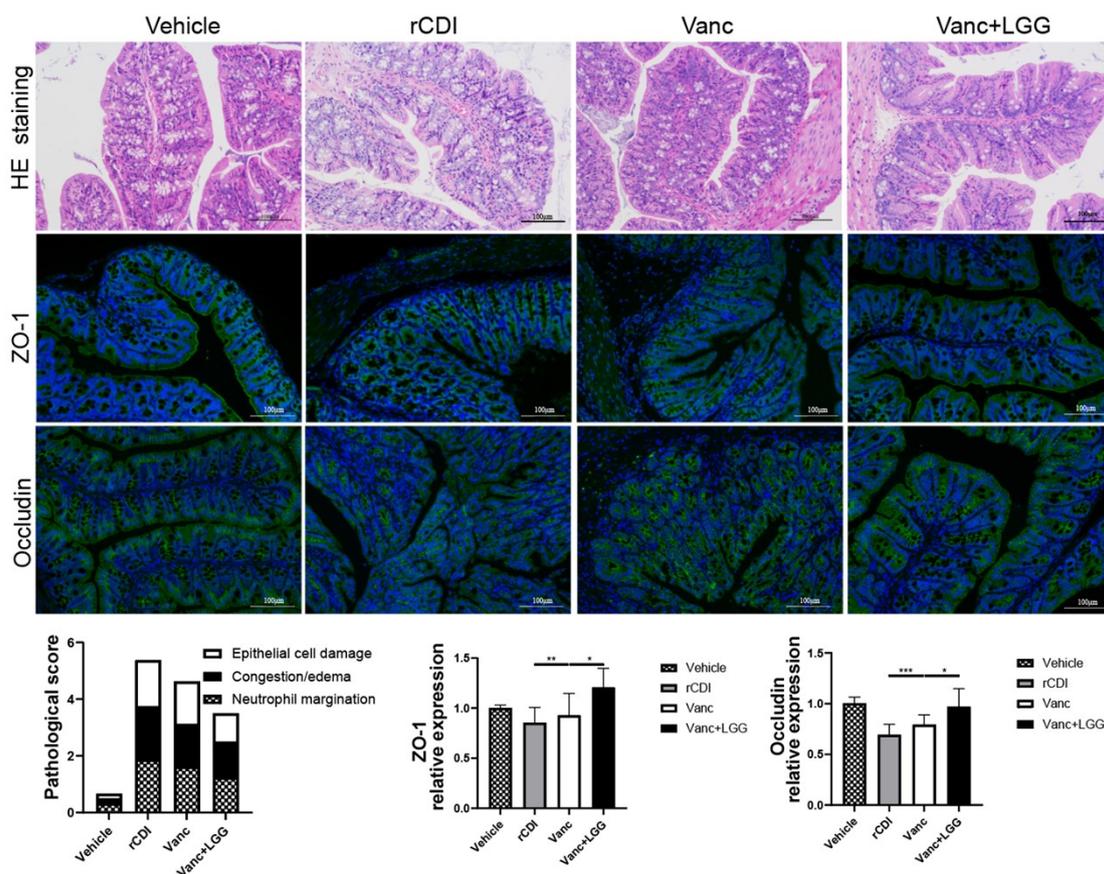


Supplementary Table S1. PCR primers used for the RT-PCR analyses.

| Gene | Forward Sequence (5'-3') | Reverse Sequence (5'-3') |
|----------------|--------------------------|--------------------------|
| β -actin | AGTGTGACGTTGACATCCGT | GCAGCTCAGTAACAGTCCGC |
| Occludin | TTCCTCTGACCTTGAGTGTGG | CTCTTGCCCTTTCCTGCTTT |
| Claudin-1 | TGCCCCAGTGGAAGATTTACT | CTTTGCGAAACGCAGGACAT |
| ZO-1 | GCCGCTAAGAGCACAGCAA | GCCCTCCTTTTAACACATCAGA |
| MUC2 | ATGCCACCTCCTCAAAGAC | GTAGTTTCCGTTGGAACAGTGAA |

Supplementary Fig. S1. Representative images of H&E staining and ZO-1 and Occludin immunofluorescence staining among the four groups in the R-CDI model. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.



Supplementary Fig. S3. Effects of LGG administration on SCFA metabolism.

SCFA levels in the R-CDI model, including acetic acid, propionic acid, isobutyric acid, butyric acid, 2-methylbutyric acid and valeric acid. * $P < 0.05$, ** $P < 0.01$, and *** $P < 0.001$.

