

**S3 Table. MAb neutralization, ELISA binding, and EM epitope mapping.**

mAb	Timepoint	Neutralization IC <sub>50</sub> (µg/mL)		Binding EC <sub>50</sub>		Epitope targeted
		BG505 WT	BG505 N611A	SOSIP ELISA	gp120 ELISA	
RM19A	week 22	41.8	>50	++	+++	289 hole epitope*
RM19A1	week 25	44.9	>50	+++	+++	289 hole epitope
RM19A2	week 25	>50	>50	+++	+++	289 hole epitope*
RM19A3	week 25	>50	<0.41	++	+	289 hole epitope*
RM19B	week 22	n.d.	n.d.	++	-	base
RM19B1	week 22	>50	>50	+	-	base
RM19C	week 22	n.d.	n.d.	+	-	base
RM19C2	week 25	n.d.	n.d.	++	-	base
RM19C3	week 25	>50	>50	++	-	base
RM19C4	week 25	>50	>50	++	+	base*
RM19D	week 22	>50	>50	+++	+++	n.d.
RM19E	week 22	n.d.	n.d.	+	-	base
RM19F	week 22	n.d.	n.d.	+	-	base
RM19F1	week 22	n.d.	n.d.	++	-	base*
RM19G	week 22	n.d.	n.d.	++	-	base
RM19J	week 25	>50	>50	++	-	289 hole epitope
RM19K	week 25	n.d.	n.d.	+++	++	base
RM19L	week 25	n.d.	n.d.	++	-	base
RM19M	week 25	12.9	5.63	++	-	base
RM19N	week 25	>50	>50	+	+	base
RM19O	week 25	>50	25.5	+++	+++	base
RM19P	week 25	23.5	>50	+++	+++	289 hole epitope
RM19R	week 25	>50	>50	++	-	base
RM19S	week 53	>50	3.51	++	-	N611/FP
RM19T	week 25	>50	>50	++	++	289 hole epitope
RM20A	week 22	n.d.	n.d.	++	-	base*
RM20A1	week 22	n.d.	n.d.	++	-	base*
RM20A2	week 25	n.d.	n.d.	++	-	base
RM20A3	week 53	>50	>50	++	-	base
RM20B	week 25	>50	>50	+	-	base
RM20B1	week 25	n.d.	n.d.	+	-	base
RM20C	week 25	>50	>50	+	-	base
RM20D	week 25	>50	>50	++	+++	n.d.
RM20E	week 53	>50	<0.41	+++	+	N611/FP
RM20E1	week 53	>50	<0.41	++	+	N611/FP
RM20E2	week 53	>50	<0.41	++	+	N611/FP*
RM20E3	week 53	>50	<0.41	+	+	N611/FP*
RM20F	week 53	1.6	<0.41	++	+	gp120/gp41 interface
RM20G	week 53	n.d.	n.d.	++	-	base
RM20H	week 53	42.9	<0.41	++	++	gp120/gp41 interface
RM20I	week 53	>50	>50	++	++	n.d.
RM20J	week 53	>50	>50	+++	+++	289 hole epitope

\*Inferred based on clonal relationship to mAbs with epitopes mapped by ns-EM.

IC <sub>50</sub> (µg/mL)	EC <sub>50</sub> (µg/mL)	
<1	<0.1	+++
1-10	0.1-1	++
10-50	1-10	+
>50	>10	-