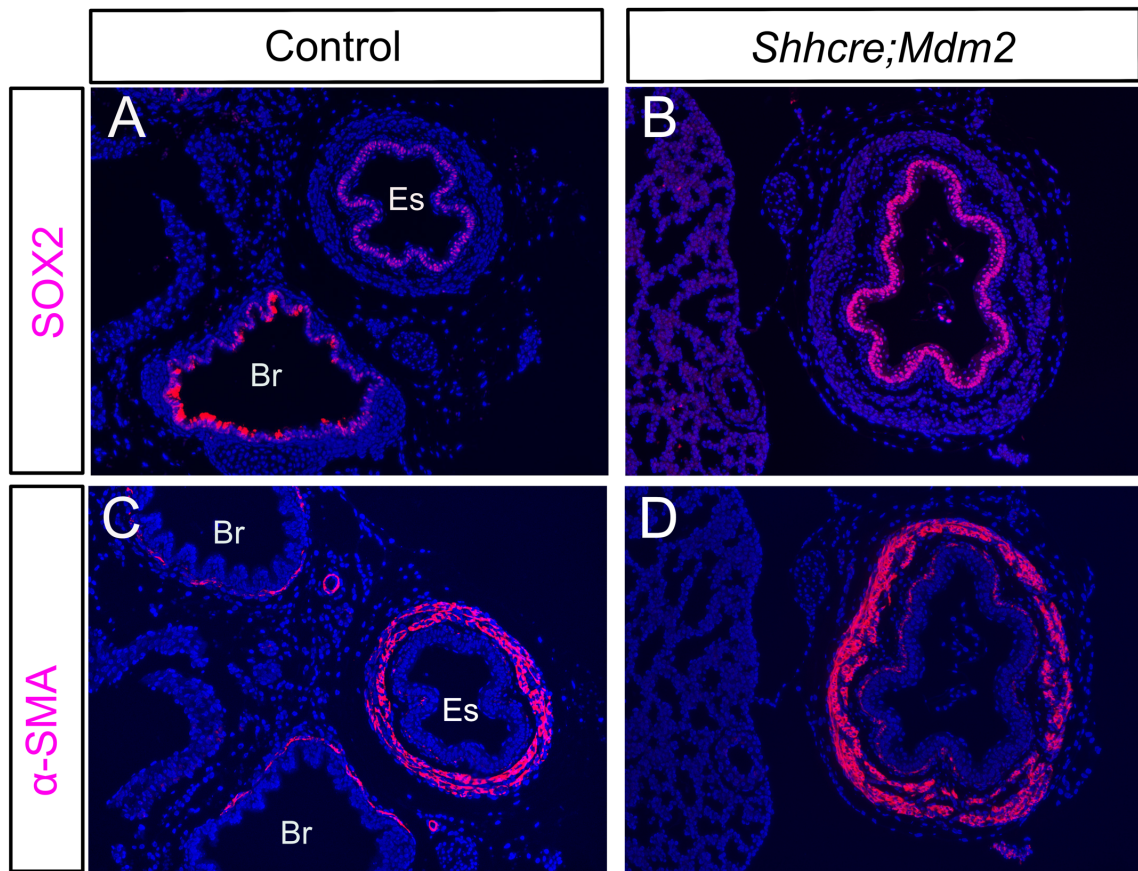




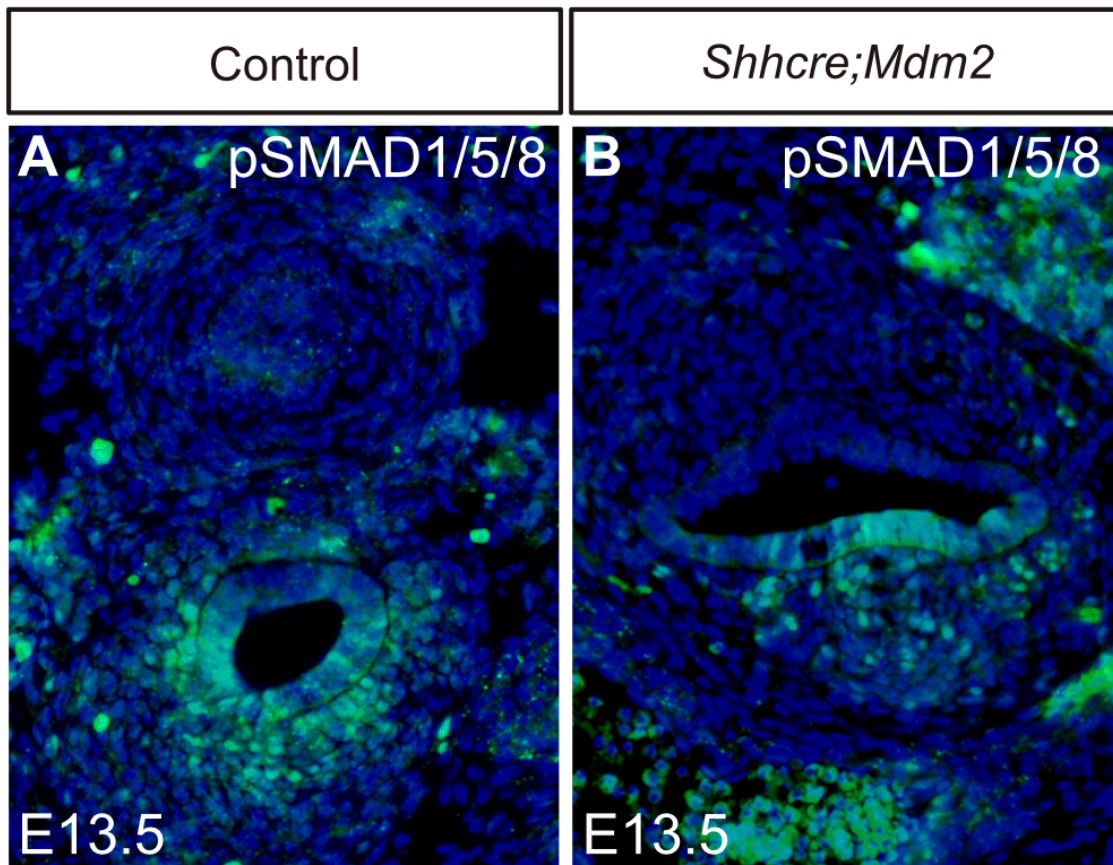
**Figure S1. *Mdm2* is primarily expressed in epithelial cells in the developing lung.**

(A) *Mdm2* RNA in situ hybridization staining of lung at E12.5. Staining data in this figure are representative from n = 3 embryos of each genotype.

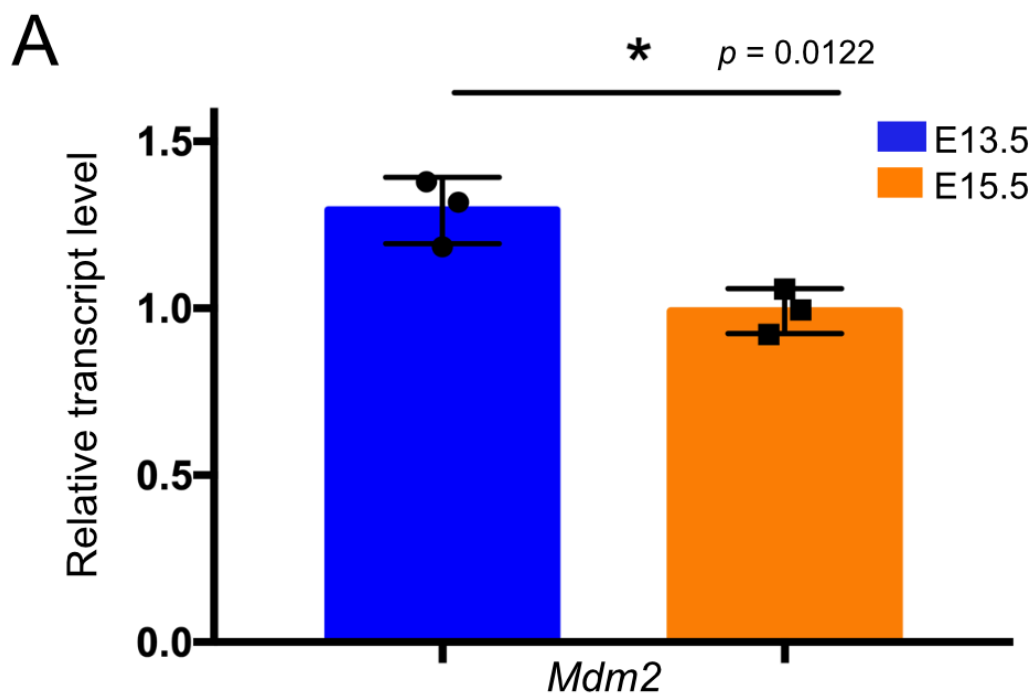


**Figure S2. *Mdm2* mutant foregut exhibit fused tube with both trachea and esophagus characteristics.**

(A,B) Anti-SOX2 staining in control and *Shhcre;Mdm2* mutants. (C,D) Anti- $\alpha$ -SMA staining in control and *Shhcre;Mdm2* mutants. Staining data in this figure are representative from n = 3 embryos of each genotype.



**Figure S3. BMP activity readout pSMAD 1/5/8 expression remained present in the *Mdm2* mutant.** (A,B) Anti-pSMAD1/5/8 staining in the foregut of *Mdm2* mutant and control at E13.5. Staining data in this figure are representative from n = 3 embryos of each genotype.



**Figure S4. *Mdm2* expression is downregulated following development.**

(A) qRT-PCR of *Mdm2* expression in wildtype lungs at E13.5 and E15.5. Data in this figure is from  $n = 3$  embryos of each stage.

**Table S1. qRT-PCR primers used in this study**

<i>Actb</i> ( $\beta$ -actin)	5'-CGGCCAGGTCATCACTATTGGCAAC-3' 5'-GCCACAGGATTCCATACCCAAGAAG-3'
<i>Sftpc</i>	5'-ATGGACATGAGTAGCAAAGAGGT-3' 5'-CACGATGAGAAGGCGTTTTGAG-3'
<i>Hopx</i>	5'-CCACGCTGTGCCTCATCGCA-3' 5'-GGCCTGGCTCCCTAGTCCGT-3'
<i>Scgb1a1</i>	5'-CTCCTATGCCACTCTCATCTGC-3' 5'-GACAGGTTGTGGCGGATGGAAT-3'
<i>Foxj1</i>	5'-ATGAAGATCGCCATCACAATCAC-3' 5'-GGATGCCACATAACCAGACTCT-3'
<i>Mdm2</i>	5'-CCAGGCCAATGTGCAATACC-3' 5'-ATGGTTTTTGGTCTAACCAGAGT-3'