## **Electronic Supplementary Material**

## Primer sequences using in this study were as follows.

- (1) IL8: (F) 5'-TTTTGCCAAGGAGTGCTAAAGA-3';
- (R) 5'-AACCCTCTGCACCCAGTTTTC-3'.
- (2) MUC5AC: (F) 5'-ACGGCACCTACTACACCTTCCTG-3';
- (R) 5'-CCGCACCGCAGAAGTAGTTGTC-3'.
- (3) GAPDH: (F) 5' -CCT CCA AGG AGT AAG ACC CC-3'
- (R) 5' -AGG GGT CTA CAT GGC AAC TG-3'.



**Fig. S1:** (A) Compared to the filtered air control, rat exposed to DEP at both levels for 2week did not increase the MLI (an indicator of emphysema). DEP exposure for 4-week, at the level of 1.03 mg/m<sup>3</sup>, resulted in a significant increase of MLI in alveoli (emphysema-like change). While DEP exposure for 8-week, at both levels (0.25 mg/m<sup>3</sup> and 1.03 mg/m<sup>3</sup>), induced significant increases in MLI. ns, not significant; \*\*\* p < 0.001. n=6 rats/group. (B) From week-1 to week-4, the body weight in rats treated with GC extract at both dosages did not differ significantly from that of the vehicle control. ns, not significant. n=6 rats/group.





**Fig. S2:** Original data of western blots for Nrf-2 (A), p-JNK/JNK (B), p-P38/P38 (C) and p-NF-kB (p-p65)/ NF-kB (p65) (D).