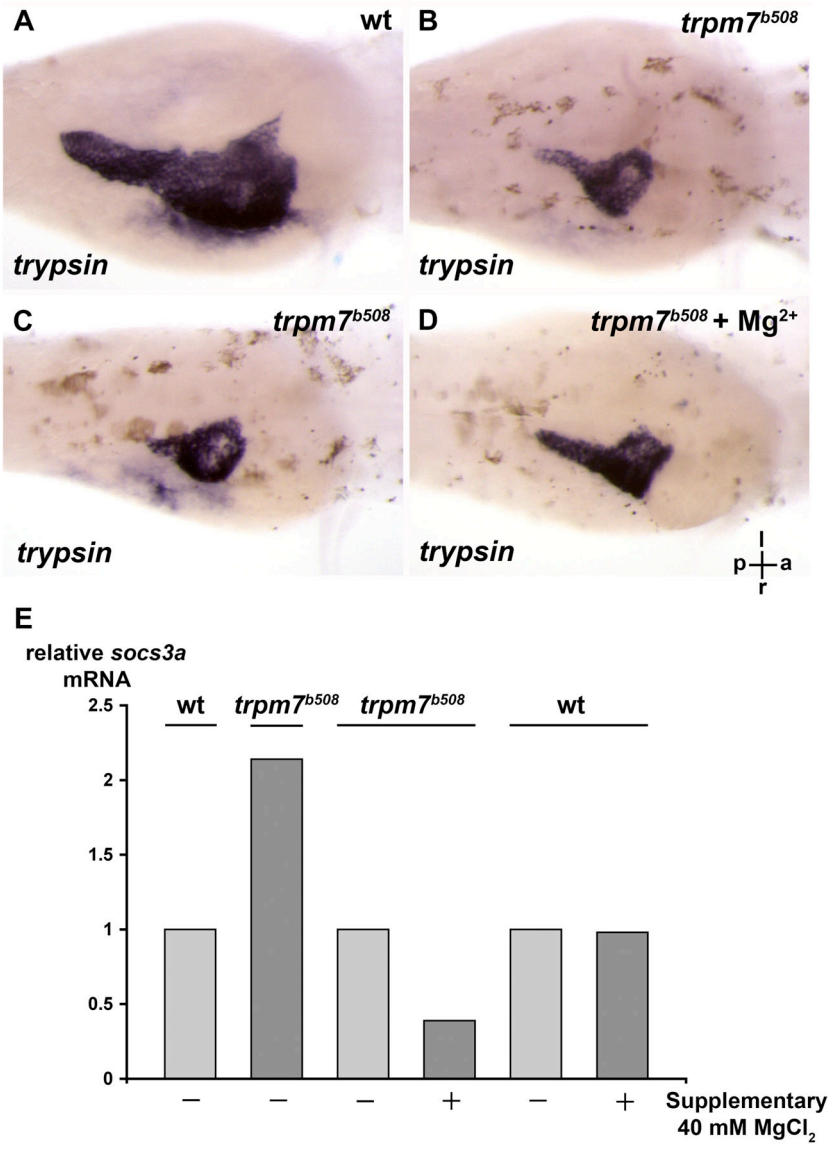

Fig. S1. The exocrine pancreas of the *trpm7*^{b508} mutant is relatively small, and the defect can be improved by supplementary Mg^{2+}. (**A,B**) The *trpm7*^{b508} mutants and their wt siblings were incubated till 96 h.p.f. and exocrine pancreas analyzed by in situ hybridization using anti-*trypsin* riboprobes. The wt embryos were grown in medium supplemented with PTU that inhibits skin pigmentation and facilitates visualization of the exocrine pancreas expressing *trypsin*. (**C,D**) The exocrine pancreas of the *trpm7*^{b508} mutants incubated in E3 medium without or with supplementary 40 mM $MgCl_2$ was analyzed on 96 h.p.f. by in situ hybridization using anti-*trypsin* riboprobes. Each larva shown is representative of 10 mutant larvae in each experimental group, and this experiment was performed two times with similar results. (**E**) The *trpm7*^{b508} mutants and their wt siblings were incubated in E3 medium with or without supplementary 40 mM $MgCl_2$ till 96 h.p.f., and *socs3a* mRNA was determined by real-time PCR. (**C-E**) The *trpm7*^{b508} mutants were identified based on their hypo-pigmented skin, which was not remarkably affected following incubation with supplementary $MgCl_2$. (**A-D**) The orientation of the larvae is indicated: a, anterior; p, posterior; l, left; r, right. The larvae are viewed in the dorsal-ventral direction.