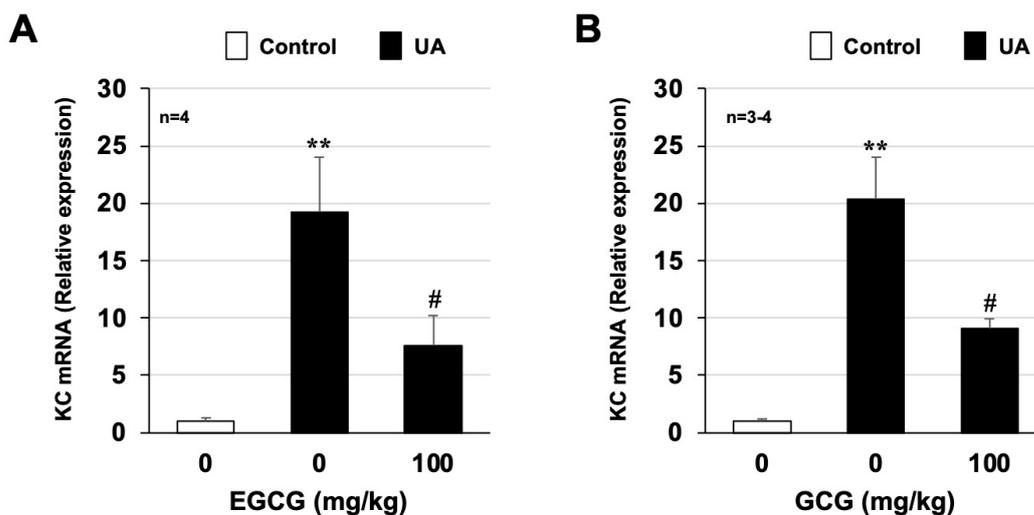
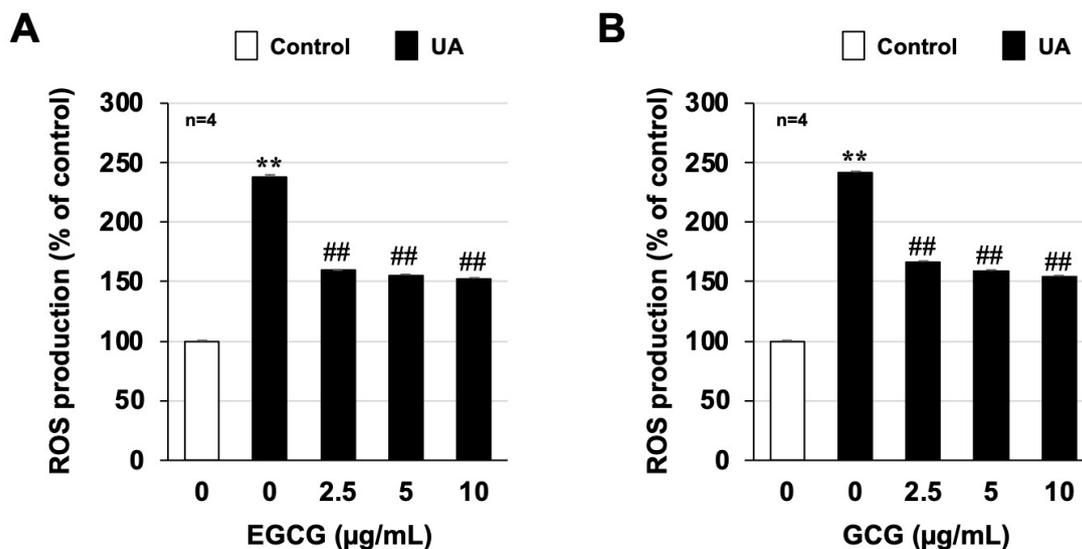


| Gene | Primer | Sequence (5' to 3') | Tm |
|-----------|---------|-----------------------|-------|
| TNF-alpha | Forward | CGTCAGCCGATTTGCTATCT | 58.14 |
| | Reverse | CGGACTCCGCAAAGTCTAAG | 58.37 |
| IL-1beta | Forward | GATCCCAAGCAATACCCAAA | 55.67 |
| | Reverse | GGGGA ACTCTGCAGACTCAA | 59.31 |
| IL-6 | Forward | CTGGAGTCACAGAAGGAGTGG | 59.73 |
| | Reverse | GTTTGCCGAGTAGATCTCAA | 57.75 |
| Mip-2 | Forward | ACCCTGCCAAGGGTTGACTTC | 62.56 |
| | Reverse | GGCACATCAGGTACGATCCAG | 60.54 |
| Kc | Forward | TGCACCCAAACCGAAGTCAT | 60.18 |
| | Reverse | TTGTCAGAAGCCAGCGTTCAC | 61.41 |
| Gapdh | Forward | AAC TTTGGCATTGTGGAAGG | 56.79 |
| | Reverse | ACACATTGGGGGTAGGAACA | 58.55 |

Supplementary Figure S1. Primer sequences used in this study.

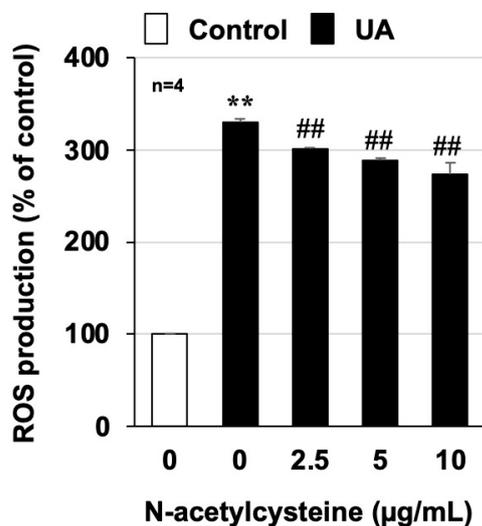


Supplementary Figure S2. Effect of EGCG on urban aerosol-dependent inflammatory responses. Male ICR mice were intraperitoneally administered EGCG (100 mg/kg in sterile saline), GCG (100 mg/kg in sterile saline), or sterile saline 1 h before intratracheal administration of urban aerosol particle suspension (1.0 mg/mouse) or sterile saline (Control). Total RNA was extracted from the lungs 24 h after urban aerosol particle suspension administration and subjected to real-time RT-PCR using a specific primer set for the keratinocytes-derived chemokine (*Kc*) gene. Values were normalized to *Gapdh* and are expressed relative to the Control. Values represent the mean ± SEM; #*p* < 0.05; ***p* < 0.01. (* vs Control; # vs UA).



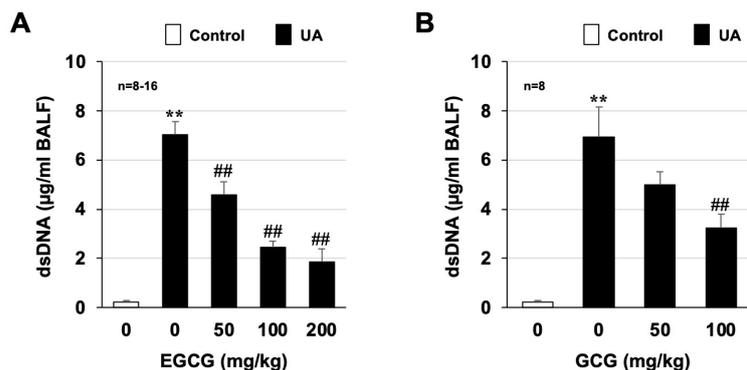
Supplementary Figure S3. Effects of EGCG or GCG on urban aerosol-induced ROS production in inflammatory cells recovered in BALF.

Male ICR mice were intratracheally administered urban aerosol particle suspension (1.0 mg/mouse) or sterile saline (Control). BALFs were prepared 24 h after the intratracheal administration. Inflammatory cells recovered from BALF (3.0×10^4 cells/well) were then seeded onto 96 well black plates and pre-cultured with H₂DCFDA (10 µM) for 60 minutes. The cells were treated with EGCG (2.5–10 µg/mL) or GCG (2.5–10 µg/mL) to the medium. After 24 h, the ROS levels were measured using a microplate reader. Values represent the mean ± SEM; ** or ## p < 0.01. (* vs Control; # vs UA).



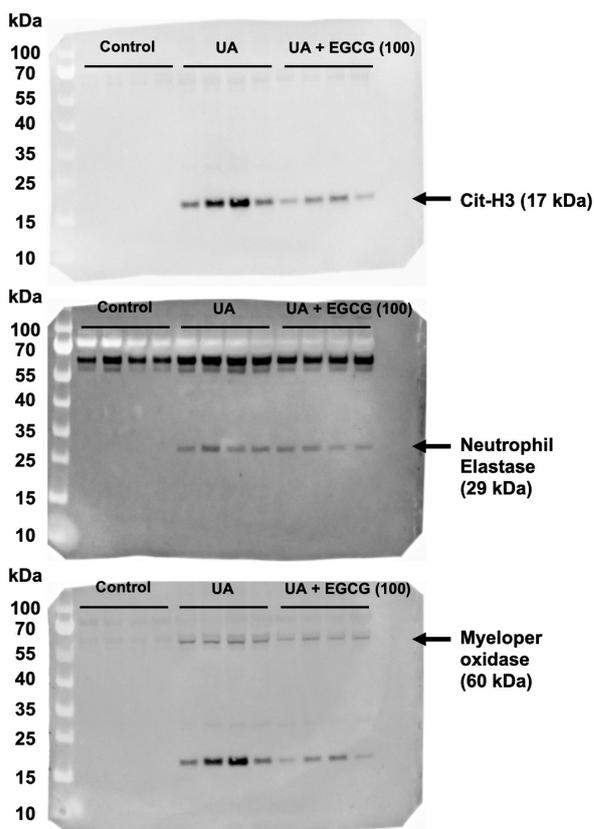
Supplementary Figure S4. Effect of N-acetylcysteine on urban aerosol-induced ROS production.

RAW264 cells were pre-cultured with H₂DCFDA (10 µM) for 60 min. Then, the cells were treated with N-acetylcysteine (2.5–10 µg/mL) prior to the addition of urban aerosols (30 µg/cm²) to the medium. After 24 h, the ROS levels were measured using a microplate reader. Values represent the mean ± SEM; ** or ##p < 0.01. (* vs Control; # vs UA).



Supplementary Figure S5. Effect of EGCG or GCG on urban aerosol-induced neutrophil extracellular trap formation.

Male ICR mice were intraperitoneally administered EGCG (50–200 mg/kg in sterile saline), GCG (50–100 mg/kg in sterile saline), or sterile saline 1 h before intratracheal administration of urban aerosol particle suspension (1.0 mg/mouse) or sterile saline (Control). BALFs were prepared 24 h after the intratracheal administration. The amount of double-stranded DNA (dsDNA) present in the BALF was determined using the Quant-iT™ PicoGreen® dsDNA Assay Kits according to the manufacturer’s protocol. Values are the mean ± SEM; ** or ##*p* < 0.01 (* vs Control; # vs UA).



The MPO bands were identified with reference to this paper.

Recombinant ACE2 protein protects against acute lung injury induced by SARS-CoV-2 spike RBD protein. *Crit Care*. 2022; 26: 171.

Supplementary Figure S6. Original images for Western blotting analysis.