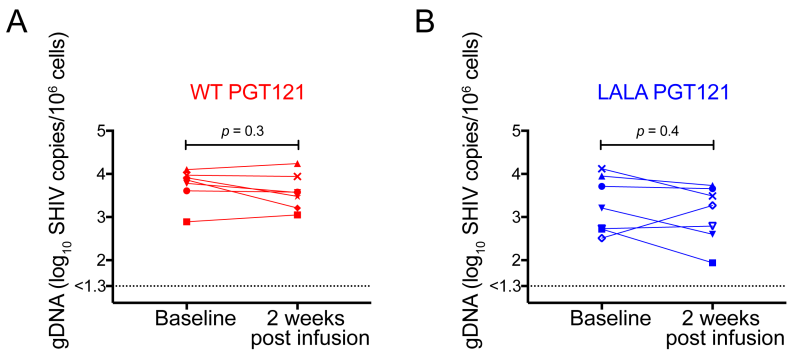
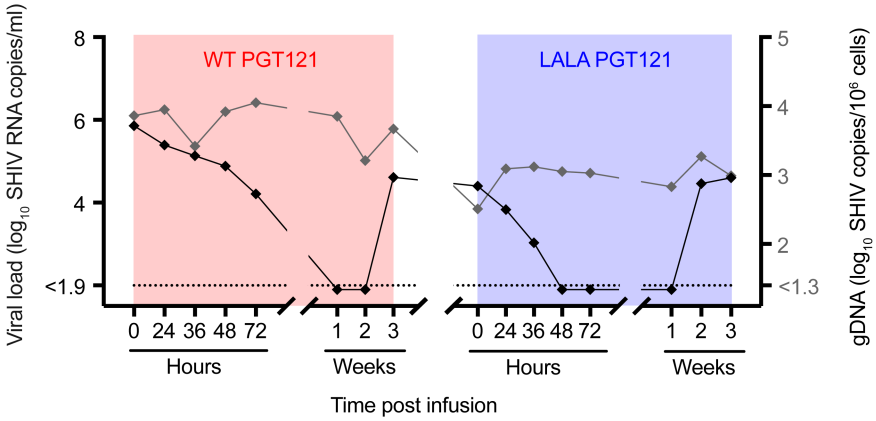
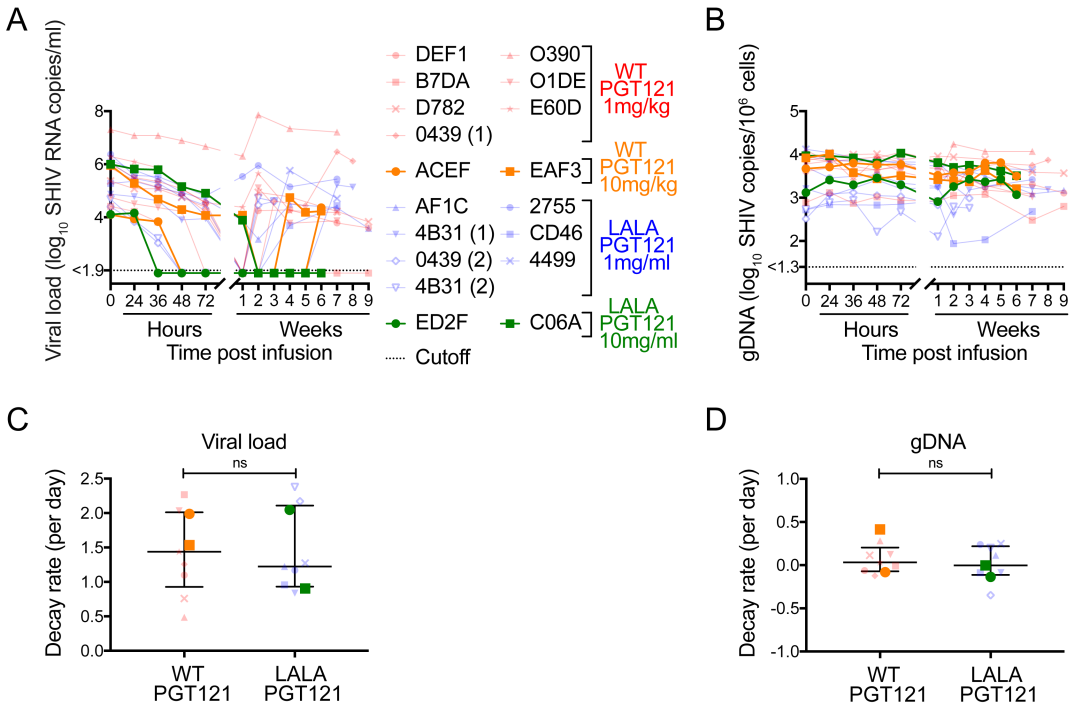


Supplemental Figure 1. Comparison of SHIV DNA within PBMCs pre- and post-treatment with WT or LALA PGT121. Viremic $SHIV_{SF162P3}$-infected pigtail macaques were treated with 1mg/kg of (A) WT (n=7) or (B) LALA PGT121 (n=7). $SHIV_{SF162P3}$ DNA within PBMCs was compared between samples from baseline and two weeks post-treatment using a Wilcoxon matched pairs test. $p < 0.05$ was considered significant.



Supplemental Figure 2. Therapeutic effect of WT and LALA PGT121 in the same $SHIV_{SF162P3}$-infected macaque. A macaque with established $SHIV_{SF162P3}$ infection was first infused with 1mg/kg of WT PGT121 (red box). $SHIV_{SF162P3}$ infection rebounded three weeks post-WT PGT121 infusion and remained consistently high up to approximately one year later when the same macaque was infused with 1mg/kg LALA PGT121 (blue box). The graph depicts the plasma viral load (black; left y-axis) and cell-associated viral DNA (grey; right y-axis) of macaque 0439 in the hours and weeks following WT and LALA PGT121 infusion. The dotted black line represents the sensitivity cut-offs for the assays used.



Supplemental Figure 3. Therapeutic effect of WT and LALA PGT121 administered at a 10mg/kg dose. Four viremic animals were therapeutically administered 10mg/kg of WT (n=2; orange) or LALA (n=2; green) PGT121. The graphs show the serial viral load measurements (A) and serial PBMC SHIV DNA measurements (B) in the hours and weeks after WT PGT121 or LALA PGT121 infusion. The dotted black lines represent the sensitivity cut-offs for the assays used. (C) and (D) show rates of decay of viral RNA and DNA in the first 72 hours after treatment with 10mg/kg of antibody. Data are overlayed on measurements of the same variables derived from animals treated with WT (n=7; red) or LALA (n=7; blue) PGT121 at the 1mg/kg dose. Data are presented as median and interquartile range. Decay rates for all animals treated with WT or LALA PGT121 (i.e. 1mg/kg + 10mg/kg) were compared using Mann-Whitney *U* tests. $p < 0.05$ was considered significant.

Supplemental Table 1. Oligonucleotides used for absolute quantification of SHIV Gag (142 bp) by ddPCR.

FW primer	AATTAGATAGATTTGGATTAGCAGAAAGC
Probe (6-FAM/MGBNFQ)	CAACAGGCTCAGAAAA
Rv primer	CACCAGATGACGCAGACAGTATTAT