	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.6	-0.5	-0.4	ND	ND
ZHV-986	Sub-panel 3	4	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	-0.4	-0.4	ND	ND
ZHV-987	Sub-panel 3	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.7	-0.5	-0.4	ND	ND
ZHV-988	Sub-panel 3	<0.5	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.0	-0.4	-0.4	ND	ND
ZHV-989	Sub-panel 3	26	**3.1**	**2.2**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.3	0.3	0.7	ND	ND
ZHV-990	Sub-panel 3	47	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.1	-0.4	-0.4	ND	ND
ZHV-991	Sub-panel 3	69	**2.3**	**0.9**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.6	0.0	0.2	ND	ND
ZHV-992	Sub-panel 3	33	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.2	-0.5	-0.4	ND	ND
ZHV-993	Sub-panel 3	38	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.2	-0.4	-0.4	ND	ND
ZHV-994	Sub-panel 3	65	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.1	-0.4	-0.4	ND	ND
ZHV-995	Sub-panel 3	44	**1.5**	**0.4**	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	0.5	0.1	0.5	ND	ND
ZHV-996	Sub-panel 3	52	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.2	-0.4	-0.4	ND	ND
ZHV-997	Sub-panel 3	48	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.9	-0.3	-0.4	ND	ND
ZHV-998	Sub-panel 3	39	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.8	-0.4	-0.4	ND	ND
ZHV-999	Sub-panel 3	24	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-1.1	-0.4	-0.4	ND	ND
ZHV-1000	Sub-panel 3	66	-	-	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	ND	-0.2	0.2	-0.3	ND	ND

Supplementary Table 2 continued. Summary of antibody discovery approaches and characterization assays.

ZIKV-1001	Sub-panel 3	55	**3.2**	**1.2**	ND	+	ND	+	+	+	+	ND	**97**	ND	**1,666**	0.6	1.1	2.1	ND	ND
ZIKV-1002	Sub-panel 3	4	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-1.2	-0.4	-0.4	ND	ND
ZIKV-1003	Sub-panel 3	18	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.5	-0.4	-0.4	ND	ND
ZIKV-1004	Sub-panel 3	<0.5	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	0.2	-0.5	-0.4	ND	ND
ZIKV-1005	Sub-panel 3	<0.5	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-1.0	-0.5	-0.4	ND	ND
ZIKV-1016	Sub-panel 3	49	**4.0**	**3.5**	**117**	+	ND	+	+	+	+	**42**	**75**	**334**	**284**	0.8	2.7	2.1	**128**	**138**
ZIKV-1017	Sub-panel 3	39	**3.8**	**2.2**	**Unknown**	+	ND	+	+	+	+	**382**	**202**	**1,820**	**534**	0.5	0.8	1.8	**1,100**	**426**
ZIKV-839	Sub-panel 1	57	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-1.2	-0.4	-0.4	ND	ND
ZIKV-840	Sub-panel 1	1	**4.0**	**3.6**	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-0.6	0.5	1.2	ND	ND
ZIKV-898	Sub-panel 1	28	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-1.2	-0.4	-0.4	ND	ND
ZIKV-904	Sub-panel 1	83	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-1.4	-0.4	-0.4	ND	ND
ZIKV-925	ND	58	-	-	ND	-	ND	-	-	ND	ND	ND	ND	ND	ND	-1.6	-0.5	-0.4	ND	ND

* mAbs were isolated by indicated B cell labeling and sorting approach. Sub-panel 1 - labeling with biotinylated E; Sub-panel 2 - labeling with intact E followed by detection with fusion loop-specific mAb; labeling and detection is the same as for Sub-panel 2 and sorting of high-affinity population only. ND – not determined when cells were pooled from different sorting approaches for the analysis.

** Total volume of each purified mAb was 100 µL. The limit of IgG detection was 5 µg/mL, and the amount mAbs that could not be detected by the assay used is indicated as <0.5 µg.

*** O.D. 450 nm of 0.3 (three-fold over the negative control) was set as a threshold for mAb reactivity, and non-reactive mAbs are indicated with "-" symbol.

**** mAbs of known epitope specificity included ZIKV-88 (recognizes FL), ZIKV-116 (recognizes DIII), and ZIKV-117 (recognizes DII) as from a previous report[1].

***** Each mAb was tested in a single dilution from micro-scale purified samples and mAb concentration was not normalized. Z-score (z) = (x-µ)/σ, where x is raw score that determined as described in the **Methods**, µ is the mean of the population, and σ is the standard deviation of the population.

ND - not determined. "-" symbol indicates neutralizing activity was not detected at the highest tested mAb concentration, 3,000 ng/mL.

Supplementary Table 3. Inferred antibody germline genes and variable region analysis of selected lead candidates that tested *in vivo* in mice.

mAb clone	Heavy chain variable gene sequence					Light chain variable gene sequence			
	V-gene and allele	D-gene and allele	J-gene and allele	CDR3 amino acid sequence	Percent identity of germline	V-gene and allele	J-gene and allele	CDR3 amino acid sequence	Percent identity of germline
ZIKV-423	3-23*01	3-10*01	4*02	AKDRTSGGFGELFKH	89	1-5*03	1*01	QHYHSYPWT	95
ZIKV-434	3-48*03	3-3*01	4*02	ARDRYDFWSGDPMGYFDY	92	1-5*03	1*01	QQYNRGSWT	94
ZIKV-518	2-5*01	6-13*01	5*02	AHTVLVSRNWYVLNWFDP	97	2-14*01	1*01	QVWDDSSDQWV	98
ZIKV-608	3-23*04	3-10*01	4*02	AKDRPSLGVGELYDY	91	1-5*03	J1*01	QQYNSYPWT	100
ZIKV-609	3-23*01	6-19*01	4*02	AKDHPQWLGSHE	94	3-21*02	J1*01	QVWDSTRDQYV	98
ZIKV-624	3-11*05	2-2*02	6*03	ARDRRLYTPYYHYYMDV	98	1-44*01	J3*02	AAWDDSLNGRV	98
ZIKV-635	3-30*18	6-13*01	3*02	AKDSAGRRWQQLSAGI	97	2-28*01	J1*01	MQALQTPWT	99
ZIKV-652	3-23*01	6-19*01	4*02	AKVIDQWLGFDY	97	3-21*02	J3*02	QVWDSSSDQWV	99
ZIKV-668	3-49*05	3/15-3a*01	5*02	TRDFNDFWTGHHPNWFDP	98	1-39*01	1*01	QQSYSIPRT	99
ZIKV-681	3-23*04	3-10*01	4*02	AKDRVVRGVGENLDH	89	1-27*01	1*01	QKYNSVPWT	92
ZIKV-682	3-30*18	1-26*01	4*02	AKEREWEVRDGGFDY	97	3-21*02	2*01	QVWHSNTDHVV	98
ZIKV-684	3-73*01	3-22*01	4*02	IRQGGYYESSEFDY	96	1-40*01	2*01	QSYDSSLTVHVV	98
ZIKV-752	1-8*01	6-19*01	6*02	ARVTSGSSYGTTYYYYYAMDV	96	1-47*01	3*02	ASWDDRLSGSWV	97
ZIKV-869	3-13*01	2-2*01	6*02	ARVAHHSEYHLLYMPHGMDV	96	2-23*01	3*02	CSYTDNSPYVL	97
ZIKV-893	3-30*18, 3-30-5*01	3-16*02	4*02	AKVGSHYYDYIWGTYRRFDY	97	1-39*01	3*01	QQYGSSPPVT	100
ZIKV-922	3-23*04	3-10*01	4*02	AKDRPSRGVGELYDY	92	1-5*03	J1*01	QQYLSYPWT	95
ZIKV-940	4-59*01	6-19*01	4*02	ARDCASGWDGCDF	96	1-44*01	1*01	AAWDDSLNGYV	99
ZIKV-980	3-30*04	6-19*01	6*02	VRDRKVAGQMIRHGMDV	96	8-61*01	3*02	TLYMGSGISV	98
ZIKV-1006	3-33*01	3-10*01	3*02	ARVGVRGADDAFDI	94	3-21*02	3*02	QVWDSNSDHGV	97
ZIKV-1007	3-9*01	4-17*01	4*02	AKTKAYGDFHFDY	97	3-21*02	2*01	QLWDTSSNPHVV	98

Supplementary Table 4. Efficacy of mAb-encoding RNA formulation and IgG protein treatment against ZIKV *in vivo* in mice.

mAb clone	Prophylatic RNA treatment, # survived/treated mice (% survival)	IgG protein treatment, # survived/treated mice (% survival)						
		Prophylaxis dose per mouse, d-1					Treatment dose per mouse, 1 dpi	
		70 µg	9 µg	4.5 µg	2 µg	1 µg	9 µg	4.5 µg
ZIKV-423	2/5 (40%)	ND	ND	ND	ND	ND	ND	ND
ZIKV-434	5/5 (100%)	1/5 (20%)	ND	ND	ND	ND	ND	ND
ZIKV-518	0/5(0%)	ND	ND	ND	ND	ND	ND	ND
ZIKV-608	0/5 (0%)	ND	ND	ND	ND	ND	ND	ND
ZIKV-609	5/5 (100%)	ND	2/5 (40%)	ND	ND	ND	ND	ND
ZIKV-624	5/5 (100%)	ND	3/5 (60%)	ND	ND	ND	ND	ND
ZIKV-635	5/5 (100%)	5/5 (100%)	5/5 (100%)	ND	ND	ND	ND	ND
ZIKV-652	5/5 (100%)	ND	ND	ND	ND	ND	ND	ND
ZIKV-668	5/5 (100%)	4/5 (80%)	5/5 (100%)	ND	ND	ND	ND	ND
ZIKV-681	2/5 (40%)	ND	ND	ND	ND	ND	ND	ND
ZIKV-682	4/5 (80%)	ND	ND	ND	ND	ND	ND	ND
ZIKV-684	5/5 (100%)	ND	ND	ND	ND	ND	ND	ND
ZIKV-752	4/5 (80%)	5/5 (100%)	11/14 (79%)	7/9 (78%)	2/4 (50%)	2/4 (50%)	3/5 (60%)	3/5 (60%)
ZIKV-869	2/5 (40%)	ND	4/5 (80%)	ND	ND	ND	ND	ND
ZIKV-893	5/5 (100%)	5/5 (100%)	14/14 (100%)	4/4 (100%)	4/4 (100%)	0/4 (0%)	5/5 (100%)	4/5 (80%)
ZIKV-922	0/5 (0%)	ND	ND	ND	ND	ND	ND	ND
ZIKV-940	5/5 (100%)	ND	9/13 (69%)	3/4 (75%)	2/4 (50%)	2/4 (50%)	5/5 (100%)	4/5 (80%)
ZIKV-980	1/5 (20%)	ND	0/5 (0%)	ND	ND	ND	ND	ND
ZIKV-1006	0/5 (0%)	ND	1/5 (20%)	ND	ND	ND	ND	ND
ZIKV-1007	0/5 (0%)	ND	ND	ND	ND	ND	ND	ND
ZIKV-117 control	5/5 (100%)	ND	14/14 (100%)	9/9 (100%)	3/4 (75%)	0/4 (0%)	4/5 (80%)	5/5 (100%)
FLU-5J8 control	1/5 (0%)	2/5 (40%)	0/5 (0%)	ND	ND	ND	1/5 (20%)	1/5 (20%)
PBS control	1/5 (0%)	ND	ND	1/4 (25%)	1/4 (25%)	1/4 (25%)	ND	ND

References for Supplementary Information.

1. Sapparapu, G. *et al.* Neutralizing human antibodies prevent Zika virus replication and fetal disease in mice. *Nature* **540**, 443-447 (2016).