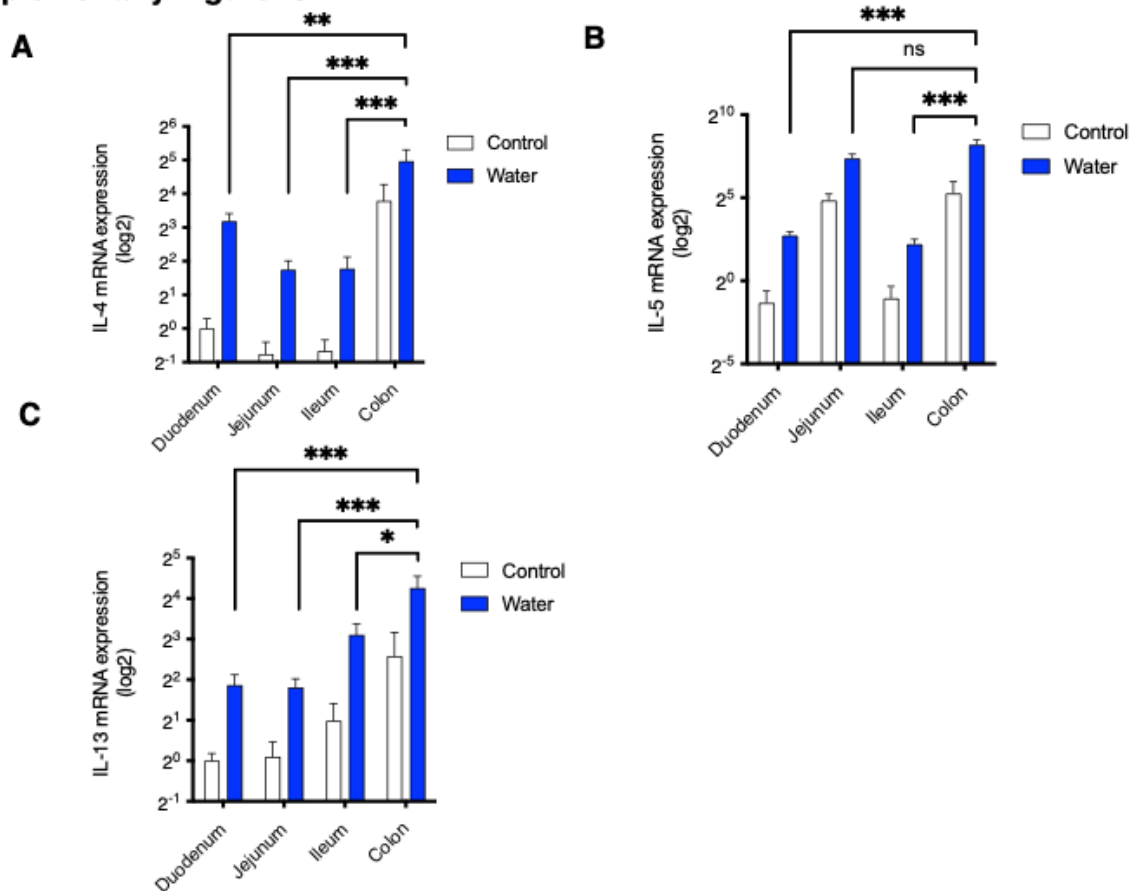


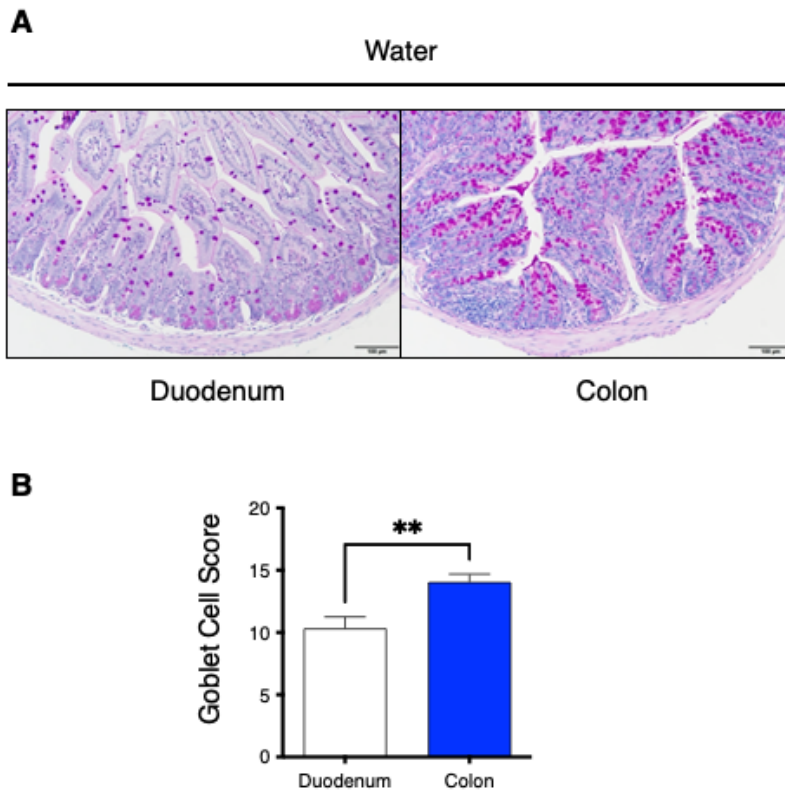
## Supplementary Figure Legends

### Supplementary Figure. S1



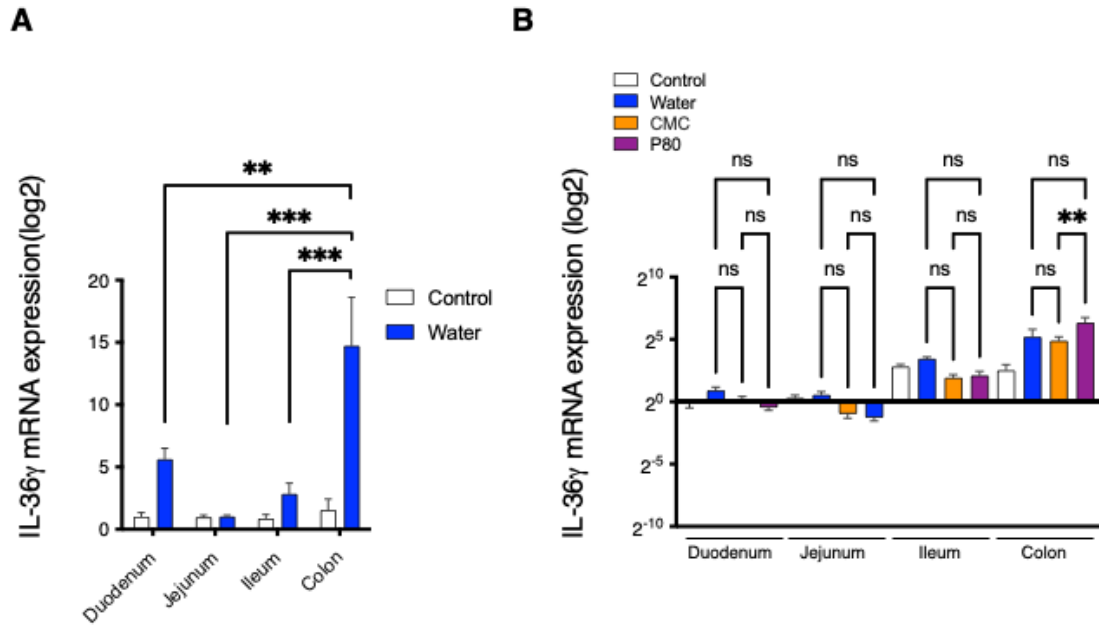
**Figure S1.** (A–C) The mRNA expression for IL-4, IL-5, and IL-13 in duodenum, jejunum, ileum, and colon by using quantitative PCR. The white bar represents the control group (sham) without food allergy induction; the blue bar represents the food allergy-induced group treated with water (no dietary emulsifier treatment). (Control,  $n = 5$ , Water;  $n = 7$ ). Student's  $t$  test was used to determine significance. Data are the means  $\pm$  SEM. \*  $P < 0.05$ , \*\*  $P < 0.01$ , \*\*\*  $P < 0.001$ ; ns, not significant.

## Supplementary Figure. S2



**Figure S2.** (A) Periodic acid-Schiff (PAS) staining for duodenal and colonic tissue in food allergy-induced mice (Water). (B) Goblet Cell Score of PAS-stained duodenal and colonic tissue as of A (n = 9 for duodenum; n = 18 for colon). Student's *t* test was used to determine significance. Data are the means  $\pm$  SEM. \*\*  $P < 0.01$ ; ns, not significant.

## Supplementary Figure. S3



**Figure S3.** (A) The mRNA expression for IL-36 $\gamma$  in duodenum, jejunum, ileum, and colon by using quantitative PCR. The white bar represents the control group (sham) without food allergy induction; the blue bar represents the food allergy-induced group treated with water (Control, n = 5, Water; n = 7) (B) The mRNA expression for IL-36 $\gamma$  in duodenum, jejunum, ileum, and colon by using quantitative PCR. The white bar represents the control group without food allergy induction; the blue bar represents the food allergy-induced group treated with water (no dietary emulsifier treatment); the orange bar represents CMC treated group; the purple bar represents P80 treated group. (n = 5, Control; n = 10, Water; n = 9, CMC; n = 9, P80). Student's *t* test (A) or One-way ANOVA and Tukey's Multiple Comparison Test (B) were used to determine significance. Data are the means  $\pm$  SEM. \*\*  $P < 0.01$ , \*\*\*  $P < 0.001$ ; ns, not significant.