



Supplementary information, Fig. S4 Generation and validation of *ddx3xb* mutant. **a**, The upper panel shows the gRNA target site in *ddx3xb*, the lower panel illustrates the 22 bp deletion in the *ddx3xb* mutant. **b,c**, WISH (**b**) and qPCR (**c**) analyses demonstrating that the expression of *ddx3xb* was almost absent in the *ddx3xb* MZ mutants. Scale bars, 100 μ m. Error bars, mean \pm SD, n = 3 biological replicates. *P* values were calculated by the two-tailed Student' s *t*-test, ***, *P* < 0.001. **d**, Western blot demonstrating the absence of Ddx3xb protein in the *ddx3xb* mutant at 4 hpf.