

Salvianolic acid B

Chemical Properties

CAS No. : 115939-25-8

Formula: C₃₆H₃₀O₁₆

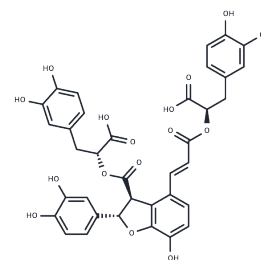
Molecular Weight: 718.59

Storage:

Keep away from direct sunlight, The compound is unstable in solution. Please use soon

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Salvianolic acid B (Dan Shen Suan B), a natural product from <i>Salvia miltiorrhiza</i> , is a water-soluble antioxidant. Salvianolic acid B has antiplatelet aggregation, anticoagulant, and antithrombotic effects, and is commonly used in the study of microcirculatory disorders.
Targets(IC50)	Others
In vitro	<p>METHODS: Human lung cancer cell lines NCI-H2030 and NCI-H1650 were treated with Salvianolic acid B (100-600 μM) for 24-48 h. Cell viability was measured by CCK-8 assay.</p> <p>RESULTS: At 24 h of exposure, the cell viability of NCI-H2030 and NCI-H1650 cells was significantly reduced when the concentration of Salvianolic acid B reached 400 μM. At 48 h exposure, the cell viability was significantly reduced until the concentration reached 300 μM, which was significantly higher than that of the control group. [1]</p> <p>METHODS: Human renal proximal tubule cells HK-2 were treated with TGF-β1 (2.5 ng/mL) and Salvianolic acid B (1-10 μM) for 24 h. Gene expression levels were measured by RT-PCR.</p> <p>RESULTS: TGF-β1 significantly inhibited the expression of E-cadherin mRNA in HK-2 cells, while 1-10 μM Salvianolic acid B prevented the loss of its expression. [2]</p>
In vivo	<p>METHODS: To investigate the effects of peripheral arterial disease (PAD), Salvianolic acid B (15 mg/kg) was intraperitoneally injected once daily for 12 days into a hindlimb ischemia mouse model.</p> <p>RESULTS: The Salvianolic acid B group showed significant improvement in blood perfusion, capillary density, muscle edema and M2 marker gene expression. Salvianolic acid B had a protective effect in PAD and enhanced macrophage polarization through the SIRT1/PI3K/AKT pathway. [3]</p>

Solubility Information

Solubility	DMSO: 91 mg/mL (126.64 mM), Sonication is recommended. H ₂ O: 50 mg/mL (69.58 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3916 mL	6.9581 mL	13.9161 mL
5 mM	0.2783 mL	1.3916 mL	2.7832 mL
10 mM	0.1392 mL	0.6958 mL	1.3916 mL
50 mM	0.0278 mL	0.1392 mL	0.2783 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Zhang H, et al. Salvianolic Acid B Suppresses Non-Small-Cell Lung Cancer Metastasis through PKM2-Independent Metabolic Reprogramming. *Evid Based Complement Alternat Med.* 2022 Apr 23;2022:9302403.

Lu J, Lu Z, Liu L, et al. Identification of crocin as a new hIAPP amyloid inhibitor via a simple yet highly biospecific screening system. *Chemistry & Biodiversity.* 2021

Wang QL, et al. Salvianolic acid B prevents epithelial-to-mesenchymal transition through the TGF-beta1 signal transduction pathway in vivo and in vitro. *BMC Cell Biol.* 2010 May 5;11:31.

Zhang H, Liang B, Sang X, et al. Discovery of Potential Inhibitors of SARS-CoV-2 Main Protease by a Transfer Learning Method. *Viruses.* 2023, 15(4): 891.

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Chen R, Zheng A, Wang Y, et al. Salvianolic acid B improves mitochondrial dysfunction of septic cardiomyopathy via enhancing ATF5-mediated mitochondrial unfolded protein response. *Toxicology and Applied Pharmacology.* 2024: 117072.

Liu P, et al. Effect of salvianolic acid B on collagen production and mitogen-activated protein kinase activity in rat hepatic stellate cells. *Acta Pharmacol Sin.* 2002 Aug;23(8):733-8.

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