

Figure S1

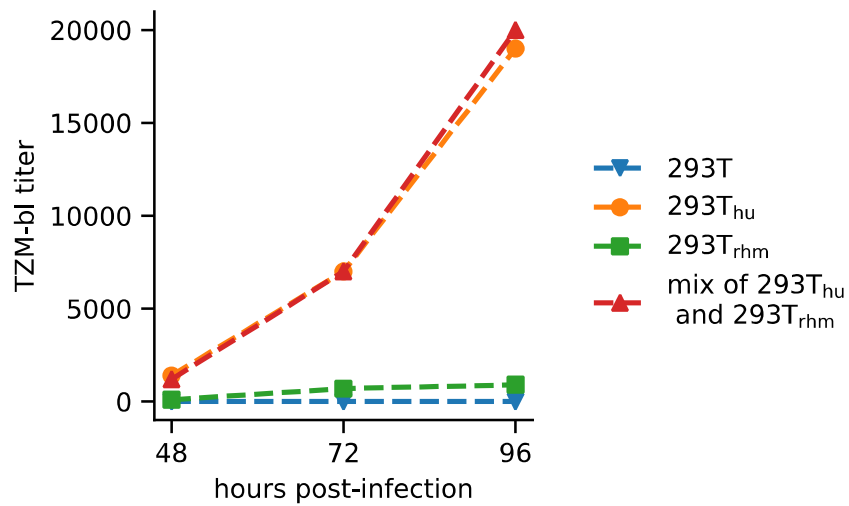


Figure S1. Wild-type BF520 infection of 293T cells engineered to express either macaque or human CD4/CCR5 receptors. TzM-bl titer of supernatant harvested from cells infected with viruses bearing the BF520 Env (MOI of 0.01). The cells that were infected are shown to the right. “Mix of 293T_{hu} and 293T_{rhm}” refers to a 3:1 mixture of these cells, respectively. Each data point reports the titer of one viral supernatant sample assayed in triplicate on TzM-bl cells.

Figure S2

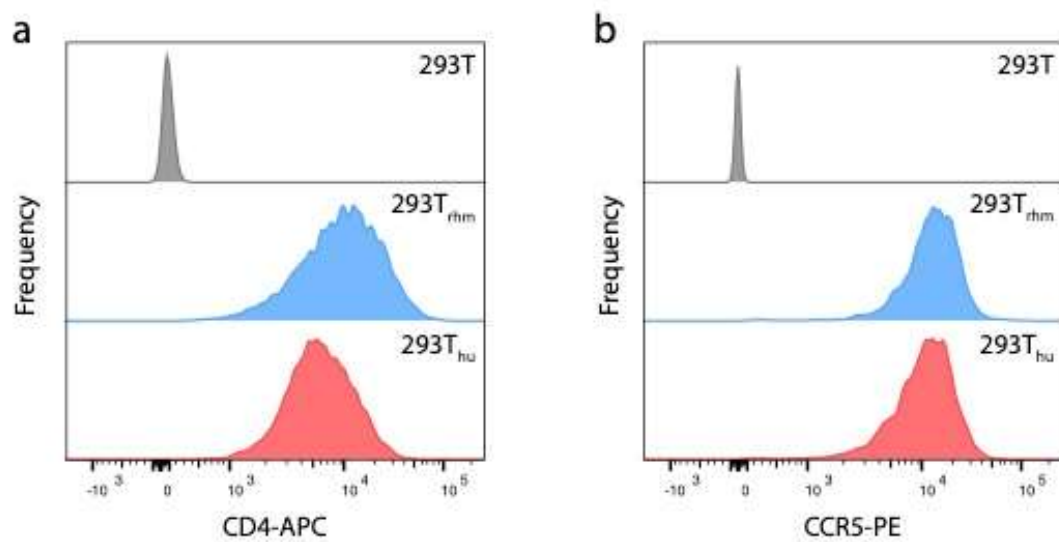


Figure S2. Expression of CD4 and CCR5 on 293T_{rhm} and 293T_{hu} cells. Expression of CD4 (a) and CCR5 (b) on un-transduced 293Ts, 293T_{rhm}, and 293T_{hu} cells. For each density plot, receptor expression on 10,000 cells taken from one biological sample was measured. Data is representative of multiple independent experiments.

Supplementary Table 1**Fold-change following infection**

| Mutation | Location | 293T_{rh}m | 293T_{hu} |
|-----------------|-----------------|---------------------------|--------------------------|
| N656Y | CHR | 34.2 | 4.5 |
| N656Q | CHR | 32.8 | 4.7 |
| N656I | CHR | 31.6 | 8.8 |
| N656G | CHR | 27.8 | 1.2 |
| Q653L | CHR | 26.8 | 2.8 |
| N656R | CHR | 24.2 | 3.3 |
| Q653I | CHR | 23.0 | 5.0 |
| K588M | gp41 | 20.8 | 1.8 |
| Q653N | CHR | 20.6 | 3.0 |
| Q653M | CHR | 19.8 | 2.3 |
| N554D | NHR | 17.3 | 4.4 |
| N656E | CHR | 17.2 | 3.4 |
| Q652F | CHR | 15.6 | 3.0 |
| Q653E | CHR | 15.6 | 1.8 |
| N656H | CHR | 15.5 | 3.7 |
| S649F | CHR | 15.0 | 6.1 |
| K588F | gp41 | 14.0 | 1.9 |
| K655F | CHR | 13.9 | 2.0 |
| Q653F | CHR | 13.5 | 1.1 |
| N656S | CHR | 11.4 | 3.1 |
| Q652D | CHR | 11.2 | 2.2 |
| Q653Y | CHR | 11.1 | 1.0 |
| N656D | CHR | 10.8 | 6.3 |
| K655W | CHR | 10.7 | 1.6 |
| N656M | CHR | 10.5 | 5.2 |
| K655Y | CHR | 10.1 | 1.9 |
| R273K | gp120 | 4.0 | 10.6 |
| E482K | gp120 | 7.9 | 11.7 |

Table S1. Fold-change relative to the wild-type residue for all mutants that were enriched greater than 10-fold following either 293T_{rh}m or 293T_{hu} infection in the DMS.