



Figure S1. Targeted mutagenesis induced by microinjection of TALEN mRNAs into monarch butterfly embryos. (A) Targeting mutagenesis at the *cry2* locus for all alive founders validated by PCR and *EagI* digestion. For each founder, the PCR product was either not subjected (-) or subjected to *EagI* (+). The blue arrow represents genomic amplicons carrying targeted mutations that are resistant to *EagI* digestion and the black arrows represent cleaved wild-type fragments. (B) Targeting mutagenesis at the *clock* locus for all alive founders validated by PCR and *NgoMIV* digestion. For each founder, the PCR product was either not subjected (-) or subjected to *NgoMIV* (+). The red arrow represents genomic amplicons carrying targeted mutations that are resistant to *NgoMIV* digestion and the black arrows represent cleaved wild-type fragments. Estimation of the frequency of NHEJ-mediated indels is provided under each founder.