

Supporting Information

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Table S1. Hematology results

Hematology type and animal ID	Prestudy	Day 56	Day 70	Day 77	Day 84
White blood cell count, (x $E3/mm^3$)					
C0710	12.3	17.9	8.8	9.0	10.5
C0712	10.6	13.5	10.4	12.2	10.5
A195E	18.3	11.8	13.0	19.8	15.2
89A009	8.0	14.9	8.4	9.9	10.4
89A011	7.3	10.6	9.3	11.4	12.2
A242E	8.8	10.3	10.1	9.9	9.3
Red blood cell count (x $E6/mm^3$)					
C0710	4.69	4.52	4.64	4.66	4.74
C0712	4.93	4.78	4.98	4.96	5.13
A195E	5.82	5.88	5.84	5.76	5.71
9A009	5.50	5.69	5.59	5.54	5.48
89A011	5.48	5.38	5.16	5.10	5.26
A242E	6.37	6.12	6.24	6.13	6.06
Hemoglobin concentration (g/dL)					
C0710	13.1	12.5	12.8	12.7	12.9
C0712	13.1	13.1	13.1	13.1	13.7
A195E	15.0	15.2	15.3	15.1	15.0
89A009	15.6	15.7	15.7	15.5	15.3
89A011	14.4	13.7	13.6	13.5	14.2
A242E	17.7	16.9	17.2	17.4	17.0
Hematocrit (%)					
C0710	39.1	37.5	38.3	38.5	39.5
C0712	40.0	39.5	40.1	39.9	41.2
A195E	46.6	46.9	46.6	46.2	45.7
89A009	46.4	47.6	46.9	46.8	46.3
89A011	43.9	43.0	41.6	41.4	42.7
A242E	53.0	51.8	52.3	51.7	51.3
Mean corpuscular volume (fl)					
C0710	83.2	83.1	82.6	82.6	83.4
C0712	81.1	82.7	80.7	80.4	80.3
A195E	80.2	79.8	79.8	80.2	80.0
89A009	84.4	83.7	83.8	84.5	84.4
89A011	80.2	80.0	80.6	81.2	81.0
A242E	83.1	84.7	83.8	84.4	84.7
Mean corpuscular hemoglobin (pg)					
C0710	27.8	27.6	27.5	27.3	27.2
C0712	26.6	27.5	26.3	26.3	26.7
A195E	25.8	25.8	26.1	26.3	26.3
89A009	28.3	27.6	28.1	28.0	27.9
89A011	26.3	25.5	26.3	26.5	26.9
A242E	27.8	27.6	27.6	28.3	28.1
Mean corpuscular Hb concentration (g/dL)					
C0710	33.4	33.2	33.3	33.0	32.5
C0712	32.8	33.2	32.6	32.8	33.2
A195E	32.2	32.4	32.8	32.8	32.9

Table S1. Cont.

Hematology type and animal ID	Prestudy	Day 56	Day 70	Day 77	Day 84
89A009	33.5	33.0	33.5	33.1	33.1
89A011	32.8	31.8	32.7	32.6	33.2
A242E	33.4	32.6	33.0	33.6	33.2
Red cell distribution width (%)					
C0710	15.1	15.9	16.0	15.7	15.3
C0712	14.6	15.4	14.5	14.7	14.8
A195E	16.5	16.5	16.4	16.8	16.4
89A009	14.9	15.0	15.4	15.4	15.1
89A011	15.1	14.5	15.1	15.1	15.1
A242E	15.1	15.4	15.8	15.2	15.7
Platelet count (x 10^3 /mm 3)					
C0710	154	137	171	199	193
C0712	212	282	152	152	174
A195E	283	303	275	287	279
89A009	212	198	192	212	202
89A011	190	178	182	201	216
A242E	183	159	179	171	164
Mean platelet volume (fl)					
C0710	10.5	11.8	11.1	11.1	10.6
C0712	10.0	14.5	11.2	11.0	11.4
A195E	9.3	10.1	9.8	9.6	9.8
89A009	9.6	10.9	10.5	10.3	10.4
89A011	9.7	10.8	10.4	10.2	10.7
A242E	8.3	8.8	8.4	8.7	8.8
% Neutrophils					
C0710	55.0	84.1	55.3	61.3	57.6
C0712	59.9	54.6	41.3	42.3	43.2
A195E	82.6	71.8	58.6	81.6	81.0
89A009	42.7	75.8	42.8	59.0	46.0
89A011	51.4	70.6	62.5	70.2	71.4
A242E	60.9	57.6	43.3	48.4	55.4
% Lymphocytes					
C0710	39.6	11.1	39.8	34.5	38.7
C0712	32.1	36.4	47.2	49.9	47.0
A195E	10.3	21.4	33.3	13.2	14.4
89A009	48.3	18.2	49.4	33.7	45.7
89A011	40.9	20.5	31.2	23.1	20.1
A242E	32.3	35.0	44.2	42.8	35.9
% Monocytes					
C0710	5.2	4.6	3.3	3.5	3.5
C0712	4.5	5.3	5.6	3.7	4.9
A195E	5.5	5.2	5.4	4.2	4.2
89A009	7.6	4.8	6.7	7.1	7.3
89A011	7.4	7.7	6.0	6.2	6.8
A242E	4.8	6.6	9.2	7.0	6.9
% Eosinophils					
C0710	0.0	0.0	1.2	0.5	0.0
C0712	3.3	3.3	5.4	3.6	4.5
A195E	1.3	1.3	2.3	0.7	0.0
89A009	1.3	1.0	1.0	0.0	0.9
89A011	0.0	0.9	0.0	0.3	1.2
A242E	2.0	0.7	3.2	1.7	1.7
% Basophils					
C0710	0.2	0.2	0.4	0.2	0.2
C0712	0.2	0.4	0.5	0.5	0.4
A195E	0.3	0.3	0.4	0.3	0.4
89A009	0.1	0.2	0.1	0.2	0.1
89A011	0.3	0.3	0.3	0.2	0.5
A242E	0.0	0.1	0.1	0.1	0.1

Table S1. Cont.

Hematology type and animal ID	Prestudy	Day 56	Day 70	Day 77	Day 84
No. neutrophils (x$E3/mm^3$)					
C0710	6.8	15.0	4.9	5.5	6.0
C0712	6.3	7.4	4.3	5.2	4.5
A195E	15.1	8.5	7.6	16.2	12.3
89A009	3.4	11.3	3.6	5.8	4.8
89A011	3.8	7.5	5.8	8.0	8.7
A242E	5.4	5.9	4.4	4.8	5.1
No. lymphocytes (x$E3/mm^3$)					
C0710	4.9	2.0	3.5	3.1	4.1
C0712	3.4	4.9	4.9	6.1	4.9
A195E	1.9	2.5	4.3	2.6	2.2
89A009	3.9	2.7	4.1	3.3	4.8
89A011	3.0	2.2	2.9	2.6	2.4
A242E	2.9	3.6	4.4	4.3	3.3
No. monocytes (x$E3/mm^3$)					
C0710	0.6	0.8	0.3	0.3	0.4
C0712	0.5	0.7	0.6	0.4	0.5
A195E	1.0	0.6	0.7	0.8	0.6
89A009	0.6	0.7	0.6	0.7	0.8
89A011	0.5	0.8	0.6	0.7	0.8
A242E	0.4	0.7	0.9	0.7	0.6
No. eosinophils (x$E3/mm^3$)					
C0710	0.0	0.0	0.1	0.0	0.0
C0712	0.3	0.4	0.6	0.4	0.5
A195E	0.2	0.1	0.3	0.1	0.0
89A009	0.1	0.1	0.1	0.0	0.1
89A011	0.0	0.1	0.0	0.0	0.2
A242E	0.2	0.1	0.3	0.2	0.2
No. basophils (x$E3/mm^3$)					
C0710	0.0	0.0	0.0	0.0	0.0
C0712	0.0	0.1	0.0	0.1	0.0
A195E	0.1	0.0	0.1	0.1	0.1
89A009	0.0	0.0	0.0	0.0	0.0
89A011	0.0	0.0	0.0	0.0	0.1
A242E	0.0	0.0	0.0	0.0	0.0

Blood samples were drawn from six chimpanzees before vaccination and on days 56, 70, 77, and 84 postvaccination. Units for each cell fraction are given in parentheses. Chimpanzees were vaccinated for the third time on day 56.

Table S2. Blood chemistry results

Chemistry test and animal ID	Prestudy	Day 56	Day 70	Day 77	Day 84
Sodium (mmol/L)					
C0710	139.0	136.0	140.0	140.0	140.0
C0712	140.0	139.0	140.0	139.0	140.0
A195E	140.0	139.0	140.0	140.0	139.0
89A009	141.0	140.0	139.0	139.0	138.0
89A011	140.0	139.0	140.0	141.0	139.0
A242E	144.0	142.0	141.0	140.0	141.0
Potassium (mmol/L)					
C0710	3.9	2.9	3.6	3.9	4.1
C0712	4.0	3.7	4.0	4.2	3.7
A195E	4.0	4.1	3.9	4.0	3.9
89A009	4.1	3.4	3.5	3.9	3.9
89A011	3.6	2.6	2.9	3.5	3.2
A242E	3.5	3.2	3.3	3.0	3.2
Chloride (mmol/L)					
C0710	101.0	98.0	101.0	102.0	101.0
C0712	104.0	103.0	103.0	102.0	102.0
A195E	101.0	100.0	100.0	101.0	101.0
89A009	103.0	101.0	100.0	100.0	103.0
89A011	102.0	100.0	99.0	100.0	100.0
A242E	99.0	97.0	98.0	97.0	99.0
Total CO₂ (bicarbonate) (mmol/L)					
C0710	28.2	23.5	24.8	26.5	26.8
C0712	23.8	23.0	22.2	25.1	27.3
A195E	29.7	26.5	29.2	28.7	30.1
89A009	30.2	29.6	28.6	27.7	26.4
89A011	30.0	24.5	28.2	30.4	29.1
A242E	29.9	34.7	34.0	32.2	37.2
Glucose (mg/dL)					
C0710	91	135	96	95	102
C0712	76	72	79	87	74
A195E	73	67	77	79	71
89A009	80	71	84	74	86
89A011	75	65	72	60	74
A242E	107	93	110	93	102
Blood urea nitrogen (mg/dL)					
C0710	15	8	9	10	11
C0712	16	11	9	11	12
A195E	16	14	11	12	12
89A009	12	10	9	10	9
89A011	18	9	11	11	10
A242E	15	11	11	10	11
Creatinine (mg/dL)					
C0710	0.9	1.2	0.9	0.9	0.9
C0712	0.9	0.8	1.1	1.1	1.1
A195E	0.8	13.0	1.1	1.1	1.1
89A009	0.9	1.2	1.2	1.1	0.9
89A011	1.2	1.3	1.3	1.2	1.1
A242E	1.1	1.4	1.2	1.1	1.2
Total protein (g/dL)					
C0710	8.1	7.2	8.7	8.4	8.8
C0712	8.4	8.0	8.3	7.8	8.5
A195E	8.3	8.0	7.8	7.6	8.0

Table S2. Cont.

Chemistry test and animal ID	Prestudy	Day 56	Day 70	Day 77	Day 84
89A009	7.8	8.1	7.9	7.6	8.5
89A011	8.8	9.0	8.8	8.2	8.8
A242E	8.2	8.6	8.4	8.2	8.5
Albumin (g/dL)					
C0710	2.4	2.2	2.7	2.6	2.8
C0712	2.6	2.6	2.7	2.7	2.8
A195E	2.0	1.8	1.7	1.7	1.8
89A009	2.4	2.6	2.5	2.5	2.8
89A011	2.2	2.4	2.4	2.2	2.3
A242E	2.5	2.7	2.5	2.5	2.7
Globulin (g/dL)					
C0710	5.7	5.0	6.0	5.8	6.0
C0712	5.8	5.4	5.6	5.1	5.7
A195E	6.3	6.2	6.1	5.9	6.2
89A009	5.4	5.5	5.4	5.1	5.7
89A011	6.6	6.6	6.4	6.0	6.5
A242E	5.7	5.9	5.9	5.7	5.8
A/G ratio					
C0710	0.4	0.4	0.5	0.5	0.5
C0712	0.5	0.5	0.5	0.5	0.5
A195E	0.3	0.3	0.3	0.3	0.3
89A009	0.4	0.5	0.5	0.5	0.5
89A011	0.3	0.4	0.4	0.4	0.4
A242E	0.4	0.5	0.4	0.4	0.5
Total bilirubin (mg/dL)					
C0710	0.2	0.5	0.3	0.2	0.2
C0712	0.2	0.1	0.3	0.1	0.2
A195E	0.3	0.3	0.2	0.2	0.3
89A009	0.2	0.4	0.2	0.3	0.2
89A011	0.2	0.3	0.2	0.2	0.2
A242E	0.3	0.4	0.3	0.3	0.2
Calcium (mg/dL)					
C0710	9.0	8.9	9.9	9.7	9.7
C0712	9.4	9.5	9.7	9.5	9.7
A195E	8.8	9.5	9.4	9.3	9.5
89A009	8.8	9.3	9.1	9.3	9.2
89A011	9.1	9.6	9.6	9.5	9.6
A242E	9.2	9.6	9.5	9.7	9.6
Phosphorus (mg/dL)					
C0710	4.9	2.7	5.5	5.0	4.7
C0712	3.7	4.2	5.0	4.6	4.6
A195E	3.7	4.0	3.8	3.2	2.8
89A009	3.7	4.2	4.2	3.4	3.1
89A011	3.6	3.6	2.9	3.0	2.9
A242E	3.5	3.7	4.5	4.6	3.0
LDH (U/L)					
C0710	273	237	250	240	281
C0712	262	350	347	328	323
A195E	379	344	295	418	405
89A009	217	253	260	248	245
89A011	345	376	359	391	411
A242E	338	469	377	374	399
GGT (U/L)					
C0710	41	38	42	41	40
C0712	37	43	38	36	67
A195E	85	69	67	70	64
89A009	48	45	42	43	43

Table S2. Cont.

Chemistry test and animal ID	Prestudy	Day 56	Day 70	Day 77	Day 84
89A011	66	57	59	57	55
A242E	51	50	48	49	48
Alkaline phosphatase (U/L)					
C0710	77	55	63	63	63
C0712	73	64	73	64	71
A195E	162	127	125	126	130
89A009	84	75	67	73	71
89A011	89	86	68	73	77
A242E	97	77	75	73	76
ALT (U/L)					
C0710	37	35	38	39	39
C0712	42	40	41	45	58
A195E	54	43	50	50	47
89A009	68	64	69	62	63
89A011	46	45	50	51	52
A242E	78	36	65	67	63
AST (U/L)					
C0710	22	14	16	18	14
C0712	20	19	22	26	19
A195E	54	38	40	44	37
89A009	24	25	26	23	23
89A011	29	33	29	30	30
A242E	49	54	41	40	33

Blood samples were drawn from six chimpanzees before vaccination and on days 56, 70, 77, and 84 postvaccination. Units for each cell fraction are given in parentheses. Chimpanzees were vaccinated for the third time on day 56. ALT, alanine aminotransferase; AST, aspartate aminotransferase; GGT, γ -glutamyltransferase; LDH, Lactate dehydrogenase.