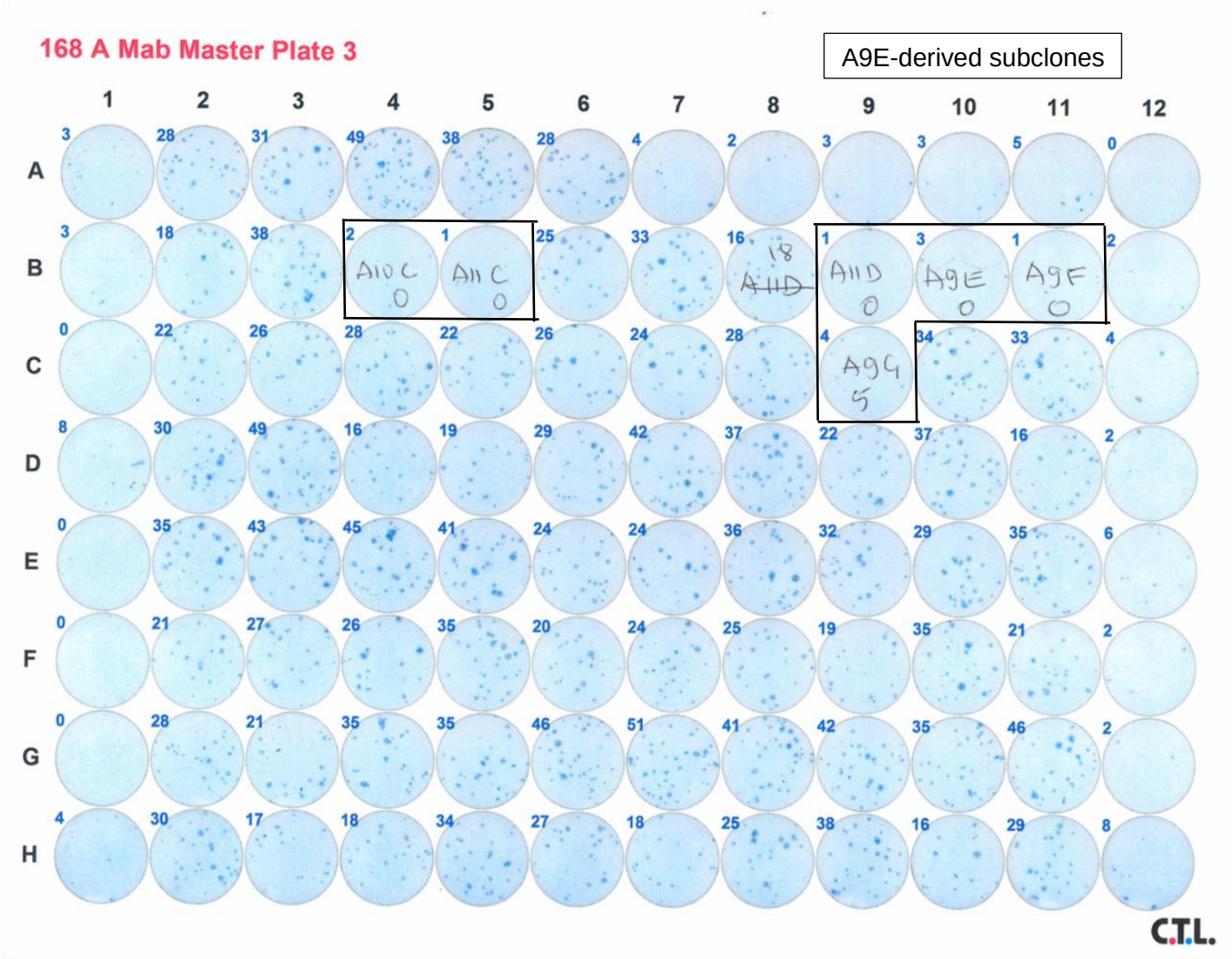
Supplementary material

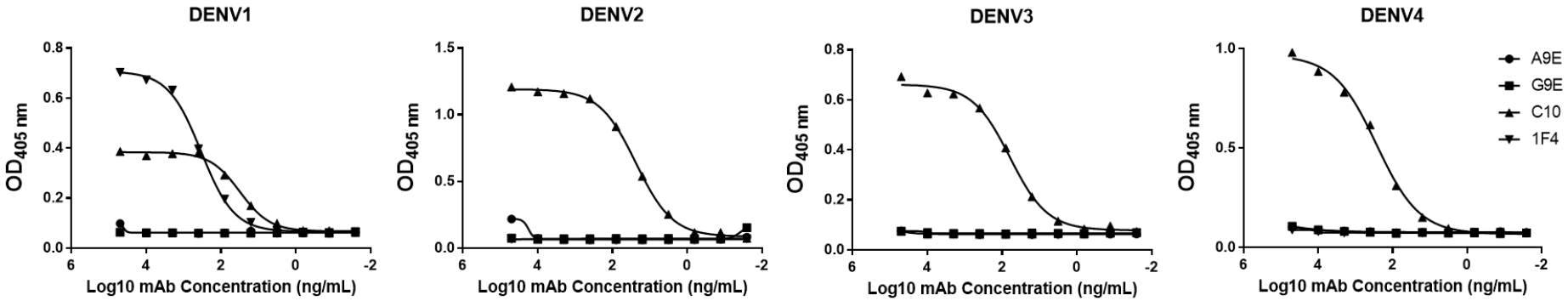
a **Human antibody response to Zika targets type-specific quaternary structure epitopes**



b

Supplementary Figure 1 | Selecting Clones exhibiting ZIKV neutralization

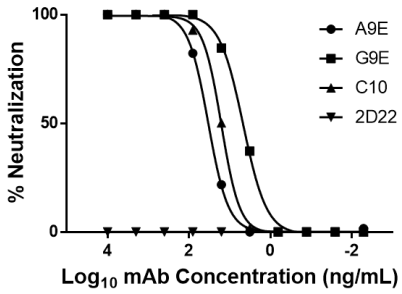
(a) Supernatants from monoclonal culture wells with IgG binding to ZIKV but not DENV were screened for ZIKV neutralization activity. 30 µL of supernatant was mixed directly (neat) with 2x infectious virus stock of H/PF/2013 ZIKV, which was then used to infect Vero cells. A few supernatants strongly inhibited ZIKV infection, see well B10 for example; this well is labeled “A9E” to designate the corresponding monoclonal culture. (b) Supernatants with neutralization activity when undiluted were selected to perform FRNT assay over a dilution series as a crude estimate of neutralization potency of mAb. Note the “G9E” is run in replicate in columns 5 and 6 and exhibits greater than 50% neutralization until at least the 1:40 dilution. The strongly-neutralizing mAb C10 was run in columns 9 and 10 as a positive control.



Supplementary Figure 2 | A9E and G9E do not bind to any DENV serotype

Both A9E and G9E were tested for binding to each indicated DENV serotype over the range of concentrations listed on the x-axes. C10 was run as a positive control for DENV virus binding and a DENV1 type-specific mAb (1F4) was included as a positive control for serotype-specific binding.

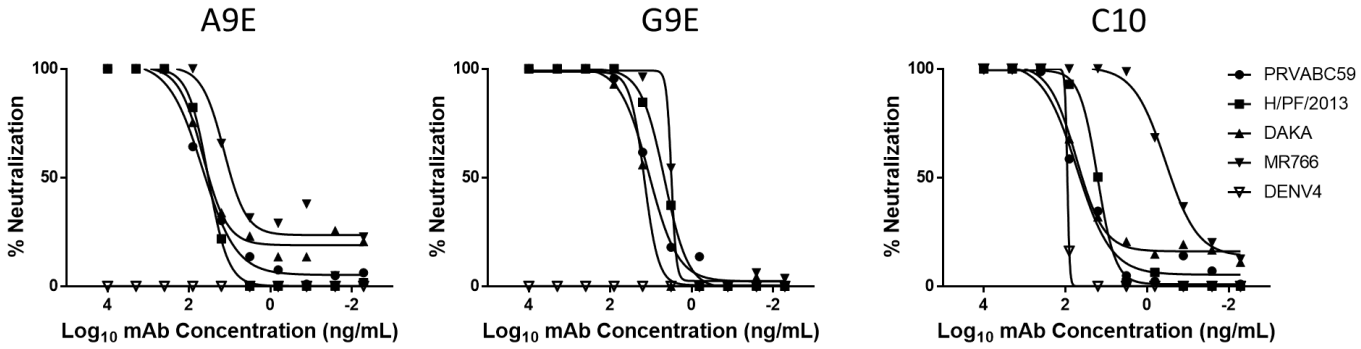
a



c

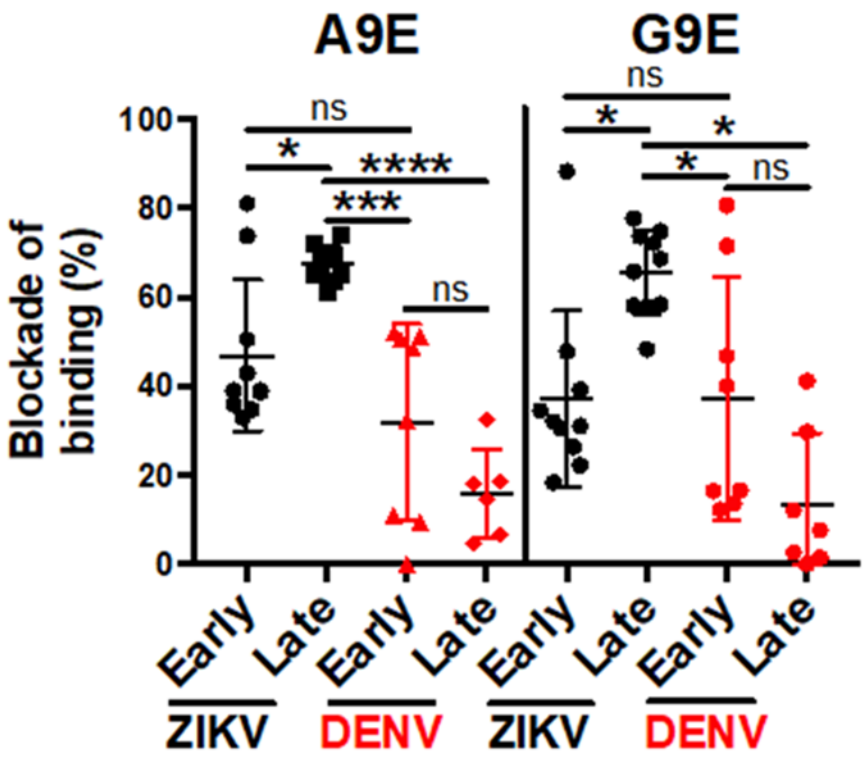
	PRVABC59	HPF2013	DAKA	MR766	DENV4
A9E	46	34	45	14	-
G9E	11	5	15	3	-
EDE1 C10	52	16	54	0.4	89

b



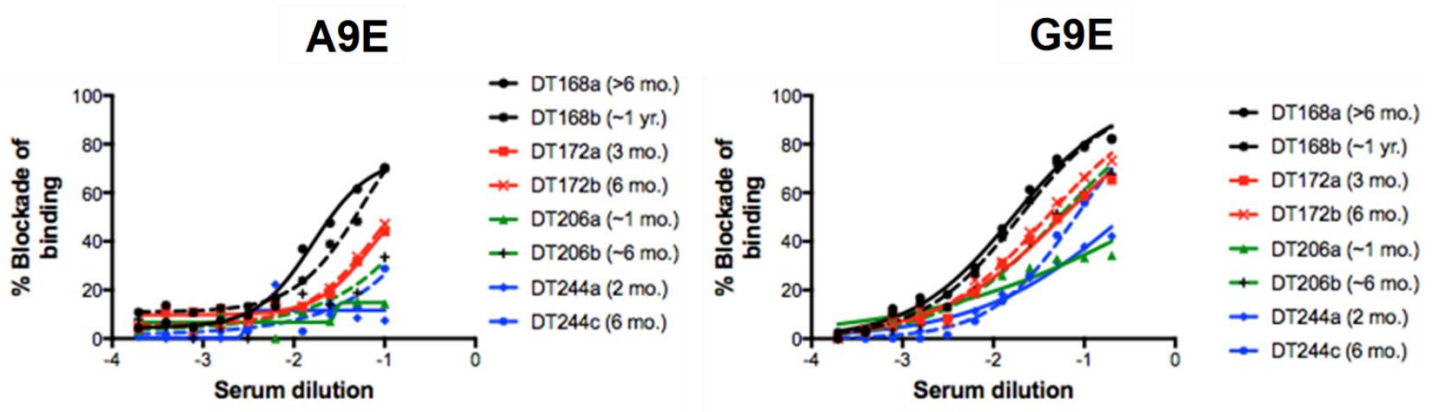
Supplementary Figure 3 | Neutralization of African and Asian strains of ZIKV by human mAbs

(a) The relative potency of candidate ZIKV mAb vs C10 mAb was determined with FRNT assays using H/PF/2013. (b) The indicated mAb in each panel was tested for neutralization activity against a panel of viruses representing ZIKV strains ranging from the original African isolate (MR766) to the recent Latin American outbreak (PRVABC59, from Puerto Rico). (c) The inset shows the $FRNT_{50}$ (ng/mL) to each virus for A9E, G9E and C10.



Supplementary Figure 4 | Greater BOB cross-reactivity in early versus late DENV cases

BOB activity was assessed in immune plasma from PCR-confirmed ZIKV cases in Nicaragua and DENV cases in Sri Lanka were divided as Early (≤1 month) and Late (≥1month post symptom onset).



Supplementary Figure 5 | Plasma from primary ZIKV cases block binding of ZIKV mAb

Blockade of binding against A9E and G9E was tested among paired plasma obtained at the indicated time points from primary ZIKV cases among Traveler. Data are depicted as dilution curves for each subject at the time indicated in legend.