



Figure S1. Oligo ssDNA donor and sgRNAs.

sgRNA1/2 (red) flank the *Sidt1* insertion site (IS), while sgRNA3/4 are both 5' of the IS. The resulting nickase produced single-stranded nicks on opposing genomic DNA (black) are indicated. The *Sidt1*-*Myc*_(3x) ssDNA donor (blue) includes 52 nt and 49 nt flanking homology arms (measured from IS), and PAM (light blue) sites with 3rd position PAM mutations (vertical lines) in sgRNA1/2. The *Sidt2*-*HA*_(3x) ssDNA donor includes 57 nt and 56 nt flanking homology arms, a single 2nd position PAM mutation in sgRNA4. sgRNA3 is only partially included in donor DNA. The perfect-matching 5'/3' homology arms are 15-/29-nt for *Sidt1* and 39-/56-nt for *Sidt2*.