

**Figure S1.** sgRNA targeting *slc45a2* efficiently edits *Xenopus* embryo DNA, resulting in mostly in frame deletions. All data shown is from stage 10-12 embryos injected with *slc45a2* sgRNA and Cas9 protein at the 1-cell stage. A,D,G,J,M) TIDE analysis readout showing the difference in aberrant sequences between an uninjected control embryo and an *slc45a2* knockout embryo. The percent of aberrant sequences in the knockout embryo increases in comparison to the control embryo near the expected Cas9 cut site. B,E,H,K,N) *slc45a2* editing efficiency in single embryos as measured by TIDE. C,F,I,L,O) Chart showing the percent of sequences that result in in frame and out of frame insertion and deletion events. \* indicates p < 0.001 as reported by the TIDE analysis software.