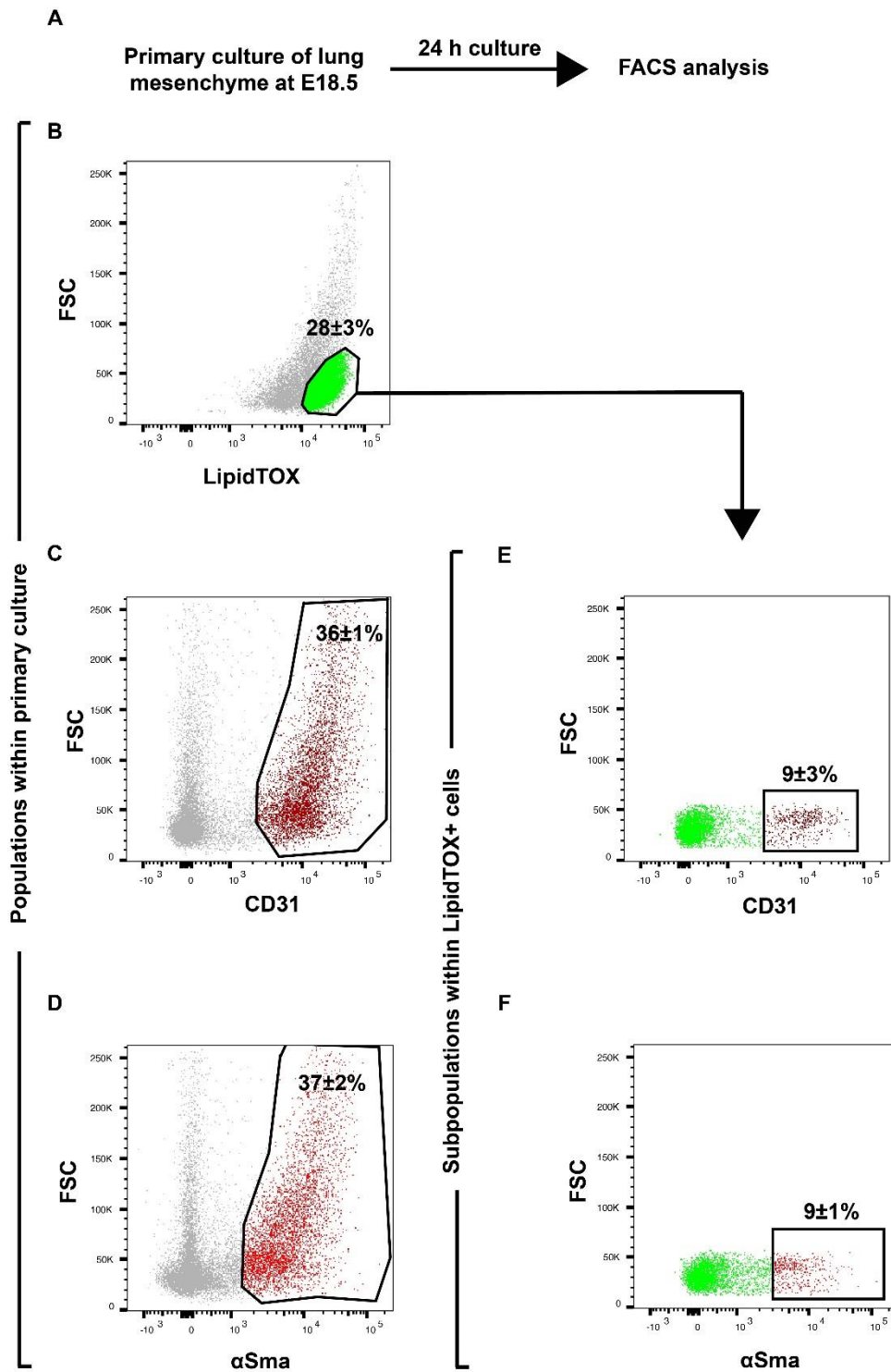
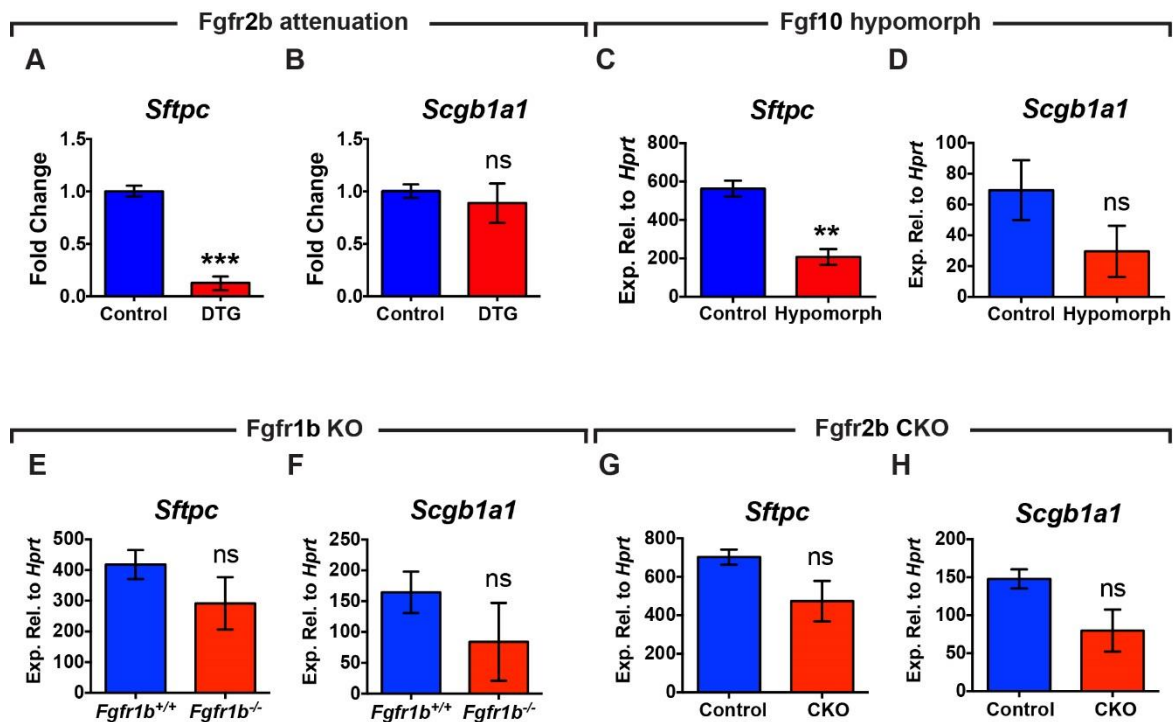


**Figure S1. LacZ expression in *Fgf10-lacZ* lungs indicates that *Fgf10* is expressed in a subset of lipofibroblasts.** (A-F) *LacZ* staining of control (A) and *Fgf10-lacZ* (B) P5 lungs. (C, D) Higher magnification of the lung shown in (B) indicates the presence of *lacZ*<sup>+</sup> cells not only close to the pleura (arrow) but also in the parenchyma (asterisk). (E-F) Benzyl Benzoate has been used to better visualize the internal signal in *Fgf10-lacZ* lungs. (G-I) Nuclear fast red staining of P5 *Fgf10-lacZ* lungs. (J-U) IHC of P5 *Fgf10-lacZ* lung sections showing Acta2<sup>-</sup> Adrp<sup>+</sup> ORO<sup>+</sup> *lacZ*<sup>+</sup> cells adjacent to AECII. The boxes in panels (G, J, M, P and S) indicate the areas showed in higher magnification in panels (H-I, K-L, N-O, Q-R, T-U) respectively. (V-X) Oil Red O (ORO) staining on frozen sections of P5 *Fgf10-lacZ* lungs. (Y) Quantification of the number of *lacZ*<sup>+</sup> Adrp<sup>+</sup> cells as compared to the total number of *lacZ*<sup>+</sup> cells. (Z) Quantification of the number of *lacZ*<sup>+</sup> Adrp<sup>+</sup> cells as compared to the total number of Adrp<sup>+</sup> cells. Scale bar: 100  $\mu$ m. *n*=4. NFR: Nuclear Fast Red.



**Figure S2. Analysis of primary culture of E18.5 lung mesenchyme.** (A) Experimental setup. (B) FACS analysis for LipidTOX shows that lipofibroblasts represent 28±3% of total cultured cells after 24 hours. (C,D) Other populations include endothelial cells (36±1%) and smooth muscle cells (37±2%). (E,F) Endothelial cells and smooth muscle cells represent 9±3% and 9±1% of total LipidTOX-positive cells respectively.  $n=6-12$ .



**Figure S3. Analysis of *Sftpc* and *Scgb1a1* expression levels in control and mutant lungs by qPCR.** *Sftpc* expression levels reveal significant downregulation upon Fgfr2b attenuation (A) and in *Fgf10* hypomorphic lungs (C) but not in *Fgfr1b* KO (E) or *Fgfr2b* CKO lungs (G). *Scgb1a1* expression is not significantly altered in mutants compared to littermate controls (B,D,F,H). \*\*  $P < 0.01$ , \*\*\*  $P < 0.001$ . KO: Knock out, CKO: Conditional knock out.