**Supplemental Figure 1.** Negative controls for not commercially available antibodies raised in rabbits. Immunhistochemical stainings for (A) collagen IX, (B) decorin, (C) COMP and (D) matrilin-3. The respective controls for collagen IX and COMP are rabbit IgGs, polyclonal (Abcam #37415) in a concentration of (E) 5  $\mu$ g/ml and (F) 10  $\mu$ g/ml, respectively. Control stainings for decorin and matrilin-3 were performed with rabbit preimmunsera in a 1:1000 (G) and 1:500 (F) dilution corresponding to the dilution of the respective antibodies. All stainings were performed on healthy control samples. Scale bars 200  $\mu$ m.

