

Table S1

qPCR target	Forward 5'-3'	Reverse 5'-3'
CCL5	GCTGCTTTGCCTACCTCTCC	TCGAGTGACAAACACGACTGC
CXCL9	AACCTCCCACGTAGCTTTTCG	GCCAATGCCTGGTGTGTAAC
CXCL10	CCAAGTGCTGCCGTCAATTTTC	GGCTCGCAGGGATGATTTCAA
Gapdh	CTCGTGGAGTCTACTGGTGT	GTCATCATACTGGCAGGTT

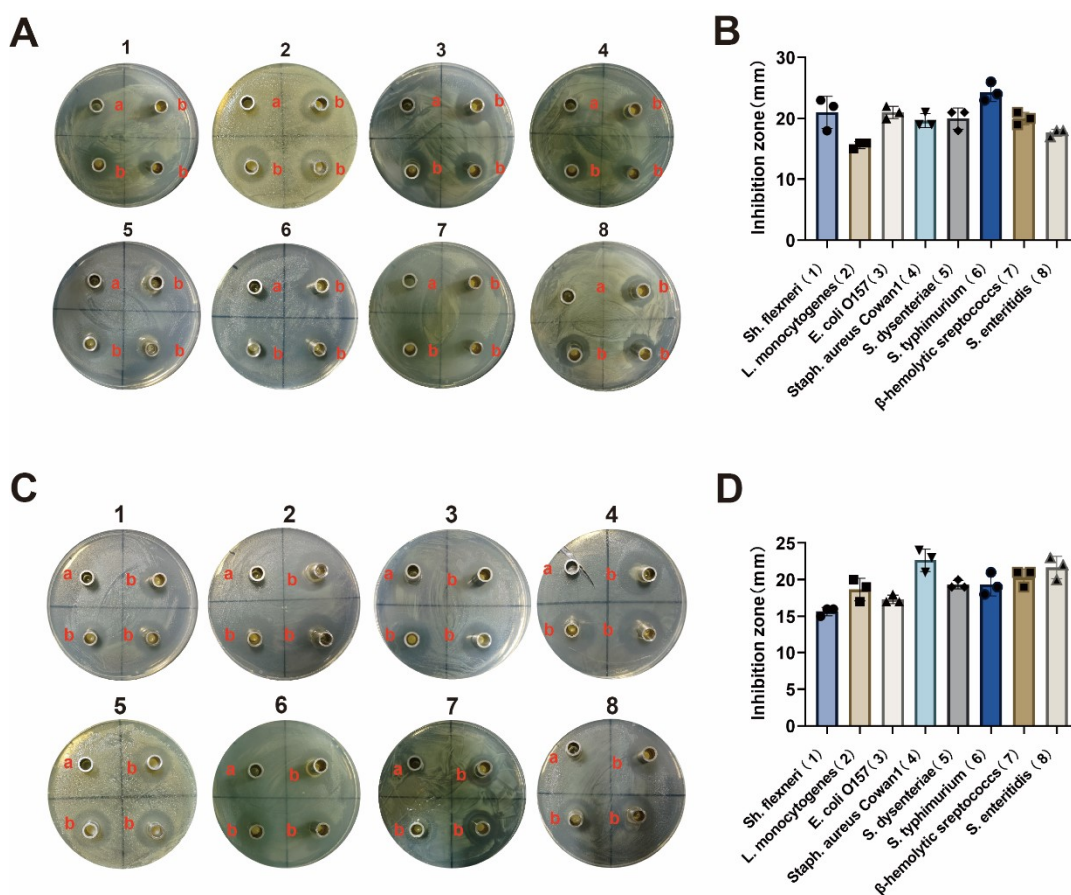


Fig. S1 Evaluation of the probiotic properties of *L. salivarius* 23-006 and *L. paracasei* 23-008 postbiotics. **A** Oxford cup method for determining the bacteriostatic properties of *L. salivarius* 23-006 postbiotics; a: the negative control; b: *L. salivarius* 23-006 postbiotics. **B** Oxford cup method for determining the bacteriostatic properties of *L. paracasei* 23-008 postbiotics; a: the negative control; b: *L. paracasei* 23-008 postbiotics.

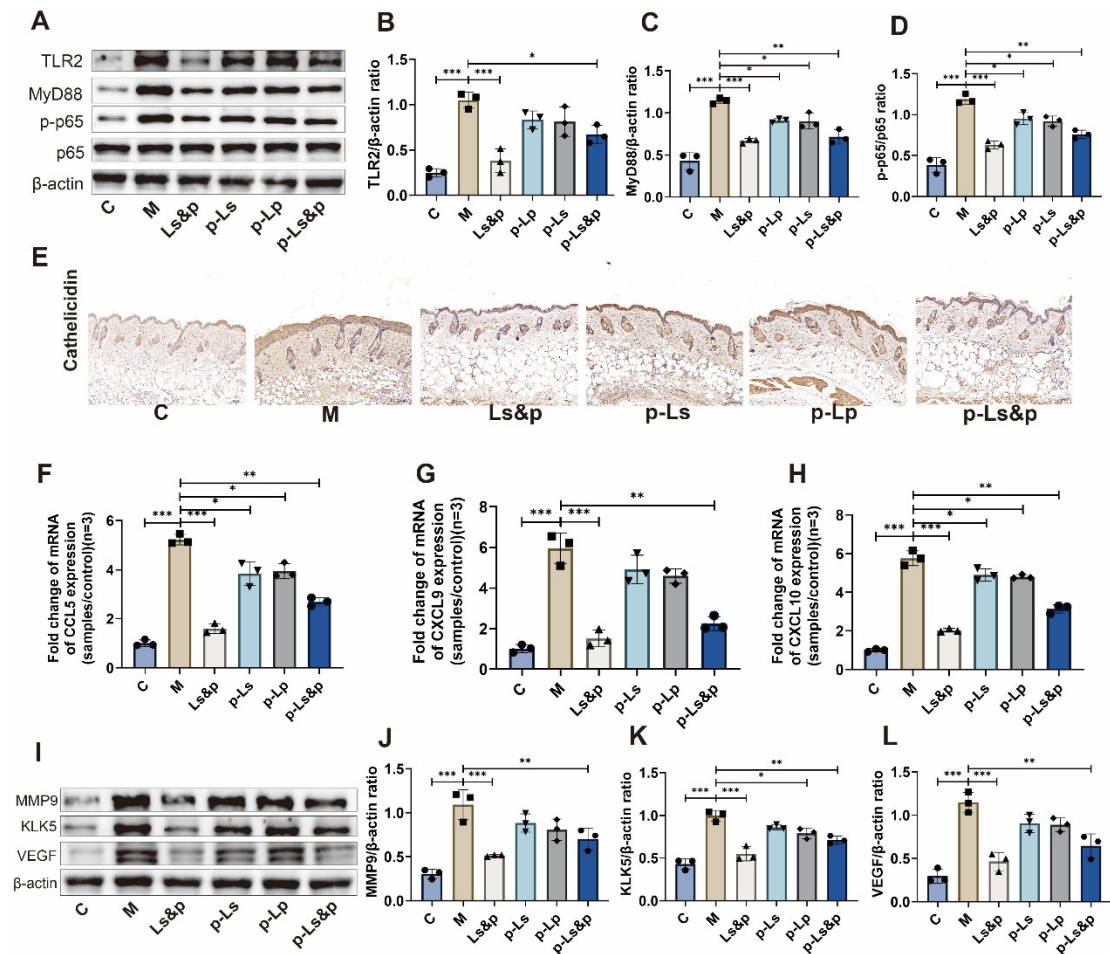


Fig. S2 *L. salivarius* 23-006 and *L. paracasei* 23-008 postbiotics inhibited rosacea inflammatory responses through the TLR2/MyD88/NF- κ B pathway. **A-D** Western blot analysis for TLR2/MyD88/NF- κ B pathway expression in mouse dorsal lesions. **E** Immunohistochemistry of cathelicidin in mouse dorsal lesions (Scale bar: 100 μ m). **F-H** RT-qPCR for chemokines CCL5, CXCL9, CXCL10 in mouse dorsal lesions. **I-L** Western blot analysis for MMP9, KLK5, VEGF protein expression in mouse skin lesions. C: control group (n = 3); M: model group (n = 3); Ls&p: combined oral *L. salivarius* 23-006 and *L. paracasei* 23-008 group (n = 3); p-Ls: oral *L. salivarius* 23-006 postbiotics group (n = 3); p-Lp: oral *L. paracasei* 23-008 postbiotics group (n = 3); p-Ls&p: combined oral *L. salivarius* 23-006 and *L. paracasei* 23-008 postbiotics group (n = 3). Data was presented as mean \pm SD. Statistical significance was analyzed by ANOVA: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

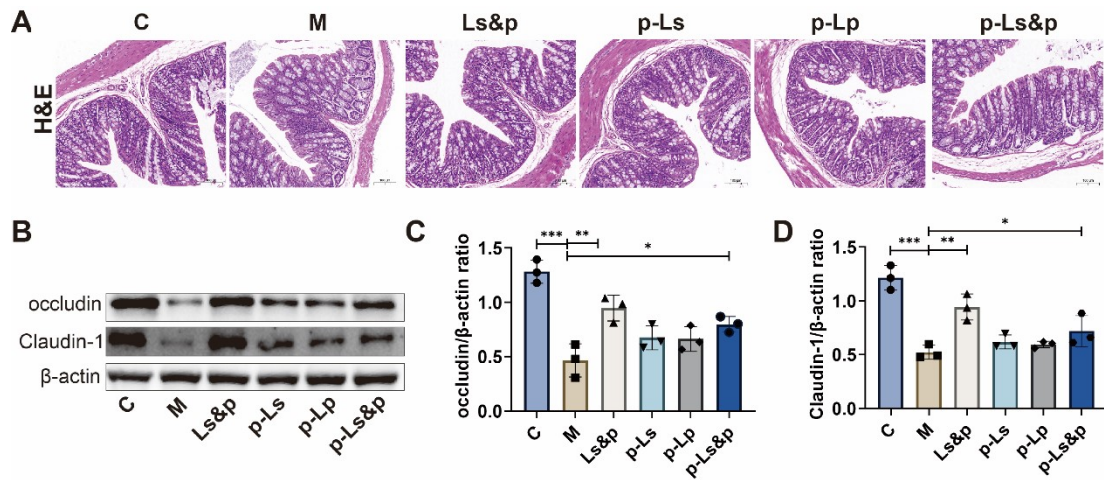


Fig. S3 *L. salivarius* 23-006 and *L. paracasei* 23-008 postbiotics attenuated LL37-induced intestinal inflammation and enhanced intestinal barrier. **A** H&E staining of intestinal tissue (scale bar: 100 μ m). **B-D** Western blot analysis for occludin and Claudin-1 protein expression in mouse intestinal tissue. C: control group (n = 3); M: model group (n = 3); Ls&p: combined oral *L. salivarius* 23-006 and *L. paracasei* 23-008 group (n = 3); p-Ls: oral *L. salivarius* 23-006 postbiotics group (n = 3); p-Lp: oral *L. paracasei* 23-008 postbiotics group (n = 3); p-Ls&p: combined oral *L. salivarius* 23-006 and *L. paracasei* 23-008 postbiotics group (n = 3). Data was presented as mean \pm SD. Statistical significance was analyzed by ANOVA: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.