

Figure S1. Preliminary pilot experiments of SD on LPS-induced depressive disorder. Mice were administered with SD (20 mg/kg, i.g.) daily for either 1, 2, or 3 consecutive days before the acute systemic challenge, which was subsequently maintained throughout the 5-day repetitive LPS regimen. (A) The sucrose preference in the SPT. Ordinary one-way ANOVA and Tukey's multiple comparisons test (n=3 mice in CTRL group and n=4 mice in the other groups): Sham vs. LPS, $P=0.0016$; LPS vs. LPS + SD3, $P=0.0146$. (B) The immobile time in the FST. Ordinary one-way ANOVA and Tukey's multiple comparisons test (n=3 mice in CTRL group and n=4 mice in the other groups): Sham vs LPS, $P=0.0002$; LPS vs. LPS + SD3, $P=0.0063$. Data are presented as the mean $\pm$ SEM * $P<0.5$ and ** $P<0.01$. LPS + SD1: Mice were administered with SD daily for 1 day before LPS treatment; LPS + SD2: Mice were administered with SD daily for 2 days before LPS treatment; LPS + SD3: Mice were administered with SD daily for 3 days before LPS treatment. SD, sedanolide; LPS, lipopolysaccharide; FST, forced swimming test; SPT, sucrose preference test.

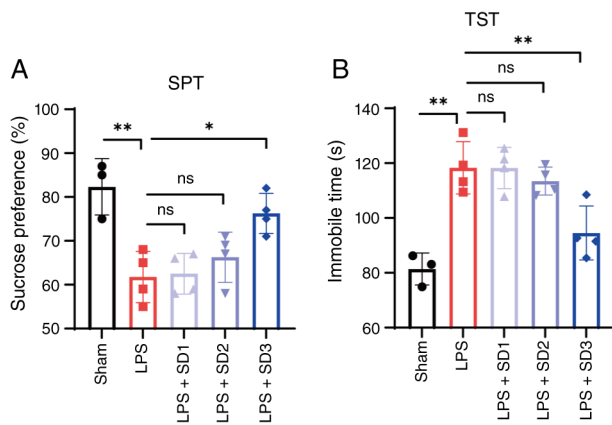


Figure S2. SB290157 administration alone exerts no significant effect on LPS-induced depressive like behaviors. Mice were intraperitoneally administered with SB290157 trifluoroacetate (30 mg/kg) every other day for a total of three injections, followed by consecutive daily injections of LPS (1 mg/kg, i.p.) for five days. (A) The sucrose preference in the SPT. Ordinary one-way ANOVA and Tukey's multiple comparisons test (n=8 mice per group): Sham vs. LPS, $P<0.0001$; sham vs. LPS + SB290157, $P<0.0001$; LPS vs. LPS + SB290157, $P=0.8687$. (B) The immobile time in the TST. Ordinary one-way ANOVA and Tukey's multiple comparisons test (n=8 mice per group): Sham vs. LPS, $P<0.0001$; sham vs. LPS + SB290157, $P<0.0001$; LPS vs. LPS + SB290157, $P=0.8959$. (C) The immobile time in the FST. Ordinary one-way ANOVA and Tukey's multiple comparisons test (n=8 mice per group): Sham vs. LPS, $P<0.0001$; sham vs. LPS + SB290157, $P<0.0001$; LPS vs. LPS + SB290157, $P=0.9947$. Data are presented as the mean $\pm$ SEM (n=10). ** $P<0.01$. LPS, lipopolysaccharide; TST, tail suspension test; FST, forced swimming test.

