

**SUPPLEMENTARY FIG. S2.** Validation of antibodies by whole-mount immunohistochemistry using zebrafish larvae and western blot analysis using extracts of zebrafish vertebrae and mouse femur bone. **(A)** Collagen type II/Col2 protein accumulation in the developing skull and jaw (*black arrows*). **(B)** Control for Col2. **(C)** Chondroitin sulfate proteoglycans/Cspgs in the cartilaginous structure of the caudal fin (hypural) (*black arrow*). *Insert* shows 3× magnification of the caudal fin. **(D)** Control for Cspgs. **(E)** Col10 expression in extracts of mouse femur bone (lane 1; positive control) and of zebrafish vertebrae (lane 2). **(F)** Spp1 expression in extracts of mouse femur bone (lane 3; positive control) and of zebrafish vertebrae (lane 4).