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1. Introductory information
   1. Data underlying the research of:“Prevention of ulcerative colitis in mice by sweet tea (Lithocarpus litseifolius) via the regulation of gut microbiota and butyric acid-mediated anti-inflammatory signaling" mainly includes biochemical indicators and gut microbiota data sets(data, xlsx), such as body weight, colon length, disease activity index, inflammatory factor level, oxidative stress level, short-chain fatty acid content, number of colonic goblet cells, expression levels of intestinal mucosal barrier and inflammatory signaling pathway related proteins, and diversity and composition of intestinal flora. In addition, H&E staining, AB-PAS staining and immunohistochemical staining of mouse colon tissue were also provided.
   2. Contact information: Xiao-Qin He, 18883394393@163.com
2. Methodological information

All experiments were conducted in parallel at least three times, and the results were mainly presented as mean ± standard error of the mean (SEM). One-way analysis of variance (ANOVA) plus *post hoc* Duncan’s multiple tests was used to analyze the data by SPSS 20.0 software (SPSS Inc., Chicago, USA), and statistical significance was defined at *p*<0.05.

1. Data specific information

Abbreviations used: DSS, dextran sulfate sodium; DAI, disease activity index;TNF-α, tumor necrosis factor-α; NF-κB p65, nuclear factor-κB p65; IL-1β, interleukin-1β; IL-6, interleukin-6; SCFAs, short-chain fatty acids; MPO, myeloperoxidase; GSH, glutathione; MDA, malondialdehyde; SOD, superoxide dismutase; TGF-β, transforming growth factor-β; IL-10, interleukin-10; LPS, lipopolysaccharide; ZO-1, zonula occludens-1; GPR43, G protein-coupled receptor 43; GPR109A, G protein-coupled receptor 109A; HDAC3, histone deacetylase 3; NC, normal control group; MC, DSS-induced UC model group; SASP, suffasalarin (100 mg/kg·bw)+DSS group; L-STE, low-dose sweet tea extract (100 mg/kg·bw)+DSS group; H-STE, high dose-sweet tea extract (400 mg/kg·bw)+DSS group; H&E, hematoxylin-eosin; AB-PAS, alcian blue periodic acid schiff; WB, western blot; OTUs, operational taxonomic units; F/B, the Firmicutes/Bacteroidetes ratio.

1. Data specific information

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