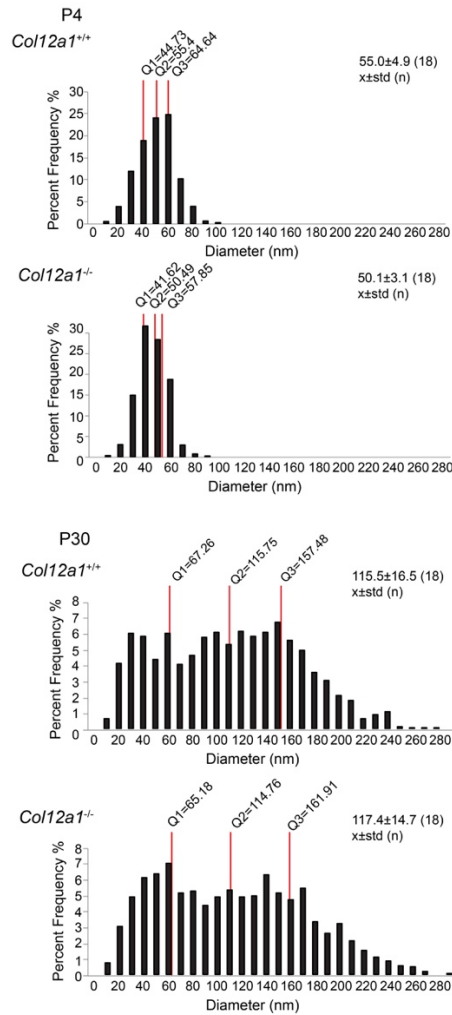


Supplemental Fig. 1. Pericellular localization of collagen XII in tissue level.

Collagen XII localization was analyzed by immunofluorescence in P4 and P30 mouse FDLs. Phalloidin staining was used for visualizaing cell body. Collagen XII reactivity was present throughout the tendon at P4 (A) and P30 (C). High magnification demonstrate pericellular localization (B, D, arrows). DAPI, blue for nuclei. Bars = 50 μm (A, C), and 20 μm (B, D).



Supplemental Fig. 2. Fibril diameter analysis in *Col12a1^{-/-}* FDLs.

The fibril diameter measurements were analyzed in P4 and P30 from *Col12a1^{-/-}* and *Col12a1^{-/-}* mice using TEM. At P4, the fibril size was slightly smaller in *Col12a1^{-/-}* FDLs, compared to the wild type FDLs. At P30, the fibril diameter became multimodal with broader range in wild type. Similarly, the diameter of collagen XII deficient fibrils was multimodal, however the range was broader due to an increased number of larger fibrils.