

S15 Table: The estimate parameters for the eight treated macaques using the viral neutralization mechanism for the three different effector cell source models. The intervals specify the range of the set of intervals to approximate the 95% confidence intervals (S1 and S3 Text).

Baseline source										
Macaque	r_T	m	p	K_B	K_P	ψ	γ	σ	$\ln(L)$	
ROq14	0.22 (0.22–0.23)	4.04E-07 (3.58E-07–4.06E-07)	7354 (7353– 7396)	3.68E-01 (3.56E-01–3.74E-01)	N/A	9.89E-04 (8.82E-04–1.00E-03)	2.33 (2.25–2.70)	0.80 (0.78–0.83)	-42.93	
RDa15	0.17 (0.16–0.18)	9.65E-07 (8.61E-07–1.54E-06)	8416 (8234– 8899)	1.33E-01 (1.19E-01–1.49E-01)	N/A	3.06E-04 (2.75E-04–5.48E-04)	2.02 (1.00–2.14)	0.47 (0.44–0.51)	-23.21	
RFa15	0.33 (0.33–0.34)	6.85E-06 (6.36E-06–7.03E-06)	10458 (10419–10544)	1.56E-01 (1.47E-01–1.62E-01)	N/A	8.04E-04 (7.52E-04–8.13E-04)	1.00 (1.00–1.00)	0.50 (0.49–0.51)	-27.02	
RLn12	0.19 (0.18–0.19)	1.37E-06 (1.15E-06–1.37E-06)	8107 (8079– 8146)	1.31E-01 (1.30E-01–1.35E-01)	N/A	6.11E-04 (5.99E-04–6.30E-04)	3.22 (1.78–3.28)	0.42 (0.42–0.44)	-19.84	
RIId14	0.33 (0.19–0.37)	8.63E-08 (5.62E-08–1.06E-07)	6635 (6403– 6844)	6.88E-01 (2.74E-01–6.88E-01)	N/A	9.79E-04 (6.72E-04–1.00E-03)	1.00 (1.00–1.00)	1.18 (1.14–1.61)	-63.35	
ROo13	0.28 (0.27–0.30)	8.15E-08 (5.89E-08–8.48E-08)	7105 (6904– 7198)	6.42E-01 (4.22E-01–6.43E-01)	N/A	9.88E-04 (8.93E-04–1.00E-03)	1.00 (1.00–1.00)	1.05 (1.01–1.25)	-57.36	
RSd14	0.25 (0.24–0.26)	4.15E-07 (2.00E-07–4.70E-07)	7230 (6935– 7338)	2.79E-01 (1.91E-01–3.04E-01)	N/A	6.08E-05 (4.98E-05–1.65E-04)	1.00 (1.00–1.00)	0.83 (0.74–1.05)	-47.47	
ROv14	0.25 (0.23–0.27)	3.51E-07 (3.45E-07–1.85E-06)	6968 (6962– 9881)	2.32E-01 (1.19E-01–2.58E-01)	N/A	9.00E-06 (8.30E-06–1.00E-03)	1.00 (1.00–1.00)	1.13 (1.09–1.45)	-64.07	
Saturated source										
Macaque	r_T	m	p	K_B	K_P	ψ	γ	σ	$\ln(L)$	
ROq14	0.20 (0.20–0.20)	8.11E-07 (7.90E-07–8.29E-07)	8396 (8371– 8423)	2.81E-01 (2.57E-01–2.81E-01)	1.07E-04 (1.02E-04–1.15E-04)	9.82E-04 (9.39E-04–1.00E-03)	1.00 (1.00–1.00)	0.78 (0.75–0.79)	-42.64	
RDa15	0.20 (0.18–0.21)	1.70E-06 (1.45E-06–2.45E-06)	7449 (7299– 7587)	2.62E-01 (1.72E-01–2.70E-01)	8.61E-02 (6.03E-02–1.00E-01)	5.64E-04 (4.45E-04–9.33E-04)	1.00 (1.00–1.00)	0.58 (0.52–0.72)	-32.48	
RFa15	0.15 (0.15–0.16)	2.16E-07 (1.53E-07–3.39E-07)	7031 (6768– 7072)	2.42E-01 (2.05E-01–2.44E-01)	1.40E-05 (1.34E-05–1.73E-05)	9.98E-04 (9.39E-04–1.00E-03)	4.99 (2.09–5.00)	0.61 (0.54–0.68)	-34.66	
RLn12	0.17 (0.16–0.18)	3.30E-06 (2.13E-06–3.34E-06)	7927 (7695– 8016)	7.84E-02 (4.42E-02–8.72E-02)	2.39E-02 (1.08E-02–2.84E-02)	9.83E-04 (7.44E-04–1.00E-03)	1.96 (1.00–2.05)	0.49 (0.48–0.71)	-27.32	
RIId14	0.25 (0.24–0.29)	3.02E-07 (1.29E-07–3.51E-07)	8712 (8463– 8934)	4.71E-01 (3.47E-01–5.01E-01)	1.32E-05 (1.22E-05–4.84E-04)	6.39E-04 (5.27E-04–1.00E-03)	1.00 (1.00–1.00)	1.18 (1.07–1.72)	-64.85	
ROo13	0.28 (0.26–0.28)	8.18E-08 (5.72E-08–8.63E-08)	7110 (6728– 7265)	6.41E-01 (4.36E-01–6.42E-01)	1.05E-05 (1.00E-05–1.57E-05)	9.98E-04 (7.10E-04–1.00E-03)	1.00 (1.00–1.00)	1.06 (0.90–1.50)	-57.58	
RSd14	0.31 (0.27–0.53)	2.22E-07 (5.77E-08–2.63E-07)	6857 (6427– 7194)	5.05E-01 (1.98E-01–5.63E-01)	2.01E-05 (1.00E-05–2.23E-05)	1.25E-04 (7.97E-05–5.00E-04)	1.00 (1.00–1.00)	0.88 (0.79–1.20)	-51.69	
ROv14	0.39 (0.27–0.39)	5.93E-07 (5.93E-07–1.07E-05)	8117 (8095–11540)	2.27E-01 (9.74E-02–2.79E-01)	1.21E-05 (1.15E-05–7.80E-02)	7.21E-04 (6.64E-04–1.00E-03)	1.00 (1.00–1.14)	1.14 (1.14–1.64)	-65.12	
APC source										
Macaque	r_T	m	p	K_B	K_P	ψ	γ	σ	$\ln(L)$	
ROq14	0.51 (0.49–0.53)	2.35E-07 (1.97E-07–3.34E-07)	6848 (6757– 7128)	3.54E-01 (2.94E-01–4.40E-01)	N/A	9.99E-04 (9.70E-04–1.00E-03)	1.00 (1.00–1.00)	0.94 (0.88–1.03)	-54.31	
RDa15	0.31 (0.29–0.31)	1.57E-07 (1.49E-07–1.91E-07)	7117 (7032– 7185)	5.35E-01 (4.55E-01–5.60E-01)	N/A	9.99E-04 (8.71E-04–1.00E-03)	1.00 (1.00–1.00)	0.66 (0.64–0.80)	-39.44	
RFa15	0.51 (0.50–0.54)	1.59E-07 (1.35E-07–3.06E-07)	4607 (4530– 4657)	2.83E-01 (2.32E-01–3.16E-01)	N/A	1.00E-03 (9.77E-04–1.00E-03)	5.00 (2.74–5.00)	0.68 (0.61–0.71)	-38.76	
RLn12	0.52 (0.45–0.55)	5.08E-08 (2.95E-08–7.18E-08)	4243 (4000– 4417)	4.45E-01 (2.84E-01–6.53E-01)	N/A	1.00E-03 (8.77E-04–1.00E-03)	5.00 (4.62–5.00)	0.60 (0.55–0.87)	-36.14	
RIId14	0.37 (0.37–0.37)	6.53E-08 (6.53E-08–6.53E-08)	6870 (6832– 6870)	4.54E-01 (4.54E-01–4.54E-01)	N/A	9.97E-04 (9.97E-04–9.97E-04)	4.63 (4.63–4.63)	1.31 (1.27–1.31)	-72.87	
ROo13	0.41 (0.41–0.42)	8.02E-08 (8.02E-08–8.13E-08)	6314 (6311– 6319)	3.79E-01 (3.75E-01–3.79E-01)	N/A	9.94E-04 (9.94E-04–1.00E-03)	4.86 (4.76–5.00)	1.27 (1.27–1.28)	-67.63	
RSd14	0.41 (0.41–0.42)	8.02E-08 (7.89E-08–8.28E-08)	6314 (6314– 6323)	3.79E-01 (3.79E-01–3.98E-01)	N/A	9.94E-04 (9.85E-04–1.00E-03)	4.86 (4.69–5.00)	1.15 (1.15–1.16)	-62.52	
ROv14	0.52 (0.48–0.53)	2.79E-08 (2.59E-08–5.67E-08)	5041 (5039– 5065)	8.32E-01 (5.96E-01–8.32E-01)	N/A	7.60E-04 (7.60E-04–1.00E-03)	4.43 (4.43–5.00)	1.47 (1.27–1.49)	-74.47	