

Supplementary Table 1: Integration vs total viral DNA

cell type	Virus	MOI	integration events	Total viral DNA Copies	average integration %
H9	WT VSV-G HXB2	1	0.992±0.006	32.722±1.984	3.032
		2	1.063±0.018	54.520±4.568	1.949
	WT VSV-G pLAI	1	1.047±0.063	31.367±2.893	3.339
		2	1.095±0.004	58.416±2.113	1.874
	Delta Rev VSV-G pLAIY47H2	1	7.724±0.251	30.580±1.922	25.258
		2	9.701±0.139	53.975±3.168	17.974
	Rev M10 VSV-G	1	1.185±0.075	30.989±2.016	3.824
		2	1.073±0.091	53.231±4.112	2.015
IN mutant D64A D116A VSV-G	1	0	31.043±1.378	0	
	2	0	54.878±4.898	0	
Sup T1	WT VSV-G HXB2	1	1.109±0.043	32.099±4.012	3.454
		2	1.053±0.019	53.295±1.595	1.975
	WT VSV-G pLAI	1	1.130±0.183	32.110±1.493	3.520
		2	1.144±0.064	54.809±2.666	2.088
	Delta Rev VSV-G pLAIY47H2	1	7.837±0.070	32.619±3.742	24.025
		2	9.711±0.167	53.553±2.292	18.133
	Rev M10 VSV-G	1	1.138±0.105	31.829±3.652	3.577
		2	1.348±0.186	55.404±3.834	2.433
IN mutant D64A D116A VSV-G	1	0	32.930±1.759	0	
	2	0	55.465±3.444	0	
T2M-bl	WT VSV-G HXB2	1	1.094±0.069	32.898±4.356	3.325
		2	1.434±0.108	54.336±0.925	2.639
	WT VSV-G pLAI	1	1.102±0.038	31.921±2.936	3.453
		2	1.616±0.115	53.063±2.498	3.045
	Delta Rev VSV-G pLAIY47H2	1	7.832±0.057	31.925±2.630	24.532
		2	9.642±0.067	56.260±2.076	17.139
	Rev M10 VSV-G	1	1.222±0.085	30.880±2.991	3.958
		2	1.629±0.150	52.411±1.452	3.109
IN mutant D64A D116A VSV-G	1	0	31.397±3.258	0	
	2	0	53.071±1.708	0	
293T cells	WT VSV-G HXB2	1	1.634±0.025	27.890±1.189	5.860
		2	1.957±0.042	50.474±1.182	3.877
	WT VSV-G pLAI	1	1.657±0.022	26.932±1.944	6.153
		2	2.076±0.010	48.507±1.071	4.280
	Delta Rev VSV-G pLAIY47H2	1	8.784±0.131	27.750±2.152	31.654
		2	10.031±0.130	47.604±1.510	21.072
	Rev M10 VSV-G	1	1.821±0.095	27.029±1.597	6.737
		2	2.174±0.064	48.432±1.442	4.488
IN mutant D64A D116A VSV-G	1	0	28.936±2.448	0	
	2	0	49.737±3.247	0	

Rev expressing cells	WT VSV-G HXB2	1	0.114±0.010	27.711±3.091	0.411
		2	0.176±0.011	52.665±0.910	0.334
	WT VSV-G pLAI	1	0.106±0.017	27.162±3.473	0.390
		2	0.179±0.002	53.603±0.756	0.334
	Delta Rev VSV- G pLAIY47H2	1	0.520±0.015	28.876±3.504	1.801
		2	0.563±0.320	55.033±2.398	1.023
	Rev M10 VSV-G	1	0.120±0.021	29.535±4.772	0.405
		2	0.390±0.310	54.057±0.596	0.722
	IN mutant D64A D116A VSV-G	1	0	30.719±3.372	0
		2	0	55.705±1.849	0

Supplementary Table 2: Integration vs total viral DNA

cell type and treatment	Virus	MOI	integration events	Total viral DNA Copies	average integration %
293T cells + INr-1	WT VSV-G HXB2	1	5.911±0.671	35.624±1.177	16.592
		2	6.433±0.667	54.235±4.340	11.862
	WT VSV-G pLAI	1	5.827±0.845	34.302±1.133	16.987
		2	6.215±0.684	52.540±4.239	11.829
	Delta Rev VSV-G pLAIY47H2	1	8.347±1.029	31.119±1.028	26.824
		2	8.919±0.901	53.154±3.358	16.779
	Rev M10 VSV-G	1	5.988±0.660	34.587±1.143	17.314
		2	6.515±0.663	54.428±3.033	11.971
293T cells + INr-2	WT VSV-G HXB2	1	6.452±0.647	33.327±3.226	19.361
		2	7.020±0.712	53.834±3.640	13.041
	WT VSV-G pLAI	1	6.436±0.721	32.070±1.675	20.069
		2	6.942±0.696	54.595±2.567	12.715
	Delta Rev VSV-G pLAIY47H2	1	8.294±1.021	32.648±2.057	25.404
		2	8.912±0.916	54.356±3.731	16.395
	Rev M10 VSV-G	1	6.118±0.737	34.964±5.731	17.498
		2	6.581±0.672	55.994±3.408	11.753
293T cells + INr-1 and 2	WT VSV-G HXB2	1	7.957±0.984	34.074±1.724	23.352
		2	8.733±1.148	56.216±2.967	15.535
	WT VSV-G pLAI	1	7.885±1.050	32.527±1.646	24.241
		2	8.684±1.194	54.777±1.116	15.853
	Delta Rev VSV-G pLAIY47H2	1	8.612±0.912	31.470±1.592	27.366
		2	9.313±0.930	53.239±2.821	17.493
	Rev M10 VSV-G	1	7.898±0.929	33.387±1.689	23.656
		2	8.548±1.209	54.668±4.286	15.635
Rev expressing cells + INr1	WT VSV-G HXB2	1	0.460±0.052	33.257±0.782	1.383
		2	0.510±0.059	55.207±2.868	0.924
	WT VSV-G pLAI	1	0.475±0.049	31.739±2.116	1.496
		2	0.524±0.054	54.891±5.063	0.955
	Delta Rev VSV-G pLAIY47H2	1	0.651±0.066	31.676±1.897	2.056
		2	0.689±0.098	54.007±3.107	1.275
	Rev M10 VSV-G	1	0.472±0.048	32.181±0.991	1.466
		2	0.520±0.052	54.851±1.832	0.948
Rev expressing cells + INr-2	WT VSV-G HXB2	1	0.526±0.061	32.400±1.640	1.625
		2	0.599±0.060	55.730±2.793	1.074
	WT VSV-G pLAI	1	0.493±0.053	34.564±1.749	1.426
		2	0.582±0.072	55.096±4.648	1.056
	Delta Rev VSV-G pLAIY47H2	1	0.719±0.073	31.528±1.595	2.280
		2	0.777±0.089	56.265±2.821	1.381
	Rev M10 VSV-G	1	0.493±0.050	31.756±1.607	1.553
		2	0.574±0.069	57.573±4.334	0.997

Rev expressing cells + INr-1 and 2	WT VSV-G HXB2	1	0.742±0.127	30.579±1.547	2.425
		2	0.865±0.093	55.306±3.468	1.564
	WT VSV-G pLAI	1	0.673±0.069	31.356±1.587	2.145
		2	0.776±0.107	55.212±4.040	1.405
	Delta Rev VSV-G pLAIY47H2	1	1.096±0.110	34.096±1.725	3.215
		2	1.150±0.146	55.190±3.140	2.084
Rev M10 VSV-G	1	0.646±0.065	31.051±1.571	2.080	
	2	0.778±0.127	53.763±2.583	1.446	
Sup T1 + Rev 13-23	WT VSV-G pLAI	1	0.264±0.039	29.481±0.856	0.896
		2	0.394±0.123	53.356±3.774	0.738
	Delta Rev VSV-G pLAIY47H2	1	2.907±0.127	33.655±1.865	8.638
		2	4.227±0.463	51.574±1.767	8.195
Sup T1 + Rev 53-73	WT VSV-G pLAI	1	0.308±0.043	32.254±2.707	0.956
		2	0.454±0.099	54.555±3.215	0.832
	Delta Rev VSV-G pLAIY47H2	1	3.330±0.338	33.031±1.602	10.082
		2	5.254±0.445	51.958±2.092	10.113
Sup T1 + Rev 13-23 and 53-67	WT VSV-G pLAI	1	0.110±0.024	30.824±1.473	0.356
		2	0.167±0.046	54.071±3.458	0.310
	Delta Rev VSV-G pLAIY47H2	1	1.646±0.304	31.997±1.455	5.143
		2	1.916±0.179	51.460±2.231	3.723