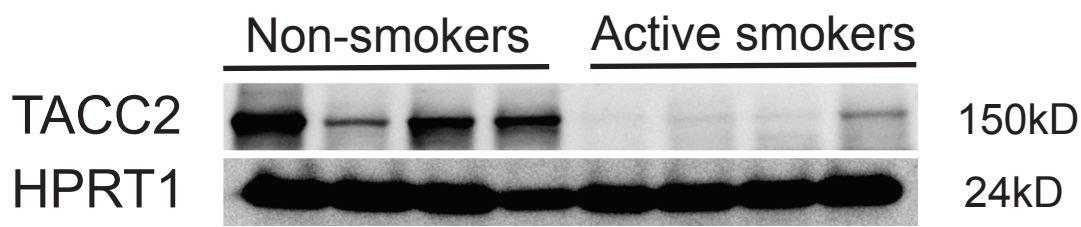
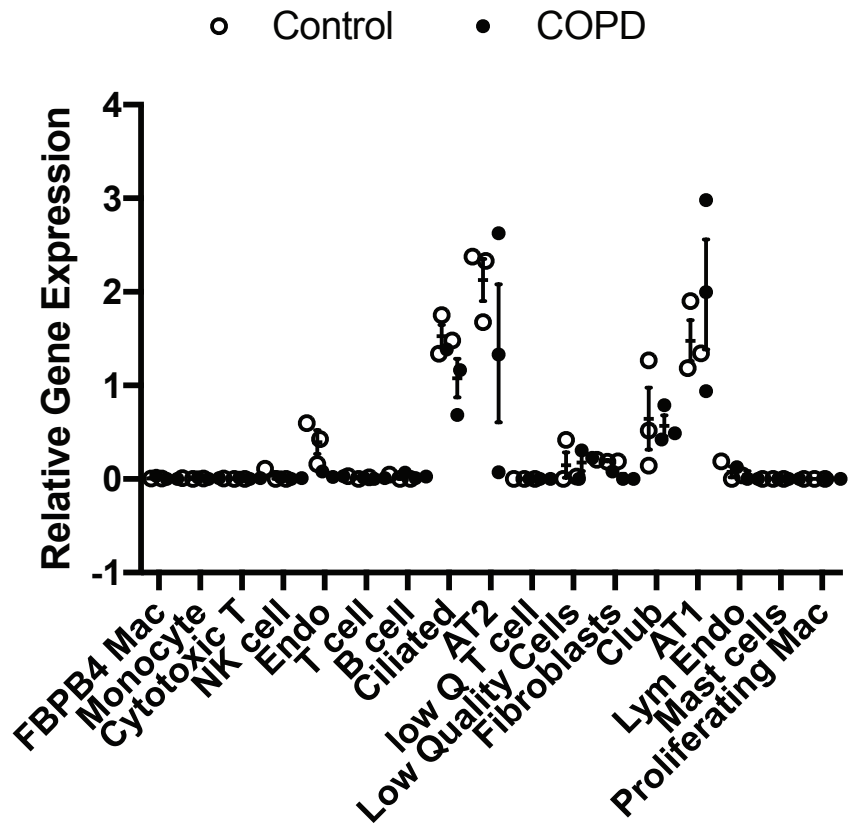


A.



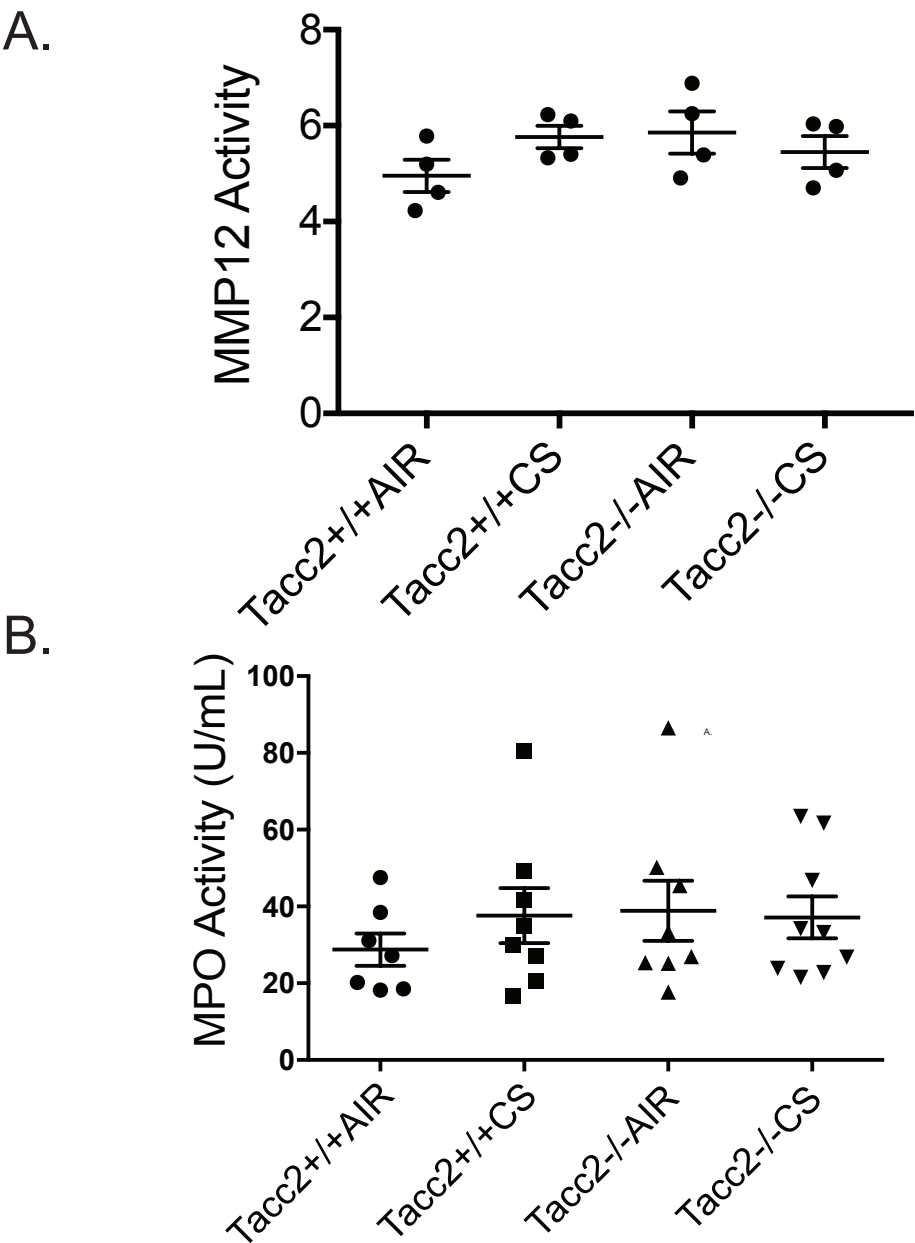
B.



Supplemental Fig. 1

A. Whole lung parenchyma lysates were obtained from 4 non-smokers (2 males and 2 females: mean age 59.8 ± 8.6) and 4 active smokers (2 males and 2 females: mean age 61.3 ± 5.5 , at least 20 pack-year cigarette smoking) without known lung disease. Immunoblot (IB) analysis was performed for TACC2.

B. Single cell RNA sequencing was conducted using lung parenchymal tissues obtained from three normal (18 year-old male, and 23 and 57 year-old females) and severe COPD subjects (61, 62, and 65 year-old females). Data are expressed as mean \pm SEM.



Supplemental Fig. 2

A. After completing CS or AIR exposure for 6 wks, the lungs of *Tacc2*^{+/+} and *-/-* mice were harvested and homogenized in assay buffer. MMP-12 activity was measured based on fluorescence intensity at Ex/Em=490/520 nm. Data are expressed as mean ± SEM.

B. Mice were treated as in A. MPO antigen levels in lungs tissues lysates were measured using the ELISA. Data are expressed as mean ± SEM.