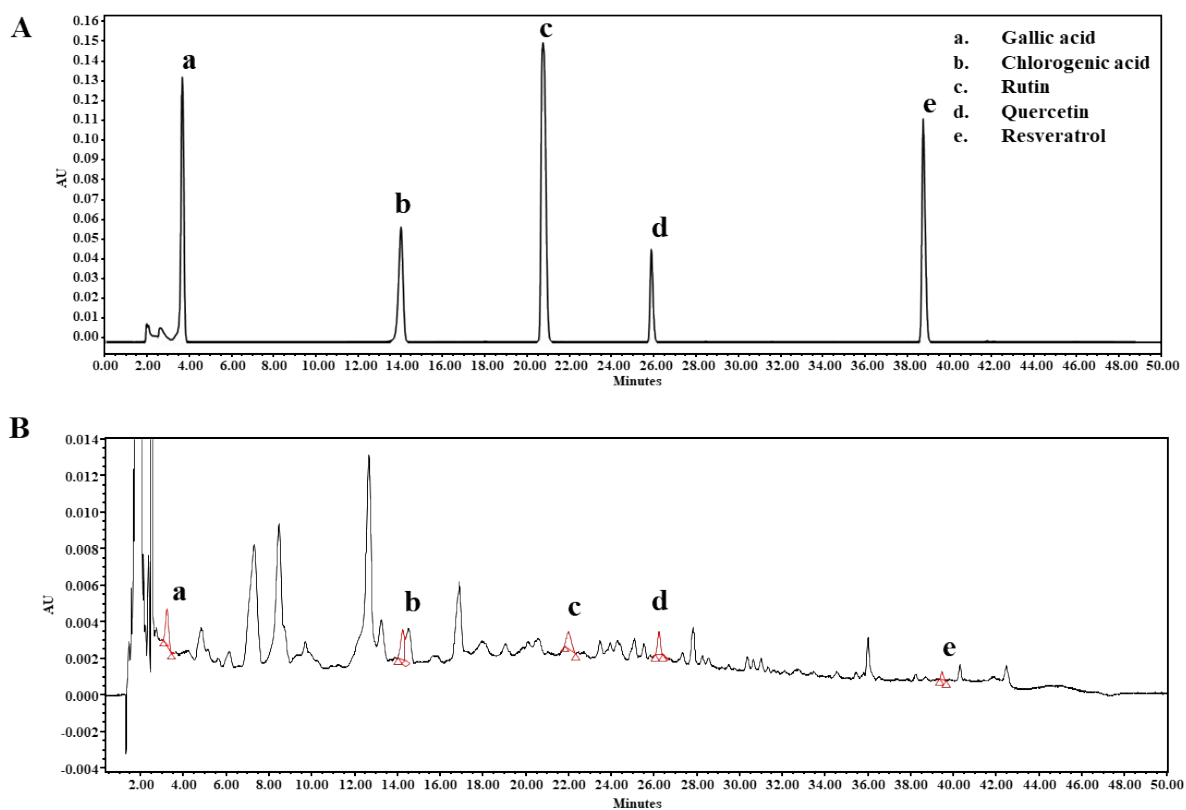
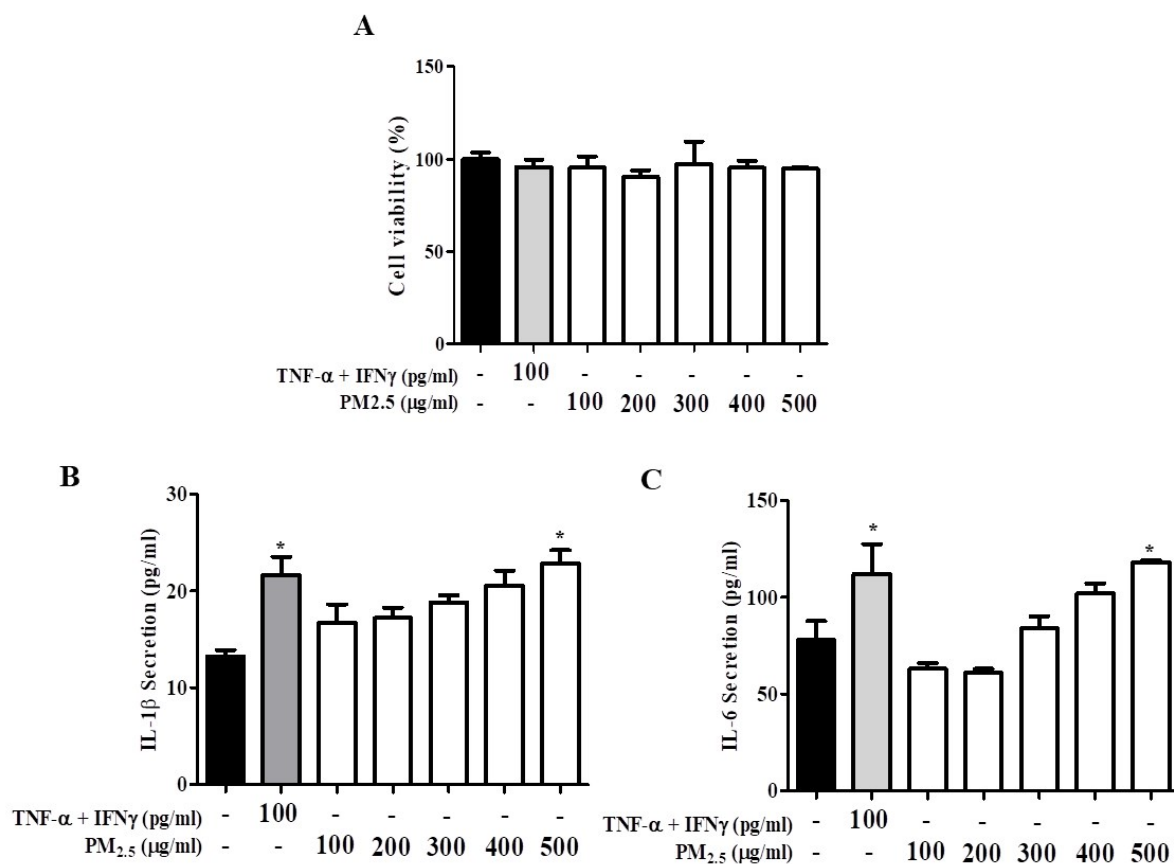


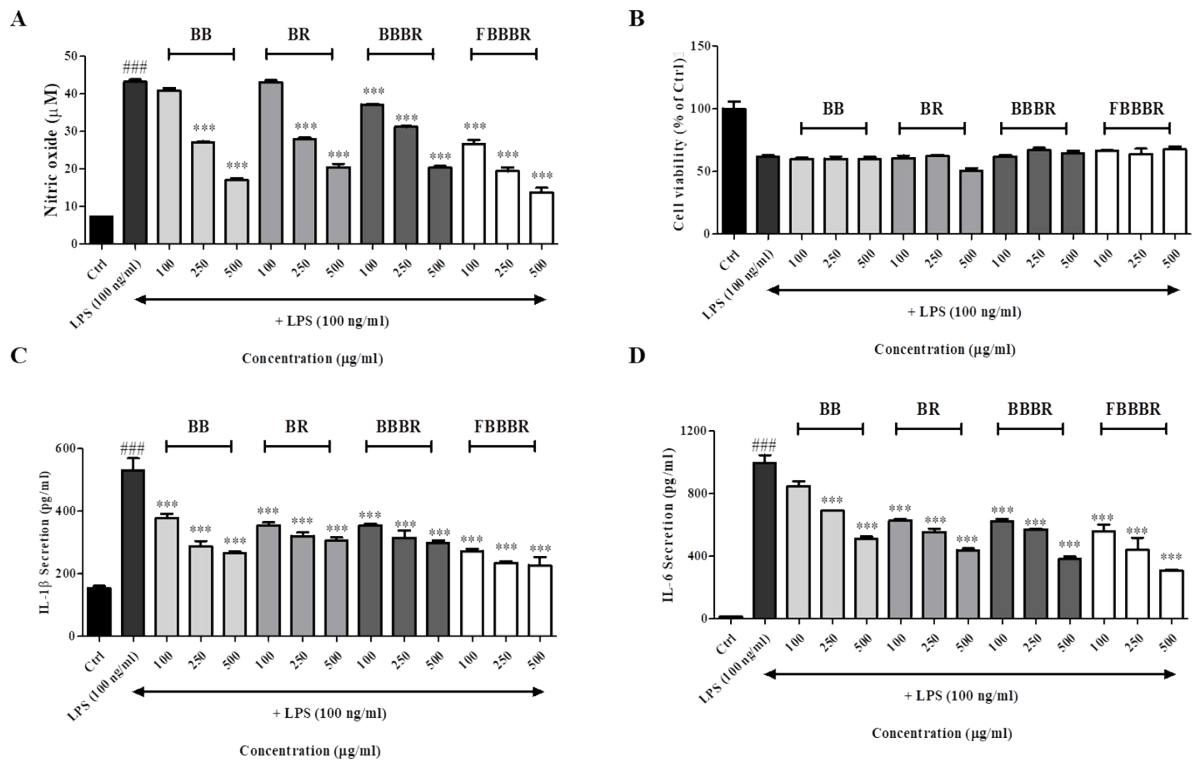
## Supporting Information



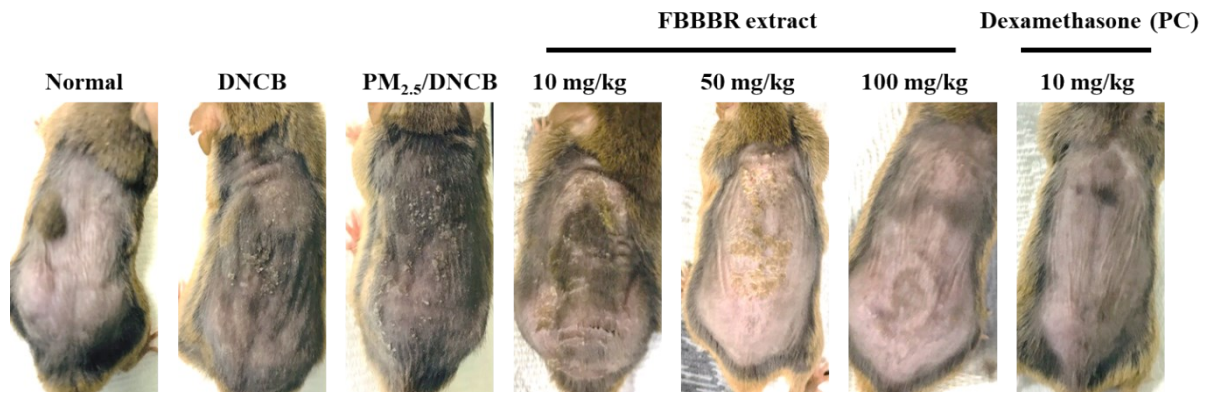
**Fig. S1. Chromatograms of standard compounds (gallic acid, chlorogenic acid, rutin, quercetin, and resveratrol, A) and FBBBR (B).** Amounts of gallic acid, chlorogenic acid, rutin, quercetin, and resveratrol were analyzed using HPLC with a water/3% acetic acid (solvent A) and methanol (solvent B) gradient system at UV 285 nm.



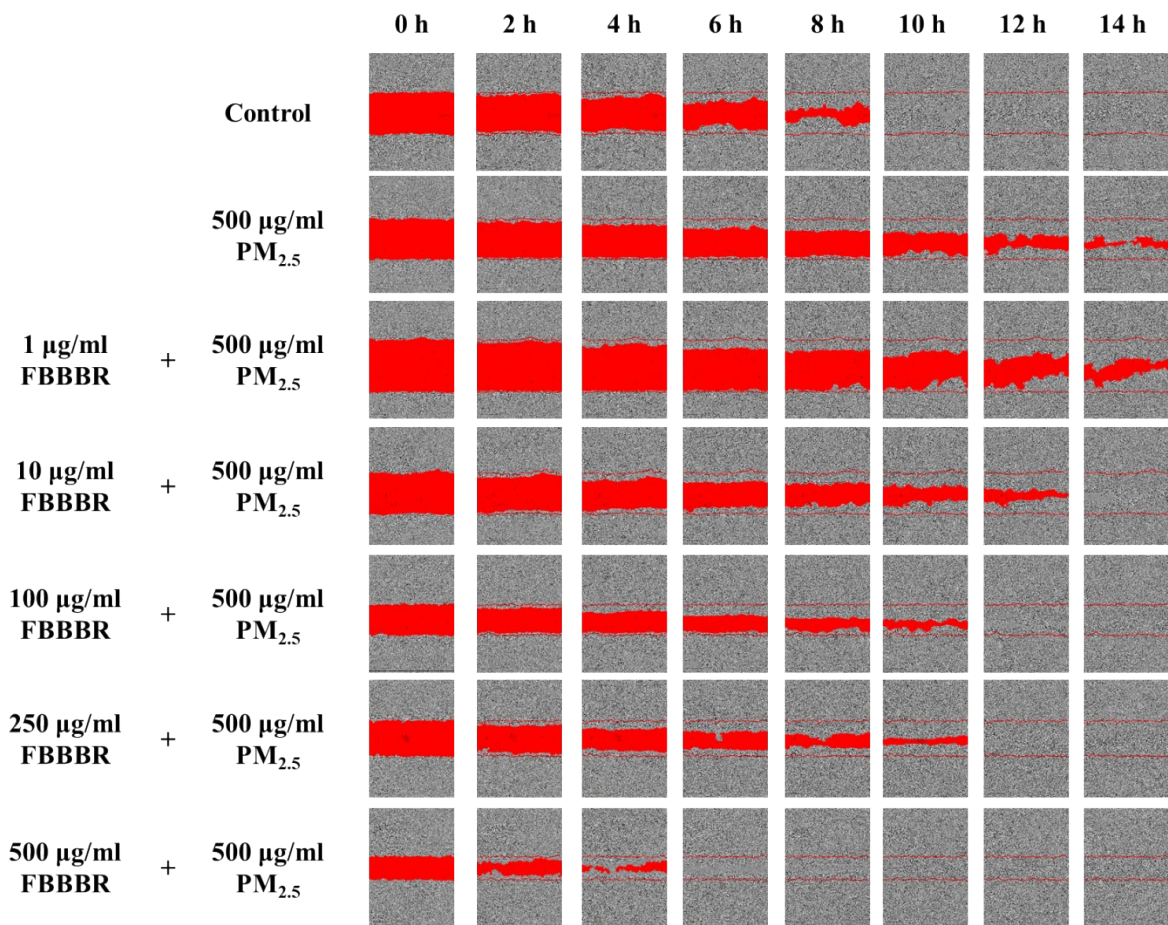
**Fig. 2S. Effect of PM<sub>2.5</sub> extract on cell viability and proinflammatory cytokine production (IL-1β and IL-6) in HaCaT cell.** HaCaT cells ( $3 \times 10^4$ /well) were pre-treated with various concentrations of PM<sub>2.5</sub> extract for 6 h. (A) Cell viability of PM<sub>2.5</sub> extract. (B) The levels of IL-1β production (C) The levels of IL-6 production. \* $P < 0.05$  vs. untreated group. Values represent mean  $\pm$  SEM (n = 3).



**Fig. 3S. Effect of BB, BR, BBBR, and FBBBR on cell viability, nitric oxide (NO) production, and proinflammatory cytokine production (IL-1 $\beta$  and IL-6) in RAW 264.7 macrophage cell.** (A) Effects of BB, BR, BBBR, and FBBBR on cell viability. (B) Inhibitory effect of BB, BR, BBBR, and FBBBR on PM<sub>2.5</sub> extract-induced NO production. (C) Inhibitory effect of BB, BR, BBBR, and FBBBR on PM<sub>2.5</sub> extract-induced IL-1 $\beta$  production. (D) Inhibitory effect of BB, BR, BBBR, and FBBBR on PM<sub>2.5</sub> extract-induced IL-6 production. Values represent mean  $\pm$  SEM (n = 3).



**Fig. 4S.** The morphological changes of mice at the end of the animal experiments.



**Fig. 5S. Effect of FBBBR on *in vitro* scratched wound healing in the HaCaT cell assay.** HaCaT cells were seeded ( $5 \times 10^5$  cells/well) into 96-well plates and cultured as a monolayer to confluence overnight. Monolayers of cultured cells were subjected to scratch wounds with a Wound Maker tool (Essen Bioscience, Ann Arbor, MI). The injured cells were pre-treated with various concentrations of FBBBR (1, 10, 100, 250, and 500  $\mu\text{g}/\text{mL}$ ) in 96-well plates and then treated with  $\text{PM}_{2.5}$  extract. IncuCyte ZOOM (Essen Bioscience) was used to inspect cultures every 2 hours.