

**Table S1** The antibodies used in western blot

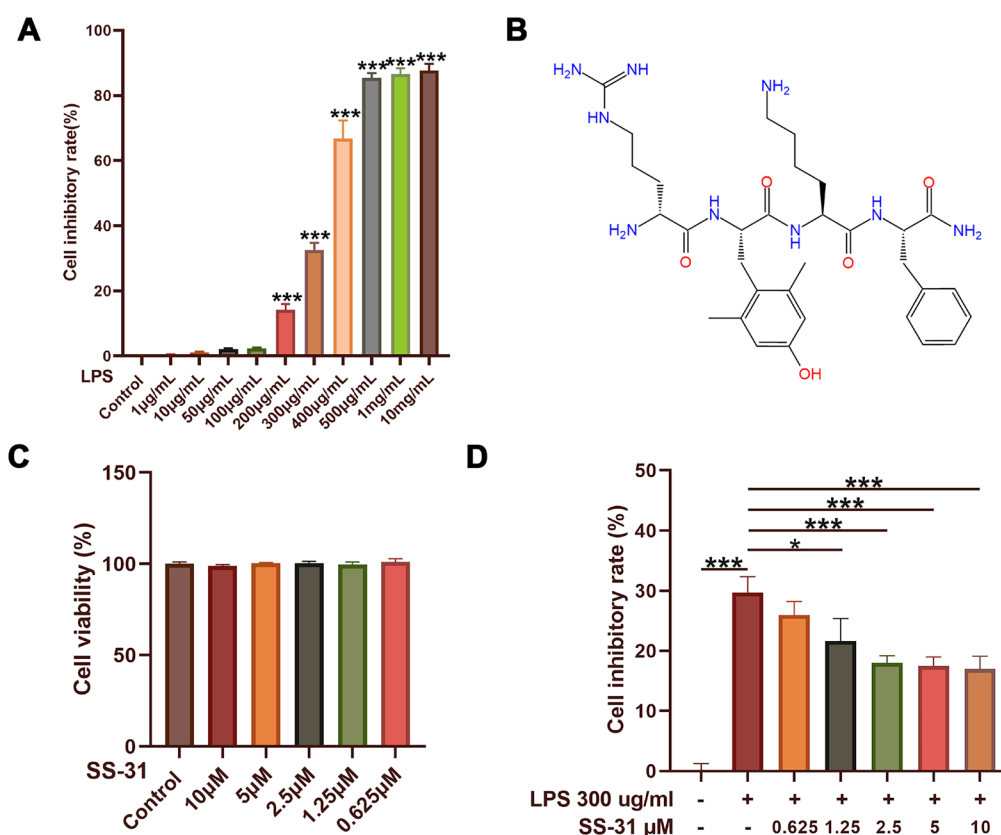
Antibodies	Manufacturer	Cat. No.
TXNIP	Abclonal	A9342
NLRP3	Abclonal	A12694
ASC	Abclonal	A16672
Caspase-1	Abclonal	A0964
GAPDH	Bioss	bs-41373R
Bcl-2	Beyotime	AB112
Bax	Bioss	bs-0127R
Cleaved capase-3	Abcam	ab32042
ICAM-1	Abclonal	A19300
PARP	Beyotime	AF1657
VCAM-1	Abclonal	A23692
HRP-labeled goat anti-rabbit IgG	Beyotime	A0208

ASC, apoptosis-associated speck-like protein; Bax, Bcl-2-associated X protein; Bcl-2, B-cell lymphoma 2; GAPDH, glyceraldehyde-3-phosphate dehydrogenase; ICAM-1, intercellular adhesion molecule-1; NLRP3, nucleotide-binding oligomerization domain-like receptor protein 3; PARP, poly (ADP-ribose) polymerase; TXNIP, thioredoxin-interacting protein; VCAM-1, vascular cell adhesion molecule-1.

**Table S2** The products used in ELISA

ELISA-associated products	Manufacturer	Cat. No.
Human TXNIP ELISA kit	Bio-technique	NBP2-68134
Human CASP1 ELISA kit	Jonln	JL14728
Human NLRP3 ELISA kit	Shjning	JN17614
Anti-ASC antibody	Abcam	ab309208
Human IL-1 $\beta$ ELISA kit	MLbio	ml058059
Human IL-6 ELISA kit	Shjning	JN18468
Human TNF- $\alpha$ ELISA kit	MLbio	ml077385
Mouse IL-1 $\beta$ ELISA kit	MLbio	ml106733
Mouse IL-6 ELISA kit	MLbio	ml098430
Mouse TNF- $\alpha$ ELISA kit	MLbio	ml002095

ASC, apoptosis-associated speck-like protein; ELISA, enzyme-linked immunosorbent assay; IL, interleukin; NLRP3, nucleotide-binding oligomerization domain-like receptor protein 3; TNF- $\alpha$ , tumor necrosis factor- $\alpha$ ; TXNIP, thioredoxin-interacting protein.



**Figure S1** Exploration of the effect of SS-31 on LPS-induced ARDS cell models *in vitro*. (A) The inhibitory effect of LPS on HLMVECs was determined by CCK-8 assays. (B) The chemical structure of SS-31. (C) The cytotoxicity of SS-31 on HLMVECs was analyzed by CCK-8 assays. (D) The effect of different concentrations of SS-31 on LPS-induced HLMVECs was determined by CCK-8 assays. Data represent the mean  $\pm$  SEM. Statistical analysis was performed using one-way ANOVA (B-D). \*,  $P < 0.05$ ; \*\*\*,  $P < 0.001$ . ANOVA, analysis of variance; ARDS, acute respiratory distress syndrome; CCK-8, cell counting kit-8; HLMVECs, human lung microvascular epithelial cells; LPS, lipopolysaccharide; SEM, standard error of the mean; SS-31, Szeto-Schiller 31.