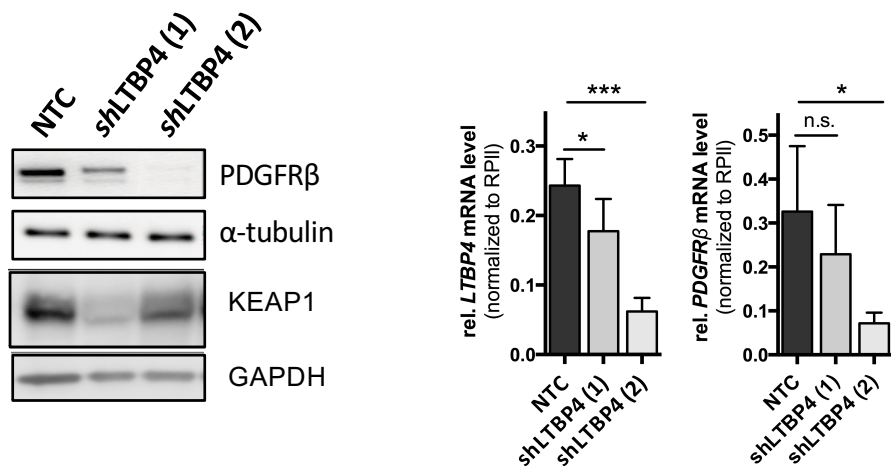


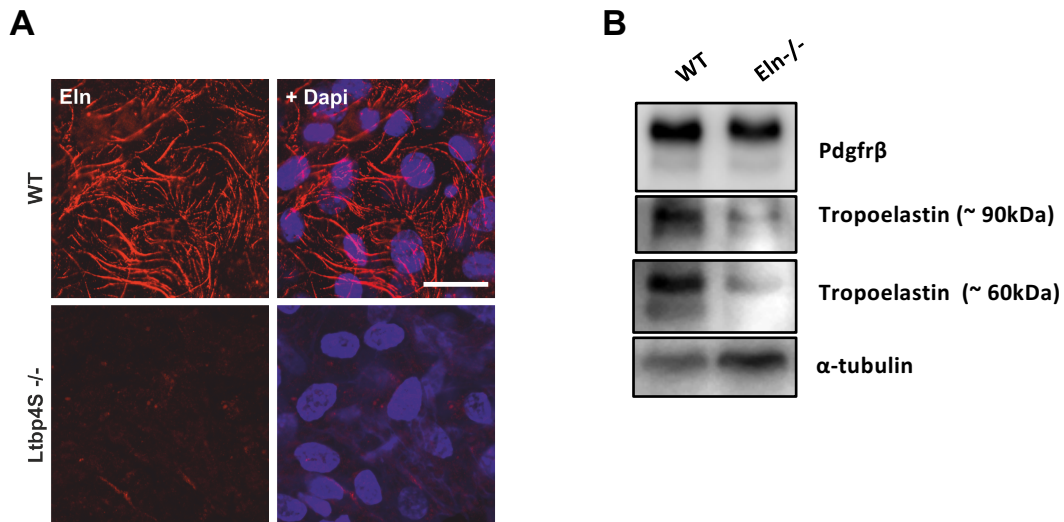
Supplementary Figure 1: Reduced *Pdgfrβ* expression and signaling in *Ltbp4*^{-/-} MLFs

A. *Pdgfrβ* (green) and *Ltbp4* (red) expression in WT and *Ltbp4S*^{-/-} KO MLFs visualized by confocal microscopy after immunofluorescence staining. Nuclei are stained with DAPI (blue). Scale bars: 20 μ m. **B.** Circular dorsal ruffles in MLFs exposed to 25 ng/ml PDGF BB. *Left panel:* confocal images of circular dorsal ruffles, green (phalloidin); nuclei, blue (DAPI). Scale bars: 30 μ m. *Right panel:* Quantification of circular dorsal ruffles. Differential counts were performed on 6 image fields per experiment. Results are represented as means \pm S.D. of two independent experiments. ** $p < 0.01$. **C.** p-*Pdgfrβ* (Y751 and Y1021) levels in MLFs exposed 25 ng/ml PDGF BB relative to total *Pdgfrβ* quantified by densitometry. All results are represented as the means \pm S.D. of three independent experiments.

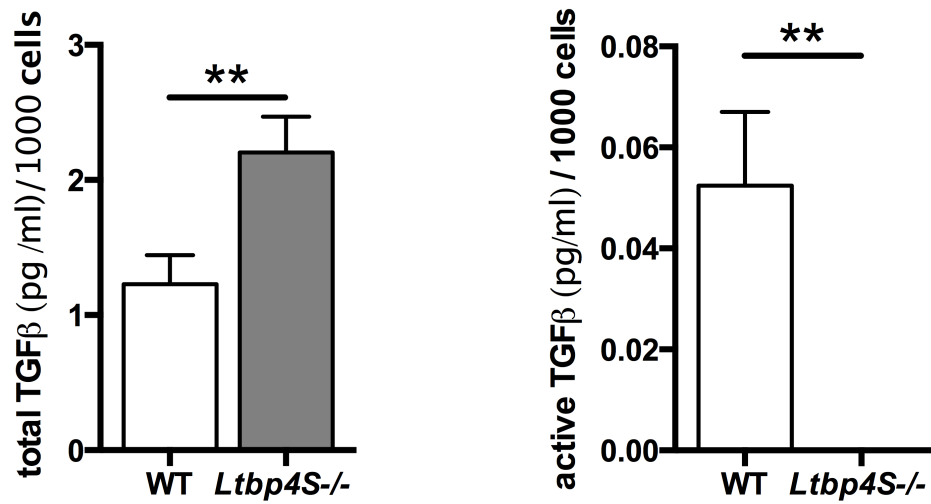


Supplementary Figure 2: Downregulation of PDGFRβ and KEAP1 in MRC5 cells transduced with LTBP4-shRNAs

Left panel: Representative Western blot. *Right panel:* LTBP4 and PDGFRβ mRNA levels quantified by qRT-PCR. Results are represented as the means ± S.D. of three independent experiments. *p < 0.05; ***p < 0.001

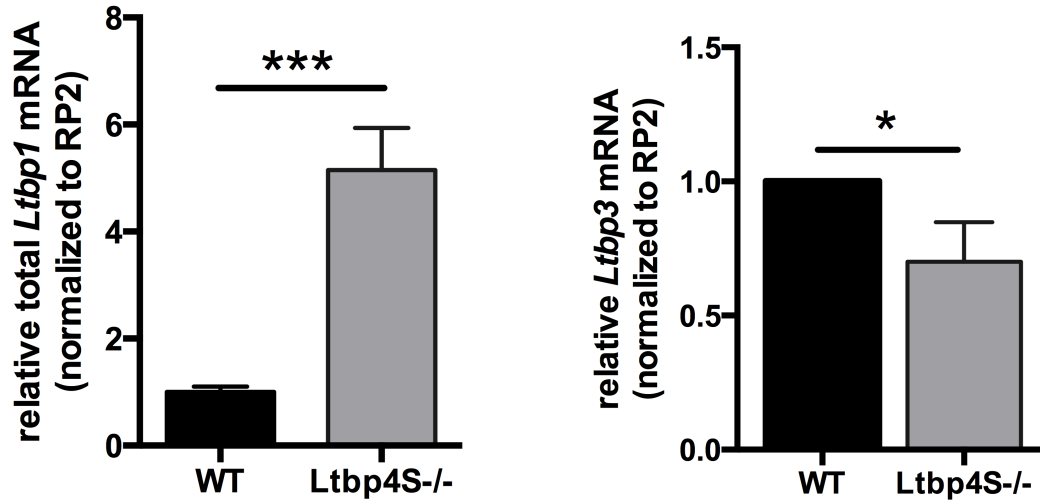


Supplementary Figure 3: Effect of elastin gene inactivation on on Pdgfrb expression
A. Immunofluorescence staining of elastic fibers (red) in WT and *Ltp4S*^{-/-} MLFs. Nuclei are stained with DAPI (blue). Scale bar: 20 μ m. **B.** Western blot showing elastin (Eln) expression after inactivation in WT-MLFs by CRISPR/Cas9 technology. Bands of different sizes were observed in WB with tropoelastin antibody. The 60 kDa band corresponds to the predicted molecular weight of the tropoelastin. The 90 kDa band presumably reflects a posttranslationally modified product of tropoelastin.



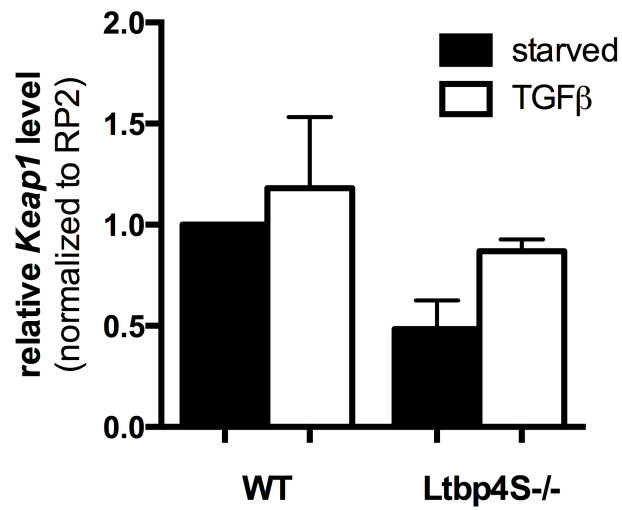
Supplementary Figure 4: TGFβ secretion by *Ltp4S*^{-/-} MLFs

Total (left) and active (right) TGFβ levels in MLF conditioned media estimated by using MLEC luciferase reporter assay (for further details see Experimental procedures). Results are represented as the means ± S.D. of three independent experiments. **p < 0.01.



Supplementary Figure 5: Expression of TGF β binding Ltbps in *Ltbp4* deficient MLFs.

Ltbp1 (left) and *Ltbp3* (right) mRNA expression in WT- and *Ltbp4S^{-/-}* MLFs estimated by qRT-PCR.



Supplementary Figure 6: Keap1 mRNA expression in MLFs

Keap1 mRNA levels estimated by qRT-PCR in WT- and *Ltbp4S*^{-/-} MLFs before and after TGFβ (10 ng/ml) stimulation.