



**Supplementary information, Fig. S7 Ddx3xb phase separation is required for early zebrafish development. a,b, *ddx3xb* MO injection caused zebrafish developmental delay and different *ddx3xb* mRNA variants *ddx3xb*, *ddx3xb<sub>FL</sub>*, *ddx3xb<sub>ΔN</sub>*, *ddx3xb<sub>ΔN</sub>-hnRNPA1<sub>IDR</sub>* and *ddx3xb<sub>ΔN</sub>-FUS<sub>IDR</sub>* caused different rescue effects. Representative images of embryos (a) and histograms (b) are shown. The continuous small red arrowheads denote the edge of epiboly. The big red arrowheads denote the embryonic shield. Scale bars, 100  $\mu$ m. n = 3 biological replicates, error bars, mean  $\pm$  SD, *P* values were calculated by the two-tailed Student's *t*-test, \*\*, *P* < 0.01, \*\*\*, *P* < 0.001.**