VIMC Antibody-Effector Assay Study: Ackerman Data

1 data

A total of n=152 fractionated purified IgG samples and n=10 unfractionated plasma samples along with n=12 monoclonal b12 mutants were evaluated in this study. The number of purified IgG samples in each group is provided blow:

CHRONIC Treated	31
chronic untreated	28
elite controller	31
VAX004	30
Placebo	10
HIV Seroneg	10
IVIG	4
HIVIG & HIVIG-C	8

Here is the list of all 16 detection reagents:

1	Total IgA	ahuIgA
2	Total IgG	ahuIgG
3	FcR	FcgRI
4	FcR	FcgRIIa
5	FcR	FcgRIIb
6	FcR	FcgRIIIa
7	FcR	FcgRIIIb
8	IgG Subclass	IgG1
9	IgG Subclass	IgG2
10	IgG Subclass	IgG3
11	IgG Subclass	IgG4
12	Lectin	LCA
13	Lectin	MBL
14	Lectin	PNA
15	Lectin	SNA
16	Lectin	VVL

Here is the list of all 19 Env antigens:

1	gp120	Chiang Mai gp120
2	gp120	93TH975 gp120
3	gp120	gp120 IIIB (CHO)
4	gp120	gp120 PVO
5	gp120	gp120 YU2
6	gp120	gp120 TRO
7	gp120	gp120 Du156.12
8	gp120	gp120 JRCSF
9	gp120	gp120 BAL
10	gp120	gp120 MN
11	gp120	gp120 Du151
12	gp120	gp120 SF162
13	gp120	gp120 ZM109F
14	gp120	gp120 CM235
15	gp140	gp140 CN54
16	gp140	gp140 Clade B
17	gp140	gp140 Du151
18	gp41	gp41 HXBc2
19	SOSIP	SOSIP

Here is the list of all other 21 antigens:

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      [,1]                 [,2]                [,3]
[1,] "HA H3N2 Perth/05" "Flu N2"           "ahuIgG"
[2,] "HA SolIsl/08"     "Flu BNA"          "HIV1 Vif (Ecoli)"
[3,] "HAV P2C-P3a"      "HIV pr55 Gag"     "HA NewCal/20/99"
[4,] "HSV1 gG"          "p24 HXBc2"        "HA Wisconsin/67/05"
[5,] "HCV E2"           "HIV1 Integrase"   "HA Brisbane/10/07"
[6,] "ahuIgM"           "HIV1 Nef"         "HIV1 Rev"
[7,] "Flu MNA"          "p24 IIIb"         "ahuIgA"
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Tables 1-8 below display the summary Mean Fluorencent Intensity (MFI) by clinical group, detection reagent or antigen.

	CHRONIC Treated	chronic untreated	elite controller	VAX004	Placebo
93TH975 gp120	7.22	7.70	7.56	7.49	5.10
Chiang Mai gp120	8.80	9.18	8.61	9.18	4.99
gp120 BAL	10.72	11.26	10.23	9.10	6.34
gp120 CM235	9.32	10.09	8.89	8.43	4.76
gp120 Du151	9.32	9.76	8.90	7.69	5.22
gp120 Du156.12	9.16	9.40	7.98	7.63	5.71
gp120 IIIB (CHO)	8.97	9.36	8.75	8.51	4.88
gp120 JRCSF	10.93	11.46	10.44	9.15	6.76
gp120 MN	9.77	10.40	9.33	8.62	5.13
gp120 PVO	9.62	10.45	9.01	7.61	5.05
gp120 SF162	11.41	11.65	10.90	9.67	7.52
gp120 TRO	9.67	10.30	8.52	8.09	5.11
gp120 YU2	10.45	10.70	10.13	10.05	5.90
gp120 ZM109F	8.95	9.07	7.85	7.12	4.73
gp140 Clade B	10.69	11.02	10.26	6.63	5.45
gp140 CN54	9.46	9.70	9.15	6.30	6.02
gp140 Du151	10.98	11.15	10.53	8.54	6.46
gp41 HXBc2	12.11	12.13	12.01	8.33	8.56
SOSIP	10.67	10.75	9.79	9.21	6.95

Table 1: Total IgG: Median MFI in log(e) scale across samples in each clinical group

	CHRONIC Treated	chronic untreated	elite controller	VAX004	Placebo
93TH975 gp120	7.25	7.64	7.61	7.23	5.34
Chiang Mai gp120	8.48	8.96	8.16	8.81	4.98
gp120 BAL	10.23	10.89	9.64	9.00	6.29
gp120 CM235	9.03	9.69	8.58	8.14	4.71
gp120 Du151	8.94	9.55	8.40	7.70	5.13
gp120 Du156.12	9.00	9.59	8.58	7.55	5.65
gp120 IIIB (CHO)	8.70	9.05	8.20	8.19	4.88
gp120 JRCSF	10.50	11.13	9.98	9.16	6.68
gp120 MN	9.23	9.99	8.68	8.51	5.08
gp120 PVO	9.18	10.12	8.76	7.56	5.00
gp120 SF162	11.14	11.49	10.59	9.55	7.40
gp120 TRO	9.28	10.13	8.53	7.93	5.17
gp120 YU2	10.02	10.54	9.58	9.77	5.82
gp120 ZM109F	8.67	8.90	8.05	7.19	4.79
gp140 Clade B	10.31	10.84	9.57	6.63	5.38
gp140 CN54	9.19	9.55	8.78	6.35	5.95
gp140 Du151	10.66	11.07	10.06	8.42	6.38
gp41 HXBc2	11.85	12.06	11.57	8.37	8.35
SOSIP	10.39	10.61	9.49	9.10	6.86

Table 2: Total IgG: Average MFI in log(e) scale across samples in each clinical group

	CHRONIC Treated	chronic untreated	elite controller	VAX004	Placebo
93TH975 gp120	1401.29	2073.93	2016.97	1377.95	208.49
Chiang Mai gp120	4815.18	7811.47	3492.39	6704.69	145.00
gp120 BAL	27642.98	53858.63	15425.73	8133.95	541.81
gp120 CM235	8352.92	16186.79	5322.88	3416.21	111.17
gp120 Du151	7616.22	14033.51	4465.49	2199.26	169.50
gp120 Du156.12	8068.64	14650.43	5323.76	1904.52	285.13
gp120 IIIB (CHO)	5978.26	8543.66	3635.85	3601.06	131.23
gp120 JRCSF	36141.74	68158.13	21616.49	9468.32	792.65
gp120 MN	10194.15	21819.18	5910.20	4980.17	161.21
gp120 PVO	9707.26	24868.60	6391.37	1913.22	148.46
gp120 SF162	68980.55	97409.25	39715.98	14086.92	1642.75
gp120 TRO	10697.02	25019.67	5083.85	2773.92	176.53
gp120 YU2	22566.98	37662.01	14511.15	17463.84	335.41
gp120 ZM109F	5839.62	7328.17	3149.31	1320.67	120.37
gp140 Clade B	29961.41	51100.42	14383.23	758.32	217.67
gp140 CN54	9809.74	14012.50	6496.41	572.57	383.86
gp140 Du151	42829.74	64417.39	23363.94	4550.37	591.41
gp41 HXBc2	139866.46	172870.55	105371.21	4297.08	4222.90
SOSIP	32555.92	40472.33	13169.33	8952.64	953.37

Table 3: Total IgG: Geometric mean MFI across samples in each clinical group

	CHRONIC Treated	chronic untreated	elite controller	VAX004	Placebo
93TH975 gp120	5.00	4.99	5.00	4.79	4.73
Chiang Mai gp120	4.82	4.75	4.72	4.51	4.51
gp120 BAL	4.82	4.81	4.70	4.58	4.52
gp120 Du151	4.70	4.71	4.65	4.54	4.61
gp120 Du156.12	4.74	4.80	4.77	4.70	4.71
gp120 IIIB (CHO)	4.42	4.47	4.44	4.26	4.16
gp120 JRCSF	4.62	4.66	4.47	4.32	4.34
gp120 MN	4.17	4.16	4.01	3.91	3.95
gp120 PVO	4.36	4.39	4.32	4.17	4.14
gp120 SF162	5.04	4.99	4.80	4.51	4.50
gp120 TRO	4.87	4.93	4.84	4.78	4.76
gp120 YU2	4.85	4.84	4.77	4.70	4.64
gp120 ZM109F	4.52	4.50	4.49	4.40	4.41
gp140 CN54	5.09	5.04	4.91	4.56	4.57
gp140 Du151	4.97	4.88	4.69	4.42	4.44
gp41 HXBc2	5.83	5.53	5.27	4.55	4.56
SOSIP	4.43	4.38	4.15	3.95	3.98

Table 4: Total IgA: Median MFI in log(e) scale across samples in each clinical group

	CHRONIC Treated	chronic untreated	elite controller	VAX004	Placebo
93TH975 gp120	5.00	5.00	4.99	4.78	4.75
Chiang Mai gp120	4.78	4.78	4.72	4.50	4.52
gp120 BAL	4.84	4.87	4.78	4.60	4.50
gp120 Du151	4.73	4.77	4.68	4.57	4.61
gp120 Du156.12	4.76	4.82	4.79	4.69	4.71
gp120 IIIB (CHO)	4.42	4.48	4.45	4.26	4.21
gp120 JRCSF	4.64	4.71	4.55	4.33	4.33
gp120 MN	4.17	4.24	4.06	3.89	3.96
gp120 PVO	4.37	4.44	4.35	4.16	4.12
gp120 SF162	5.14	5.10	4.80	4.52	4.49
gp120 TRO	4.88	4.95	4.85	4.76	4.76
gp120 YU2	4.90	4.95	4.82	4.69	4.61
gp120 ZM109F	4.55	4.57	4.53	4.40	4.39
gp140 CN54	5.13	5.11	4.92	4.57	4.57
gp140 Du151	5.04	5.02	4.71	4.43	4.41
gp41 HXBc2	5.97	5.78	5.33	4.54	4.62
SOSIP	4.50	4.46	4.29	3.94	3.97

Table 5: Total IgA: Average MFI in log(e) scale across samples in each clinical group

	CHRONIC Treated	chronic untreated	elite controller	VAX004	Placebo
93TH975 gp120	148.11	148.76	147.40	119.35	115.34
Chiang Mai gp120	119.35	119.31	112.38	90.31	91.87
gp120 BAL	125.97	130.39	119.02	99.05	90.29
gp120 Du151	113.11	117.56	107.40	96.44	100.53
gp120 Du156.12	117.31	124.43	120.11	108.61	111.43
gp120 IIIB (CHO)	83.47	88.45	85.34	70.49	67.34
gp120 JRCSF	103.73	110.87	94.57	75.61	76.04
gp120 MN	64.58	69.59	58.00	48.88	52.21
gp120 PVO	78.86	84.88	77.23	63.97	61.70
gp120 SF162	170.86	164.62	121.84	91.92	89.01
gp120 TRO	131.32	140.94	127.67	116.16	116.97
gp120 YU2	133.64	141.03	123.65	108.71	100.82
gp120 ZM109F	94.60	96.66	92.85	81.41	80.36
gp140 CN54	168.61	165.82	136.57	96.31	96.59
gp140 Du151	153.72	151.47	111.35	83.79	81.95
gp41 HXBc2	392.33	324.45	205.68	93.99	101.43
SOSIP	89.79	86.26	72.69	51.61	53.15

Table 6: Total IgA: Geometric mean MFI across samples in each clinical group

	CHRONIC Treated	chronic untreated	elite controller	VAX004	Placebo
ahuIgA	4.74	4.76	4.70	4.51	4.50
ahuIgG	9.84	10.28	9.40	8.30	5.51
FcgRI	5.59	5.98	5.39	4.70	4.23
FcgRIIa	10.31	10.90	9.51	7.54	4.86
FcgRIIb	7.58	9.18	6.88	5.21	4.67
FcgRIIIa	10.83	11.18	10.33	9.24	5.11
FcgRIIIb	10.51	10.85	10.07	5.51	4.84
IgG1	9.44	9.28	8.20	7.09	4.47
IgG2	4.42	4.62	4.41	4.30	4.16
IgG3	4.29	4.51	4.34	4.21	4.15
IgG4	4.20	4.28	4.14	6.13	4.11
LCA	8.60	8.76	8.45	7.51	7.78
MBL	4.80	4.74	4.63	4.62	4.51
PNA	5.74	5.58	5.20	5.97	5.23
SNA	9.24	9.57	9.02	9.14	9.13
VVL	4.73	4.77	4.67	4.73	4.71

Table 7: Median MFI in log(e) scale across samples and Env antigens in each clinical group

	CHRONIC Treated	chronic untreated	elite controller	VAX004	Placebo
93TH975 gp120	5.42	5.43	5.44	5.49	4.75
Chiang Mai gp120	5.11	5.32	5.10	5.32	4.56
gp120 BAL	6.97	8.46	5.91	6.53	4.90
gp120 CM235	4.38	5.18	4.19	4.93	3.95
gp120 Du151	5.20	6.10	4.99	5.00	4.61
gp120 Du156.12	5.58	6.05	5.20	5.21	4.94
gp120 IIIB (CHO)	5.08	5.47	4.88	4.99	4.29
gp120 JRCSF	7.07	8.90	6.28	6.31	4.86
gp120 MN	5.30	6.70	4.58	5.19	4.01
gp120 PVO	5.33	7.08	4.77	4.55	4.20
gp120 SF162	7.31	8.76	6.57	5.80	4.58
gp120 TRO	5.79	7.06	5.23	5.25	4.75
gp120 YU2	6.39	7.58	5.67	7.60	4.67
gp120 ZM109F	5.04	5.30	4.77	4.66	4.34
gp140 Clade B	4.61	5.70	4.42	4.29	4.17
gp140 CN54	5.76	5.92	5.39	4.80	4.71
gp140 Du151	6.51	7.86	5.96	4.88	4.44
gp41 HXBc2	10.60	10.73	10.00	5.40	5.22
SOSIP	6.43	7.21	5.22	5.23	4.11

Table 8: Median MFI in log(e) scale across samples and all detection reagents in each clinical group