

ONLINE DATA SUPPLEMENT

Legends

Fig.S1 Shp2 (KO) Mice Displayed Similar KC and MIP-2 Levels as Control Mice with Exposure to Laboratory Air

(A) Lungs from Shp2 (KO) mice and control mice were harvested to assess Shp2 by real-time PCR (n=6, per group), and (B-C) the BALFs were collected to examine KC and MIP-2 release by ELISA and the inflammatory cells were counted (n=6, per group). (D) Shp2 levels in the various tissues of Shp2 KO mice were measured by immunoblotting assays. (E) Lung tissues harvested from control mice and Shp2 (KO) mice were stained with H&E to observe the pathological change. No significant difference of KC and MIP-2 release and the influx of inflammatory cells were detected. Data were shown as mean±SEM.

Fig.S2 Shp2 Expression of Inflammatory Cells Induced by Cigarette Smoke

C57Bl/6 mice were exposed to CS for 4 days (seeing detailed description in *Materials and Methods*). Eighteen hours after the last CS exposure, the total inflammatory cells in BALFs were collected to assay levels of Shp2 mRNA by real-time PCR. No significant difference was detected. Data were shown as mean±SEM (n=9, per group).

Fig.S3 IL-1 α and MMP-9 Release Induced by CSE

NCI-H292 cells were incubated with different concentration of CSE (0-2.5%) for 24 hours. After the incubation, the cells were harvested to assay the release of IL-1 α and MMP-9 by ELISA (n=9, per group). The data were shown as mean±SEM of three

independent experiments. * $P < 0.05$ compared with control.

Fig.S4 The Increased Shp2 Expression in the Lung of Mice with CS Exposure

Shp2 immunohistochemistry were evaluated in the lungs obtained from mice exposed to CS at different interval after the last CS exposure (1-30 days). In the images, tan are positive for the Shp2 protein. Shp2 staining density mean was shown in the below panel. Data were expressed as mean \pm SEM (n=9, per group), *** $P < 0.001$ compared with control.

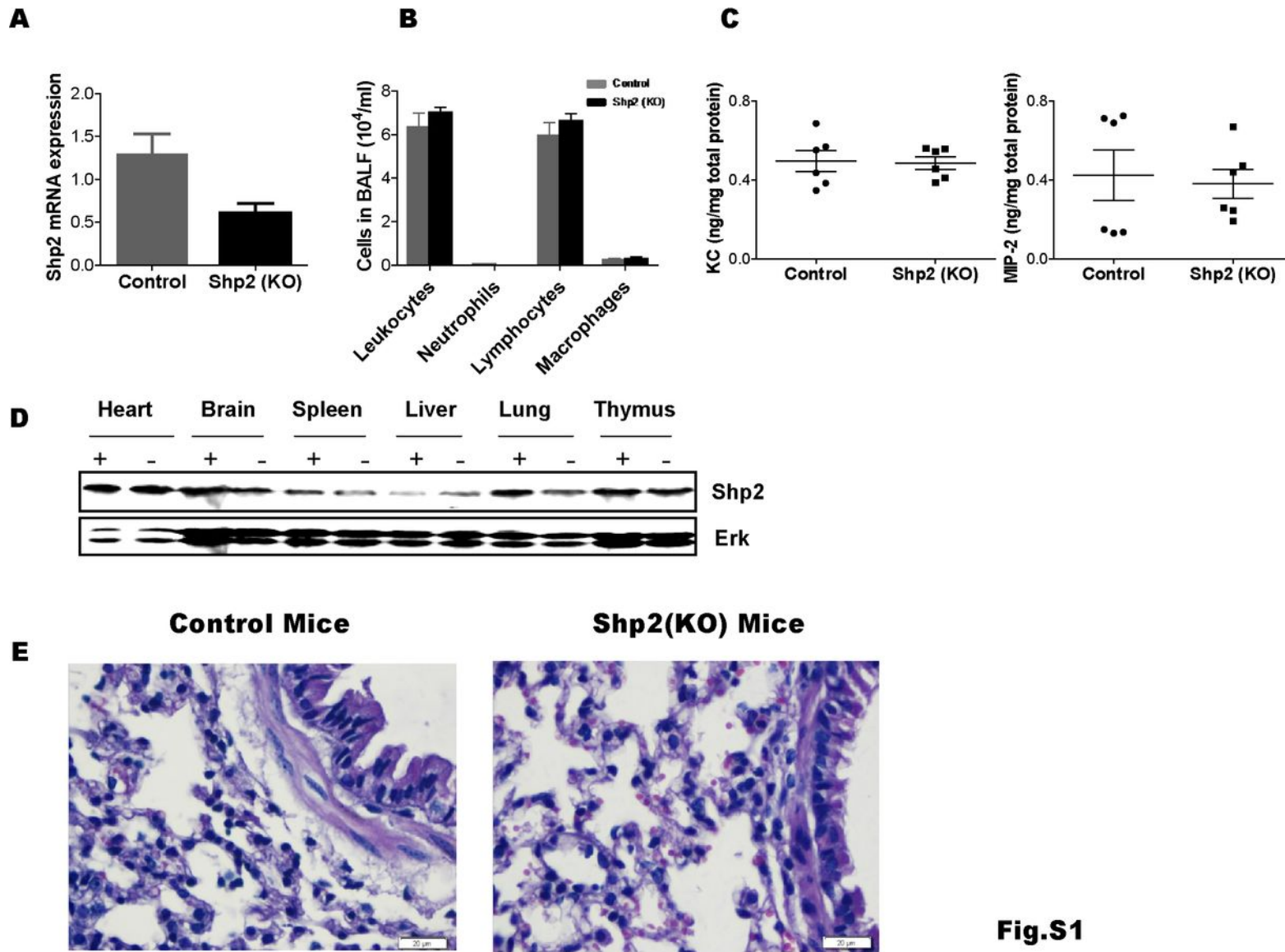


Fig.S1

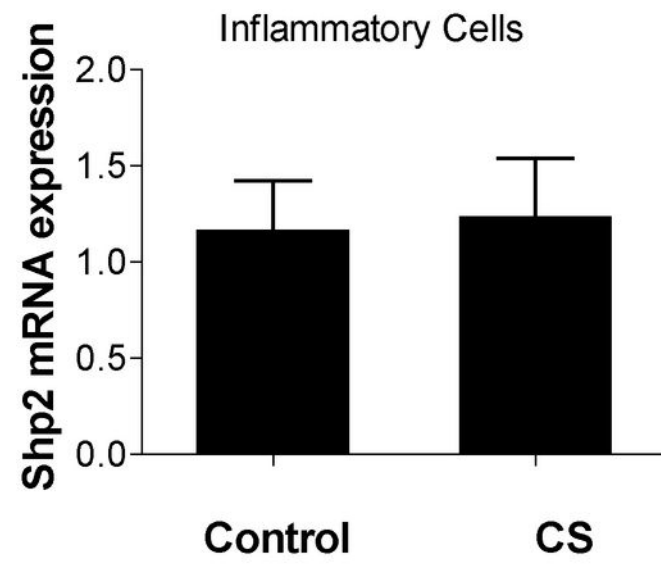
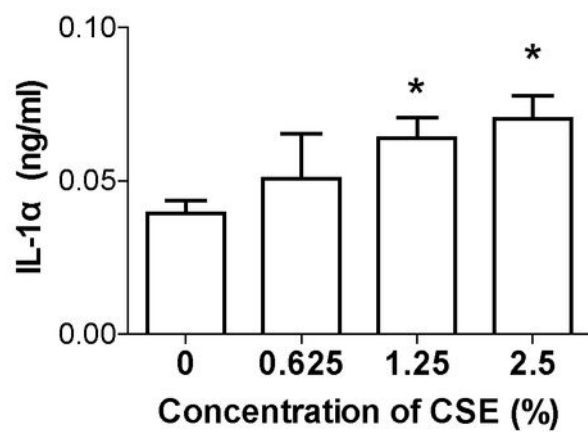
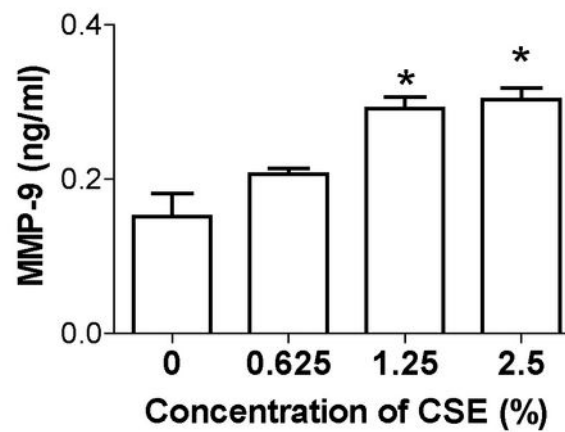


Fig.S2

A**B****Fig.S3**

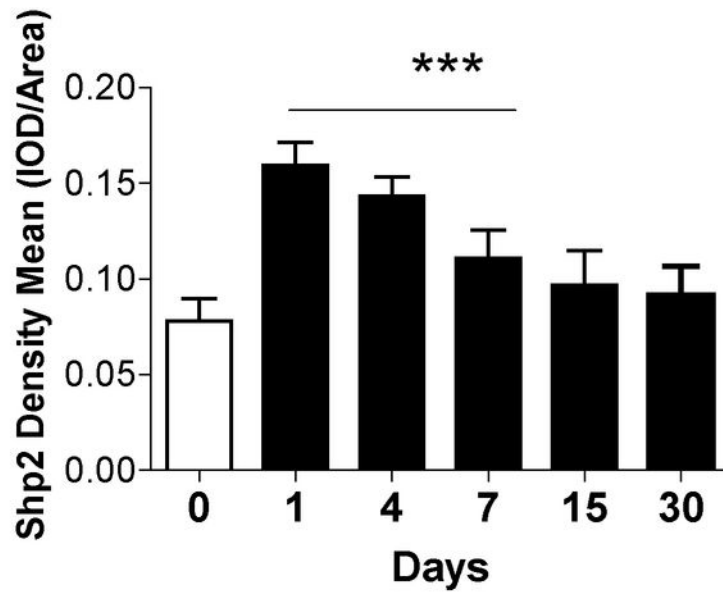
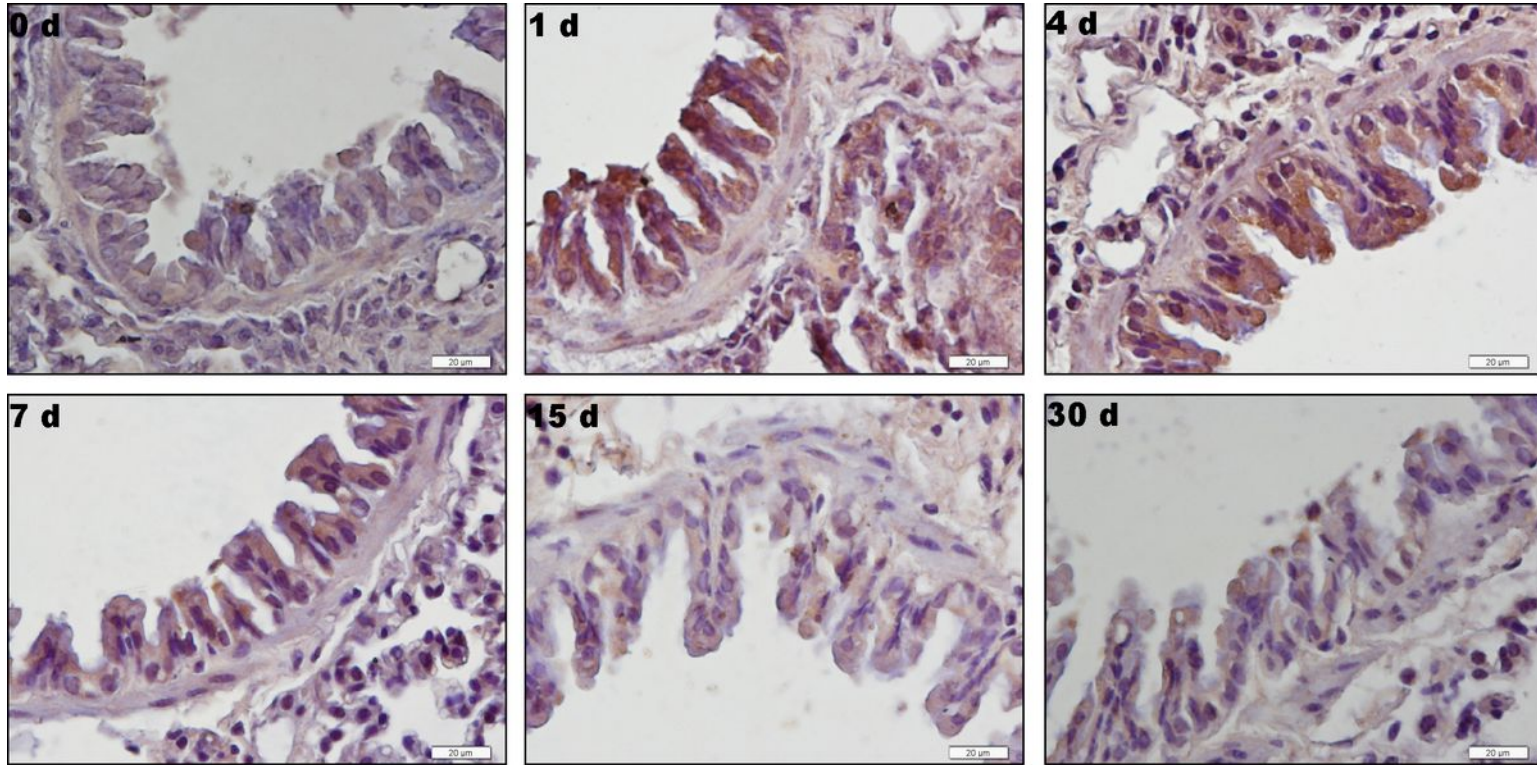


Fig.S4