Table S1: Demographics and Baseline Characteristics

	Placebo (N=12)	20 µg (N=18)	100 µg (N=18)	Overall (N=48)
Clinical site, n (%)				
George Washington University	6 (50.0)	9 (50.0)	9 (50.0)	24 (50.0)
Fred Hutchinson Cancer Research Center	6 (50.0)	9 (50.0)	9 (50.0)	24 (50.0)
Sex at Birth, n (%)				
Female	6 (50.0)	5 (27.8)	12 (66.7)	23 (47.9)
Male	6 (50.0)	13 (72.2)	6 (33.3)	25 (52.1)
Gender, n (%)				
Female	6 (50.0)	4 (22.2)	8 (44.4)	18 (37.5)
Male	5 (41.7)	13 (72.2)	6 (33.3)	24 (50.0)
Transgender Male	0 (0.0)	1 (5.6)	3 (16.7)	4 (8.3)
Transgender Female	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Gender Queer	1 (8.3)	0 (0.0)	0 (0.0)	1 (2.1)
Gender Variant or Non-Conforming	0 (0.0)	0 (0.0)	1 (5.6)	1 (2.1)
Self-Identify	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Preferred not to Answer	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Ethnicity, n (%)				
Not Hispanic and Not Latino	10 (83.3)	17 (94.4)	15 (83.3)	42 (87.5)
Hispanic or Latino	2 (16.7)	1 (5.6)	3 (16.7)	6 (12.5)
Race, n (%)				
White	8 (66.7)	15 (83.3)	10 (55.6)	33 (68.8)
Black or African American	1 (8.3)	1 (5.6)	2 (11.1)	4 (8.3)
Asian	1 (8.3)	2 (11.1)	2 (11.1)	5 (10.4)
American Indian or Alaska Native	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Native Hawaiian or Other Pacific Islander	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Multiracial[1]	2 (16.7)	0 (0.0)	3 (16.7)	5 (10.4)
Other/Unknown	0 (0.0)	0 (0.0)	1 (5.6)	1 (2.1)
Age (years) at First Vaccination				
N	12	18	18	48
Mean (SD)	29.1 (8.04)	31.9 (8.80)	28.4 (6.22)	29.9 (7.72)
Median	27.0	28.5	28.0	27.0
Range	18-46	22-48	19-40	18-48
Height (cm)				
N	12	18	18	48
Mean (SD)	170.6 (7.43)	174.6 (10.12)	167.5 (8.63)	171.0 (9.30)
Median	169.1	173.8	166.3	170.0
Range	160.0-183.5	160.0-195.6	152.4-185.4	152.4-195.6
Weight (kg)				
N	12	18	18	48
Mean (SD)	77.8 (15.97)	77.6 (10.94)	72.2 (16.26)	75.6 (14.35)
Median	74.4	76.3	70.3	72.7
Range	56.4-103.4	58.5-105.7	51.8-115.0	51.8-115.0
BMI (kg/m^2)				
N	12	18	18	48
Mean (SD)	26.7 (5.26)	25.5 (3.25)	25.5 (3.99)	25.8 (4.04)
Median	25.2	26.0	25.3	25.6
Range	20.0-34.7	18.5-29.5	19.9-33.6	18.5-34.7

N = Total number of volunteers in the randomized population within each group
n = Number of volunteers
% = Percentage of volunteers per group in each category, i.e., 100 x n/N
[1] Volunteers claiming to be of more than one race are classed as multiracial

Table S2: G001 schedule of procedures.

Visit Number		2	3			4	5	6	7	7A	8	9	10			
Study Month	-2.5	-1	0						2				4	6	8[1]	14
Study Week	-10	-4	0	0.5	1	2	3	4	8	9[2]	10[2]	11[2]	16	20	32	56
Study Day	-70	-28	0	D3	7	14	21	28	56	63	70	77	112	140	224	392
Visit Windows (Days)		-42 to +7	0	± 1	+3	± 3	± 3	± 3	± 7	-2 to +1	± 4	± 3	± 7	± 7	± 14	+28
Investigational Product/Placebo			X						X							
Leukapheresis		X									X					
FNA							X					X				
Telephone Contact				X	X									X		
Informed Consent/AOU	X															
HIV Risk Assessment	X															X
HIV Risk Reduction Counseling	X														X	X
HIV-test and Counseling	X														X[4]	X
Family Planning Counseling	X		X						X				X		X	
Social Impact Assessment																X
Comprehensive Medical History	X															
Interim Medical History		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Concomitant Medications	X	X	X			X	X	X	X	X	X	X	X[5]			
General Physical Exam	X														X	
Directed Physical Exam		X	X			X	X	X	X	X	X	X	X			X
Weight	X	X									X					
Height	X															
Vital Signs	X	X	X			X	X	X	X	X	X	X	X		X	X
Cervical & Axillary Lymph Nodes[6]			X			X[7]			X	X						
Local & Systemic Reactogenicity			X	X	X	X			X	X						
Adverse Events			X	X	X	X	X	X	X	X	X	X	X[5]			
Serious Adverse Events and/or pIMD	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X[8]
Screening labs[9]	X															
Safety labs[10]	X		X			X			X		X		X		X	
Urine dipstick	X		X						X				X		X	
Pregnancy test	X	X	X				X		X		X	X	X		X	
Serum binding antibody			X			X		X	X		X		X			
B-cell sorting (PBMCs)		X						X	X		X		X			
B-cell sorting (FNA)							X					X				
Ag-specific CD4 T cells (PBMCs)		X									X					
Plasmablasts										X						
Serum neutralization			X			X			X		X		X			

[1] Early Termination (ET): Procedures to be performed at ET are the same as Month 8, except for HIV end-of-study testing, HIV risk and social impact assessment (Month 14).
[2] Study days 63, 70 and 77 must be counted from 7,14 and 21 days respectively from time of the 2nd vaccination.
[3] The window for the first leukapheresis can occur any time after completing successful screening up to 3 weeks prior to the first vaccination. The preferred target is at least 4 weeks before first vaccination.
[4] If HIV infected, conduct ET visit, and see SOM for details.
[5] New adverse events and concomitant medications collected only through Day 28 after second vaccination.
[6] At each vaccination visit and during the reactogenicity period, an assessment of cervical and axillary lymph nodes is performed. If there are findings, continue to assess at later visits until resolved.
[7] After the first vaccination, cervical and axillary lymph nodes will be assessed at the next clinic visit.
[8] Follow-up for SAEs or potential immune-mediated diseases (pIMDs) with additional clinical follow-up, if indicated.
[9] Screening labs include testing for hepatitis B, hepatitis C, syphilis, HIV testing and safety labs.
[10] Safety labs include complete blood count with automated differential, platelet count, ALT, AST and creatinine.

Table S3: Day for each visit

			Day															
			SCR	-28 (-42 to 7)	0	3 (±1)	7 (±3)	14 (±3)	21 (±3)	28 (±3)	56 (±7)	63[a] 7dpb (-2 to 1)	70[a] 14dpb (±4)	77[a] 21dpb (±3)	112 (±7)	140 (±7)	224 (±14)	392 (0 to 28)
Site	Dose Group	Participant																
Fred Hutch	1	PubID_185	-46	-25	0	3	7	14	21	30	49	56	59	69	108	135	213	405
		PubID_077	-57	-28	0	3	8	14	21	28	49	56	63	72	112	140	210	399
		PubID_100	-36	-22	0	2	7	13	20	29	49	55	62	73	112	139	237	398
		PubID_028	-41	-26	0	2	8	14	21	30	50	55	NV[b]	NV[b]	114	133	217	402
		PubID_110	-47	-26	0	3	8	16	23	27	50	55	63	70	107	133	213	391
		PubID_154	-69	-39	0	3	8	15	20	29	57	65	70	76	113	133	211	401
		PubID_016	-54	-27	0	3	7	13	23	27	59	64	71	77	108	139	217	399
		PubID_047	-47	-28	0	2	7	12	21	30	55	61	65	78	110	140	215	407
		PubID_014	-48	-22	0	2	7	15	22	29	56	61	71	75	117	138	231	419
		PubID_180	-37	-21	0	4	9	14	21	28	56	64	71	78	113	139	225	393
		PubID_079	-60	-32	0	3	7	13	21	29	49	55	62	69	112	133	216	412
		PubID_114	-48	-28	0	3	7	14	22	29	56	61	70	77	114	140	219	408
	2	PubID_163	-51	-23	0	2	8	13	22	30	49	57	65	71	119	140	233	433
		PubID_198	-21	-58	0	2	7	13	20	28	49	55	62	70	106	146	224	392
		PubID_116	-70	-33	0	3	9	14	19	26	62	69	75	85	111	139	226	404
		PubID_092	-56	-51	0	2	8	12	19	28	62	68	72	82	111	135	231	404
		PubID_064	-42	-29	0	2	7	14	21	29	56	64	71	77	112	140	231	442
		PubID_030	-61	-27	0	2	7	16	22	30	62	68	76	82	111	139	210	398
		PubID_068	-53	-25	0	2	9	17	21	30	49	56	66	70	NV[b]	140	224	385
		PubID_112	-48	-36	0	2	7	13	21	26	51	56	62	69	118	135	217	387
		PubID_032	-48	-75	0	3	7	14	22	27	63	70	77	83	111	148	217	401
		PubID_117	-50	-29	0	4	8	14	22	28	54	61	67	75	105	134	217	391
		PubID_152	-33	-25	0	2	8	13	21	28	56	63	66	77	108	136	223	395
		PubID_059	-33	-22	0	2	7	14	21	29	62	70	72	83	106	141	210	414
George Washington University	1	PubID_036	-68	-21	0	3	7	16	18	31	50	57	67	73	101	129	227	393
		PubID_023	-70	-35	0	3	9	16	22	28	49	57	60	66	100	134	217	393
		PubID_151	-70	-29	0	2	8	14	20	28	61	65	86	82	112	145	231	420
		PubID_088	-70	-34	0	4	7	12	19	26	53	57	78	75	102	137	228	412
		PubID_005	-69	-32	0	3	8	16	21	28	59	66	81	80	122	141	224	402
		PubID_051	-57	-29	0	4	10	13	18	31	62	69	84	81	124	144	228	410
		PubID_001	-70	-35	0	3	6	10	18	24	59	69	77	80	110	144	229	402
		PubID_187	-68	-35	0	2	7	16	24	30	64	72	81	87	115	147	220	423
		PubID_153	-51	-33	0	2	8	15	22	29	54	61	65	78	106	133	215	393
		PubID_164	-69	-26	0	2	8	14	26	29	49	56	72	71	100	141	222	387
		PubID_056	-56	-26	0	2	8	14	22	28	61	69	79	85	112	133	229	398
		PubID_046	-47	-32	0	2	9	16	23	29	57	65	71	79	106	139	233	419
	2	PubID_191	-36	-26	0	2	8	13	22	29	50	55	68	69	118	133	232	397
		PubID_009	-40	-24	0	2	7	14	21	30	49	56	60	73	108	141	217	409
		PubID_062	-108	-27	0	4	7	12	18	27	62	68	78	82	111	139	238	420
		PubID_060	-53	-31	0	3	7	17	21	30	63	71	81	87	119	140	221	420
		PubID_080	-41	-31	0	4	7	15	25	25	60	69	77	81	105	140	222	399
		PubID_193	-32	-25	0	2	8	13	20	27	50	57	66	69	118	135	210	408
		PubID_172	-31	-27	0	4	7	13	21	26	NV[b]	NV[b]	NV[b]	NV[b]	NV[b]	140	229	406
		PubID_121	-32	-25	0	3	8	17	24	31	56	63	74	80	116	136	225	392
		PubID_165	-69	-31	0	2	8	14	24	30	59	65	74	80	105	133	227	395
		PubID_177	-27	-24	0	2	7	14	24	28	49	56	60	66	105	135	232	399
		PubID_070	-28	-24	0	2	8	17	21	25	58	65	74	77	112	141	227	413
		PubID_113	-60	-30	0	4	10	13	20	27	63	68	77	87	116	139	221	402

[a] Study days 63, 70 and 77 were counted from 7, 14 and 21 days, respectively, from time of the 2nd vaccination (dpb = days post boost)

[b] No visit occurred

Table S4: Grade 1 or Higher Solicited Symptoms after Any Vaccination by Maximum Reported Severity

	Placebo (N=12) n (%)				20 µg (N=18) n (%)				100 µg (N=18) n (%)				Overall (N=48) n (%)
	Any	Gr 1	Gr 2	Gr 3	Any	Gr 1	Gr 2	Gr 3	Any	Gr 1	Gr 2	Gr 3	Any
Any Solicited Symptom	11 (91.7)	6 (50.0)	2 (16.7)	3 (25.0)	18 (100.0)	3 (16.7)	10 (55.6)	5 (27.8)	17 (94.4)	2 (11.1)	10 (55.6)	5 (27.8)	46 (95.8)
Local Symptom	7 (58.3)	6 (50.0)	1 (8.3)	0 (0.0)	18 (100.0)	5 (27.8)	11 (61.1)	2 (11.1)	17 (94.4)	6 (33.3)	10 (55.6)	1 (5.6)	42 (87.5)
Pain	6 (50.0)	5 (41.7)	1 (8.3)	0 (0.0)	18 (100.0)	9 (50.0)	8 (44.4)	1 (5.6)	15 (83.3)	9 (50.0)	5 (27.8)	1 (5.6)	39 (81.3)
Tenderness	4 (33.3)	4 (33.3)	0 (0.0)	0 (0.0)	18 (100.0)	8 (44.4)	10 (55.6)	0 (0.0)	16 (88.9)	7 (38.9)	8 (44.4)	1 (5.6)	38 (79.2)
Erythema/Skin Discoloration	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	4 (22.2)	2 (11.1)	1 (5.6)	1 (5.6)	3 (16.7)	2 (11.1)	1 (5.6)	0 (0.0)	7 (14.6)
Swelling/Hardening or Thickening	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (16.7)	2 (11.1)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	4 (8.3)
Systemic Symptom	10 (83.3)	5 (41.7)	2 (16.7)	3 (25.0)	18 (100.0)	9 (50.0)	5 (27.8)	4 (22.2)	16 (88.9)	2 (11.1)	9 (50.0)	5 (27.8)	44 (91.7)
Headache	5 (41.7)	2 (16.7)	1 (8.3)	2 (16.7)	15 (83.3)	12 (66.7)	3 (16.7)	0 (0.0)	15 (83.3)	8 (44.4)	7 (38.9)	0 (0.0)	35 (72.9)
Malaise	3 (25.0)	2 (16.7)	0 (0.0)	1 (8.3)	17 (94.4)	11 (61.1)	5 (27.8)	1 (5.6)	15 (83.3)	3 (16.7)	10 (55.6)	2 (11.1)	35 (72.9)
Chills/Shivering	3 (25.0)	2 (16.7)	0 (0.0)	1 (8.3)	13 (72.2)	7 (38.9)	3 (16.7)	3 (16.7)	13 (72.2)	7 (38.9)	4 (22.2)	2 (11.1)	29 (60.4)
Generalized Myalgia/Muscle Pain	4 (33.3)	4 (33.3)	0 (0.0)	0 (0.0)	9 (50.0)	4 (22.2)	5 (27.8)	0 (0.0)	11 (61.1)	6 (33.3)	3 (16.7)	2 (11.1)	24 (50.0)
Nausea	4 (33.3)	2 (16.7)	2 (16.7)	0 (0.0)	7 (38.9)	6 (33.3)	1 (5.6)	0 (0.0)	12 (66.7)	8 (44.4)	2 (11.1)	2 (11.1)	23 (47.9)
Arthralgia/Joint Pain	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)	6 (33.3)	5 (27.8)	1 (5.6)	0 (0.0)	8 (44.4)	4 (22.2)	3 (16.7)	1 (5.6)	15 (31.3)
Abdominal Pain	2 (16.7)	1 (8.3)	0 (0.0)	1 (8.3)	3 (16.7)	2 (11.1)	1 (5.6)	0 (0.0)	5 (27.8)	4 (22.2)	1 (5.6)	0 (0.0)	10 (20.8)
Fever	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	4 (22.2)	3 (16.7)	1 (5.6)	0 (0.0)	4 (22.2)	3 (16.7)	1 (5.6)	0 (0.0)	8 (16.7)
Diarrhea	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)	4 (22.2)	4 (22.2)	0 (0.0)	0 (0.0)	2 (11.1)	2 (11.1)	0 (0.0)	0 (0.0)	7 (14.6)
Vomiting	2 (16.7)	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	0 (0.0)	1 (5.6)	3 (6.3)

N = Total number of volunteers in the safety analysis population per group
n = For the 'Any' columns, cells present the number of volunteers with at least one Grade 1 or higher event (volunteers with >1 reported event are counted only once). For the by-grade columns, cells present the number of volunteers with at least one event at the maximum reported severity (volunteers with >1 reported event are counted only once and only at the maximum reported severity).
% = Percentage of volunteers in each category, i.e., 100 x n/N
Gr = Grade
Solicited symptoms are reported through 7 days post-vaccination (i.e., 8-day follow-up period) and are considered related to IP.
Maximum reported severity over all events was grade 3.
Specific events are presented by descending overall frequency of volunteers with an event.

Table S5: Unsolicited AEs through 28 Days of the Final Vaccination by MedDRA SOC, PT, and Maximum Reported Severity

	Placebo (N=12) n (%)				20 µg (N=18) n (%)				100 µg (N=18) n (%)				Overall (N=48) n (%)
MedDRA SOC/PT	Any	Gr 1	Gr 2	Gr 3	Any	Gr 1	Gr 2	Gr 3	Any	Gr 1	Gr 2	Gr 3	Any
Any AE	11 (91.7)	7 (58.3)	3 (25.0)	1 (8.3)	15 (83.3)	9 (50.0)	4 (22.2)	2 (11.1)	10 (55.6)	6 (33.3)	4 (22.2)	0 (0.0)	36 (75.0)
Infections and infestations	6 (50.0)	4 (33.3)	1 (8.3)	1 (8.3)	9 (50.0)	6 (33.3)	2 (11.1)	1 (5.6)	4 (22.2)	2 (11.1)	2 (11.1)	0 (0.0)	19 (39.6)
Upper respiratory tract infection	6 (50.0)	4 (33.3)	1 (8.3)	1 (8.3)	5 (27.8)	3 (16.7)	1 (5.6)	1 (5.6)	3 (16.7)	2 (11.1)	1 (5.6)	0 (0.0)	14 (29.2)
Rhinitis	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Conjunctivitis	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Cystitis	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Hordeolum	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Lyme disease	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	1 (2.1)
Viral infection	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Gastrointestinal disorders	3 (25.0)	2 (16.7)	1 (8.3)	0 (0.0)	5 (27.8)	5 (27.8)	0 (0.0)	0 (0.0)	3 (16.7)	3 (16.7)	0 (0.0)	0 (0.0)	11 (22.9)
Paraesthesia oral	3 (25.0)	3 (25.0)	0 (0.0)	0 (0.0)	3 (16.7)	3 (16.7)	0 (0.0)	0 (0.0)	3 (16.7)	3 (16.7)	0 (0.0)	0 (0.0)	9 (18.8)
Diarrhoea	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Dyspepsia	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Gastrooesophageal reflux disease	1 (8.3)	0 (0.0)	1 (8.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Nervous system disorders	2 (16.7)	2 (16.7)	0 (0.0)	0 (0.0)	4 (22.2)	3 (16.7)	1 (5.6)	0 (0.0)	2 (11.1)	1 (5.6)	1 (5.6)	0 (0.0)	8 (16.7)
Headache	2 (16.7)	2 (16.7)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (6.3)
Dizziness	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	1 (2.1)
Hypoaesthesia	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (4.2)
Presyncope	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	2 (4.2)
Disturbance in attention	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Tension headache	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	1 (2.1)
Musculoskeletal and connective tissue disorders	4 (33.3)	3 (25.0)	1 (8.3)	0 (0.0)	1 (5.6)	0 (0.0)	0 (0.0)	1 (5.6)	2 (11.1)	1 (5.6)	1 (5.6)	0 (0.0)	7 (14.6)
Musculoskeletal chest pain	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Musculoskeletal pain	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Plantar fasciitis	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	1 (2.1)
General disorders and administration site conditions	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)	3 (16.7)	3 (16.7)	0 (0.0)	0 (0.0)	2 (11.1)	1 (5.6)	1 (5.6)	0 (0.0)	6 (12.5)
Fatigue	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	2 (4.2)
Axillary pain	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Feeling hot	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)

	Placebo (N=12) n (%)				20 µg (N=18) n (%)				100 µg (N=18) n (%)				Overall (N=48) n (%)
MedDRA SOC/PT	Any	Gr 1	Gr 2	Gr 3	Any	Gr 1	Gr 2	Gr 3	Any	Gr 1	Gr 2	Gr 3	Any
Hangover	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Non-cardiac chest pain	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	1 (2.1)
Injury, poisoning and procedural complications	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (16.7)	2 (11.1)	1 (5.6)	0 (0.0)	4 (8.3)
Muscle strain	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Animal bite	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	1 (2.1)
Ear injury	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	1 (2.1)
Foot fracture	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	1 (2.1)
Respiratory, thoracic and mediastinal disorders	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)	2 (11.1)	1 (5.6)	1 (5.6)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	4 (8.3)
Oropharyngeal pain	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	3 (6.3)
Nasal congestion	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Blood and lymphatic system disorders	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (16.7)	3 (16.7)	0 (0.0)	0 (0.0)	3 (6.3)
Anaemia	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (11.1)	2 (11.1)	0 (0.0)	0 (0.0)	2 (4.2)
Lymphadenopathy	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	1 (2.1)
Psychiatric disorders	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Anxiety	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Depression	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Reproductive system and breast disorders	1 (8.3)	0 (0.0)	1 (8.3)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (4.2)
Intermenstrual bleeding	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Uterine spasm	1 (8.3)	0 (0.0)	1 (8.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Vascular disorders	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	2 (4.2)
Haematoma	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Hypotension	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	1 (5.6)	0 (0.0)	0 (0.0)	1 (2.1)
Metabolism and nutrition disorders	1 (8.3)	0 (0.0)	1 (8.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)
Decreased appetite	1 (8.3)	0 (0.0)	1 (8.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.1)

N = Total number of volunteers in the safety analysis population per group
n = For the 'Any' columns, cells present the number of volunteers with at least one event (volunteers with >1 reported event are counted only once). For the by grade columns, cells present the number of volunteers with at least one event at the maximum reported severity (volunteers with >1 reported event are counted only once and only at the maximum reported severity).
% = Percentage of volunteers in each category, i.e., 100 x n/N
Gr = Grade Maximum reported severity over all events was grade 3.
MedDRA = Medical Dictionary for Regulatory Activities
SOC = System Organ Class
PT = Preferred Terms
MedDRA SOCs and PTs within SOCs are presented by descending overall frequency of volunteers with an event.
Unsolicited AEs are presented through 28 days after the final vaccination.

Table S6: Unsolicited AEs Related to Study Procedure through 28 Days of the Final Vaccination by MedDRA SOC, PT, and Maximum Reported Severity

	Placebo (N=12) n (%)				20 µg (N=18) n (%)				100 µg (N=18) n (%)				Overall (N=48) n (%)
MedDRA SOC/PT	Any	Gr 1	Gr 2	Gr 3	Any	Gr 1	Gr 2	Gr 3	Any	Gr 1	Gr 2	Gr 3	Any
Any AE	4 (33.3)	4 (33.3)	0	0	6 (33.3)	6 (33.3)	0	0	5 (27.8)	5 (27.8)	0	0	15 (31.3)
Gastrointestinal disorders	3 (25.0)	3 (25.0)	0	0	3 (16.7)	3 (16.7)	0	0	3 (16.7)	3 (16.7)	0	0	9 (18.8)
Paraesthesia oral	3 (25.0)	3 (25.0)	0	0	3 (16.7)	3 (16.7)	0	0	3 (16.7)	3 (16.7)	0	0	9 (18.8)
Nervous system disorders	1 (8.3)	1 (8.3)	0	0	2 (11.1)	2 (11.1)	0	0	2 (11.1)	2 (11.1)	0	0	5 (10.4)
Dizziness	0	0	0	0	0	0	0	0	1 (5.6)	1 (5.6)	0	0	1 (2.1)
Hypoaesthesia	1 (8.3)	1 (8.3)	0	0	1 (5.6)	1 (5.6)	0	0	0	0	0	0	2 (4.2)
Presyncope	0	0	0	0	1 (5.6)	1 (5.6)	0	0	1 (5.6)	1 (5.6)	0	0	2 (4.2)
Vascular disorders	0	0	0	0	1 (5.6)	1 (5.6)	0	0	1 (5.6)	1 (5.6)	0	0	2 (4.2)
Haematoma	0	0	0	0	1 (5.6)	1 (5.6)	0	0	0	0	0	0	1 (2.1)
Hypotension	0	0	0	0	0	0	0	0	1 (5.6)	1 (5.6)	0	0	1 (2.1)
Blood and lymphatic system disorders	0	0	0	0	0	0	0	0	1 (5.6)	1 (5.6)	0	0	1 (2.1)
Lymphadenopathy	0	0	0	0	0	0	0	0	1 (5.6)	1 (5.6)	0	0	1 (2.1)
General disorders and administration site conditions	0	0	0	0	1 (5.6)	1 (5.6)	0	0	0	0	0	0	1 (2.1)
Axillary pain	0	0	0	0	1 (5.6)	1 (5.6)	0	0	0	0	0	0	1 (2.1)

N = Total number of volunteers in the safety analysis population per group
n = For the 'Any' columns, cells present the number of volunteers with at least one event (volunteers with >1 reported event are counted only once). For the by grade columns, cells present the number of volunteers with at least one event at the maximum reported severity (volunteers with >1 reported event are counted only once and only at the maximum reported severity).
% = Percentage of volunteers in each category, i.e., 100 x n/N
Gr = Grade
MedDRA = Medical Dictionary for Regulatory Activities
SOC = System Organ Class
PT = Preferred Terms
Maximum reported severity over all events was grade 1.
MedDRA SOCs and PTs within SOCs are presented by descending overall frequency of volunteers with an event.
Unsolicited AEs are presented through 28 days after the final vaccination.
'Related' is defined as possibly, probably, or definitely related to Study Procedure.

Table S7: BAMA response rate and magnitude summary statistics by group and visit.

			Response Rate	Median response magnitude
Visit	Antigen	Treatment	(95% Wilson score CI)	(25th percentile, 75th percentile)
Day 0	eOD-GT8 60mer	DPBS sucrose		108.43 (60.48, 179.33)
		20 µg eOD-GT8 60mer + AS01B		58.32 (29.42, 332.36)
		100 µg eOD-GT8 60mer + AS01B		51.2 (14.24, 98.38)
Day 0	eOD-GT8 monomer	DPBS sucrose		1.75 (0.2, 3.58)
		20 µg eOD-GT8 60mer + AS01B		5.77 (3.25, 13.41)
		100 µg eOD-GT8 60mer + AS01B		0 (0, 0.55)
Day 0	eOD-GT8 KO11 monomer	DPBS sucrose		1.35 (0, 6.29)
		20 µg eOD-GT8 60mer + AS01B		12.36 (6.12, 29.97)
		100 µg eOD-GT8 60mer + AS01B		0 (0, 0)
Day 0	CD4bs	DPBS sucrose		-0.04 (-3.8, 0.5)
		20 µg eOD-GT8 60mer + AS01B		-6.95 (-12.14, -1.92)
		100 µg eOD-GT8 60mer + AS01B		0 (0, 0.28)
Day 0	Lumazine synthase	DPBS sucrose		3908.55 (1544.81, 5893.54)
		20 µg eOD-GT8 60mer + AS01B		7866.65 (3454.51, 14797.87)
		100 µg eOD-GT8 60mer + AS01B		3073.5 (1705.68, 7067.57)
Day 14	eOD-GT8 60mer	DPBS sucrose	0% (0%, 24.2%)	115.77 (75.2, 202.66)
		20 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	33844.35 (28362.28, 41126.51)
		100 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	33800.57 (28027.28, 37256.89)
Day 14	eOD-GT8 monomer	DPBS sucrose	0% (0%, 24.2%)	2.65 (1.35, 4.89)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	6951.54 (4485.34, 11705.02)
		100 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	4131.87 (1786.83, 8993.12)
Day 14	eOD-GT8 KO11 monomer	DPBS sucrose	0% (0%, 24.2%)	3.42 (1.18, 6.9)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	524.21 (369.9, 1242.88)
		100 µg eOD-GT8 60mer + AS01B	94.4% (74.2%, 99%)	326.99 (243.96, 735.67)
Day 14	CD4bs	DPBS sucrose	0% (0%, 24.2%)	-0.35 (-3.67, 0.68)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	6411.04 (4018.05, 9829.03)
		100 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	3714.68 (1621.87, 7371.08)
Day 14	Lumazine synthase	DPBS sucrose	0% (0%, 24.2%)	3876.3 (1767.33, 5447.18)
		20 µg eOD-GT8 60mer + AS01B	33.3% (16.3%, 56.3%)	14500.39 (12463.29, 22144.11)
		100 µg eOD-GT8 60mer + AS01B	27.8% (12.5%, 50.9%)	9248.68 (5685.84, 15499.05)
Day 28	eOD-GT8 60mer	DPBS sucrose	0% (0%, 24.2%)	80.23 (56.59, 215.52)
		20 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	40668.7 (35549.88, 44369.42)
		100 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	37007.32 (30232.29, 41529.65)
Day 28	eOD-GT8 monomer	DPBS sucrose	0% (0%, 24.2%)	2.99 (0, 5.67)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	15979.43 (10942.34, 24712.55)
		100 µg eOD-GT8 60mer + AS01B	100% (79.6%, 100%)	11898.74 (8165.28, 16185.48)
Day 28	eOD-GT8 KO11 monomer	DPBS sucrose	0% (0%, 24.2%)	1.88 (0.79, 5.57)
		20 µg eOD-GT8 60mer + AS01B	100% (80.6%, 100%)	3562.86 (1179.05, 9928.37)
		100 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	2007.79 (1310.81, 5045.56)
Day 28	CD4bs	DPBS sucrose	0% (0%, 24.2%)	0 (-2.92, 1)
		20 µg eOD-GT8 60mer + AS01B	100% (80.6%, 100%)	10908.7 (8326.47, 12633.02)
		100 µg eOD-GT8 60mer + AS01B	100% (79.6%, 100%)	8791.03 (6161.07, 10403.99)
Day 28	Lumazine synthase	DPBS sucrose	0% (0%, 24.2%)	3399.62 (1715.29, 6305.43)
		20 µg eOD-GT8 60mer + AS01B	88.9% (67.2%, 96.9%)	30869.96 (27059.17, 37831.69)
		100 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	29916.57 (25349.57, 36065.96)
Day 56	eOD-GT8 60mer	DPBS sucrose	0% (0%, 24.2%)	128.26 (68.72, 363.15)
		20 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	35952.3 (29290.89, 40308.01)
		100 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	29818.58 (26958.88, 35460.15)
Day 56	eOD-GT8 monomer	DPBS sucrose	0% (0%, 24.2%)	3.6 (0.79, 5.41)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	10724.58 (7673.65, 14325.52)
		100 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	11173.12 (6662.89, 13241.64)
Day 56	eOD-GT8 KO11 monomer	DPBS sucrose	0% (0%, 24.2%)	2.62 (0.66, 3.78)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	2227.22 (1136.6, 5584.5)
		100 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	2332.29 (1277.17, 3678.46)
Day 56	CD4bs	DPBS sucrose	0% (0%, 24.2%)	0 (-1.11, 1.91)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	7383.99 (6544.23, 10190.76)
		100 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	8237.27 (5861.08, 9324.33)
Day 56	Lumazine synthase	DPBS sucrose	0% (0%, 24.2%)	4330.81 (927.74, 6487.28)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	38617.37 (32669.84, 43666.43)
		100 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	41346.52 (34043.05, 42841.18)
Day 70	eOD-GT8 60mer	DPBS sucrose	0% (0%, 25.9%)	104.16 (48.25, 334.02)
		20 µg eOD-GT8 60mer + AS01B	100% (79.6%, 100%)	73433.96 (71950.75, 76032.03)
		100 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	70028.67 (64831.65, 70308.26)
Day 70	eOD-GT8 monomer	DPBS sucrose	0% (0%, 25.9%)	3.6 (1.16, 5.33)
		20 µg eOD-GT8 60mer + AS01B	100% (80.6%, 100%)	60151.79 (57614.26, 61840.41)
		100 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	56303.43 (55456.28, 57284.79)
Day 70	eOD-GT8 KO11 monomer	DPBS sucrose	0% (0%, 25.9%)	1.75 (0, 3.47)
		20 µg eOD-GT8 60mer + AS01B	100% (80.6%, 100%)	55882.04 (51290.16, 56566.68)
		100 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	48405.77 (46224.63, 52277.36)
Day 70	CD4bs	DPBS sucrose	0% (0%, 25.9%)	1.18 (0, 2.74)
		20 µg eOD-GT8 60mer + AS01B	100% (80.6%, 100%)	4867.38 (4345.15, 6316.16)
		100 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	6900.23 (4825.95, 8615.24)
Day 70	Lumazine synthase	DPBS sucrose	0% (0%, 25.9%)	4008.23 (824.79, 6322.97)
		20 µg eOD-GT8 60mer + AS01B	100% (80.6%, 100%)	70287.38 (68941.07, 70824.36)
		100 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	66854.65 (64756.51, 69998.18)
Day 112	eOD-GT8 60mer	DPBS sucrose	8.3% (1.5%, 35.4%)	141.76 (93.64, 327.4)

Table S7: Response rate and magnitude summary statistics by group and visit.

Visit	Antigen	Treatment	(95% Wilson score CI)	(25th percentile, 75th percentile)
		20 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	70217.09 (66338.83, 70570.89)
		100 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	63535.41 (61264.9, 65788.98)
Day 112	eOD-GT8 monomer	DPBS sucrose	0% (0%, 24.2%)	4.32 (0.61, 9.04)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	55025.28 (48842.3, 56653.83)
		100 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	51050.24 (47893.25, 54516.34)
Day 112	eOD-GT8 KO11 monomer	DPBS sucrose	0% (0%, 24.2%)	3.8 (1.18, 9.31)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	43626.26 (42048.81, 51331.61)
		100 µg eOD-GT8 60mer + AS01B	100% (80.6%, 100%)	42695.45 (40601.05, 44018.29)
Day 112	CD4bs	DPBS sucrose	0% (0%, 24.2%)	0.04 (-2.62, 5.37)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	6398.42 (4515.41, 8687.59)
		100 µg eOD-GT8 60mer + AS01B	100% (80.6%, 100%)	7421.27 (6277.95, 9049.02)
Day 112	Lumazine synthase	DPBS sucrose	0% (0%, 24.2%)	4380.53 (1172.48, 6125.66)
		20 µg eOD-GT8 60mer + AS01B	100% (82.4%, 100%)	58433.63 (56929.38, 63485.2)
		100 µg eOD-GT8 60mer + AS01B	100% (81.6%, 100%)	60594.5 (56739.15, 62835.66)

Table S8: BAMA paired response magnitude testing between day 14 and day 70 by group. Testing was done using the Wilcoxon signed-rank test (two-sided, alpha = 0.05) and p-values less than 0.05 are highlighted. Testing included all participants for which data was available at days 14 and 70. Median, minimum, and maximum response magnitude values are presented by treatment group and time point.

Comparison: Day 14 vs. Day 70				
Antigen	Treatment	Pairs	Median (Min., Max.)	P-value
eOD-GT8 60mer	DPBS sucrose	12	115.77 [19.75, 1475.18] vs. 104.16 [7.67, 1758.87]	0.3394
	20 µg eOD-GT8 60mer + AS01B	17	35602.21 [22360.05, 55150.59] vs. 73433.96 [70562.94, 76603.27]	<0.0001
	100 µg eOD-GT8 60mer + AS01B	17	34527.28 [12027.79, 45799.40] vs. 70028.67 [59742.36, 73011.17]	<0.0001
eOD-GT8 monomer	DPBS sucrose	12	2.65 [0.00, 7.95] vs. 3.60 [0.00, 13.49]	1.0000
	20 µg eOD-GT8 60mer + AS01B	17	7134.74 [2088.03, 25927.21] vs. 60151.79 [54249.33, 66788.59]	<0.0001
	100 µg eOD-GT8 60mer + AS01B	16	4615.60 [191.61, 25353.21] vs. 56109.55 [46179.55, 63017.30]	<0.0001
eOD-GT8 KO11 monomer	DPBS sucrose	12	3.42 [0.00, 18.12] vs. 1.75 [0.00, 7.25]	0.0771
	20 µg eOD-GT8 60mer + AS01B	17	550.77 [167.96, 8660.76] vs. 55882.04 [47636.29, 59930.04]	<0.0001
	100 µg eOD-GT8 60mer + AS01B	17	332.27 [20.27, 7956.55] vs. 48405.77 [40832.43, 58612.13]	<0.0001
CD4bs	DPBS sucrose	12	-0.35 [-11.90, 2.01] vs. 1.18 [-3.06, 10.17]	0.1631
	20 µg eOD-GT8 60mer + AS01B	17	6413.49 [1527.28, 23898.38] vs. 4867.38 [3061.93, 9726.25]	0.1901
	100 µg eOD-GT8 60mer + AS01B	16	4254.89 [171.34, 17396.66] vs. 6975.37 [3455.27, 12095.50]	0.3484
Lumazine synthase	DPBS sucrose	12	3876.30 [125.69, 8481.65] vs. 4008.23 [161.85, 15033.45]	0.9097
	20 µg eOD-GT8 60mer + AS01B	17	14847.52 [4851.62, 33184.07] vs. 70287.38 [55685.72, 74489.50]	<0.0001
	100 µg eOD-GT8 60mer + AS01B	17	8831.92 [2848.56, 41963.97] vs. 66854.65 [59925.93, 70961.62]	<0.0001

Table S9: Response rate summary by HIV-1 isolate, treatment, and time point.

		Response Fraction = Response Rate; (95% Wilson score CI)		
HIV-1 isolate	Treatment	Day 0	Day 14	Day 70
MW965.26	DPBS sucrose	0/12 = 0%; (0%, 24.2%)	0/12 = 0%; (0%, 24.2%)	0/11 = 0%; (0%, 25.9%)
	20 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/16 = 0%; (0%, 19.4%)
	100 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/17 = 0%; (0%, 18.4%)
MN.3	DPBS sucrose	0/12 = 0%; (0%, 24.2%)	0/12 = 0%; (0%, 24.2%)	0/11 = 0%; (0%, 25.9%)
	20 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/16 = 0%; (0%, 19.4%)
	100 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/17 = 0%; (0%, 18.4%)
426c.N276D/293S/GnTI-	DPBS sucrose	0/12 = 0%; (0%, 24.2%)	0/12 = 0%; (0%, 24.2%)	0/11 = 0%; (0%, 25.9%)
	20 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/16 = 0%; (0%, 19.4%)
	100 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/17 = 0%; (0%, 18.4%)
426c.N276D.N460D.N463D/293S/GnTI-	DPBS sucrose	0/12 = 0%; (0%, 24.2%)	0/12 = 0%; (0%, 24.2%)	0/11 = 0%; (0%, 25.9%)
	20 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/16 = 0%; (0%, 19.4%)
	100 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/17 = 0%; (0%, 18.4%)
426c.S278R.G471S.N460D.N463D/293S/GnTI-	DPBS sucrose	0/12 = 0%; (0%, 24.2%)	0/12 = 0%; (0%, 24.2%)	0/11 = 0%; (0%, 25.9%)
	20 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/16 = 0%; (0%, 19.4%)
	100 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/17 = 0%; (0%, 18.4%)
CH0505s.G458Y.N279K.2/293S/GnTI-	DPBS sucrose	0/12 = 0%; (0%, 24.2%)	0/12 = 0%; (0%, 24.2%)	0/11 = 0%; (0%, 25.9%)
	20 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/16 = 0%; (0%, 19.4%)
	100 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/17 = 0%; (0%, 18.4%)
CH0505s.G458Y.N279K.N280D.6/293S/GnTI-	DPBS sucrose			0/5 = 0%; (0%, 43.4%)
	20 µg eOD-GT8 60mer + AS01B			0/16 = 0%; (0%, 19.4%)
CH0505TF.gly4/293S/GnTI-	DPBS sucrose	0/12 = 0%; (0%, 24.2%)	0/12 = 0%; (0%, 24.2%)	0/11 = 0%; (0%, 25.9%)
	20 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/16 = 0%; (0%, 19.4%)
	100 µg eOD-GT8 60mer + AS01B	0/18 = 0%; (0%, 17.6%)	0/18 = 0%; (0%, 17.6%)	0/17 = 0%; (0%, 18.4%)
CH0505TF.gly4.S365P.2/293S/GnTI-	DPBS sucrose			0/5 = 0%; (0%, 43.4%)
	20 µg eOD-GT8 60mer + AS01B			1/16 = 6.3%; (1.1%, 28.3%)

Table S10: Memory B Cell and Plasmablast Flow Cytometry Panel

Antibody	Vendor	Catalog Number	Clone
Live/Dead 7AAD	Thermofisher	A1310	-
[1]CD14 BV510	BioLegend	301842	M5E2
[1]CD56 BV510	BD	563041	NCAM16.2
[1]CD3 BV510	BD	317332	OK3T
[1]CD16 BV510	BD	563830	3G8
CD10 BV650	BD	563734	HI10a
CD19 ECD	Beckman Coulter	IM2708U	J3-119
CD20 APC-Cy7	BioLegend	302314	2H7
CD21 PerCPCy5.5	BioLegend	354908	Bu32
CD27 BV605	BioLegend	302830	O323
CD38 AF700	BioLegend	303524	HIT2
IgD BV786	BD	740997	IA6-2
IgG BV421	BD	562581	G18-145
Streptavidin BV711	BioLegend	405241	-
Streptavidin R-Phycoerythrin Conjugate (SAPE)	Thermofisher	S21388	-
Streptavidin BB515	BD	564453	-
[2]CD21 PE-Cy5	BD	551064	B-ly4
[2]IgG1 K isotype Ctrl PE	BD	555749	MOPC-21
[2]IgG1 K isotype Ctrl BV711	BioLegend	400168	MOPC-21
[2]IgG BB515	BD	564581	G18-145

[1] *These antibodies are detected in the same channel.*
[2] *Used as comp antibody only.*

Table S11: Lymph node FNA Germinal Center B Cell Flow Cytometry Panel

Antibody	Vendor	Catalog Number	Clone
Live/Dead 7AAD	Thermofisher	A1310	-
CD4 PE-Cy7	BD	557852	SK3
PD-1 BB700	BD	566460	EH12.1
CXCR5 APC	BioLegend	356908	J252D4
CD14 PE-Cy5	Affymetrix eBioscience	15-0149-42	61D3
CD45RO APC	BD	559865	UCHL1
CD3 BV510	BioLegend	317332	OK3T
CD10 BV650	BD	563734	HI10a
CD19 ECD	Beckman Coulter	IM2708U	J3-119
CD20 APC-Cy7	BioLegend	302314	2H7
CD27 BV605	BioLegend	302830	O323
CD38 AF700	BioLegend	303524	HIT2
IgD BV786	BD	740997	IA6-2
IgG BV421	BD	562581	G18-145
Streptavidin BV711	BioLegend	405241	-
Streptavidin R-Phycoerythrin Conjugate (SAPE)	Thermofisher	S21388	-
Streptavidin BB515	BD	564453	-
[1]PE Isotype Control	BD	550617	-
[1]BV711 Isotype Control	BioLegend	400167	-
[1]BB515 Isotype Control	BD	564416	-

[1] *Used as compensation antibody only.*

Table S12: Table of Reagents

Reagent	Vendor	Catalog Number	Other
eOD GT8-Biotin (DOM 11/10/2017) MW: 22.45 kD	Scripps Research Institute	-	0.1 mg/mL
eOD GT8-KO11-Biotin (DOM 11/10/2017) MW: 20.187 kD	Scripps Research Institute	-	Lot A31728 0.1 mg/mL
Anti-Ms Ig, k Comp Beads	BD	51-90-9001229	-
Ms Anti-Hu IgG	BD	555784	-
KG064_nonVRC01c_099 monoclonal antibody (099 mAb)	Scripps Research Institute	-	Lot AB1443 Concentration: 0.347 mg/mL
glVRC01 monoclonal antibody	Scripps Research Institute	-	5/9/2017 1.435 mg/mL
Brilliant Stain Buffer	BD	563794	-
Hard shell, low profile, skirted, 96-well PCR plates, white/clear	Thermo	563041	-
Safe-lock tubes, 1.5 mL, amber	Eppendorf North America, Inc.	22363221	-
Polystyrene round-bottom tube, 14 mL	Corning	38008	-

Table S13: IgH Primary (Round 1)

Direction	Primer	Sequence 5' to 3'
Forward	VH1 LEADER-A	ATG GAC TGG ACC TGG AGG AT
Forward	VH1 LEADER-B	ATG GAC TGG ACC TGG AGC AT
Forward	VH1 LEADER-C	ATG GAC TGG ACC TGG AGA AT
Forward	VH1 LEADER-D	GGT TCC TCT TTG TGG TGG C
Forward	VH1 LEADER-E	ATG GAC TGG ACC TGG AGG GT
Forward	VH1-LEADER-F	ATG GAC TGG ATT TGG AGG AT
Forward	VH1-LEADER-G	AGG TTC CTC TTT GTG GTG GCA G
Forward	VH3 LEADER-A	TAA AAG GTG TCC AGT GT
Forward	VH3 LEADER-B	TAA GAG GTG TCC AGT GT
Forward	VH3 LEADER-C	TAG AAG GTG TCC AGT GT
Forward	VH3 LEADER-E	TAC AAG GTG TCC AGT GT
Forward	VH3 LEADER-F	TTA AAG CTG TCC AGT GT
Forward	VH4 LEADER-D	ATG AAA CAT CTG TGG TTC TT
Forward	VH5 LEADER-A	TTC TCC AAG GAG TCT GT
Forward	VH3 LEADER-D	GCT ATT TTT AAA GGT GTC CAG TGT
Forward	VH4 LEADER-A	ATG AAA CAC CTG TGG TTC TTC C
Forward	VH4 LEADER-B	ATG AAA CAC CTG TGG TTC TT
Forward	VH4 LEADER-C	ATG AAG CAC CTG TGG TTC TT
Forward	VH5 LEADER-B	CCT CCA CAG TGA GAG TCT G
Forward	VH6 LEADER-A	ATG TCT GTC TCC TTC CTC ATC
Forward	VH7 LEADER-A	GGC AGC AGC AAC AGG TGC CCA
Reverse	3'Cg CH1	GGA AGG TGT GCA CGC CGC TGG TC
Reverse	3' IgM CH1	GGG AAT TCT CAC AGG AGA CGA

Table S14: IgH Nested (Round 2)

Direction	Primer	Sequence 5' to 3'
Forward	5'L-VH 1	ACA GGT GCC CAC TCC CAG GTG CAG
Forward	5'L-VH 3	AAG GTG TCC AGT GTG ARG TGC AG
Forward	5'L-VH 4/6	CCC AGA TGG GTC CTG TCC CAG GTG CAG
Forward	5'L-VH 5	CAA GGA GTC TGT TCC GAG GTG CAG
Forward	5xwL-VH1	GCA GCC ACA GGT GCC CAC TCC
Forward	5xwL-VH1-24	CAG CAG CTA CAG GCA CCC ACG C
Forward	5xwL-VH1-69	GGC AGC AGC TAC AGG TGT CCA GTC C
Forward	VH3-L1-MP	GCT ATT TTA AAA GGT GTC CAA TGT
Forward	VH3/4-L1-MP	GTG GCA GCT CCC AGA TGG GTC CTG TC
Forward	VH3/4-L3-MP	GTT GCA GTT TTA AAA GGT GTC CAG TG
Forward	VH5-L1-MP	GCT GTT CTC CAA GGA GTC TGT TCC
Reverse	3'IgGint	GTT CGG GGA AGT AGT CCT TGA C
Reverse	3' IgMint	GGA ATT CTC ACA GGA GAC GA

Table S15: Igκ Primary (Round 1)

Direction	Primer	Sequence 5' to 3'
Forward	5'L-VK 1/2	ATG AGG STC CCY GCT CAG CTG CTG G
Forward	5'L-VK 3	CTC TTC CTC CTG CTA CTC TGG CTC CCA G
Forward	5'L-VK 4	ATT TCT CTG TTG CTC TGG ATC TCT G
Reverse	3'CK 543	GTT TCT CGT AGT CTG CTT TGC TCA

Table S16: Igκ Nested (Round 2)

Direction	Primer	Sequence 5' to 3'
Forward	5' L-Vk1.1-MS	TGC TGC TCT GGY TCC CA
Forward	5' L-Vk1.2-MS	TCT GKY TCY CAG GTG CCA
Forward	5' L-Vk1.3-MS	CTR CTR CTC TGG STC C
Forward	5' L-Vk2-MS	TGG GGC TGC TAA TGC TCT
Forward	5' L-Vk3-MS	CTG GCT CMC AGA TAC CAC
Forward	5'L Vk4 Tiller	ATT TCT CTG TTG CTC TGG ATC TCT G
Forward	5' L-Vk5-MS	CCT CCT TTG GAT CTC TGA TAC CA
Forward	5'L-Vk6-MS	TTC TGC TSC TCT GGG TTC C
Reverse	3'CK 494	GTG CTG TCC TTG CTG TCC TGC T

Table S17: Igλ Primary (Round 1)

Direction	Primer	Sequence 5' to 3'
Forward	5'L-VL1/10-RL	CCT CCT CAC TCA CTS TGC AG
Forward	5'L-VL5/6-RL	CTC CTC KCT CAC TGC ACA G
Forward	5'L-VL2-RL	CCT CCT CAC TCA GGG CAC AG
Forward	5'L-VL9-RL	CCT CCT CAG TCT CCT CAC AG
Forward	5'L-VL4-RL	CTG CCC TTC ATT TTC TCC ACA G
Forward	5'L-VL3-RL	GCG TCC TTG CTT ACT GCA CAG
Forward	5'L-VL8-RL	GAC TCC TTG CTT ATG GAT CAG
Forward	5'L-VL7-RL	CCT CCT CAC TTG CTG CCC AG
Reverse	3'CL	CAC CAG TGT GGC CTT GTT GGC TTG

Table S18: Igλ Nested (Round 2)

Direction	Primer	Sequence 5' to 3'
Forward	5'L Vl 1	GGT CCT GGG CCC AGT CTG TGC TG
Forward	5'L Vl 2	GGT CCT GGG CCC AGT CTG CCC TG
Forward	5'L Vl 3	GCT CTG TGA CCT CCT ATG AGC TG
Forward	5'L Vl 4/5	GGT CTC TCT CSC AGC YTG TGC TG
Forward	5'L Vl 6	GTT CTT GGG CCA ATT TTA TGC TG
Forward	5'L Vl 7	GGT CCA ATT CYC AGG CTG TGG TG
Forward	5'L Vl 8	GAG TGG ATT CTC AGA CTG TGG TG
Reverse	3'XhoI Cl	CTC CTC ACT CGA GGG YGG GAA CAG AGT G

Table S19: Positive PCR Control Synthetic Constructs

	Synthetic Construct (5' to 3')
IgH	GATCGATATGGACTGGACCTGGAGGATGATCGATACAGGTGCCCACTCCCAGGTGCAG GATCGATCAATTAGCGTACCGTTATGTGGCGAAGTACCGGCGGTTACCAGCGCGGCGG AAGGTCTAGTTAGTGGCGTAGGCCTTAGTGCGTCGCGTGTAGTTAGCGTTACAATACT TACAACGATACTACAGGTGAAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGCAAGGCT TCTGGATACACCTTCACCGGCTACTATATGCACTGGGTGCGACAGGCCCCTGGACAAG GGCTTGAGTGGATGGGATGGATCAACCCTAACAGTGGTGGCACAAACTATGCACAGAA GTTTCAGGGCAGGGTCACCATGACCAGGGACACGTCCATCAGCACAGCCTACATGGAG CTGAGCAGGCTGAGATCTGACGACACGGCCGTGTATTACTGTGCGAGAGGCGTGCGCT GCGGCGTGATTCCGGGCGATCTGATCTGGGGCCAAGGGACAATGGTCACCGTCTCTCA GGCATCATAGCAACATTCATAACATTGCGATTGATGTGCGCTGCGTGATTCCGGATGC GGTGATTGATCTGGAAGGCGGCGCGACCATTGGCGGCCATGAAGCGGTGTATTGCCAT GCGATTAACGATCGATGTCAAGGACTACTTCCCCGAACGATCGATGACCAGCGGCGTG CACACCTTCCGATCGAT
Igκ	GATCGATATGAGGGTCCCTGCTCAGCTGCTGGGATCGATTGCTGCTCTGGTTCCCAGA TCGATGCCTTAGTGCGTCGCGTGTAGTTAGCGTTACAATACTTACAACGATACTACCA ATTAGCGTACCGTGCGGCCGCCGCGAAACCAGCGCGGCGGAAGGTCTAGTTAGTGGCG TAGGATGCGGTGGAAAAAGCGTGGACCCATGCGCGCATGGCGTGCCATATGGCGTGCC ATACCCATATTAGCATTAGCGCGAGCCCGGCGTGCGAACGCGGCGAACTGAGCCATAT TTTTACCGAAGTTTTTATGACCCAGTCTCCAGTCACCCTGTCTGTGTCTCCAGGGGAA AGAGCCACCCTCTCCTGCAGGGCCAGTCAGAGTGTTAGCAGCAACTTAGCCTGGTACC AGCAGAAACCTGGCCAGGCTCCCAGGCTCCTCATCTATGGTGCATCCACCAGGGCCAC TGGTATCCCAGCCAGGTTCAGTGGCAGTGGGTCTGGGACAGAGTTCACTCTCACCATC AGCAGCCTGCAGTCTGAAGATTTTGCAGTTTATTACTGTCAGCAGAAAGTGCGCTGCA AAGTGATTCCGAAAGATCTGGCGTTCGGCCAAGGGACCAAGGTGGAAATCAAACGATG CGGTGATTGATCTGGAAGGCGGCGCGACCAAAGCGCCGCCGGCGTGCCATGCGATTAA CCATCATAGCAACATTCATAACATTGCGATTGATGTGCGCTGCGTGATTCCGGATCGA TAGCAGGACAGCAAGGACAGCACGATCGATTGAGCAAAGCAGACTACGAGAAACGATC GAT
Igλ	GATTAATCCTCCTCACTCACTGTGCAGGATCGATGGTCCTGGGCCCAGTCTGTGCTGG ATCGATCAATTAGCGTACCGTGCGTAGGTAGCGGTCCCAGCGCGGCGGAAGGTCTAGT TAGTGGCGTAGGCCTTAGTGCGTCGCGTGTAGTTAGCGTTACAATACTTACAACGATA CTACAGCGGCAGCCCGGGCCAGAGCGTGACCATTAGCTGCACCGGCACCAGCAGCGAT GTGGGCGGCTATAACTATGTGGCGTGGTATCAGCAGCATCCGGGCAAAGCGCCGAAAC TGATGATTCATGAAGTGAGCAAACGCCCGAGCGGCGTGCCGGATCGCTTTAGCGGCAG CAAAAGCGGCAACACCGCGAGCCTGACCGTGAGCGGCCTGCAGGCGGAAGATGAAGCG GATTATTATTGCAGCAGCCTGGTGCGCTGCCTGGTGATTCCGCTGGATCTGGTGTTTG GCGGCGGCACCAAACTGACCGTGCTGGGCCAGCCGAAAGGCTGCCCGTTTCATCATAG CAACATTCATAACATTGCGATTGATGTGCGCTGCGTGATTCCGGATGCGGTGATTGAT CTGGAAGGCGGCGCGACCCTGGCGATGGATGCGTGCCATGCGATTAACGATCGATCAC TCTGTTCCCACCCTCGAGTGAGGAGGATCGATCAAGCCAACAAGGCCACACTTGGTGG ATCGAT

Table S20: CD4bs-specific sample availability by group and visit

Treatment	Visit	Complete CD4bs Data	Missing Sequence Data Only		Missing Flow and Sequence Data	
			No CD4bs Sequence Data	No VRC01 Calls	No Visit	No Lymph Nodes Detected (FNA Samples)
DPBS sucrose	V02 (Frozen)	10		2		
	V05 (FNA)	0	6			6
	V06 (Frozen)	7	2	3		
	V07 (Frozen)	8	1	3		
	V07A (PB)	0	12			
	V08 (Frozen)	6		6		
	V09 (FNA)	0	6			6
	V10 (Frozen)	2	5	5		
	Total	33	32	19		12
20 µg eOD-GT8 60mer and AS01B	V02 (Frozen)	15		3		
	V05 (FNA)	9	7			2
	V06 (Frozen)	18				
	V07 (Frozen)	18				
	V07A (PB)	14	4			
	V08 (Frozen)	17			1	
	V09 (FNA)	11	3		1	3
	V10 (Frozen)	16		2		
	Total	118	14	5	2	5
100 µg eOD-GT8 60mer and AS01B	V02 (Frozen)	12	6			
	V05 (FNA)	12	3	1		2
	V06 (Frozen)	18				
	V07 (Frozen)	17			1	
	V07A (PB)	13	4		1	
	V08 (Frozen)	17			1	
	V09 (FNA)	10	4		1	3
	V10 (Frozen)	16			2	
	Total	115	17	1	6	5

Table S21: Number of GT8++ responders by treatment and time point, with accompanying Wilson score confidence intervals

Visit	DPBS sucrose	20 µg eOD-GT8 60mer and AS01B	100 µg eOD-GT8 60mer and AS01B
Wk3 (V05)	0 of 6 = 0.0% (0.0%, 39.0%)	11 of 15 = 73.3% (48.0%, 89.1%)	13 of 16 = 81.2% (57.0%, 93.4%)
Wk4 (V06)	0 of 12 = 0.0% (0.0%, 24.2%)	18 of 18 = 100.0% (82.4%, 100.0%)	18 of 18 = 100.0% (82.4%, 100.0%)
Wk8 (V07)	0 of 12 = 0.0% (0.0%, 24.2%)	18 of 18 = 100.0% (82.4%, 100.0%)	17 of 17 = 100.0% (81.6%, 100.0%)
Wk9 (V07A)	0 of 12 = 0.0% (0.0%, 24.2%)	17 of 17 = 100.0% (81.6%, 100.0%)	17 of 17 = 100.0% (81.6%, 100.0%)
Wk10 (V08)	0 of 12 = 0.0% (0.0%, 24.2%)	17 of 17 = 100.0% (81.6%, 100.0%)	17 of 17 = 100.0% (81.6%, 100.0%)
Wk11 (V09)	0 of 5 = 0.0% (0.0%, 43.4%)	12 of 14 = 85.7% (60.1%, 96.0%)	10 of 14 = 71.4% (45.4%, 88.3%)
Wk16 (V10)	0 of 12 = 0.0% (0.0%, 24.2%)	18 of 18 = 100.0% (82.4%, 100.0%)	16 of 16 = 100.0% (80.6%, 100.0%)

Table S22: Number of epitope-specific (KO-GT8++) responders by treatment and time point, with accompanying Wilson score confidence intervals

Visit	DPBS sucrose	20 µg eOD-GT8 60mer and AS01B	100 µg eOD-GT8 60mer and AS01B
Wk3 (V05)	0 of 6 = 0.0% (0.0%, 39.0%)	12 of 16 = 75.0% (50.5%, 89.8%)	13 of 16 = 81.2% (57.0%, 93.4%)
Wk4 (V06)	0 of 12 = 0.0% (0.0%, 24.2%)	18 of 18 = 100.0% (82.4%, 100.0%)	18 of 18 = 100.0% (82.4%, 100.0%)
Wk8 (V07)	0 of 12 = 0.0% (0.0%, 24.2%)	18 of 18 = 100.0% (82.4%, 100.0%)	17 of 17 = 100.0% (81.6%, 100.0%)
Wk9 (V07A)	0 of 12 = 0.0% (0.0%, 24.2%)	18 of 18 = 100.0% (82.4%, 100.0%)	17 of 17 = 100.0% (81.6%, 100.0%)
Wk10 (V08)	0 of 12 = 0.0% (0.0%, 24.2%)	17 of 17 = 100.0% (81.6%, 100.0%)	17 of 17 = 100.0% (81.6%, 100.0%)
Wk11 (V09)	0 of 5 = 0.0% (0.0%, 43.4%)	12 of 14 = 85.7% (60.1%, 96.0%)	10 of 14 = 71.4% (45.4%, 88.3%)
Wk16 (V10)	0 of 12 = 0.0% (0.0%, 24.2%)	18 of 18 = 100.0% (82.4%, 100.0%)	16 of 16 = 100.0% (80.6%, 100.0%)

Table S23: IgG+ B cells that are GT8++ (regardless of KO binding status) response rate testing between vaccine and placebo recipients by time point. Testing was done using Barnard's test (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Sample Type	Response Rates (95% Wilson CI)	P Value
Placebo vs. 20µg			
Wk3 (V05)	FNA/IgG GC B cells	0/6 = 0.0% (0.0%, 39.0%) vs. 11/15 = 73.3% (48.0%, 89.1%)	0.0026
Wk4 (V06)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 18/18 = 100.0% (82.4%, 100.0%)	<0.0001
Wk8 (V07)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 18/18 = 100.0% (82.4%, 100.0%)	<0.0001
Wk9 (V07A)	Fresh PBMCs/IgD- PBs	0/12 = 0.0% (0.0%, 24.2%) vs. 17/17 = 100.0% (81.6%, 100.0%)	<0.0001
Wk10 (V08)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 17/17 = 100.0% (81.6%, 100.0%)	<0.0001
Wk11 (V09)	FNA/IgG GC B cells	0/5 = 0.0% (0.0%, 43.4%) vs. 12/14 = 85.7% (60.1%, 96.0%)	0.0006
Wk16 (V10)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 18/18 = 100.0% (82.4%, 100.0%)	<0.0001
Placebo vs. 100µg			
Wk3 (V05)	FNA/IgG GC B cells	0/6 = 0.0% (0.0%, 39.0%) vs. 13/16 = 81.2% (57.0%, 93.4%)	0.0007
Wk4 (V06)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 18/18 = 100.0% (82.4%, 100.0%)	<0.0001
Wk8 (V07)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 17/17 = 100.0% (81.6%, 100.0%)	<0.0001
Wk9 (V07A)	Fresh PBMCs/IgD- PBs	0/12 = 0.0% (0.0%, 24.2%) vs. 17/17 = 100.0% (81.6%, 100.0%)	<0.0001
Wk10 (V08)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 17/17 = 100.0% (81.6%, 100.0%)	<0.0001
Wk11 (V09)	FNA/IgG GC B cells	0/5 = 0.0% (0.0%, 43.4%) vs. 10/14 = 71.4% (45.4%, 88.3%)	0.0059
Wk16 (V10)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 16/16 = 100.0% (80.6%, 100.0%)	<0.0001
20µg vs. 100µg			
Wk3 (V05)	FNA/IgG GC B cells	11/15 = 73.3% (48.0%, 89.1%) vs. 13/16 = 81.2% (57.0%, 93.4%)	0.7092
Wk4 (V06)	PBMCs/IgG memory B cells	18/18 = 100.0% (82.4%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000
Wk8 (V07)	PBMCs/IgG memory B cells	18/18 = 100.0% (82.4%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000
Wk9 (V07A)	Fresh PBMCs/IgD- PBs	17/17 = 100.0% (81.6%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000
Wk10 (V08)	PBMCs/IgG memory B cells	17/17 = 100.0% (81.6%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000
Wk11 (V09)	FNA/IgG GC B cells	12/14 = 85.7% (60.1%, 96.0%) vs. 10/14 = 71.4% (45.4%, 88.3%)	0.5260
Wk16 (V10)	PBMCs/IgG memory B cells	18/18 = 100.0% (82.4%, 100.0%) vs. 16/16 = 100.0% (80.6%, 100.0%)	1.0000

Table S24: IgG+ B cells detected as epitope-specific (KO-GT8++) response rate testing between vaccine and placebo recipients by time point. Testing was done using Barnard's test (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Sample Type	Response Rates (95% Wilson CI)	P Value
Placebo vs. 20µg			
Wk3 (V05)	FNA/IgG GC B cells	0/6 = 0.0% (0.0%, 39.0%) vs. 12/16 = 75.0% (50.5%, 89.8%)	0.0017
Wk4 (V06)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 18/18 = 100.0% (82.4%, 100.0%)	<0.0001
Wk8 (V07)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 18/18 = 100.0% (82.4%, 100.0%)	<0.0001
Wk9 (V07A)	Fresh PBMCs/IgD- PBs	0/12 = 0.0% (0.0%, 24.2%) vs. 18/18 = 100.0% (82.4%, 100.0%)	<0.0001
Wk10 (V08)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 17/17 = 100.0% (81.6%, 100.0%)	<0.0001
Wk11 (V09)	FNA/IgG GC B cells	0/5 = 0.0% (0.0%, 43.4%) vs. 12/14 = 85.7% (60.1%, 96.0%)	0.0006
Wk16 (V10)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 18/18 = 100.0% (82.4%, 100.0%)	<0.0001
Placebo vs. 100µg			
Wk3 (V05)	FNA/IgG GC B cells	0/6 = 0.0% (0.0%, 39.0%) vs. 13/16 = 81.2% (57.0%, 93.4%)	0.0007
Wk4 (V06)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 18/18 = 100.0% (82.4%, 100.0%)	<0.0001
Wk8 (V07)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 17/17 = 100.0% (81.6%, 100.0%)	<0.0001
Wk9 (V07A)	Fresh PBMCs/IgD- PBs	0/12 = 0.0% (0.0%, 24.2%) vs. 17/17 = 100.0% (81.6%, 100.0%)	<0.0001
Wk10 (V08)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 17/17 = 100.0% (81.6%, 100.0%)	<0.0001
Wk11 (V09)	FNA/IgG GC B cells	0/5 = 0.0% (0.0%, 43.4%) vs. 10/14 = 71.4% (45.4%, 88.3%)	0.0059
Wk16 (V10)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 16/16 = 100.0% (80.6%, 100.0%)	<0.0001
20µg vs. 100µg			
Wk3 (V05)	FNA/IgG GC B cells	12/16 = 75.0% (50.5%, 89.8%) vs. 13/16 = 81.2% (57.0%, 93.4%)	0.7840
Wk4 (V06)	PBMCs/IgG memory B cells	18/18 = 100.0% (82.4%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000
Wk8 (V07)	PBMCs/IgG memory B cells	18/18 = 100.0% (82.4%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000
Wk9 (V07A)	Fresh PBMCs/IgD- PBs	18/18 = 100.0% (82.4%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000
Wk10 (V08)	PBMCs/IgG memory B cells	17/17 = 100.0% (81.6%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000
Wk11 (V09)	FNA/IgG GC B cells	12/14 = 85.7% (60.1%, 96.0%) vs. 10/14 = 71.4% (45.4%, 88.3%)	0.5260
Wk16 (V10)	PBMCs/IgG memory B cells	18/18 = 100.0% (82.4%, 100.0%) vs. 16/16 = 100.0% (80.6%, 100.0%)	1.0000

Table S25: Percent of IgG+ B cells or plasmablasts that are GT8++ (without regard to KO binding status) testing between vaccine dose among detectable response participants. Testing was done using the Wilcoxon rank-sum test (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted. Median, minimum, and maximum values are presented by treatment group and time point.

	Sample Type	Sample Sizes	Median (Range)	P Value
20µg vs. 100µg				
Wk3 (V05)	FNA/IgG GC B cells	11 vs. 13	18.1208 [0.9818, 62.2510] vs. 16.5529 [0.5529, 36.2145]	0.4244
Wk4 (V06)	PBMCs/IgG memory B cells	18 vs. 18	0.1264 [0.0528, 0.3482] vs. 0.2076 [0.0771, 0.8912]	0.1108
Wk8 (V07)	PBMCs/IgG memory B cells	18 vs. 17	0.0833 [0.0208, 0.2884] vs. 0.1142 [0.0404, 0.3422]	0.1528
Wk9 (V07A)	Fresh PBMCs/IgD- PBs	17 vs. 17	11.1658 [0.5544, 37.2911] vs. 6.9645 [0.2990, 26.2222]	0.2451
Wk10 (V08)	PBMCs/IgG memory B cells	17 vs. 17	2.0403 [0.3117, 7.6517] vs. 2.7716 [0.9187, 9.1259]	0.1309
Wk11 (V09)	FNA/IgG GC B cells	12 vs. 10	41.0265 [15.7441, 68.1154] vs. 12.6427 [0.5413, 42.6906]	0.0020
Wk16 (V10)	PBMCs/IgG memory B cells	18 vs. 16	0.5411 [0.1139, 1.7309] vs. 0.9596 [0.1715, 3.0402]	0.0504

Table S26: Percent of IgG+ B cells that are GT8++ (regardless of KO binding status) magnitude testing between baseline (V02) and post-baseline frozen PBMC time points for the treatment group. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Number of Pairs	Median (Range)	P Value
20µg			
Wk-4 (V02) vs. Wk4 (V06)	18	0.0018 [0.0004, 0.0134] vs. 0.1264 [0.0528, 0.3482]	<0.0001
Wk-4 (V02) vs. Wk8 (V07)	18	0.0018 [0.0004, 0.0134] vs. 0.0833 [0.0208, 0.2884]	<0.0001
Wk-4 (V02) vs. Wk10 (V08)	17	0.0019 [0.0004, 0.0134] vs. 2.0403 [0.3117, 7.6517]	<0.0001
Wk-4 (V02) vs. Wk16 (V10)	18	0.0018 [0.0004, 0.0134] vs. 0.5411 [0.1139, 1.7309]	<0.0001
100µg			
Wk-4 (V02) vs. Wk4 (V06)	18	0.0012 [0.0000, 0.0033] vs. 0.2076 [0.0771, 0.8912]	<0.0001
Wk-4 (V02) vs. Wk8 (V07)	17	0.0013 [0.0000, 0.0033] vs. 0.1142 [0.0404, 0.3422]	<0.0001
Wk-4 (V02) vs. Wk10 (V08)	17	0.0013 [0.0000, 0.0033] vs. 2.7716 [0.9187, 9.1259]	<0.0001
Wk-4 (V02) vs. Wk16 (V10)	16	0.0012 [0.0000, 0.0033] vs. 0.9596 [0.1715, 3.0402]	<0.0001

Table S27: Percent of IgG+ B cells or plasmablasts that are epitope-specific (KO-GT8++) testing between vaccine dose among detectable response participants. Testing was done using the Wilcoxon rank-sum test (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted. Median, minimum, and maximum values are presented by treatment group and time point.

	Sample Type	Sample Sizes	Median (Range)	P Value
20µg vs. 100µg				
Wk3 (V05)	FNA/IgG GC B cells	12 vs. 13	17.7883 [0.4208, 50.8186] vs. 4.1046 [0.3949, 22.0344]	0.0114
Wk4 (V06)	PBMCs/IgG memory B cells	18 vs. 18	0.0528 [0.0149, 0.2292] vs. 0.0724 [0.0241, 0.4719]	0.1516
Wk8 (V07)	PBMCs/IgG memory B cells	18 vs. 17	0.0235 [0.0056, 0.1231] vs. 0.0385 [0.0116, 0.1537]	0.1949
Wk9 (V07A)	Fresh PBMCs/IgD- PBs	18 vs. 17	5.3287 [0.1217, 26.1824] vs. 1.3195 [0.2156, 5.3007]	0.0043
Wk10 (V08)	PBMCs/IgG memory B cells	17 vs. 17	0.3370 [0.0889, 0.8924] vs. 0.5124 [0.1403, 2.5581]	0.3223
Wk11 (V09)	FNA/IgG GC B cells	12 vs. 10	14.3631 [0.1418, 67.2531] vs. 1.2268 [0.1227, 4.0690]	0.1402
Wk16 (V10)	PBMCs/IgG memory B cells	18 vs. 16	0.1499 [0.0341, 0.3737] vs. 0.2482 [0.0305, 0.8489]	0.0946

Table S28: Percent of IgG+ B cells that are epitope-specific (KO-GT8++) magnitude testing between baseline (V02) and post-baseline frozen PBMC time points for the treatment group, for frozen PBMC samples. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Number of Pairs	Median (Range)	P Value
20µg			
Wk-4 (V02) vs. Wk4 (V06)	18	0.0014 [0.0000, 0.0050] vs. 0.0528 [0.0149, 0.2292]	<0.0001
Wk-4 (V02) vs. Wk8 (V07)	18	0.0014 [0.0000, 0.0050] vs. 0.0235 [0.0056, 0.1231]	<0.0001
Wk-4 (V02) vs. Wk10 (V08)	17	0.0015 [0.0000, 0.0050] vs. 0.3370 [0.0889, 0.8924]	<0.0001
Wk-4 (V02) vs. Wk16 (V10)	18	0.0014 [0.0000, 0.0050] vs. 0.1499 [0.0341, 0.3737]	<0.0001
100µg			
Wk-4 (V02) vs. Wk4 (V06)	18	0.0009 [0.0000, 0.0028] vs. 0.0724 [0.0241, 0.4719]	<0.0001
Wk-4 (V02) vs. Wk8 (V07)	17	0.0009 [0.0000, 0.0028] vs. 0.0385 [0.0116, 0.1537]	<0.0001
Wk-4 (V02) vs. Wk10 (V08)	17	0.0009 [0.0000, 0.0028] vs. 0.5124 [0.1403, 2.5581]	<0.0001
Wk-4 (V02) vs. Wk16 (V10)	16	0.0009 [0.0000, 0.0028] vs. 0.2482 [0.0305, 0.8489]	<0.0001

Table S29: Percent of IgG+ B cells that are GT8++ (regardless of KO binding status) magnitude testing between non-baseline time points for the treatment group, for frozen PBMC samples. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Number of Pairs	Median (Range)	P Value
20µg			
Wk4 (V06) vs. Wk8 (V07)	18	0.1264 [0.0528, 0.3482] vs. 0.0833 [0.0208, 0.2884]	0.0001
Wk4 (V06) vs. Wk10 (V08)	17	0.1284 [0.0528, 0.3482] vs. 2.0403 [0.3117, 7.6517]	<0.0001
Wk4 (V06) vs. Wk16 (V10)	18	0.1264 [0.0528, 0.3482] vs. 0.5411 [0.1139, 1.7309]	<0.0001
Wk8 (V07) vs. Wk10 (V08)	17	0.0838 [0.0208, 0.2884] vs. 2.0403 [0.3117, 7.6517]	<0.0001
Wk8 (V07) vs. Wk16 (V10)	18	0.0833 [0.0208, 0.2884] vs. 0.5411 [0.1139, 1.7309]	<0.0001
Wk10 (V08) vs. Wk16 (V10)	17	2.0403 [0.3117, 7.6517] vs. 0.5513 [0.1139, 1.7309]	<0.0001
100µg			
Wk4 (V06) vs. Wk8 (V07)	17	0.1900 [0.0771, 0.8912] vs. 0.1142 [0.0404, 0.3422]	<0.0001
Wk4 (V06) vs. Wk10 (V08)	17	0.1900 [0.0771, 0.8912] vs. 2.7716 [0.9187, 9.1259]	<0.0001
Wk4 (V06) vs. Wk16 (V10)	16	0.1707 [0.0771, 0.8912] vs. 0.9596 [0.1715, 3.0402]	<0.0001
Wk8 (V07) vs. Wk10 (V08)	17	0.1142 [0.0404, 0.3422] vs. 2.7716 [0.9187, 9.1259]	<0.0001
Wk8 (V07) vs. Wk16 (V10)	16	0.1110 [0.0404, 0.3422] vs. 0.9596 [0.1715, 3.0402]	<0.0001
Wk10 (V08) vs. Wk16 (V10)	16	2.8572 [0.9187, 9.1259] vs. 0.9596 [0.1715, 3.0402]	<0.0001

Table S30: Percent of IgG+ B cells that are epitope-specific (KO-GT8++) magnitude testing between non-baseline time points for the treatment group, for frozen PBMC samples. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Number of Pairs	Median (Range)	P Value
20µg			
Wk4 (V06) vs. Wk8 (V07)	18	0.0528 [0.0149, 0.2292] vs. 0.0235 [0.0056, 0.1231]	<0.0001
Wk4 (V06) vs. Wk10 (V08)	17	0.0581 [0.0149, 0.2292] vs. 0.3370 [0.0889, 0.8924]	<0.0001
Wk4 (V06) vs. Wk16 (V10)	18	0.0528 [0.0149, 0.2292] vs. 0.1499 [0.0341, 0.3737]	0.0007
Wk8 (V07) vs. Wk10 (V08)	17	0.0241 [0.0056, 0.1231] vs. 0.3370 [0.0889, 0.8924]	<0.0001
Wk8 (V07) vs. Wk16 (V10)	18	0.0235 [0.0056, 0.1231] vs. 0.1499 [0.0341, 0.3737]	<0.0001
Wk10 (V08) vs. Wk16 (V10)	17	0.3370 [0.0889, 0.8924] vs. 0.1524 [0.0341, 0.3737]	<0.0001
100µg			
Wk4 (V06) vs. Wk8 (V07)	17	0.0768 [0.0241, 0.4719] vs. 0.0385 [0.0116, 0.1537]	<0.0001
Wk4 (V06) vs. Wk10 (V08)	17	0.0768 [0.0241, 0.4719] vs. 0.5124 [0.1403, 2.5581]	<0.0001
Wk4 (V06) vs. Wk16 (V10)	16	0.0789 [0.0241, 0.4719] vs. 0.2482 [0.0305, 0.8489]	0.0002
Wk8 (V07) vs. Wk10 (V08)	17	0.0385 [0.0116, 0.1537] vs. 0.5124 [0.1403, 2.5581]	<0.0001
Wk8 (V07) vs. Wk16 (V10)	16	0.0422 [0.0116, 0.1537] vs. 0.2482 [0.0305, 0.8489]	<0.0001
Wk10 (V08) vs. Wk16 (V10)	16	0.5330 [0.1403, 2.5581] vs. 0.2482 [0.0305, 0.8489]	<0.0001

Table S31: Percent of GT8++IgG+ B cells that are KO- magnitude testing between non-baseline time points for the treatment group, for frozen PBMC samples. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Number of Pairs	Median (Range)	P Value
20µg			
Wk8 (V07) vs. Wk10 (V08)	17	35.1955 [18.3673, 64.7059] vs. 16.7272 [7.4382, 40.5232]	<0.0001
Wk8 (V07) vs. Wk16 (V10)	18	33.9485 [18.3673, 64.7059] vs. 23.0036 [9.2417, 47.6780]	0.0010
100µg			
Wk8 (V07) vs. Wk10 (V08)	17	36.0902 [19.2000, 68.1992] vs. 16.9261 [5.1574, 42.5123]	<0.0001
Wk8 (V07) vs. Wk16 (V10)	16	36.6381 [19.2000, 68.1992] vs. 22.4774 [5.6008, 52.5964]	<0.0001

Table S32: Percent of IgD- B cells that are IgG+ magnitude testing between selected time points for the treatment groups. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Number of Pairs	Median (Range)	P Value
20µg			
Wk-4 (V02) vs. Wk3 (V05)	16	46.4807 [21.9120, 63.2837] vs. 51.5076 [36.3084, 65.2150]	0.2312
Wk-4 (V02) vs. Wk4 (V06)	18	46.4807 [21.3294, 63.2837] vs. 46.5943 [17.0214, 62.8927]	0.8650
Wk-4 (V02) vs. Wk8 (V07)	18	46.4807 [21.3294, 63.2837] vs. 48.1413 [19.2856, 61.7844]	1.0000
Wk-4 (V02) vs. Wk10 (V08)	17	47.2515 [21.3294, 63.2837] vs. 49.0220 [20.0712, 62.0421]	0.6112
Wk-4 (V02) vs. Wk11 (V09)	14	46.4807 [21.9120, 63.2837] vs. 55.3841 [46.7749, 73.4127]	0.0023
Wk-4 (V02) vs. Wk16 (V10)	18	46.4807 [21.3294, 63.2837] vs. 46.0667 [18.9283, 63.2096]	0.4171
Wk8 (V07) vs. Wk10 (V08)	17	48.4408 [19.2856, 61.7844] vs. 49.0220 [20.0712, 62.0421]	0.5171
Wk8 (V07) vs. Wk11 (V09)	14	48.1413 [22.3488, 61.7844] vs. 55.3841 [46.7749, 73.4127]	0.0017
Wk8 (V07) vs. Wk16 (V10)	18	48.1413 [19.2856, 61.7844] vs. 46.0667 [18.9283, 63.2096]	0.1964
100µg			
Wk-4 (V02) vs. Wk3 (V05)	16	50.7073 [34.8729, 66.7960] vs. 46.9267 [22.7768, 66.1065]	0.4332
Wk-4 (V02) vs. Wk4 (V06)	18	50.7073 [19.9276, 66.7960] vs. 49.5157 [20.1457, 65.7795]	0.3927
Wk-4 (V02) vs. Wk8 (V07)	17	51.8966 [19.9276, 66.7960] vs. 51.5263 [18.5166, 66.7367]	0.4038
Wk-4 (V02) vs. Wk10 (V08)	17	51.8966 [19.9276, 66.7960] vs. 52.8263 [20.4023, 68.0319]	0.0093
Wk-4 (V02) vs. Wk11 (V09)	14	50.7073 [34.8729, 66.7960] vs. 58.7416 [26.3119, 70.7053]	0.0419
Wk-4 (V02) vs. Wk16 (V10)	16	50.7073 [19.9276, 62.5092] vs. 49.4197 [22.0835, 63.7409]	0.8999
Wk8 (V07) vs. Wk10 (V08)	17	51.5263 [18.5166, 66.7367] vs. 52.8263 [20.4023, 68.0319]	0.0004
Wk8 (V07) vs. Wk11 (V09)	14	51.1829 [38.3040, 66.7367] vs. 58.7416 [26.3119, 70.7053]	0.0494
Wk8 (V07) vs. Wk16 (V10)	16	51.1829 [18.5166, 62.3137] vs. 49.4197 [22.0835, 63.7409]	0.2114

Table S33: Percent of GT8++KO- IgD- B cells that are IgG+ magnitude testing between selected time points for the treatment groups. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Number of Pairs	Median (Range)	P Value
20µg			
Wk-4 (V02) vs. Wk3 (V05)	12	41.2698 [23.0769, 84.6154] vs. 70.2801 [39.9921, 94.9648]	0.0161
Wk-4 (V02) vs. Wk4 (V06)	18	44.0972 [22.2222, 84.6154] vs. 67.5008 [53.7217, 87.2340]	0.0003
Wk-4 (V02) vs. Wk8 (V07)	18	44.0972 [22.2222, 84.6154] vs. 70.7234 [57.3099, 89.5000]	<0.0001
Wk-4 (V02) vs. Wk10 (V08)	17	43.7500 [22.2222, 84.6154] vs. 76.9523 [67.1719, 94.1789]	<0.0001
Wk-4 (V02) vs. Wk11 (V09)	12	44.0972 [23.0769, 84.6154] vs. 83.3820 [69.7543, 99.7765]	0.0010
Wk-4 (V02) vs. Wk16 (V10)	18	44.0972 [22.2222, 84.6154] vs. 75.8582 [61.9962, 95.5499]	<0.0001
Wk8 (V07) vs. Wk10 (V08)	17	68.1592 [57.3099, 89.5000] vs. 76.9523 [67.1719, 94.1789]	0.0067
Wk8 (V07) vs. Wk11 (V09)	12	68.0796 [57.3099, 89.5000] vs. 83.3820 [69.7543, 99.7765]	0.0425
Wk8 (V07) vs. Wk16 (V10)	18	70.7234 [57.3099, 89.5000] vs. 75.8582 [61.9962, 95.5499]	0.0539
100µg			
Wk-4 (V02) vs. Wk3 (V05)	14	51.8065 [0.0000, 86.2745] vs. 69.9100 [7.0000, 85.7143]	0.0040
Wk-4 (V02) vs. Wk4 (V06)	17	51.5625 [0.0000, 86.2745] vs. 73.2639 [46.1300, 82.6667]	0.0002
Wk-4 (V02) vs. Wk8 (V07)	16	51.5877 [17.6471, 86.2745] vs. 80.8675 [45.3704, 88.5802]	<0.0001
Wk-4 (V02) vs. Wk10 (V08)	16	51.5877 [17.6471, 86.2745] vs. 87.7037 [50.1912, 93.8673]	<0.0001
Wk-4 (V02) vs. Wk11 (V09)	10	48.8582 [17.6471, 86.2745] vs. 92.4369 [58.3333, 97.5008]	0.0020
Wk-4 (V02) vs. Wk16 (V10)	15	51.5625 [17.6471, 75.4098] vs. 85.8966 [32.9140, 95.3407]	<0.0001
Wk8 (V07) vs. Wk10 (V08)	17	79.0738 [45.3704, 88.5802] vs. 87.2549 [50.1912, 93.8673]	0.0002
Wk8 (V07) vs. Wk11 (V09)	10	80.3445 [57.3333, 88.5802] vs. 92.4369 [58.3333, 97.5008]	0.1602
Wk8 (V07) vs. Wk16 (V10)	16	78.6087 [45.3704, 88.5802] vs. 85.3142 [32.9140, 95.3407]	0.0131

Table S34: Percent of GT8++KO- IgD- B cells that are IgG+ magnitude testing between selected time points for the treatment groups. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Number of Pairs	Median (Range)	P Value
20µg			
Wk-4 (V02) vs. Wk3 (V05)	8	53.8462 [0.0000, 90.0000] vs. 65.6028 [0.0000, 100.0000]	0.4609
Wk-4 (V02) vs. Wk4 (V06)	18	43.3798 [0.0000, 90.0000] vs. 65.4846 [46.0674, 86.7521]	0.0008
Wk-4 (V02) vs. Wk8 (V07)	18	43.3798 [0.0000, 90.0000] vs. 62.0207 [36.0000, 85.8333]	0.0023
Wk-4 (V02) vs. Wk10 (V08)	17	42.8571 [0.0000, 90.0000] vs. 70.0543 [48.9109, 92.3777]	0.0004
Wk-4 (V02) vs. Wk11 (V09)	7	46.1538 [0.0000, 90.0000] vs. 66.7423 [38.2353, 83.8148]	0.4688
Wk-4 (V02) vs. Wk16 (V10)	18	43.3798 [0.0000, 90.0000] vs. 70.2934 [49.2218, 92.4324]	0.0004
Wk8 (V07) vs. Wk10 (V08)	17	61.1842 [36.0000, 85.8333] vs. 70.0543 [48.9109, 92.3777]	0.0348
Wk8 (V07) vs. Wk11 (V09)	7	68.9655 [57.8947, 85.8333] vs. 66.7423 [38.2353, 83.8148]	0.3750
Wk8 (V07) vs. Wk16 (V10)	18	62.0207 [36.0000, 85.8333] vs. 70.2934 [49.2218, 92.4324]	0.0268
100µg			
Wk-4 (V02) vs. Wk3 (V05)	8	57.5650 [37.6812, 90.0000] vs. 61.8825 [37.9708, 74.2391]	0.7422
Wk-4 (V02) vs. Wk4 (V06)	17	53.8462 [0.0000, 90.0000] vs. 72.0971 [46.5347, 84.1463]	0.0002
Wk-4 (V02) vs. Wk8 (V07)	16	54.4231 [13.5135, 90.0000] vs. 74.9176 [39.8058, 88.6905]	0.0003
Wk-4 (V02) vs. Wk10 (V08)	16	54.4231 [13.5135, 90.0000] vs. 79.5598 [34.5692, 89.7868]	0.0002
Wk-4 (V02) vs. Wk11 (V09)	5	55.0000 [37.6812, 90.0000] vs. 83.0450 [66.0405, 92.5328]	0.0625
Wk-4 (V02) vs. Wk16 (V10)	15	53.8462 [13.5135, 70.5882] vs. 78.5714 [23.1019, 91.7148]	0.0003
Wk8 (V07) vs. Wk10 (V08)	17	74.4770 [39.8058, 88.6905] vs. 80.0357 [34.5692, 89.7868]	0.1202
Wk8 (V07) vs. Wk11 (V09)	5	80.7018 [49.8783, 88.6905] vs. 83.0450 [66.0405, 92.5328]	0.1875
Wk8 (V07) vs. Wk16 (V10)	16	73.9418 [39.8058, 87.5000] vs. 77.4450 [23.1019, 91.7148]	0.2744

Table S35: Number of CD4bs-specific IgG+ B cells detected as VRC01-class by participant and time point.

ID	Wk-4 (V02)	Wk3 (V05)	Wk4 (V06)	Wk8 (V07)	Wk9 (V07A)	Wk10 (V08)	Wk11 (V09)	Wk16 (V10)	Total
DPBS sucrose									
001	1	0	0	1	0	4	0	0	6
080	2	No LN	1	0	0	2	0	0	5
016	No Call	0	0	No Call	0	No Call	0	0	0
030	0	No LN	0	No Call	0	0	No LN	No Call	0
088	0	No LN	No Call	0	0	No Call	No LN	0	0
121	0	No LN	0	0	0	0	No LN	No Seq	0
152	0	No LN	No Call	0	0	0	No LN	No Call	0
164	0	0	0	0	0	0	0	No Call	0
165	0	0	0	0	0	No Call	0	No Seq	0
180	0	0	0	No Seq	0	No Call	0	No Seq	0
185	No Call	No LN	No Call	No Call	0	No Call	No LN	No Call	0
198	0	0	No Seq	0	0	No Call	No LN	No Call	0
20 µg eOD-GT8 60mer and AS01B									
100	0	32	34	26	2	23	8	33	158
077	1	27	7	8	1	3	0	5	52
151	0	101	25	18	5	27	0	15	191
005	0	19	7	1	0	9	0	7	43
036	0	No Seq	12	10	No Seq	13	22	28	85
051	0	8	4	1	0	40	0	25	78
110	0	11	7	5	0	13	0	10	46
153	0	No LN	4	1	4	21	No LN	4	34
014	0	0	3	2	No Seq	13	0	3	21
023	0	0	5	4	No Seq	20	0	21	50
046	0	0	7	1	0	31	0	7	46
047	No Call	0	7	1	No Seq	22	No LN	8	38
056	0	0	3	2	0	21	0	11	37
079	No Call	No LN	2	0	6	18	0	12	38
114	No Call	0	3	0	3	1	3	No Call	10
154	0	0	2	6	0	15	No Seq	8	31
187	0	No Seq	7	4	0	21	No LN	14	46
028	0	No Seq	0	0	2	No Visit	No Visit	No Call	2
100 µg eOD-GT8 60mer and AS01B									
060	No Call	111	34	37	16	16	14	22	250
112	0	2	10	18	1	11	22	8	72
193	1	31	40	17	32	37	51	26	235
062	0	56	3	3	No Seq	18	16	13	109
064	0	No Call	32	23	43	22	1	36	157
092	1	44	13	19	0	33	1	28	139
113	No Call	104	36	34	20	28	0	13	235
116	1	11	3	8	16	2	0	3	44
117	0	15	6	11	10	12	No LN	5	59
032	No Call	0	39	8	3	16	0	22	88
070	0	0	35	28	29	18	0	22	132
163	0	7	6	4	0	16	No LN	3	36
177	No Call	11	27	12	No Seq	26	0	15	91
191	0	No LN	8	11	No Seq	28	79	24	150
009	0	No LN	10	7	No Seq	15	No LN	14	46
068	0	0	5	4	3	0	1	No Visit	13
172	0	No Seq	7	No Visit	No Visit	No Visit	No Visit	No Visit	7
059	0	0	0	0	0	0	0	0	0

Note:

No Visit: Visits that participants missed

No LN: FNA samples where no lymph nodes could be detected

No Seq: Samples with missing sequence data entirely

No Call: Samples with sequence data insufficient to make a VRC01 call

Table S36: Percent of IgG+ B cells detected as VRC01-class by participant and time point. Baseline cases when missing sequence data have upper limit listed with *. The non-response sample with positive VRC01 rate has been grayed out and underlined

ID	Wk-4 (V02)	Wk3 (V05)	Wk4 (V06)	Wk8 (V07)	Wk9 (V07A)	Wk10 (V08)	Wk11 (V09)	Wk16 (V10)	Total Responses
DPBS sucrose									
001	0.00023	0.00000	0.00000	0.00147	0.00000	0.00246	0.00000	0.00000	2
080	0.00023	No LN	0.00062	0.00000	0.00000	0.00017	0.00000	0.00000	1
016	<0.00046*	0.00000	0.00000	No Call	0.00000	No Call	0.00000	0.00000	0
030	0.00000	No LN	0.00000	No Call	0.00000	0.00000	No LN	No Call	0
088	0.00000	No LN	No Call	0.00000	0.00000	No Call	No LN	0.00000	0
121	0.00000	No LN	0.00000	0.00000	0.00000	0.00000	No LN	No Seq	0
152	0.00000	No LN	No Call	0.00000	0.00000	0.00000	No LN	No Call	0
164	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	No Call	0
165	0.00000	0.00000	0.00000	0.00000	0.00000	No Call	0.00000	No Seq	0
180	0.00000	0.00000	0.00000	No Seq	0.00000	No Call	0.00000	No Seq	0
185	<0.00135*	No LN	No Call	No Call	0.00000	No Call	No LN	No Call	0
198	0.00000	0.00000	No Seq	0.00000	0.00000	No Call	No LN	No Call	0
20 µg eOD-GT8 60mer and AS01B									
100	0.00000	9.50707	0.05815	0.04924	0.47315	0.14477	3.98831	0.06797	7
077	0.00004	5.91179	0.00495	0.00385	0.85271	0.06395	0.00000	0.02769	6
151	0.00000	3.56850	0.09243	0.02639	0.90808	0.16492	0.00000	0.04119	6
005	0.00000	3.02004	0.01415	0.00312	0.00000	0.08775	0.00000	0.03581	5
036	0.00000	No Seq	0.02137	0.02340	No Seq	0.14013	8.72247	0.08161	5
051	0.00000	3.41394	0.01205	0.00160	0.00000	0.10569	0.00000	0.03917	5
110	0.00000	2.29021	0.01792	0.01303	0.00000	0.21483	0.00000	0.03496	5
153	0.00000	No LN	0.01404	0.00260	0.35410	0.07222	No LN	0.00528	5
014	0.00000	0.00000	0.00263	0.00140	No Seq	0.02137	0.00000	0.00300	4
023	0.00000	0.00000	0.00831	0.01837	No Seq	0.09614	0.00000	0.08261	4
046	0.00000	0.00000	0.00833	0.00177	0.00000	0.02395	0.00000	0.00796	4
047	<0.00022*	0.00000	0.00548	0.00070	No Seq	0.10098	No LN	0.01473	4
056	0.00000	0.00000	0.00337	0.00217	0.00000	0.07466	0.00000	0.01960	4
079	<0.00079*	No LN	0.00320	0.00000	0.87951	0.05352	0.00000	0.01779	4
114	<0.00191*	0.00000	0.01012	0.00000	0.18557	0.18971	0.03884	No Call	4
154	0.00000	0.00000	0.00306	0.00281	0.00000	0.03128	No Seq	0.02543	4
187	0.00000	No Seq	0.01016	0.00741	0.00000	0.02298	No LN	0.02402	4
028	0.00000	No Seq	0.00000	0.00000	0.42246	No Visit	No Visit	No Call	1
100 µg eOD-GT8 60mer and AS01B									
060	<0.00184*	6.47166	0.05659	0.04609	0.08584	0.11882	0.83774	0.10097	7
112	0.00000	6.29553	0.01288	0.01218	0.19458	0.10361	1.35167	0.02257	7
193	0.00017	1.53125	0.02405	0.01471	0.45926	0.09780	2.12833	0.06877	7
062	0.00000	9.44226	0.00135	0.00165	No Seq	0.02805	0.20184	0.01098	6
064	0.00000	No Call	0.05452	0.02396	2.07448	0.13053	0.07134	0.08166	6
092	0.00053	12.08845	0.02209	0.01542	0.00000	0.12869	0.04404	0.05668	6
113	<0.00239*	3.61759	0.16494	0.06075	0.88393	0.63763	0.00000	0.27180	6
116	0.00043	2.48642	0.01837	0.01054	0.53928	0.04613	0.00000	0.02797	6
117	0.00000	1.93598	0.02440	0.01695	0.29810	0.26475	No LN	0.04115	6
032	<0.00048*	0.00000	0.09651	0.01590	0.53327	0.19514	0.00000	0.10998	5
070	0.00000	0.00000	0.10225	0.03025	2.29432	0.60586	0.00000	0.19453	5
163	0.00000	0.29007	0.00618	0.00233	0.00000	0.07277	No LN	0.00763	5
177	<0.00088*	0.64857	0.02898	0.00981	No Seq	0.15712	0.00000	0.04781	5
191	0.00000	No LN	0.00740	0.00584	No Seq	0.06918	1.78884	0.03851	5
009	0.00000	No LN	0.01391	0.00549	No Seq	0.31345	No LN	0.04521	4
068	0.00000	0.00000	0.00549	0.00427	0.17865	0.00000	0.62103	No Visit	4
172	0.00000	No Seq	0.00915	No Visit	No Visit	No Visit	No Visit	No Visit	1
059	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0

Note:

*: Baseline cases when missing sequence data have upper limit

No Visit: Visits that participants missed

No LN: FNA samples where no lymph nodes could be detected

No Seq: Samples with missing sequence data entirely

No Call: Samples with sequence data insufficient to make a VRC01 call

Table S37: Number of participants with at least one IgG+ B cells detected as VRC01-class by treatment and time point (missing VRC01 calls set to 0).

	DPBS sucrose	20 µg eOD-GT8 60mer and AS01B	100 µg eOD-GT8 60mer and AS01B
Specific Visits			
Wk-4 (V02)	2 of 12 = 16.7% (4.7%, 44.8%)	1 of 18 = 5.6% (1.0%, 25.8%)	3 of 18 = 16.7% (5.8%, 39.2%)
Wk3 (V05)	0 of 6 = 0.0% (0.0%, 39.0%)	6 of 16 = 37.5% (18.5%, 61.4%)	10 of 16 = 62.5% (38.6%, 81.5%)
Wk4 (V06)	1 of 12 = 8.3% (1.5%, 35.4%)	17 of 18 = 94.4% (74.2%, 99.0%)	17 of 18 = 94.4% (74.2%, 99.0%)
Wk8 (V07)	1 of 12 = 8.3% (1.5%, 35.4%)	15 of 18 = 83.3% (60.8%, 94.2%)	16 of 17 = 94.1% (73.0%, 99.0%)
Wk9 (V07A)	0 of 12 = 0.0% (0.0%, 24.2%)	7 of 18 = 38.9% (20.3%, 61.4%)	10 of 17 = 58.8% (36.0%, 78.4%)
Wk10 (V08)	2 of 12 = 16.7% (4.7%, 44.8%)	17 of 17 = 100.0% (81.6%, 100.0%)	15 of 17 = 88.2% (65.7%, 96.7%)
Wk11 (V09)	0 of 6 = 0.0% (0.0%, 39.0%)	3 of 14 = 21.4% (7.6%, 47.6%)	8 of 14 = 57.1% (32.6%, 78.6%)
Wk16 (V10)	0 of 12 = 0.0% (0.0%, 24.2%)	16 of 18 = 88.9% (67.2%, 96.9%)	15 of 16 = 93.8% (71.7%, 98.9%)
Pooled Visits			
Any Post 1st Immunization (V05, V06, V07)	2 of 12 = 16.7% (4.7%, 44.8%)	17 of 18 = 94.4% (74.2%, 99.0%)	17 of 18 = 94.4% (74.2%, 99.0%)
Any Post 2nd Immunization (V7A, V08, V09, V10)	2 of 12 = 16.7% (4.7%, 44.8%)	18 of 18 = 100.0% (82.4%, 100.0%)	16 of 17 = 94.1% (73.0%, 99.0%)
Any Post 1st or 2nd Immunization (V05, V06, V07, V7A, V08, V09, V10)	2 of 12 = 16.7% (4.7%, 44.8%)	18 of 18 = 100.0% (82.4%, 100.0%)	17 of 18 = 94.4% (74.2%, 99.0%)

Table S38: IgG+ B cells detected as VRC01-class detectable response rate testing between baseline (V02) and post-baseline frozen PBMC time points for the treatment groups. Samples with epitope-specific cells but missing VRC01 calls are set to 0. Testing was done using McNemar's test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

Treatment	Comparison	Response Rates (95% Wilson CI)	P Value
20µg	Wk-4 (V02) vs. Wk4 (V06)	0/18 = 0.0% (0.0%, 17.6%) vs. 17/18 = 94.4% (74.2%, 99.0%)	0.0001
	Wk-4 (V02) vs. Wk8 (V07)	0/18 = 0.0% (0.0%, 17.6%) vs. 15/18 = 83.3% (60.8%, 94.2%)	0.0003
	Wk-4 (V02) vs. Wk10 (V08)	0/17 = 0.0% (0.0%, 18.4%) vs. 17/17 = 100.0% (81.6%, 100.0%)	0.0001
	Wk-4 (V02) vs. Wk16 (V10)	0/18 = 0.0% (0.0%, 17.6%) vs. 16/18 = 88.9% (67.2%, 96.9%)	0.0002
100µg	Wk-4 (V02) vs. Wk4 (V06)	0/18 = 0.0% (0.0%, 17.6%) vs. 17/18 = 94.4% (74.2%, 99.0%)	0.0001
	Wk-4 (V02) vs. Wk8 (V07)	0/17 = 0.0% (0.0%, 18.4%) vs. 16/17 = 94.1% (73.0%, 99.0%)	0.0002
	Wk-4 (V02) vs. Wk10 (V08)	0/17 = 0.0% (0.0%, 18.4%) vs. 15/17 = 88.2% (65.7%, 96.7%)	0.0003
	Wk-4 (V02) vs. Wk16 (V10)	0/16 = 0.0% (0.0%, 19.4%) vs. 15/16 = 93.8% (71.7%, 98.9%)	0.0003

Table S39: IgG+ B cells detected as VRC01-class detectable response rate testing between vaccine and placebo recipients by time point. Samples with epitope-specific cells but missing VRC01 calls are set to 0. Testing was done using Barnard's test (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

Comparison	Week (Visit)	Sample Type	Response Rates (95% Wilson CI)	P Value
Placebo vs. 20µg	Wk3 (V05)	FNA/IgG GC B cells	0/6 = 0.0% (0.0%, 39.0%) vs. 6/16 = 37.5% (18.5%, 61.4%)	0.0992
	Wk4 (V06)	PBMCs/IgG memory B cells	1/12 = 8.3% (1.5%, 35.4%) vs. 17/18 = 94.4% (74.2%, 99.0%)	<0.0001
	Wk8 (V07)	PBMCs/IgG memory B cells	1/12 = 8.3% (1.5%, 35.4%) vs. 15/18 = 83.3% (60.8%, 94.2%)	<0.0001
	Wk9 (V07A)	Fresh PBMCs/IgD- PBs	0/12 = 0.0% (0.0%, 24.2%) vs. 7/18 = 38.9% (20.3%, 61.4%)	0.0130
	Wk10 (V08)	PBMCs/IgG memory B cells	1/12 = 8.3% (1.5%, 35.4%) vs. 17/17 = 100.0% (81.6%, 100.0%)	<0.0001
	Wk11 (V09)	FNA/IgG GC B cells	0/6 = 0.0% (0.0%, 39.0%) vs. 3/14 = 21.4% (7.6%, 47.6%)	0.2888
	Wk16 (V10)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 16/18 = 88.9% (67.2%, 96.9%)	<0.0001
	Any Frozen Visit		2/12 = 16.7% (4.7%, 44.8%) vs. 17/18 = 94.4% (74.2%, 99.0%)	<0.0001
	Any V05/V06/V07		2/12 = 16.7% (4.7%, 44.8%) vs. 17/18 = 94.4% (74.2%, 99.0%)	<0.0001
	Any V07A/V08/V09/V10		1/12 = 8.3% (1.5%, 35.4%) vs. 18/18 = 100.0% (82.4%, 100.0%)	<0.0001
	Any Visit		2/12 = 16.7% (4.7%, 44.8%) vs. 18/18 = 100.0% (82.4%, 100.0%)	<0.0001
Placebo vs. 100µg	Wk3 (V05)	FNA/IgG GC B cells	0/6 = 0.0% (0.0%, 39.0%) vs. 10/16 = 62.5% (38.6%, 81.5%)	0.0092
	Wk4 (V06)	PBMCs/IgG memory B cells	1/12 = 8.3% (1.5%, 35.4%) vs. 17/18 = 94.4% (74.2%, 99.0%)	<0.0001
	Wk8 (V07)	PBMCs/IgG memory B cells	1/12 = 8.3% (1.5%, 35.4%) vs. 16/17 = 94.1% (73.0%, 99.0%)	<0.0001
	Wk9 (V07A)	Fresh PBMCs/IgD- PBs	0/12 = 0.0% (0.0%, 24.2%) vs. 10/17 = 58.8% (36.0%, 78.4%)	0.0009
	Wk10 (V08)	PBMCs/IgG memory B cells	1/12 = 8.3% (1.5%, 35.4%) vs. 15/17 = 88.2% (65.7%, 96.7%)	<0.0001
	Wk11 (V09)	FNA/IgG GC B cells	0/6 = 0.0% (0.0%, 39.0%) vs. 8/14 = 57.1% (32.6%, 78.6%)	0.0182
	Wk16 (V10)	PBMCs/IgG memory B cells	0/12 = 0.0% (0.0%, 24.2%) vs. 15/16 = 93.8% (71.7%, 98.9%)	<0.0001
	Any Frozen Visit		2/12 = 16.7% (4.7%, 44.8%) vs. 17/18 = 94.4% (74.2%, 99.0%)	<0.0001
	Any V05/V06/V07		2/12 = 16.7% (4.7%, 44.8%) vs. 17/18 = 94.4% (74.2%, 99.0%)	<0.0001
	Any V07A/V08/V09/V10		1/12 = 8.3% (1.5%, 35.4%) vs. 16/17 = 94.1% (73.0%, 99.0%)	<0.0001
	Any Visit		2/12 = 16.7% (4.7%, 44.8%) vs. 17/18 = 94.4% (74.2%, 99.0%)	<0.0001
20µg vs. 100µg	Wk3 (V05)	FNA/IgG GC B cells	6/16 = 37.5% (18.5%, 61.4%) vs. 10/16 = 62.5% (38.6%, 81.5%)	0.2269
	Wk4 (V06)	PBMCs/IgG memory B cells	17/18 = 94.4% (74.2%, 99.0%) vs. 17/18 = 94.4% (74.2%, 99.0%)	1.0000
	Wk8 (V07)	PBMCs/IgG memory B cells	15/18 = 83.3% (60.8%, 94.2%) vs. 16/17 = 94.1% (73.0%, 99.0%)	0.3918
	Wk9 (V07A)	Fresh PBMCs/IgD- PBs	7/18 = 38.9% (20.3%, 61.4%) vs. 10/17 = 58.8% (36.0%, 78.4%)	0.2843
	Wk10 (V08)	PBMCs/IgG memory B cells	17/17 = 100.0% (81.6%, 100.0%) vs. 15/17 = 88.2% (65.7%, 96.7%)	0.2012
	Wk11 (V09)	FNA/IgG GC B cells	3/14 = 21.4% (7.6%, 47.6%) vs. 8/14 = 57.1% (32.6%, 78.6%)	0.0640
	Wk16 (V10)	PBMCs/IgG memory B cells	16/18 = 88.9% (67.2%, 96.9%) vs. 15/16 = 93.8% (71.7%, 98.9%)	0.7107
	Any Frozen Visit		17/18 = 94.4% (74.2%, 99.0%) vs. 17/18 = 94.4% (74.2%, 99.0%)	1.0000
	Any V05/V06/V07		17/18 = 94.4% (74.2%, 99.0%) vs. 17/18 = 94.4% (74.2%, 99.0%)	1.0000
	Any V07A/V08/V09/V10		18/18 = 100.0% (82.4%, 100.0%) vs. 16/17 = 94.1% (73.0%, 99.0%)	0.3551
	Any Visit		18/18 = 100.0% (82.4%, 100.0%) vs. 17/18 = 94.4% (74.2%, 99.0%)	0.5255

Table S40: Percent of IgG+ B cells detected as VRC01-class testing between baseline (V02) and post-baseline frozen PBMC time points for the treatment group among detectable response participants at non-baseline time points. Samples with epitope-specific cells but missing VRC01 calls are set to 0. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Number of Pairs	Median (Range)	P Value
20µg			
Wk-4 (V02) vs. Wk4 (V06)	17	0.0000 [0.0000, 0.0000] vs. 0.0101 [0.0026, 0.0924]	<0.0001
Wk-4 (V02) vs. Wk8 (V07)	15	0.0000 [0.0000, 0.0000] vs. 0.0031 [0.0007, 0.0492]	<0.0001
Wk-4 (V02) vs. Wk10 (V08)	17	0.0000 [0.0000, 0.0000] vs. 0.0878 [0.0214, 0.2148]	<0.0001
Wk-4 (V02) vs. Wk16 (V10)	16	0.0000 [0.0000, 0.0000] vs. 0.0266 [0.0030, 0.0826]	<0.0001
100µg			
Wk-4 (V02) vs. Wk4 (V06)	17	0.0000 [0.0000, 0.0005] vs. 0.0221 [0.0014, 0.1649]	<0.0001
Wk-4 (V02) vs. Wk8 (V07)	16	0.0000 [0.0000, 0.0005] vs. 0.0134 [0.0016, 0.0608]	<0.0001
Wk-4 (V02) vs. Wk10 (V08)	15	0.0000 [0.0000, 0.0005] vs. 0.1287 [0.0281, 0.6376]	<0.0001
Wk-4 (V02) vs. Wk16 (V10)	15	0.0000 [0.0000, 0.0005] vs. 0.0478 [0.0076, 0.2718]	<0.0001

Table S41: Percent of IgG+ B cells or plasmablasts detected as VRC01-class, showing median and range values among detectable response participants for each time point and vaccine dose, and testing between vaccine dose among detectable response participants. Testing was done using the Wilcoxon rank-sum test (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted. Median, minimum, and maximum values are presented by treatment group and time point.

	Sample Type	Sample Sizes	Median (Range)	P Value
20µg vs. 100µg				
Wk3 (V05)	FNA/IgG GC B cells	6 vs. 10	3.4912 [2.2902, 9.5071] vs. 3.0520 [0.2901, 12.0885]	0.7128
Wk4 (V06)	PBMCs/IgG memory B cells	17 vs. 17	0.0101 [0.0026, 0.0924] vs. 0.0221 [0.0014, 0.1649]	0.0447
Wk8 (V07)	PBMCs/IgG memory B cells	15 vs. 16	0.0031 [0.0007, 0.0492] vs. 0.0134 [0.0016, 0.0608]	0.0784
Wk9 (V07A)	Fresh PBMCs/IgD- PBs	7 vs. 10	0.4731 [0.1856, 0.9081] vs. 0.4963 [0.0858, 2.2943]	0.8868
Wk10 (V08)	PBMCs/IgG memory B cells	17 vs. 15	0.0878 [0.0214, 0.2148] vs. 0.1287 [0.0281, 0.6376]	0.0757
Wk11 (V09)	FNA/IgG GC B cells	3 vs. 8	3.9883 [0.0388, 8.7225] vs. 0.7294 [0.0440, 2.1283]	0.4970
Wk16 (V10)	PBMCs/IgG memory B cells	16 vs. 15	0.0266 [0.0030, 0.0826] vs. 0.0478 [0.0076, 0.2718]	0.0298

Table S42: Percent of IgG+ B cells detected as VRC01-class testing between non-baseline time points for the treatment group, for frozen PBMC samples. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Number of Pairs	Median (Range)	P Value
20µg			
Wk4 (V06) vs. Wk8 (V07)	15	0.0102 [0.0026, 0.0924] vs. 0.0031 [0.0007, 0.0492]	0.0103
Wk4 (V06) vs. Wk10 (V08)	17	0.0101 [0.0026, 0.0924] vs. 0.0878 [0.0214, 0.2148]	<0.0001
Wk4 (V06) vs. Wk16 (V10)	16	0.0092 [0.0026, 0.0924] vs. 0.0266 [0.0030, 0.0826]	0.0076
Wk8 (V07) vs. Wk10 (V08)	15	0.0031 [0.0007, 0.0492] vs. 0.0878 [0.0214, 0.2148]	<0.0001
Wk8 (V07) vs. Wk16 (V10)	15	0.0031 [0.0007, 0.0492] vs. 0.0277 [0.0030, 0.0826]	<0.0001
Wk10 (V08) vs. Wk16 (V10)	16	0.0812 [0.0214, 0.2148] vs. 0.0266 [0.0030, 0.0826]	<0.0001
100µg			
Wk4 (V06) vs. Wk8 (V07)	16	0.0231 [0.0014, 0.1649] vs. 0.0134 [0.0016, 0.0608]	<0.0001
Wk4 (V06) vs. Wk10 (V08)	15	0.0240 [0.0014, 0.1649] vs. 0.1287 [0.0281, 0.6376]	<0.0001
Wk4 (V06) vs. Wk16 (V10)	15	0.0240 [0.0014, 0.1649] vs. 0.0478 [0.0076, 0.2718]	<0.0001
Wk8 (V07) vs. Wk10 (V08)	15	0.0147 [0.0016, 0.0608] vs. 0.1287 [0.0281, 0.6376]	<0.0001
Wk8 (V07) vs. Wk16 (V10)	15	0.0147 [0.0016, 0.0608] vs. 0.0478 [0.0076, 0.2718]	<0.0001
Wk10 (V08) vs. Wk16 (V10)	15	0.1287 [0.0281, 0.6376] vs. 0.0478 [0.0076, 0.2718]	<0.0001

Table S43: Genotype by participant

ID	Genotype	Grouped Genotype
DPBS sucrose		
016	*02/*02	*02/*02 and *02/*02_S4953
180	*02/*02	*02/*02 and *02/*02_S4953
001	*02/*02_S4953	*02/*02 and *02/*02_S4953
088	*02/*04	*02/*04
121	*02/*04	*02/*04
164	*02/*04	*02/*04
165	*02/*04	*02/*04
198	*02/*04	*02/*04
030	*04/*04	*04/*04
152	*04/*04	*04/*04
080	*02/*06	*02/*05 and *02/*06
185	*02/*06	*02/*05 and *02/*06
20 µg eOD-GT8 60mer and AS01B		
036	*02/*02	*02/*02 and *02/*02_S4953
046	*02/*04	*02/*04
077	*02/*04	*02/*04
100	*02/*04	*02/*04
187	*02/*04	*02/*04
005	*04/*04	*04/*04
014	*04/*04	*04/*04
028	*04/*04	*04/*04
079	*04/*04	*04/*04
110	*04/*04	*04/*04
114	*04/*04	*04/*04
151	*04/*04	*04/*04
023	*04/*05	*04/*05 and *04/*06
047	*04/*06	*04/*05 and *04/*06
051	*04/*06	*04/*05 and *04/*06
056	*04/*06	*04/*05 and *04/*06
153	*04/*06	*04/*05 and *04/*06
154	*04/*06	*04/*05 and *04/*06
100 µg eOD-GT8 60mer and AS01B		
009	*02/*02	*02/*02 and *02/*02_S4953
032	*02/*02	*02/*02 and *02/*02_S4953
060	*02/*02	*02/*02 and *02/*02_S4953
070	*02/*02	*02/*02 and *02/*02_S4953
092	*02/*02	*02/*02 and *02/*02_S4953
177	*02/*02	*02/*02 and *02/*02_S4953
113	*02/*02_S4953	*02/*02 and *02/*02_S4953
062	*02/*04	*02/*04
064	*02/*04	*02/*04
112	*02/*04	*02/*04
193	*02/*04	*02/*04
117	*04/*04	*04/*04
068	*04/*05	*04/*05 and *04/*06
163	*04/*06	*04/*05 and *04/*06
172	*04/*06	*04/*05 and *04/*06
116	*02/*05	*02/*05 and *02/*06
191	*02/*05	*02/*05 and *02/*06
059	*05/*06	*05/*06

Table S44: Number of CD4bs-specific non-VRC01-class sequences by participant and time point.

ID	Wk-4 (V02)	Wk3 (V05)	Wk4 (V06)	Wk8 (V07)	Wk9 (V07A)	Wk10 (V08)	Wk11 (V09)	Wk16 (V10)	Total
DPBS sucrose									
001	7	0	2	0	0	0	0	3	12
016	0	0	0	0	0	0	0	0	0
030	2	0	4	0	0	5	0	0	11
080	5	0	1	2	0	8	0	2	18
088	1	0	0	1	0	0	0	0	2
121	5	0	1	1	0	3	0	0	10
152	3	0	0	1	0	1	0	0	5
164	6	0	1	1	0	5	0	0	13
165	4	0	1	3	0	0	0	0	8
180	2	0	2	0	0	0	0	0	4
185	0	0	0	0	0	0	0	0	0
198	2	0	0	1	0	0	0	0	3
20 µg eOD-GT8 60mer and AS01B									
005	1	96	39	10	79	78	0	50	353
014	1	5	14	6	0	68	2	47	143
023	7	0	46	12	0	58	94	74	291
028	2	0	11	9	41	0	0	0	63
036	4	0	21	10	0	48	81	59	223
046	3	0	49	12	7	84	83	23	261
047	0	53	30	20	0	45	0	43	191
051	7	66	54	46	49	77	0	80	379
056	3	0	33	6	5	55	53	32	187
077	10	52	59	42	5	34	45	39	286
079	0	0	19	11	45	32	28	46	181
100	2	31	46	39	80	49	45	41	333
110	1	204	26	8	15	41	3	47	345
114	0	0	10	12	23	2	81	0	128
151	1	34	37	34	29	51	87	54	327
153	3	0	9	7	31	77	0	50	177
154	1	46	29	28	12	92	0	31	239
187	9	0	33	15	3	81	0	75	216
100 µg eOD-GT8 60mer and AS01B									
009	5	0	31	37	0	46	0	71	190
032	0	0	39	31	8	34	0	38	150
059	1	46	49	38	72	63	64	46	379
060	0	9	61	58	40	53	54	49	324
062	5	39	83	23	0	72	61	53	336
064	5	0	62	35	33	86	15	76	312
068	2	19	65	32	18	28	1	0	165
070	0	0	55	47	38	58	0	74	272
092	4	29	18	16	9	21	16	24	137
112	5	5	40	50	16	38	14	51	219
113	0	14	67	52	54	64	9	22	282
116	1	18	14	32	54	22	0	23	164
117	7	28	33	32	28	32	0	45	205
163	8	53	44	27	9	31	0	9	181
172	0	0	45	0	0	0	0	0	45
177	0	48	60	35	0	68	0	71	282
191	5	0	18	23	0	55	41	70	212
193	1	30	40	9	14	66	26	42	228

Table S45: Summary statistics for median values for each participant by VRC01 class, aa or nt mutations, VH or VK/VL, treatment, and time point. 25th, 50th, and 75th quantiles displayed.

		25%/50%/75% Quantiles			
		VRC01-class / aa	VRC01-class / nt	non-VRC01-class / aa	non-VRC01-class / nt
VH					
20μg					
	Wk-4 (V02)	n=1; 6.122/6.122/6.122	n=1; 2.712/2.712/2.712	n=15; 6.633/9.184/12.701	n=15; 3.885/5.424/7.621
	Wk3 (V05)	n=6; 1.020/1.020/1.786	n=6; 0.424/0.679/0.680	n=9; 2.020/2.041/2.041	n=9; 1.003/1.006/1.017
	Wk4 (V06)	n=17; 0.000/0.000/1.020	n=17; 0.000/0.339/0.676	n=18; 2.041/3.046/5.064	n=18; 1.021/1.353/2.308
	Wk8 (V07)	n=15; 0.000/1.531/2.041	n=15; 0.339/0.680/1.355	n=18; 2.554/3.793/5.141	n=18; 1.239/2.037/2.636
	Wk9 (V07A)	n=7; 1.788/2.062/3.316	n=7; 1.025/1.699/2.034	n=14; 3.340/5.102/5.880	n=14; 2.043/2.551/3.033
	Wk10 (V08)	n=17; 2.041/3.093/4.082	n=17; 1.020/1.695/1.709	n=17; 3.061/4.082/4.613	n=17; 1.359/1.724/2.034
	Wk11 (V09)	n=3; 4.592/5.102/5.612	n=3; 2.561/2.716/2.884	n=11; 5.355/7.143/7.690	n=11; 2.881/3.236/3.807
	Wk16 (V10)	n=16; 2.041/3.061/3.093	n=16; 1.147/1.359/1.870	n=16; 3.061/3.551/4.082	n=16; 1.361/1.698/2.038
100μg					
	Wk-4 (V02)	n=3; 1.531/3.061/3.571	n=3; 1.187/2.373/2.543	n=12; 5.612/9.184/11.862	n=12; 3.663/4.572/6.255
	Wk3 (V05)	n=10; 1.020/1.536/2.041	n=10; 0.678/0.681/0.934	n=12; 2.041/2.041/2.308	n=12; 0.932/1.021/1.228
	Wk4 (V06)	n=17; 0.000/0.000/1.020	n=17; 0.000/0.000/0.342	n=18; 1.023/2.051/3.827	n=18; 0.546/1.012/1.844
	Wk8 (V07)	n=16; 0.765/1.531/2.312	n=16; 0.257/1.016/1.361	n=17; 2.041/3.077/5.051	n=17; 1.181/1.858/2.373
	Wk9 (V07A)	n=10; 3.061/3.834/4.097	n=10; 1.695/1.699/2.081	n=13; 3.061/4.082/6.092	n=13; 1.356/2.365/2.726
	Wk10 (V08)	n=15; 1.536/3.061/3.837	n=15; 1.018/1.701/1.705	n=17; 3.031/4.082/5.102	n=17; 1.029/1.873/2.365
	Wk11 (V09)	n=8; 5.740/6.664/7.143	n=8; 2.301/3.051/3.729	n=10; 6.397/8.182/9.986	n=10; 3.227/3.747/4.862
	Wk16 (V10)	n=15; 3.061/3.077/4.135	n=15; 1.273/1.730/2.213	n=16; 3.053/4.082/4.368	n=16; 1.350/1.709/2.365
VK/VL					
20μg					
	Wk-4 (V02)	n=1; 6.452/6.452/6.452	n=1; 2.518/2.518/2.518	n=15; 3.590/7.292/10.257	n=15; 1.529/3.716/5.446
	Wk3 (V05)	n=6; 0.000/0.538/1.084	n=6; 0.090/0.360/0.363	n=9; 1.053/1.053/2.041	n=9; 0.513/0.678/0.704
	Wk4 (V06)	n=17; 0.000/0.000/1.047	n=17; 0.000/0.000/0.348	n=18; 1.040/2.073/3.031	n=18; 0.431/0.874/1.370
	Wk8 (V07)	n=15; 0.000/1.087/2.148	n=15; 0.179/0.362/0.982	n=18; 1.211/2.078/3.469	n=18; 0.680/1.024/1.836
	Wk9 (V07A)	n=7; 1.093/2.723/4.348	n=7; 0.724/0.905/1.629	n=14; 2.322/3.093/3.183	n=14; 1.336/1.397/1.727
	Wk10 (V08)	n=17; 1.087/2.174/3.226	n=17; 0.544/1.071/1.779	n=17; 2.041/2.116/3.061	n=17; 0.707/1.068/1.342
	Wk11 (V09)	n=3; 1.893/2.151/2.724	n=3; 1.092/1.099/1.177	n=11; 4.167/4.211/5.693	n=11; 2.063/2.439/2.676
	Wk16 (V10)	n=16; 1.099/1.622/2.174	n=16; 0.717/0.732/1.164	n=16; 2.036/2.094/2.353	n=16; 0.704/1.058/1.362
100μg					
	Wk-4 (V02)	n=3; 0.515/1.031/4.597	n=3; 0.171/0.341/3.730	n=12; 4.156/5.264/6.577	n=12; 1.731/2.113/3.234
	Wk3 (V05)	n=10; 1.087/1.099/1.099	n=10; 0.361/0.366/0.720	n=12; 1.050/1.073/2.083	n=12; 0.592/0.690/0.785
	Wk4 (V06)	n=17; 0.000/0.000/1.031	n=17; 0.000/0.179/0.357	n=18; 1.044/1.985/2.444	n=18; 0.354/0.701/1.076
	Wk8 (V07)	n=16; 0.000/1.099/1.651	n=16; 0.000/0.547/0.728	n=17; 1.058/2.105/3.046	n=17; 0.876/1.355/1.399
	Wk9 (V07A)	n=10; 2.177/2.192/2.995	n=10; 1.086/1.095/1.401	n=13; 2.105/3.093/3.158	n=13; 1.048/1.379/1.706
	Wk10 (V08)	n=15; 1.099/2.151/2.198	n=15; 0.722/0.896/1.097	n=17; 1.064/2.105/3.061	n=17; 0.702/1.099/1.377
	Wk11 (V09)	n=8; 3.007/3.279/4.360	n=8; 1.460/1.902/2.171	n=10; 3.259/4.513/5.265	n=10; 1.670/2.099/2.326
	Wk16 (V10)	n=15; 1.362/2.151/2.198	n=15; 0.720/0.893/1.534	n=16; 1.909/2.845/3.061	n=16; 0.710/1.192/1.354

Table S46: VRC01-class %aa mutations testing between selected time points by treatment and VH or VK/VL, among the median mutation values. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Comparison	Number of Pairs	Median (Range)	P Value
VH				
20µg	Wk-4 (V02) vs. Wk3 (V05)	1	6.1224 [6.1224, 6.1224] vs. 1.0204 [1.0204, 1.0204]	—
	Wk-4 (V02) vs. Wk4 (V06)	1	6.1224 [6.1224, 6.1224] vs. 1.0204 [1.0204, 1.0204]	—
	Wk-4 (V02) vs. Wk8 (V07)	1	6.1224 [6.1224, 6.1224] vs. 1.5306 [1.5306, 1.5306]	—
	Wk4 (V06) vs. Wk8 (V07)	15	1.0204 [0.0000, 2.0408] vs. 1.5306 [0.0000, 3.0928]	0.0522
	Wk8 (V07) vs. Wk9 (V07A)	4	1.7857 [0.5102, 3.0612] vs. 1.7883 [1.0204, 3.5714]	1.0000
	Wk8 (V07) vs. Wk10 (V08)	15	1.5306 [0.0000, 3.0928] vs. 3.0612 [0.0000, 5.1020]	0.0012
	Wk8 (V07) vs. Wk11 (V09)	2	1.8015 [0.5102, 3.0928] vs. 5.6122 [5.1020, 6.1224]	—
	Wk8 (V07) vs. Wk16 (V10)	15	1.5306 [0.0000, 3.0928] vs. 3.0612 [1.0204, 7.1429]	0.0051
	Wk3 (V05) vs. Wk11 (V09)	1	1.0204 [1.0204, 1.0204] vs. 5.1020 [5.1020, 5.1020]	—
	Wk10 (V08) vs. Wk16 (V10)	16	3.0770 [0.0000, 5.1020] vs. 3.0612 [1.0204, 7.1429]	0.8262
100µg	Wk-4 (V02) vs. Wk3 (V05)	3	3.0612 [0.0000, 4.0816] vs. 2.0408 [0.0000, 2.0408]	0.7500
	Wk-4 (V02) vs. Wk4 (V06)	3	3.0612 [0.0000, 4.0816] vs. 0.0000 [0.0000, 1.0204]	0.5000
	Wk-4 (V02) vs. Wk8 (V07)	3	3.0612 [0.0000, 4.0816] vs. 1.5306 [1.0309, 4.0816]	1.0000
	Wk4 (V06) vs. Wk8 (V07)	16	0.0000 [0.0000, 2.0408] vs. 1.5306 [0.0000, 4.0816]	0.0029
	Wk8 (V07) vs. Wk9 (V07A)	10	1.2808 [0.0000, 3.0928] vs. 3.8344 [0.0000, 7.2165]	0.0078
	Wk8 (V07) vs. Wk10 (V08)	15	1.5306 [0.0000, 4.0816] vs. 3.0612 [0.5102, 5.1546]	0.0077
	Wk8 (V07) vs. Wk11 (V09)	8	1.5464 [0.0000, 4.0816] vs. 6.6642 [2.0619, 8.1633]	0.0156
	Wk8 (V07) vs. Wk16 (V10)	15	1.5306 [0.0000, 4.0816] vs. 3.0770 [1.0204, 5.6385]	0.0002
	Wk3 (V05) vs. Wk11 (V09)	5	2.0408 [1.0204, 3.0612] vs. 7.1429 [2.0619, 8.1633]	0.0625
	Wk10 (V08) vs. Wk16 (V10)	15	3.0612 [0.5102, 5.1546] vs. 3.0770 [1.0204, 5.6385]	0.0527
VK/VL				
20µg	Wk-4 (V02) vs. Wk3 (V05)	1	6.4516 [6.4516, 6.4516] vs. 1.0870 [1.0870, 1.0870]	—
	Wk-4 (V02) vs. Wk4 (V06)	1	6.4516 [6.4516, 6.4516] vs. 0.0000 [0.0000, 0.0000]	—
	Wk-4 (V02) vs. Wk8 (V07)	1	6.4516 [6.4516, 6.4516] vs. 0.5376 [0.5376, 0.5376]	—
	Wk4 (V06) vs. Wk8 (V07)	15	0.0000 [0.0000, 2.1978] vs. 1.0870 [0.0000, 4.8387]	0.0059
	Wk8 (V07) vs. Wk9 (V07A)	4	0.8123 [0.0000, 3.3708] vs. 2.6940 [1.0753, 4.3956]	0.5000
	Wk8 (V07) vs. Wk10 (V08)	15	1.0870 [0.0000, 4.8387] vs. 2.1739 [0.0000, 4.3011]	0.0861
	Wk8 (V07) vs. Wk11 (V09)	2	1.6161 [1.0870, 2.1452] vs. 1.8935 [1.6364, 2.1505]	—
	Wk8 (V07) vs. Wk16 (V10)	15	1.0870 [0.0000, 4.8387] vs. 1.6247 [0.0000, 4.3011]	0.0983
	Wk3 (V05) vs. Wk11 (V09)	1	1.0753 [1.0753, 1.0753] vs. 1.6364 [1.6364, 1.6364]	—
	Wk10 (V08) vs. Wk16 (V10)	16	1.9052 [0.0000, 4.3011] vs. 1.6217 [0.0000, 4.3011]	0.9598
100µg	Wk-4 (V02) vs. Wk3 (V05)	3	1.0309 [0.0000, 8.1633] vs. 0.5376 [0.0000, 1.0989]	0.7500
	Wk-4 (V02) vs. Wk4 (V06)	3	1.0309 [0.0000, 8.1633] vs. 0.0000 [0.0000, 1.0753]	0.7500
	Wk-4 (V02) vs. Wk8 (V07)	3	1.0309 [0.0000, 8.1633] vs. 1.6484 [1.0870, 3.2967]	1.0000
	Wk4 (V06) vs. Wk8 (V07)	16	0.0000 [0.0000, 1.0989] vs. 1.0989 [0.0000, 3.2967]	0.0201
	Wk8 (V07) vs. Wk9 (V07A)	10	1.0989 [0.0000, 2.1739] vs. 2.1918 [1.0753, 4.3478]	0.0039
	Wk8 (V07) vs. Wk10 (V08)	15	1.0989 [0.0000, 3.2967] vs. 2.1505 [0.0000, 3.8462]	0.0569
	Wk8 (V07) vs. Wk11 (V09)	8	1.0929 [0.0000, 3.2967] vs. 3.2788 [1.0989, 5.4348]	0.0391
	Wk8 (V07) vs. Wk16 (V10)	15	1.0989 [0.0000, 3.2967] vs. 2.1505 [0.0000, 4.3956]	0.0087
	Wk3 (V05) vs. Wk11 (V09)	5	1.0989 [0.5376, 1.6129] vs. 3.2609 [1.0989, 4.3956]	0.0625
	Wk10 (V08) vs. Wk16 (V10)	15	2.1505 [0.0000, 3.8462] vs. 2.1505 [0.0000, 4.3956]	0.3733

Table S47: VRC01-class %nt mutations testing between selected time points by treatment and VH or VK/VL, among the median mutation values. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Comparison	Number of Pairs	Median (Range)	P Value
VH				
20µg	Wk-4 (V02) vs. Wk3 (V05)	1	2.7120 [2.7120, 2.7120] vs. 0.6800 [0.6800, 0.6800]	—
	Wk-4 (V02) vs. Wk4 (V06)	1	2.7120 [2.7120, 2.7120] vs. 0.3400 [0.3400, 0.3400]	—
	Wk-4 (V02) vs. Wk8 (V07)	1	2.7120 [2.7120, 2.7120] vs. 0.5100 [0.5100, 0.5100]	—
	Wk4 (V06) vs. Wk8 (V07)	15	0.3390 [0.0000, 0.6805] vs. 0.6800 [0.0000, 2.0270]	0.0134
	Wk8 (V07) vs. Wk9 (V07A)	4	0.5953 [0.5100, 2.0270] vs. 1.1895 [0.5155, 2.0340]	0.8750
	Wk8 (V07) vs. Wk10 (V08)	15	0.6800 [0.0000, 2.0270] vs. 1.6950 [0.3390, 2.4050]	0.0353
	Wk8 (V07) vs. Wk11 (V09)	2	1.0265 [0.5105, 1.5425] vs. 2.8838 [2.7165, 3.0510]	—
	Wk8 (V07) vs. Wk16 (V10)	15	0.6800 [0.0000, 2.0270] vs. 1.3560 [0.3390, 3.7290]	0.0125
	Wk3 (V05) vs. Wk11 (V09)	1	0.3400 [0.3400, 0.3400] vs. 2.7165 [2.7165, 2.7165]	—
	Wk10 (V08) vs. Wk16 (V10)	16	1.6950 [0.3390, 2.4050] vs. 1.3585 [0.3390, 3.7290]	0.5448
100µg	Wk-4 (V02) vs. Wk3 (V05)	3	2.3730 [0.0000, 2.7120] vs. 0.6790 [0.0000, 0.6850]	0.5000
	Wk-4 (V02) vs. Wk4 (V06)	3	2.3730 [0.0000, 2.7120] vs. 0.0000 [0.0000, 0.3410]	0.5000
	Wk-4 (V02) vs. Wk8 (V07)	3	2.3730 [0.0000, 2.7120] vs. 1.0185 [0.3420, 1.7180]	0.5000
	Wk4 (V06) vs. Wk8 (V07)	16	0.0000 [0.0000, 1.0170] vs. 1.0162 [0.0000, 2.0340]	0.0015
	Wk8 (V07) vs. Wk9 (V07A)	10	1.0162 [0.0000, 2.0340] vs. 1.6993 [0.0000, 3.4250]	0.0039
	Wk8 (V07) vs. Wk10 (V08)	15	1.0185 [0.0000, 2.0340] vs. 1.7010 [0.3380, 2.7300]	0.0093
	Wk8 (V07) vs. Wk11 (V09)	8	0.8460 [0.0000, 1.7180] vs. 3.0510 [1.0240, 4.0820]	0.0156
	Wk8 (V07) vs. Wk16 (V10)	15	1.0185 [0.0000, 2.0340] vs. 1.7300 [0.3400, 2.7120]	0.0010
	Wk3 (V05) vs. Wk11 (V09)	5	0.6830 [0.5110, 1.3585] vs. 3.7290 [1.0240, 4.0820]	0.0625
	Wk10 (V08) vs. Wk16 (V10)	15	1.7010 [0.3380, 2.7300] vs. 1.7300 [0.3400, 2.7120]	0.1462
VK/VL				
20µg	Wk-4 (V02) vs. Wk3 (V05)	1	2.5180 [2.5180, 2.5180] vs. 0.3640 [0.3640, 0.3640]	—
	Wk-4 (V02) vs. Wk4 (V06)	1	2.5180 [2.5180, 2.5180] vs. 0.3390 [0.3390, 0.3390]	—
	Wk-4 (V02) vs. Wk8 (V07)	1	2.5180 [2.5180, 2.5180] vs. 0.3625 [0.3625, 0.3625]	—
	Wk4 (V06) vs. Wk8 (V07)	15	0.0000 [0.0000, 0.7270] vs. 0.3625 [0.0000, 1.8800]	0.0022
	Wk8 (V07) vs. Wk9 (V07A)	4	0.3617 [0.1820, 1.8800] vs. 1.0897 [0.5430, 1.7920]	0.3750
	Wk8 (V07) vs. Wk10 (V08)	15	0.3625 [0.0000, 1.8800] vs. 1.0710 [0.0000, 2.1430]	0.0302
	Wk8 (V07) vs. Wk11 (V09)	2	0.6272 [0.3610, 0.8935] vs. 1.1700 [1.0855, 1.2545]	—
	Wk8 (V07) vs. Wk16 (V10)	15	0.3625 [0.0000, 1.8800] vs. 0.7330 [0.0000, 2.1430]	0.0302
	Wk3 (V05) vs. Wk11 (V09)	1	0.3580 [0.3580, 0.3580] vs. 1.0855 [1.0855, 1.0855]	—
	Wk10 (V08) vs. Wk16 (V10)	16	0.9053 [0.0000, 2.1430] vs. 0.7315 [0.0000, 2.1430]	0.9599
100µg	Wk-4 (V02) vs. Wk3 (V05)	3	0.3410 [0.0000, 7.1190] vs. 0.3580 [0.0000, 0.3640]	0.7500
	Wk-4 (V02) vs. Wk4 (V06)	3	0.3410 [0.0000, 7.1190] vs. 0.3570 [0.0000, 0.3640]	0.7500
	Wk-4 (V02) vs. Wk8 (V07)	3	0.3410 [0.0000, 7.1190] vs. 0.7315 [0.3610, 1.8180]	1.0000
	Wk4 (V06) vs. Wk8 (V07)	16	0.1795 [0.0000, 0.3670] vs. 0.5472 [0.0000, 1.8180]	0.0145
	Wk8 (V07) vs. Wk9 (V07A)	10	0.6307 [0.0000, 1.0830] vs. 1.0950 [0.3570, 2.1660]	0.0020
	Wk8 (V07) vs. Wk10 (V08)	15	0.5505 [0.0000, 1.8180] vs. 0.8965 [0.0000, 1.4390]	0.0750
	Wk8 (V07) vs. Wk11 (V09)	8	0.5400 [0.0000, 1.8180] vs. 1.9020 [0.7330, 2.5180]	0.0547
	Wk8 (V07) vs. Wk16 (V10)	15	0.5505 [0.0000, 1.8180] vs. 0.8930 [0.0000, 2.1980]	0.0215
	Wk3 (V05) vs. Wk11 (V09)	5	0.3640 [0.3580, 0.7330] vs. 1.9990 [0.7330, 2.2300]	0.0625
	Wk10 (V08) vs. Wk16 (V10)	15	0.8965 [0.0000, 1.4390] vs. 0.8930 [0.0000, 2.1980]	0.2524

Table S48: non-VRC01-class %aa mutations testing between selected time points by treatment and VH or VK/VL, among the median mutation values. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Comparison	Number of Pairs	Median (Range)	P Value
VH				
20µg	Wk-4 (V02) vs. Wk3 (V05)	8	7.6531 [3.0612, 11.3402] vs. 2.0305 [1.0204, 4.0816]	0.0078
	Wk-4 (V02) vs. Wk4 (V06)	15	9.1837 [3.0612, 22.4617] vs. 3.0303 [1.0204, 7.1429]	0.0002
	Wk-4 (V02) vs. Wk8 (V07)	15	9.1837 [3.0612, 22.4617] vs. 4.0404 [0.0000, 11.7347]	0.0006
	Wk4 (V06) vs. Wk8 (V07)	18	3.0458 [1.0204, 7.1429] vs. 3.7934 [0.0000, 11.7347]	0.4617
	Wk8 (V07) vs. Wk9 (V07A)	14	3.3196 [0.0000, 6.1224] vs. 5.1020 [2.0619, 7.1429]	0.0067
	Wk8 (V07) vs. Wk10 (V08)	17	3.5464 [0.0000, 11.7347] vs. 4.0816 [0.5102, 8.0808]	0.6099
	Wk8 (V07) vs. Wk11 (V09)	11	3.0612 [0.0000, 11.7347] vs. 7.1429 [3.0928, 12.3711]	0.0244
	Wk8 (V07) vs. Wk16 (V10)	16	3.5872 [0.0000, 11.7347] vs. 3.5508 [3.0303, 6.1856]	0.8799
	Wk3 (V05) vs. Wk11 (V09)	5	2.0202 [1.0204, 4.0816] vs. 7.2165 [3.0928, 12.3711]	0.0625
	Wk10 (V08) vs. Wk16 (V10)	16	4.0816 [2.0202, 8.0808] vs. 3.5508 [3.0303, 6.1856]	0.3496
100µg	Wk-4 (V02) vs. Wk3 (V05)	9	9.1837 [2.0619, 16.3265] vs. 2.0408 [1.0309, 5.1020]	0.0039
	Wk-4 (V02) vs. Wk4 (V06)	12	9.1837 [2.0619, 16.3265] vs. 2.5615 [1.0204, 5.5762]	0.0024
	Wk-4 (V02) vs. Wk8 (V07)	12	9.1837 [2.0619, 16.3265] vs. 4.0713 [1.0204, 8.3333]	0.0103
	Wk4 (V06) vs. Wk8 (V07)	17	2.0408 [0.0000, 5.5762] vs. 3.0770 [1.0101, 8.3333]	0.0005
	Wk8 (V07) vs. Wk9 (V07A)	13	3.0612 [1.0101, 8.3333] vs. 4.0816 [2.0202, 8.1633]	0.0803
	Wk8 (V07) vs. Wk10 (V08)	17	3.0770 [1.0101, 8.3333] vs. 4.0816 [1.0204, 7.2165]	0.2842
	Wk8 (V07) vs. Wk11 (V09)	10	3.5611 [1.0204, 6.6642] vs. 8.1817 [4.0816, 12.8866]	0.0039
	Wk8 (V07) vs. Wk16 (V10)	16	3.0691 [1.0101, 8.3333] vs. 4.0816 [1.5203, 6.6327]	0.1365
	Wk3 (V05) vs. Wk11 (V09)	8	2.0408 [1.0204, 3.0612] vs. 7.1613 [4.0816, 12.8866]	0.0078
	Wk10 (V08) vs. Wk16 (V10)	16	4.0816 [1.0204, 7.2165] vs. 4.0816 [1.5203, 6.6327]	0.5039
VK/VL				
20µg	Wk-4 (V02) vs. Wk3 (V05)	8	6.1869 [0.0000, 20.8333] vs. 1.5467 [0.5102, 4.2329]	0.0391
	Wk-4 (V02) vs. Wk4 (V06)	15	7.2917 [0.0000, 24.5943] vs. 2.0619 [0.0000, 4.8020]	0.0007
	Wk-4 (V02) vs. Wk8 (V07)	15	7.2917 [0.0000, 24.5943] vs. 2.0330 [0.0000, 5.2637]	0.0020
	Wk4 (V06) vs. Wk8 (V07)	18	2.0726 [0.0000, 4.8020] vs. 2.0781 [0.0000, 5.2637]	0.2935
	Wk8 (V07) vs. Wk9 (V07A)	14	2.0474 [0.0000, 5.1020] vs. 3.0931 [2.0408, 5.2083]	0.0166
	Wk8 (V07) vs. Wk10 (V08)	17	2.0619 [0.0000, 5.2637] vs. 2.1165 [1.0526, 4.2105]	0.7467
	Wk8 (V07) vs. Wk11 (V09)	11	2.0619 [0.0000, 5.2637] vs. 4.2105 [3.0612, 7.4468]	0.0049
	Wk8 (V07) vs. Wk16 (V10)	16	2.0474 [0.0000, 5.2637] vs. 2.0943 [1.0582, 4.2553]	1.0000
	Wk3 (V05) vs. Wk11 (V09)	5	2.0408 [0.5102, 4.2329] vs. 4.7368 [4.0816, 7.4468]	0.0625
	Wk10 (V08) vs. Wk16 (V10)	16	2.1109 [1.0526, 4.2105] vs. 2.0943 [1.0582, 4.2553]	0.9797
100µg	Wk-4 (V02) vs. Wk3 (V05)	9	4.2105 [2.6316, 11.2245] vs. 2.0408 [0.0000, 3.1579]	0.0039
	Wk-4 (V02) vs. Wk4 (V06)	12	5.2637 [2.6316, 11.2245] vs. 2.1053 [0.0000, 4.5918]	0.0010
	Wk-4 (V02) vs. Wk8 (V07)	12	5.2637 [2.6316, 11.2245] vs. 2.3770 [0.0000, 3.6791]	0.0024
	Wk4 (V06) vs. Wk8 (V07)	17	1.9901 [0.0000, 4.5918] vs. 2.1053 [0.0000, 3.6791]	0.1577
	Wk8 (V07) vs. Wk9 (V07A)	13	2.1053 [0.0000, 3.6791] vs. 3.0928 [1.0365, 7.9208]	0.0215
	Wk8 (V07) vs. Wk10 (V08)	17	2.1053 [0.0000, 3.6791] vs. 2.1053 [0.4950, 5.0000]	0.3778
	Wk8 (V07) vs. Wk11 (V09)	10	2.0943 [0.0000, 3.1579] vs. 4.5131 [2.0833, 11.5789]	0.0059
	Wk8 (V07) vs. Wk16 (V10)	16	2.0943 [0.0000, 3.6791] vs. 2.8449 [1.0526, 4.6563]	0.0536
	Wk3 (V05) vs. Wk11 (V09)	8	1.0526 [0.0000, 3.1579] vs. 4.3031 [2.0833, 11.5789]	0.0156
	Wk10 (V08) vs. Wk16 (V10)	16	2.3271 [1.0153, 5.0000] vs. 2.8449 [1.0526, 4.6563]	0.4476

Table S49: non-VRC01-class %nt mutations testing between selected time points by treatment and VH or VK/VL, among the median mutation values. Testing was done using Wilcoxon signed-rank test for paired data (two-sided, $\alpha = 0.05$) and p values less than 0.05 are highlighted.

	Comparison	Number of Pairs	Median (Range)	P Value
VH				
20µg	Wk-4 (V02) vs. Wk3 (V05)	8	4.7610 [1.6890, 8.5320] vs. 1.0057 [0.6760, 1.3560]	0.0078
	Wk-4 (V02) vs. Wk4 (V06)	15	5.4240 [1.6890, 14.2335] vs. 1.3380 [0.3400, 4.5730]	0.0003
	Wk-4 (V02) vs. Wk8 (V07)	15	5.4240 [1.6890, 14.2335] vs. 2.0340 [0.0000, 6.5985]	0.0015
	Wk4 (V06) vs. Wk8 (V07)	18	1.3525 [0.3400, 4.5730] vs. 2.0375 [0.0000, 6.5985]	0.1187
	Wk8 (V07) vs. Wk9 (V07A)	14	1.8700 [0.0000, 4.0680] vs. 2.5510 [1.3510, 4.0540]	0.0023
	Wk8 (V07) vs. Wk10 (V08)	17	2.0410 [0.0000, 6.5985] vs. 1.7240 [0.1700, 5.0170]	0.6441
	Wk8 (V07) vs. Wk11 (V09)	11	1.6835 [0.0000, 6.5985] vs. 3.2365 [2.0270, 6.1640]	0.0420
	Wk8 (V07) vs. Wk16 (V10)	16	2.0375 [0.0000, 6.5985] vs. 1.6980 [1.0255, 3.0930]	0.4637
	Wk3 (V05) vs. Wk11 (V09)	5	1.0030 [0.6760, 1.3560] vs. 3.5595 [2.0270, 6.1640]	0.0625
	Wk10 (V08) vs. Wk16 (V10)	16	1.7975 [1.0170, 5.0170] vs. 1.6980 [1.0255, 3.0930]	0.3755
100µg	Wk-4 (V02) vs. Wk3 (V05)	9	4.7375 [0.6850, 10.1690] vs. 1.0240 [0.6800, 2.0270]	0.0078
	Wk-4 (V02) vs. Wk4 (V06)	12	4.5722 [0.6850, 10.1690] vs. 1.1880 [0.3380, 2.7030]	0.0005
	Wk-4 (V02) vs. Wk8 (V07)	12	4.5722 [0.6850, 10.1690] vs. 1.9507 [0.3400, 5.7430]	0.0161
	Wk4 (V06) vs. Wk8 (V07)	17	1.0070 [0.0000, 2.7030] vs. 1.8580 [0.3380, 5.7430]	0.0005
	Wk8 (V07) vs. Wk9 (V07A)	13	1.6890 [0.3380, 5.7430] vs. 2.3650 [0.8465, 4.9830]	0.4143
	Wk8 (V07) vs. Wk10 (V08)	17	1.8580 [0.3380, 5.7430] vs. 1.8725 [0.6770, 3.7160]	0.9632
	Wk8 (V07) vs. Wk11 (V09)	10	1.7793 [0.3400, 4.3920] vs. 3.7475 [1.6950, 6.3355]	0.0039
	Wk8 (V07) vs. Wk16 (V10)	16	1.7793 [0.3380, 5.7430] vs. 1.7090 [0.8435, 3.3780]	0.6322
	Wk3 (V05) vs. Wk11 (V09)	8	1.0190 [0.6790, 2.3650] vs. 3.4935 [1.6950, 6.3355]	0.0078
	Wk10 (V08) vs. Wk16 (V10)	16	1.9398 [0.6770, 3.7160] vs. 1.7090 [0.8435, 3.3780]	0.3345
VK/VL				
20µg	Wk-4 (V02) vs. Wk3 (V05)	8	3.2583 [0.3340, 11.1500] vs. 0.6780 [0.3510, 1.7480]	0.0547
	Wk-4 (V02) vs. Wk4 (V06)	15	3.7160 [0.3340, 12.7530] vs. 0.7020 [0.0000, 2.5095]	0.0012
	Wk-4 (V02) vs. Wk8 (V07)	15	3.7160 [0.3340, 12.7530] vs. 1.0145 [0.0000, 3.5210]	0.0034
	Wk4 (V06) vs. Wk8 (V07)	18	0.8743 [0.0000, 2.5095] vs. 1.0242 [0.0000, 3.5210]	0.1742
	Wk8 (V07) vs. Wk9 (V07A)	14	0.8593 [0.0000, 2.3650] vs. 1.3965 [0.6945, 2.8170]	0.0085
	Wk8 (V07) vs. Wk10 (V08)	17	1.0145 [0.0000, 3.5210] vs. 1.0680 [0.6825, 3.3560]	1.0000
	Wk8 (V07) vs. Wk11 (V09)	11	1.0145 [0.0000, 3.5210] vs. 2.4390 [1.0600, 6.0280]	0.0098
	Wk8 (V07) vs. Wk16 (V10)	16	0.8593 [0.0000, 3.5210] vs. 1.0580 [0.3540, 2.8670]	0.9199
	Wk3 (V05) vs. Wk11 (V09)	5	0.7040 [0.3510, 1.7480] vs. 2.6405 [2.3810, 6.0280]	0.0625
	Wk10 (V08) vs. Wk16 (V10)	16	1.0875 [0.6825, 3.3560] vs. 1.0580 [0.3540, 2.8670]	0.2744
100µg	Wk-4 (V02) vs. Wk3 (V05)	9	1.7540 [1.0170, 6.7800] vs. 0.6970 [0.0000, 1.6890]	0.0195
	Wk-4 (V02) vs. Wk4 (V06)	12	2.1130 [1.0170, 6.7800] vs. 1.0310 [0.0000, 1.6985]	0.0005
	Wk-4 (V02) vs. Wk8 (V07)	12	2.1130 [1.0170, 6.7800] vs. 1.3890 [0.0000, 1.5380]	0.0034
	Wk4 (V06) vs. Wk8 (V07)	17	0.7040 [0.0000, 1.6985] vs. 1.3545 [0.0000, 1.5380]	0.0161
	Wk8 (V07) vs. Wk9 (V07A)	13	1.0910 [0.0000, 1.5380] vs. 1.3795 [0.5075, 4.3050]	0.0215
	Wk8 (V07) vs. Wk10 (V08)	17	1.3545 [0.0000, 1.5380] vs. 1.0990 [0.1735, 2.3890]	0.5791
	Wk8 (V07) vs. Wk11 (V09)	10	1.2228 [0.0000, 1.5380] vs. 2.0990 [0.6970, 5.5940]	0.0195
	Wk8 (V07) vs. Wk16 (V10)	16	1.2228 [0.0000, 1.4080] vs. 1.1925 [0.6920, 2.3650]	0.6685
	Wk3 (V05) vs. Wk11 (V09)	8	0.6893 [0.0000, 1.3890] vs. 1.9810 [0.6970, 5.5940]	0.0156
	Wk10 (V08) vs. Wk16 (V10)	16	1.1542 [0.3475, 2.3890] vs. 1.1925 [0.6920, 2.3650]	0.8013

Table S50: Amino acid and nucleotide mutation levels of the seven VRC01-class BCRs detected at week -4

VRC01-class BCRs	Visit	vaccine_group	Treatment	Weeks Post Vaccine	v_mutation_aa_heavy	v_mutation_aa_light	v_mutation_nt_heavy	v_mutation_nt_light
PubID001_V02_P01_B05	V02	placebo	Low Dose	-4	13.27	5.43	6.42	2.89
PubID092_V02_P01_A08	V02	vaccine	High Dose	-4	4.08	8.16	2.71	7.12
PubID193_V02_P01_A06	V02	vaccine	High Dose	-4	0.00	0.00	0.00	0.00
PubID077_V02_P01_A05	V02	vaccine	Low Dose	-4	6.12	6.45	2.71	2.52
PubID116_V02_P01_B08	V02	vaccine	High Dose	-4	3.06	1.03	2.37	0.34
PubID080_V02_P01_B01	V02	placebo	High Dose	-4	19.39	12.90	11.19	6.09
PubID080_V02_P01_B10	V02	placebo	High Dose	-4	19.39	12.90	11.19	6.09