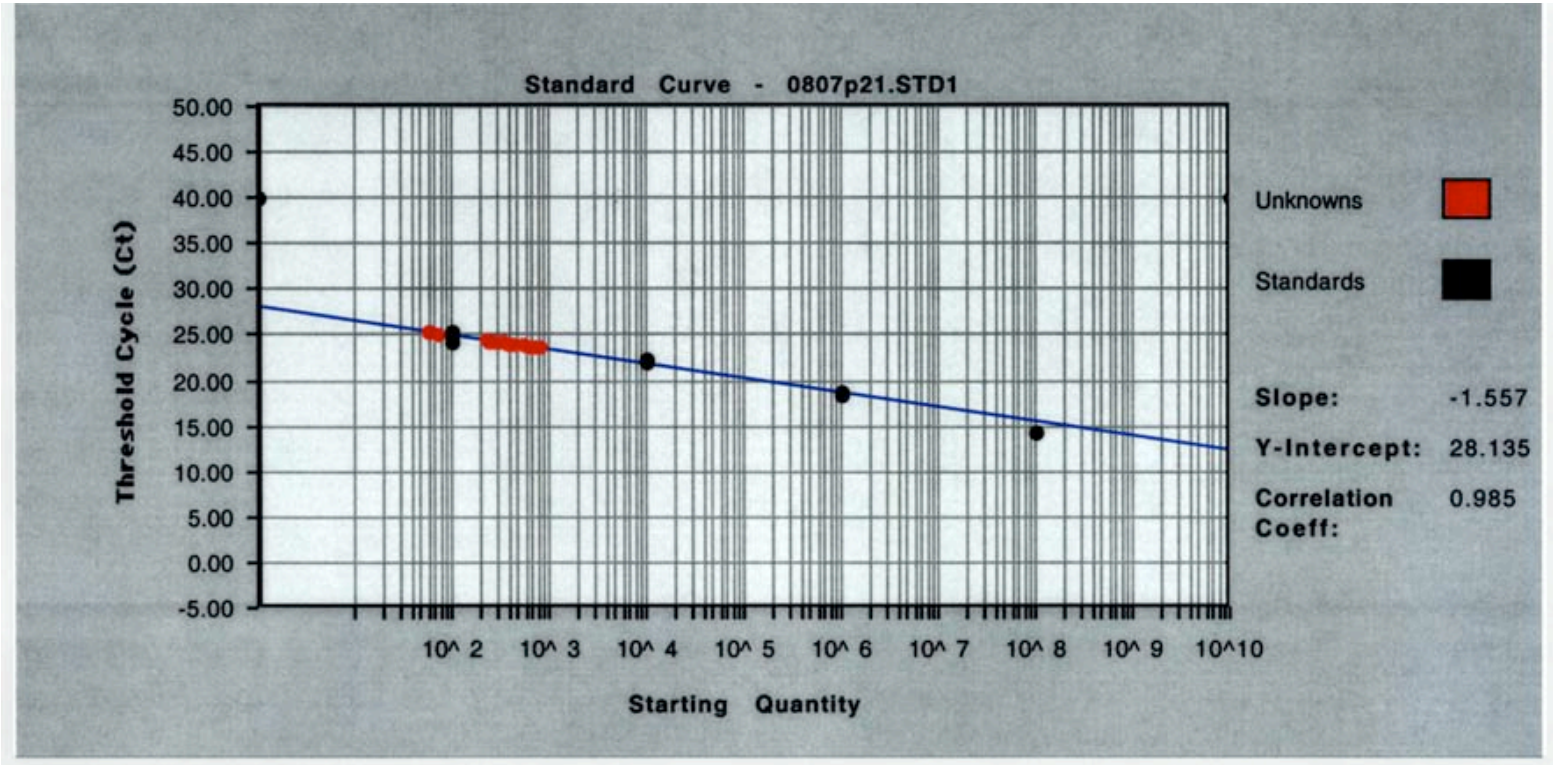
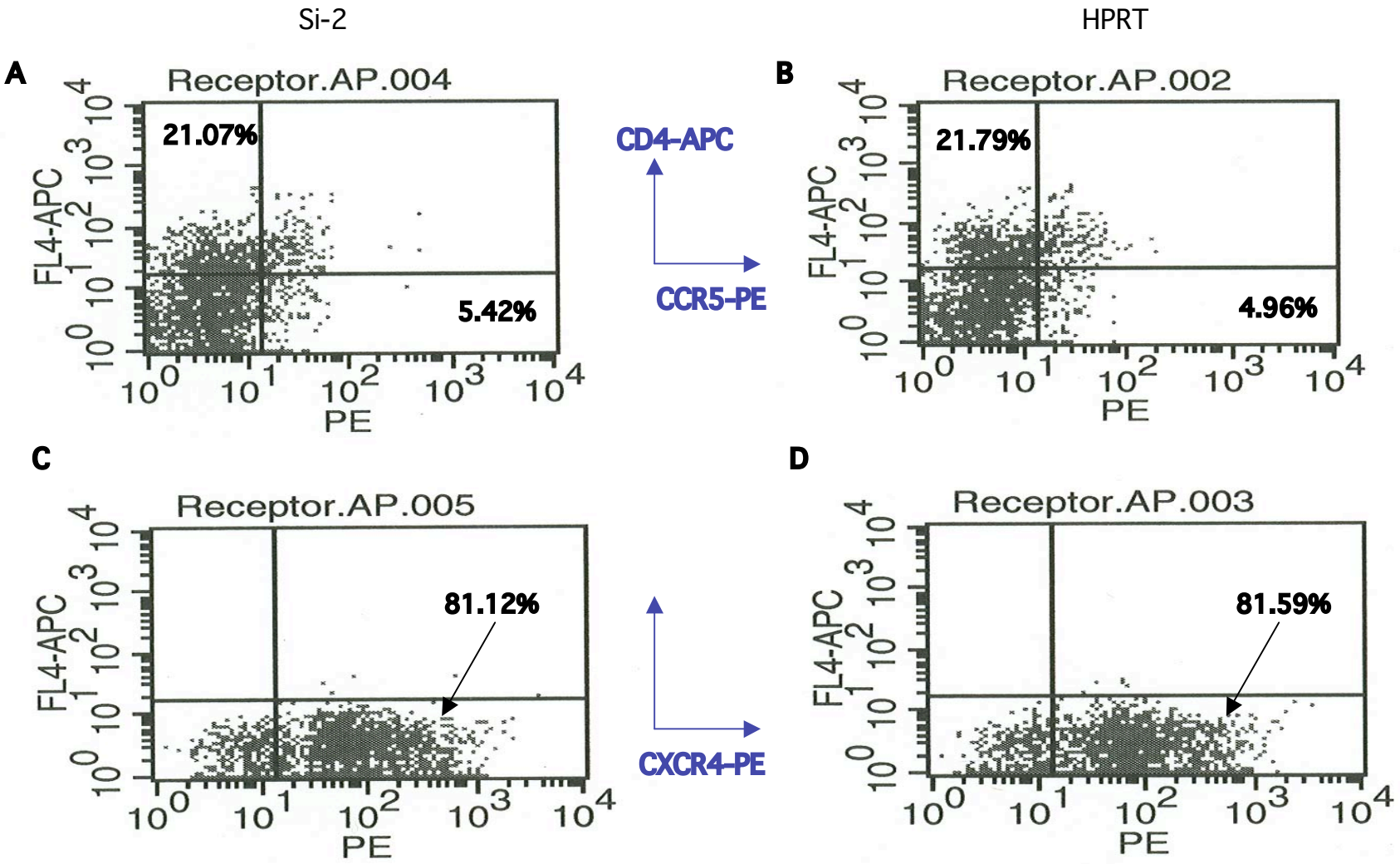
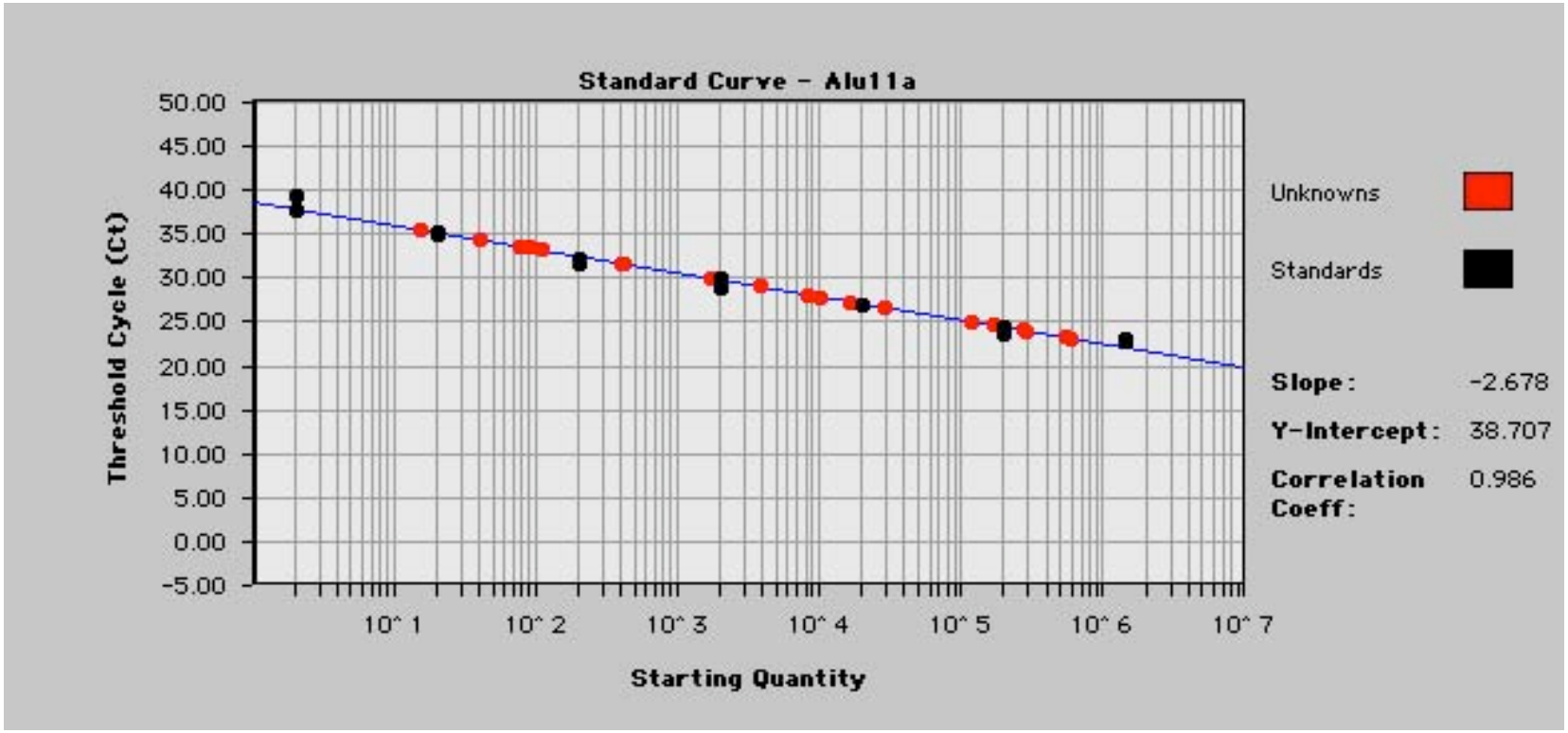


Supplemental Fig. 1 Detection of p21mRNA with a Taqman real time RT-PCR assay. This RT-PCR assay is able to detect as low as 10 copy numbers of p21 mRNA in 50 ng of total cellular RNA.

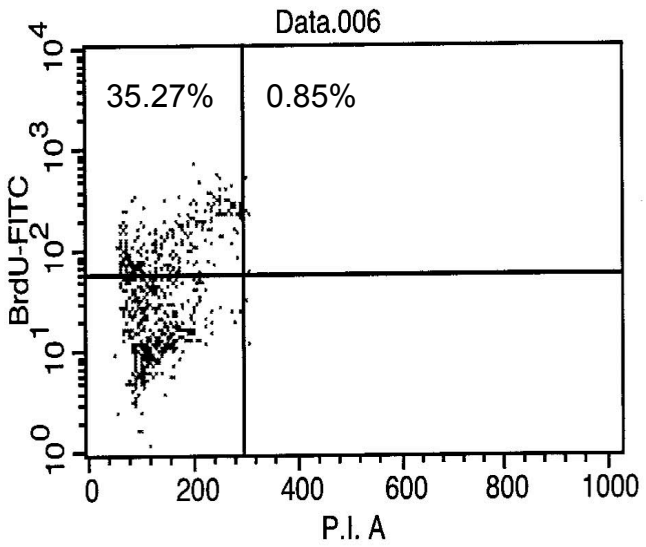


Supplemental Fig. 2. CD34⁺ cells assayed for HIV receptors post HIV-1 infection exposed to either p21siRNA or control siRNA (HPRT). Cells were pre-sorted by anti-CD34-FITC. Each receptor was determined at 1.5 h post viral infection. (**A**) CD4 and CCR5 expression on p21siRNA treated cells, and (**B**) on control siRNA treated cells. (**C**) CXCR4 expression on p21siRNA treated cells, and (**D**) on control siRNA treated cells. Data shown are the representative of three independent experiments.

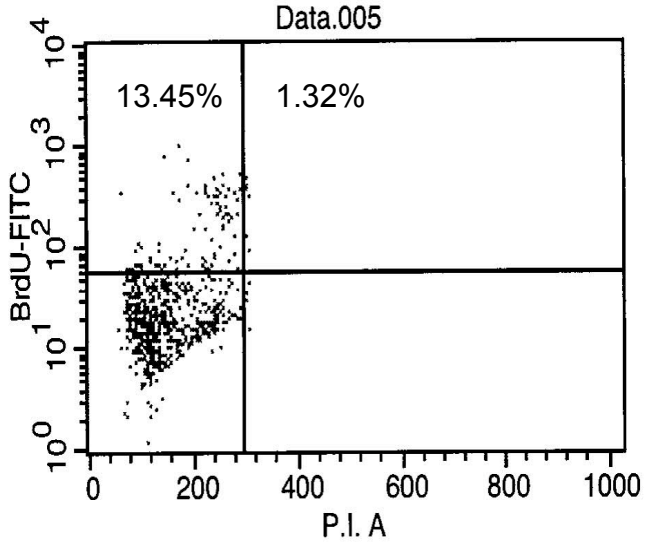


Supplemental Fig. 3 HIV-1 integrated DNA was examined by Alu-LTR PCR in cells treated with p21siRNA or control siRNA. This was a two-step strategy, with the first set of primers amplifying the HIV-1 3'-LTR to the nearest Alu element within 1.8 kb and the second set of primers and probe further amplifying the 3'-LTR to the nearest Alu element within 250-bp (46-48). The copy number of provirus was calculated according to the standard curve and adjusted by two reference curves that have known numbers of provirus per cell (46-48).

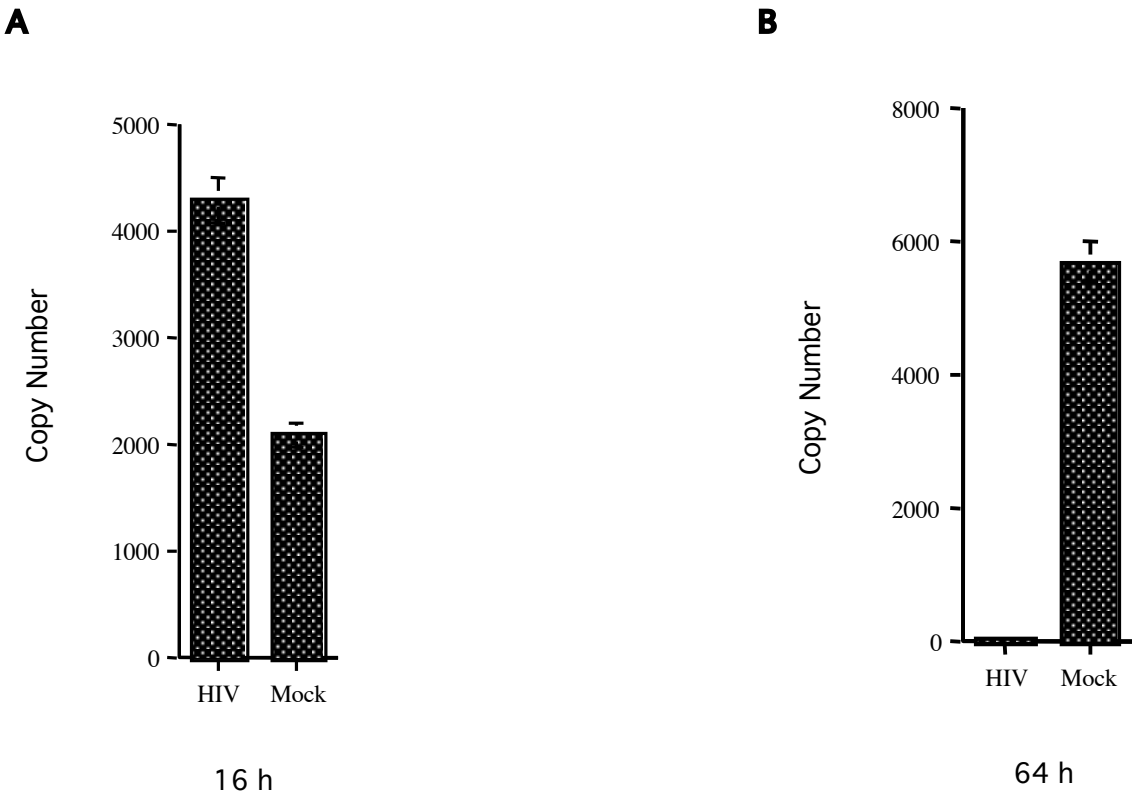
Si-2



HPRT



Supplemental Fig. 4 Cell cycle status determined by BrdU incorporation assay. Cell cycle status of $CD34^+$ primary cells were examined at 69 h post siRNA treatment (25 h post HIV-1 infection). More cells incorporating BrdU were detected in p21siRNA (Si-2) treated cells in comparison to control siRNA treated cells (HPRT). Data shown are the representative of four independent experiments.



Supplemental Fig. 5 P21 mRNA decreased in HIV-1 infected CMK cells. The p21 mRNA levels were detected from total cellular RNA at 16 h (**A**), and 64 h (**B**) post HIV-1 infection. The RNA copy number represented the p21 mRNA in 100 ng of total cellular RNA detected with the Taqman real time RT-PCR assay.

Online supplemental materials. Fig. S1. The standard curve of real time quantitative RT-PCR assay for analyzing cellular p21 mRNA levels. Fig. S2 shows $CD34^+$ cells assayed for HIV receptors post HIV-1 infection and either p21siRNA or control siRNA exposure. Fig. S3 shows the standard curve of real time quantitative Alu-LTR PCR assay for detecting HIV-1 integrated DNA in the cellular genome. Fig. S4 shows that at 69 h post siRNA treatment, there were more cells incorporating BrdU in p21siRNA treated cells than in control cells. Fig. S5 shows that HIV-1 infection ultimately down regulated p21 mRNA expression in cells without p21siRNA treatment.