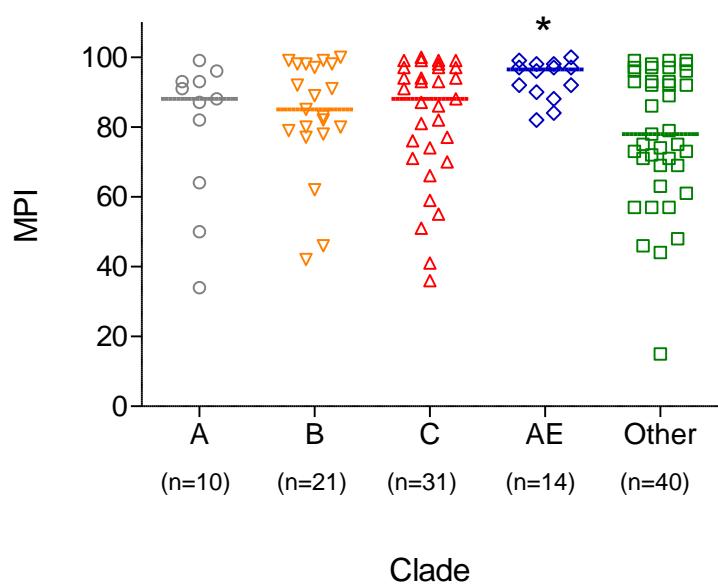
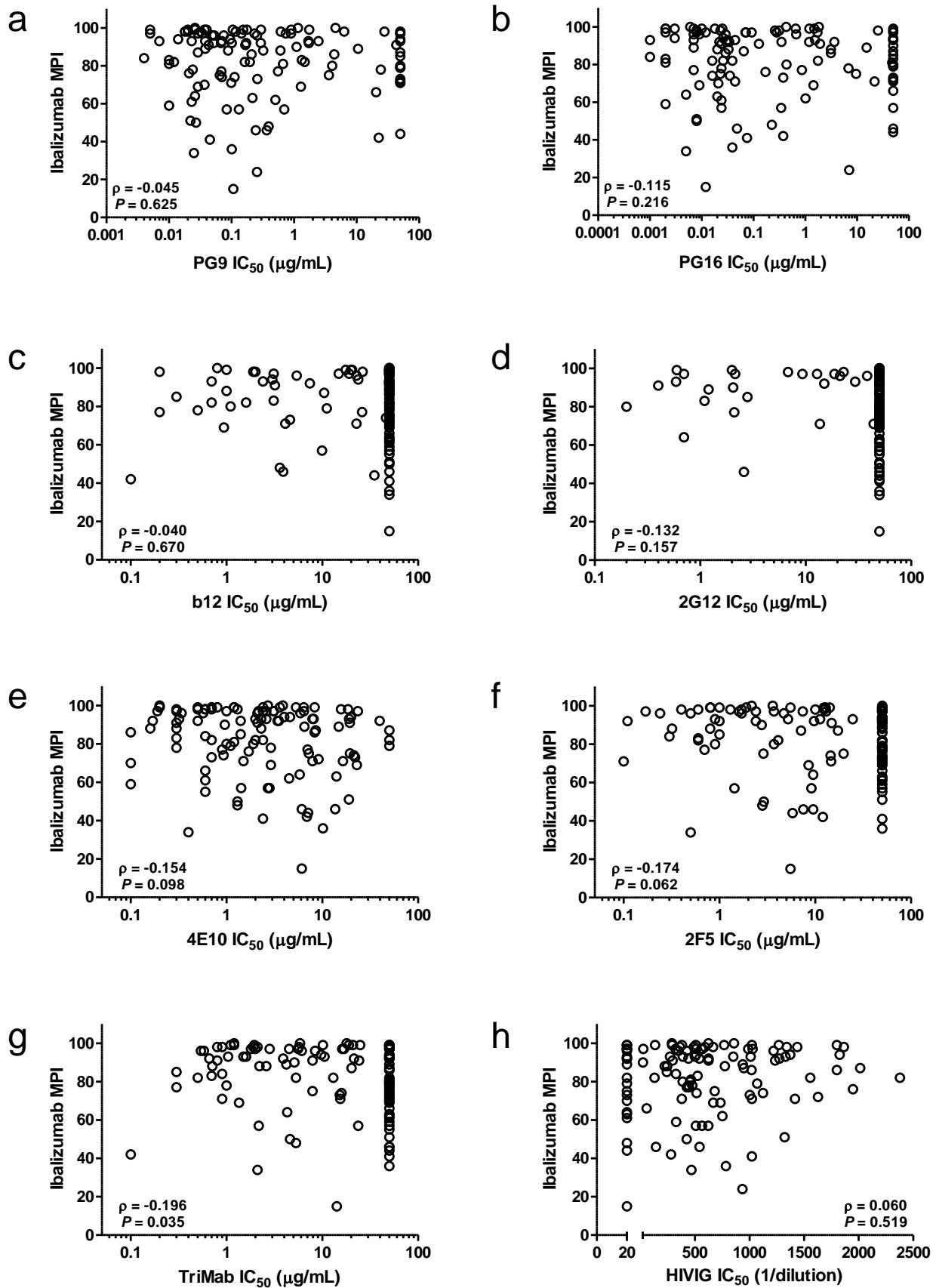


Supplemental Digital Content, Figure 1



Supplemental Digital Content, Figure 2



Supplemental Digital Content, Table 1

Median IC₅₀ (μg/ml) against viruses neutralized at maximum concentration

Clade	b12	2G12	2F5	4E10	Ibalizumab	VRC01	PG9
A	11.85	21.15	4.10	2.00	0.04	0.09	0.16
B	1.90	21.90	1.10	0.80	0.02	0.22	0.43
C	10.40	2.14	14.75	1.90	0.04	0.35	0.22
D	3.90	>50	1.43	2.30	0.10	0.25	0.10
CRF01_AE	26.30	2.05	1.21	0.88	0.03	0.41	0.08
CRF_AG	3.60	12.80	2.60	1.30	0.03	0.70	0.80
G	>50	>50	9.10	4.45	0.10	0.17	0.29
AC	46.10	>50	14.40	15.20	0.23	0.08	-
ACD	34.80	>50	9.10	11.35	0.03	0.50	-
BC	6.00	>50	>50	5.65	0.07	-	-
CD	4.10	25.45	1.70	8.10	0.07	0.04	-
Total	3.60	2.60	2.84	2.34	0.03	0.22	0.22

Supplemental Digital Content, Table 2

Percent of viruses neutralized at maximum concentration

Clade	b12	2G12	2F5	4E10	Ibalizumab	VRC01	PG9
A	18	27	100	100	91	100	85
B	62	52	33	100	90	100	74
C	48	10	6	100	94	81	78
D	80	0	100	100	100	100	76
CRF01_AE	13	13	93	93	100	100	100
CRF_AG	11	56	67	100	93	78	80
G	0	0	71	86	86	86	87
AC	25	0	75	100	75	50	-
ACD	50	0	100	100	50	100	-
BC	25	0	0	100	100	-	-
CD	20	40	60	100	100	67	-
Total	35	21	57	98	92	88	79

Supplemental Digital Content, Table 3

Percent of viruses neutralized with an IC50 <1.0 µg/mL

Clade	b12	2G12	2F5	4E10	Ibalizumab	VRC01	PG9
A	0	9	36	27	82	100	70
B	24	14	24	43	86	86	45
C	10	3	0	39	87	56	56
D	20	0	40	20	80	100	48
CRF01_AE	0	0	0	14	100	63	70
CRF_AG	0	11	0	22	93	44	40
G	0	0	0	14	86	86	60
AC	0	0	0	0	75	50	-
ACD	0	0	0	0	50	100	-
BC	0	0	0	0	88	-	-
CD	0	0	20	0	100	67	-
Total	8	5	17	31	89	72	57

Supplemental Digital Content, Table 4

Length	Clade				
	A (n=11)	B (n=21)	C (n=31)	AE (n=14)	Other (n=39)
V1	25.1 ± 5.8	29.6 ± 4.9	26.1 ± 6.7	31.7 ± 3.6 [†]	26.8 ± 6.3
V2	43.2 ± 2.8	43.9 ± 4.1	44.3 ± 2.7	41.6 ± 2.6 [†]	43.8 ± 4.0
V3	34.7 ± 0.5	34.9 ± 0.3	34.9 ± 0.3	35.1 ± 0.3	35.0 ± 0.6
V4	31.1 ± 3.2	32.2 ± 2.5	28.2 ± 4.7 [†]	28.5 ± 4.0 [†]	31.0 ± 4.3
V5	6.3 ± 1.1	7.3 ± 2.3	6.5 ± 1.3	6.4 ± 0.9	7.0 ± 1.9
total V	140.4 ± 6.4	147.9 ± 7.9 [†]	140.1 ± 9.7	143.5 ± 5.6	143.6 ± 9.4
Env PNG	28.3 ± 2.9	31.3 ± 1.6 [†]	28.7 ± 2.6	29.7 ± 2.4	30.1 ± 3.0

mean ± standard deviation

† p value <0.05

Supplemental Digital Content, Table 5

Virus	Mutant	nV5 PNGS position	Num of V5 PNGS	Infectivity [†]	Ibalizumab MPI	IC ₅₀ (μg/mL)								T-20 (DIADS)
						VRC01	b12	2F5	4E10	2G12	sCD4	Maraviroc*	T-20 (DIADS)	
RHPA4259.7	VK-NN	0.16	2	0.86	100	0.21	-	-	-	-	-	0.52	0.32	
	VD-NN	0.16	2	-	-	0.64	5.62	>8	>8	13.66	-	-	-	
	V459N	0.16	1	0.26	100	0.24	-	-	-	-	-	0.62	0.16	
	D460N	0.33	1	0.93	65	0.05	-	-	-	-	-	0.57	0.18	
	K463N	0.83	1	0.29	21	0.02	0.64	5.62	>8	>8	4.76	0.52	0.16	
	wt	1	0	0.97	42	0.01	0.28	5.37	>8	>8	4.39	0.51	0.20	
AC10.0.29	wt	0.30	2	0.75	100	0.79	>8	0.84	1.09	>8	33.33	2.24	0.18	
	N467D	0.30	1	0.66	98	0.32	-	-	-	-	-	1.93	0.22	
	N463D	0.70	1	0.67	50	0.12	>8	1.00	1.78	>8	26.13	2.30	0.20	
	NN-DD	1	0	0.74	23	0.04	6.70	0.96	1.36	>8	20.49	1.98	0.15	
CAAN5342.A2	wt	0.33	2	0.73	100	0.58	>8	>8	>8	>8	22.22	0.97	0.84	
	N459D	0.33	1	0.32	100	0.59	>8	>8	>8	>8	-	0.97	0.52	
	N456D	0.67	1	-	91	0.14	-	-	-	-	24.10	1.04	0.76	
	NN-DD	1	0	0.27	85	0.09	>8	7.01	>8	>8	30.73	-	-	

* pM

† TCID₅₀/ng p24