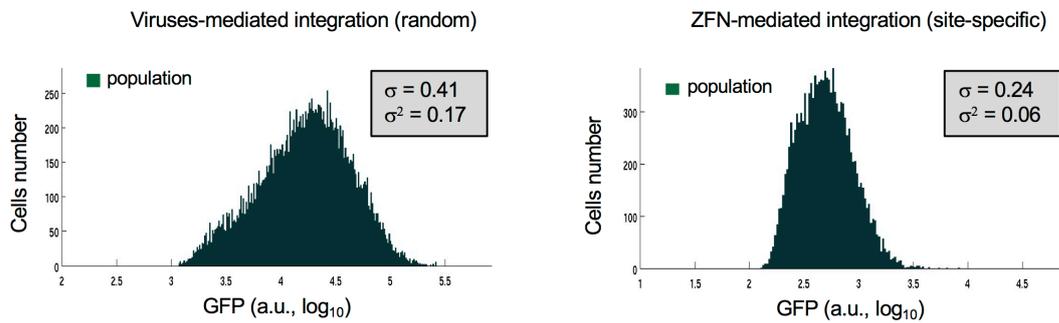
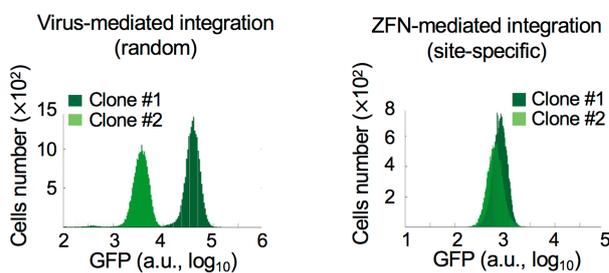


**A****B**

**Supplemental Figure S1. Comparison of experimental noise using virus-mediated genomic integration vs. site-specific integration.** (A) Population heterogeneity when integrating a single promoter using viral transduction or site specific integration. (Left) H1299 cells were infected with retroviruses expressing GFP from a constant promoter. After one week cells were harvested and GFP expression of the infected population was measured using flow cytometry. Denoted are the computed standard-deviation and variance. a.u. – arbitrary units. (Right) K562 cells were co-nucleofected with mRNA encoding ZFN-*AAVSI* and a pZDonor plasmid carrying GFP reporter. (B) Expression measurements of isolated clones from the two integration techniques. Single cells from viral transduction (Left) and site-specific integration (Right) were isolated from population of cells expressing a single promoter and regrown for three weeks. Site specific integration resulted in smaller differences between clones whereas in virus-mediated integration the same promoter had different expression levels in the two clones. a.u. – arbitrary units.