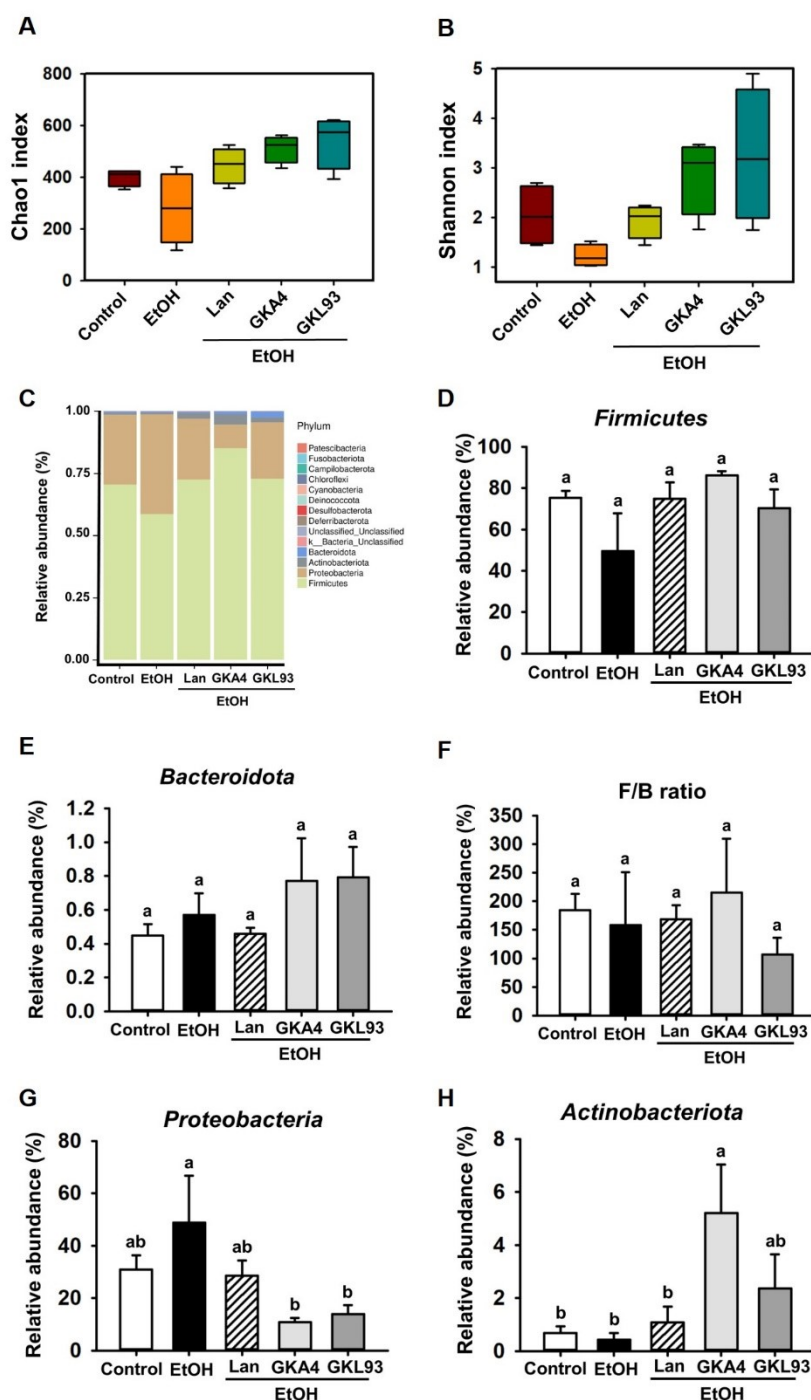
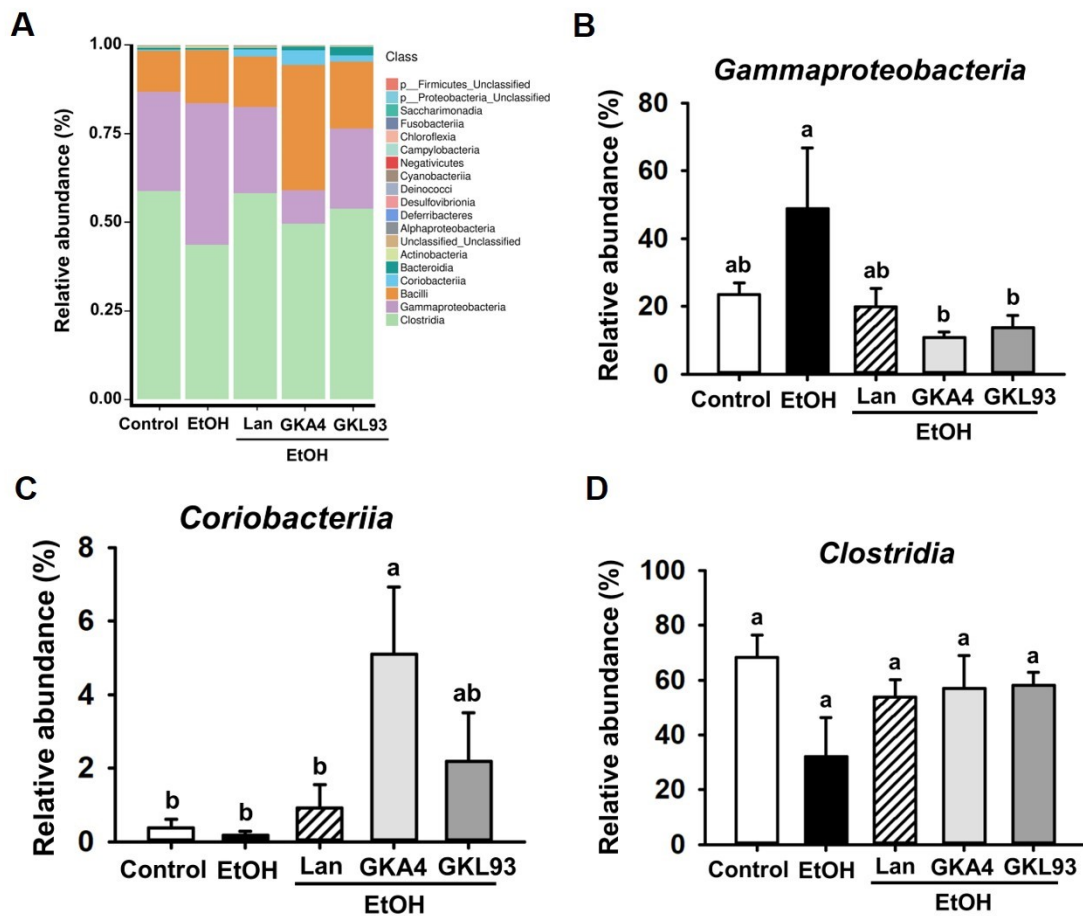


Supplementary information



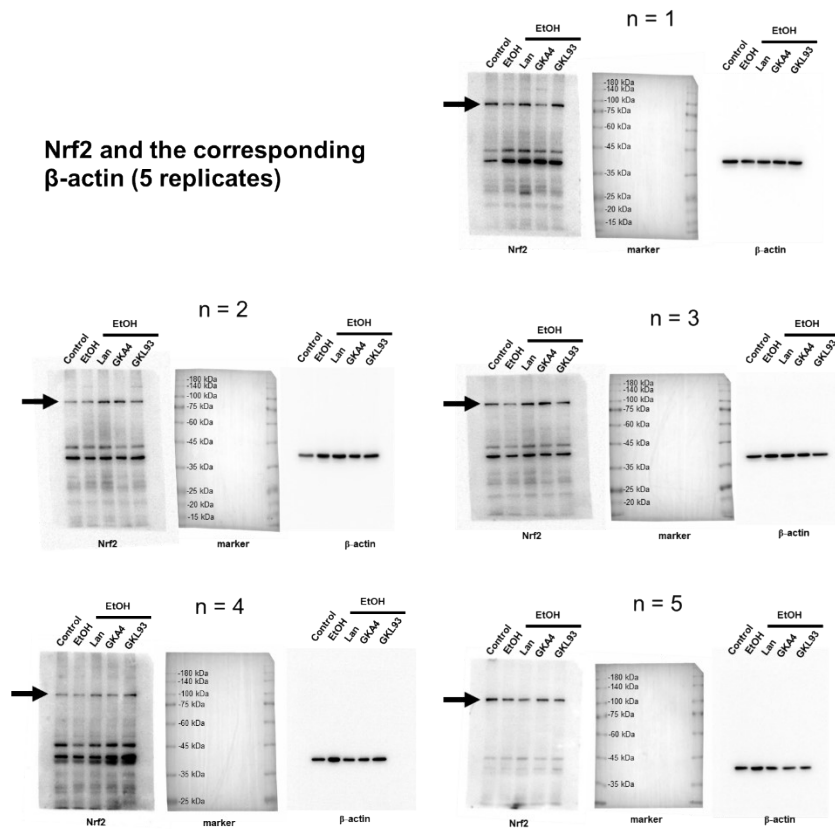
Supplementary Figure 1. Effect of GKA4 and GKL93 predministration on gut microbiota at the phylum level in BALB/c mice subjected to ethanol-induced gastric damage. (A) Chao1 index. (B) Shannon index. (C) The microbiota composition at the phylum level. (D-H) At the family level, the relative abundances of *Firmicutes*, *Bacteroidota*, the F/B ratio, *Proteobacteria*, and *Actinobacteriota*. Values with different letters (a, b, and c) indicate statistically significant differences ($p < 0.05$).



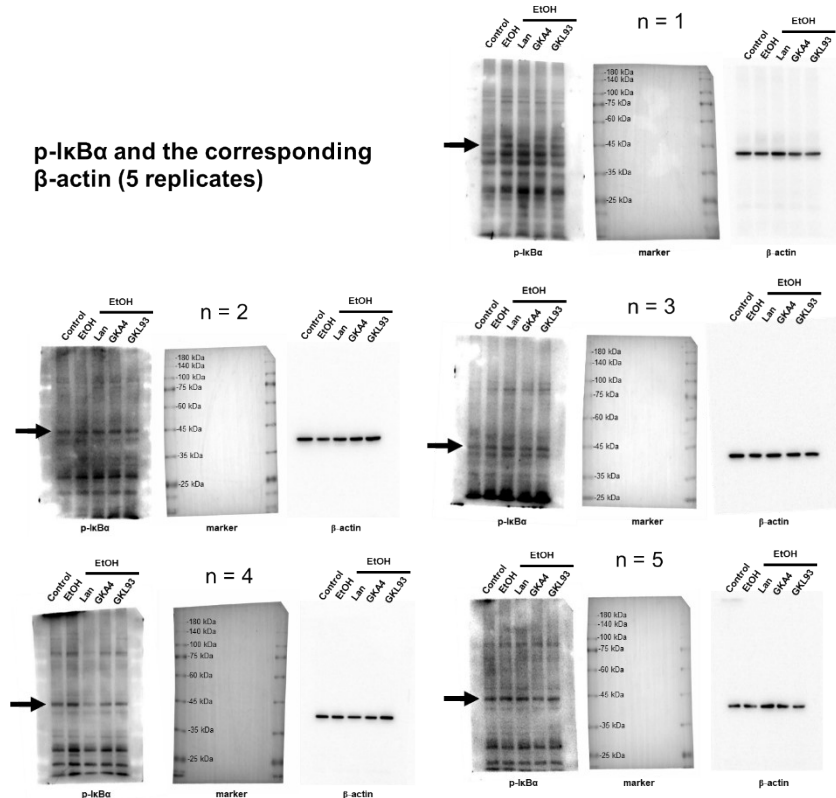
Supplementary Figure 2. Effects of GKA4 and GKL93 preadministration on the gut microbiota at the class level in BALB/c mice subjected to ethanol-induced gastric damage. (A) The microbiota composition at the class level. (B-D) The relative abundances of *Gammaproteobacteria*, *Coriobacteriia*, and *Clostridia* at the class level. Values with different letters (a, b, and c) indicate statistically significant differences ($p < 0.05$).

Raw images of the Western blot data

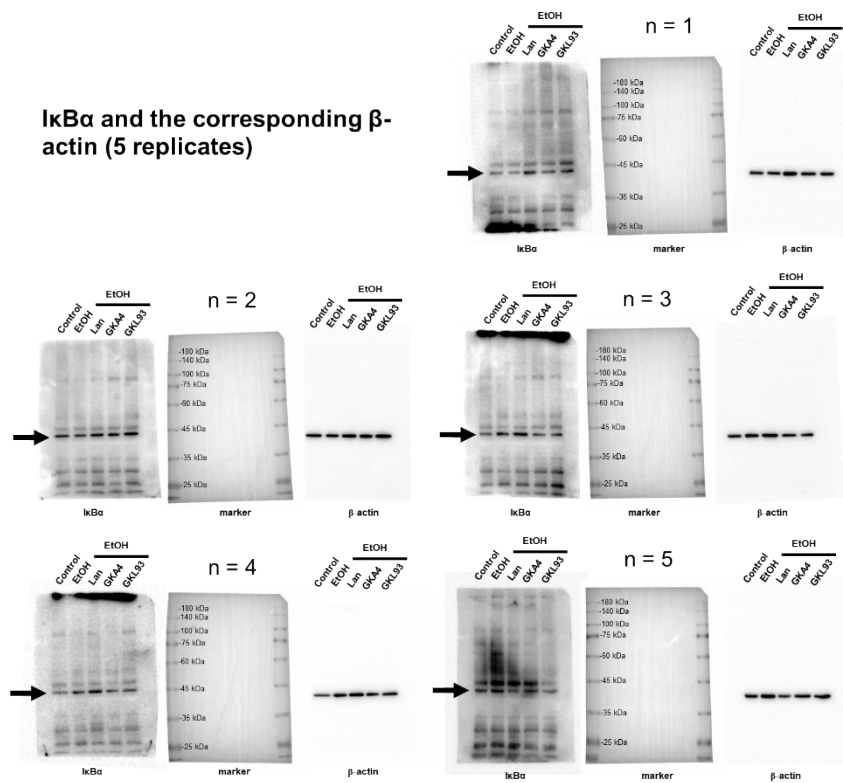
Nrf2 and the corresponding β -actin (5 replicates)



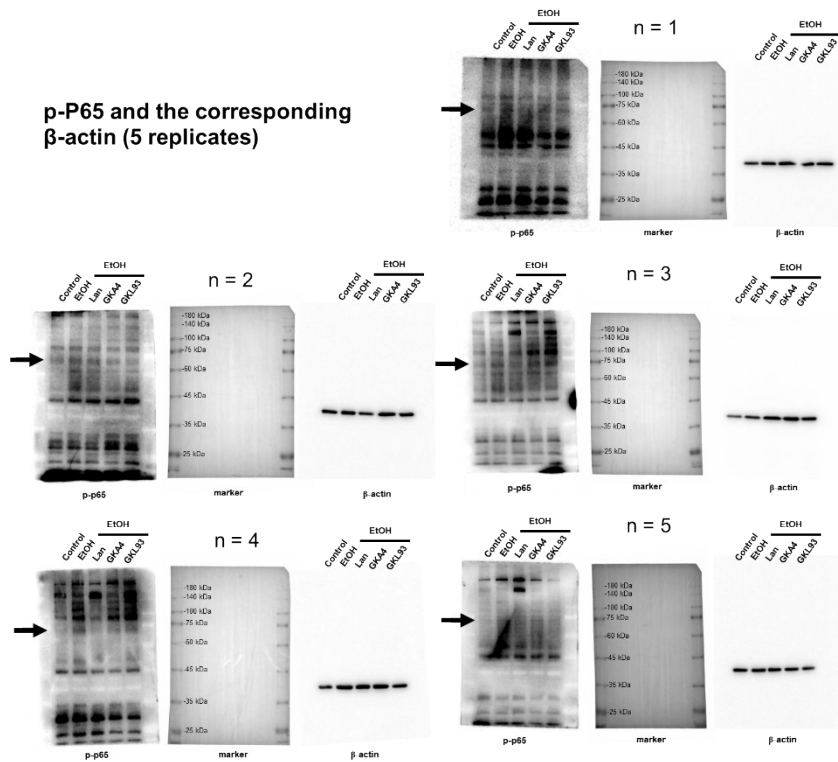
p-IkBa and the corresponding β -actin (5 replicates)



IκBα and the corresponding β-actin (5 replicates)



p-P65 and the corresponding β-actin (5 replicates)



P65 and the corresponding β -actin (5 replicates)

