

Supplementary:

Supplementary tables

Table S1: Descriptive statistics of fold-change (FC) values of pseudoviruses

*Variant:	Wildtype	M184V	RT72	RT72_KO	RT73	RT73_KO	RT106	RT106_KO
Average	1.00	10.62	17.46	3.98	18.32	5.64	12.52	4.37
SD	0.49	5.05	6.10	1.13	3.67	1.65	4.43	1.14
SEM	0.14	1.35	1.93	0.36	1.22	0.52	1.40	0.36
Min	0.33	4.46	8.18	2.15	10.42	3.24	7.41	2.98
1stQ	0.64	7.27	11.87	3.36	16.64	4.19	9.74	3.28
Mean	0.82	9.20	18.21	3.72	19.33	6.00	11.05	4.52
3rdQ	1.23	14.35	23.12	4.61	21.10	6.57	13.98	5.09
Max	1.85	19.12	24.62	6.28	22.05	8.05	20.10	6.31
IQR	0.60	7.07	11.25	1.26	4.46	2.39	4.24	1.81

*RT72: D67N, K70R, M184V, K219E; RT72_KO: D67N, K70R, K219E; RT73: D67N, K70R, M184V, T215F, K219E; RT73_KO: D67N, K70R, T215F, K219E; RT106: D67N, K70R, M184V, K219Q; RT106_KO: D67N, K70R, K219Q. “_KO” signifies reversion of the mutant 184V to the wildtype 184M.

Table S2: Dunnett's T3 test results for multiple comparison of FC values

*Variant	WT	M184V	RT72	RT72_KO	RT73	RT73_KO	RT106
M184V	0.00019	-	-	-	-	-	-
RT72	0.00028	0.19397	-	-	-	-	-
RT72_KO	0.00010	0.00635	0.00100	-	-	-	-
RT73	1.2e-05	0.00974	1.00000	5.5e-05	-	-	-
RT73_KO	0.00014	0.07045	0.00329	0.32058	3.7e-05	-	-
RT106	0.00040	0.99979	0.66031	0.00333	0.13156	0.01660	-
RT106_KO	6.1e-05	0.01095	0.00128	0.99999	2.8e-05	0.71372	0.00480

*RT72: D67N, K70R, M184V, K219E; RT72_KO: D67N, K70R, K219E; RT73: D67N, K70R, M184V, T215F, K219E; RT73_KO: D67N, K70R, T215F, K219E; RT106: D67N, K70R, M184V, K219Q; RT106_KO: D67N, K70R, K219Q. “_KO” signifies reversion of the mutant 184V to the wildtype 184M.