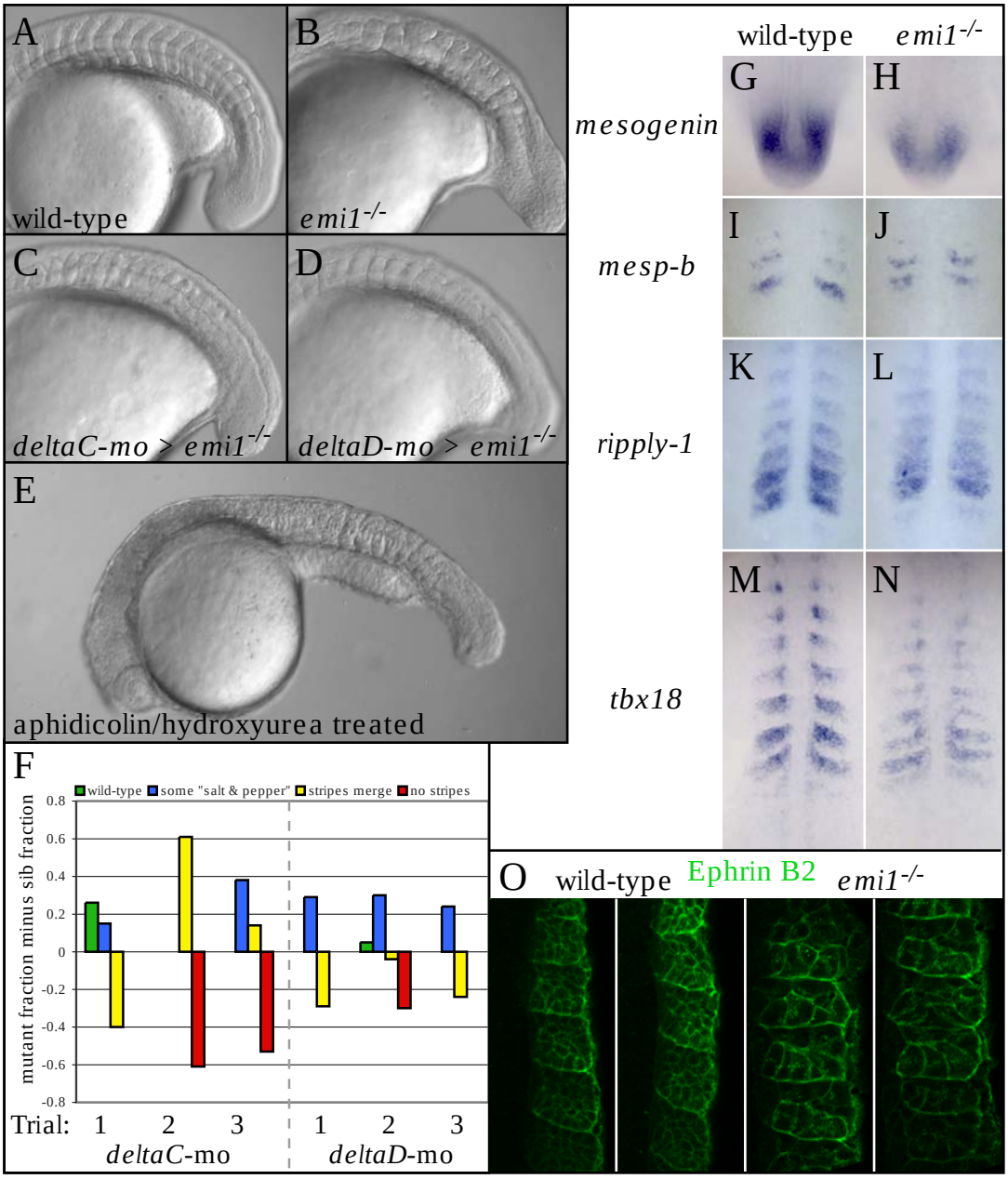
Zhang et al., Supplemental Figure 1



Supplemental Fig. 1. Lateral views of (A) wild-type and (B) *emi1*$^{-/-}$ embryos at the 16-18 somite stage. Lateral view of (C) *deltaC* morpholino-injected *emi1*$^{-/-}$ embryos and (D) *deltaD* morpholino-injected *emi1*$^{-/-}$ embryos at the 14-15 somite stage. (E) An aphidicolin/hydroxyurea-treated embryo at 30 hpf. (F) *her1* stripe integrity was examined in *emi1*$^{-/-}$ and sibling embryos injected with morpholinos against either *deltaC* or *deltaD*. *her1* expression was rated according to four categories representing increasing loss of organized expression: wild-type, stripes with some salt and pepper expression, stripes begin to merge, and no stripes. Distributions of gene expression patterns are displayed for three independent trials (x-axis). Within each gene expression category, the fraction of sibling embryos is subtracted from the fraction of mutant embryos. For example, the wild-type category in the first *deltaC* morpholino trial included 0.28 fraction of the mutant embryos (28%) and 0.03 fraction of the sibling embryos (3%), giving a graphed value of 0.25. In *deltaC* morpholino trials, the number of mutants and sibs assayed (mutant/sib) are: 39/74, 27/79 and 16/57. For *deltaD* morpholino trials, the corresponding numbers are: 60/50, 28/74 and 49/90. These embryos are the ones assayed in Fig. 3N, but here are examined by a second investigator in a blind trial. *mesogenin* expression in the tailbud of (G) wild-type and (H) *emi1*$^{-/-}$ embryos at the 15-somite stage. The expression domain is reduced in the mutant. *mesp-b* expression in the anterior PSM of (I) wild-type and (J) *emi1*$^{-/-}$ embryos at the 12-somite stage. *ripply-1* expression in (K) wild-type and (L) *emi1*$^{-/-}$ embryos at the 12-somite stage. *tbx18* expression in (M) wild-type and (N) *emi1*$^{-/-}$ embryos at the 12-somite stage. Segmental expression of *mesp-b*, *ripply-1* and *tbx18* is established in the mutant. In G-N, anterior is up. (O) EphrinB2 localization in two wild-type and two *emi1*$^{-/-}$ embryos. Shown are the 2-9 somite region of 12-somite stage embryos. Anterior is up. In both mutant and wild-type, Ephrin B2 staining is stronger in the cells anterior to each somite border than in the row of cell posterior to each border.