



Figure S1 Specificity of *kcnh1* morpholinos. (A) Localization of ATG-MO target sequences in the 5' UTR of the *kcnh1a* and *kcnh1b* mRNAs. Specific MO target regions in the 5' UTR regions are indicated in blue, a common sequence targeting both genes (pan MO) is highlighted in yellow. The start of the open reading frame (ORF) is indicated by an arrow. (B) 5' sequences of GFP and RFP mRNAs designed to evaluate the function of ATG-MOs. Nucleotide substitutions in RFP mismatch constructs are indicated. (C) Representative example of one experiment showing the effects of *kcnh1a* and *kcnh1b* ATG-MOs on the expression of GFP and RFP containing the indicated 5' sequences. Translation of GFP mRNA containing the *kcnh1b* MO target sequence is blocked by the *kcnh1b* MO (upper right image). Translation of RFP mRNA containing the *kcnh1b* MO mismatch sequence is not affected by either of the *kcnh1* MOs. Embryos were injected with a mix of mRNAs and the respective MO at the 1- to 2-cell stage. Images were taken at 24 hpf. (D) Representative experiment showing the effect of splice-MOs targeting either *kcnh1a* or *kcnh1b* on the mRNA levels of *kcnh1a*, *kcnh1b*, and *kcnh2*, respectively. RT-PCR with gene-specific primers was performed at 24 hpf using mRNA isolated from embryos, which were injected with increasing amounts (triangles) of the indicated paralog-specific MOs (spl1), and amplicons were analyzed by agarose gel electrophoresis. *bactin* was used as control.