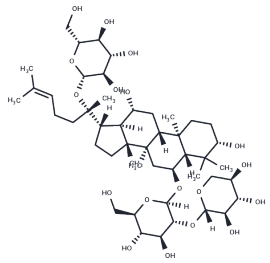
Data Sheet (Cat.No.T2961)

TargetMol

Notoginsenoside R1

Chemical Properties



CAS No. : 80418-24-2

Formula: C47H80O18

Molecular Weight: 933.13

Appearance: no data available

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

Biological Description

Description	Notoginsenoside R1 (Sanchinoside R1) has been shown to exhibit antioxidant, antiapoptotic, anti-inflammatory, and immune-stimulatory properties.
Targets(IC50)	Apoptosis,ERK,Beta Amyloid
In vitro	**METHODS**: Human colorectal cancer cells HCT-116 were treated with Notoginsenoside R1 (75-300 μM) for 48 h. Cell viability was measured by MTT assay. **RESULTS**: Cell viability of HCT-116 cells treated with 75-300 μM Notoginsenoside R1 was not significantly different from that of the control. However, treatment with 500 μM Notoginsenoside R1 for 48 h resulted in a significant decrease in cell viability (58±7.26%) compared to control cells. [1] **METHODS**: Human coronary artery smooth muscle cells hCASMC were treated with Notoginsenoside R1 (10 μM) for 24 h. The cells were stimulated with 10% FBS for 0-30 min, and the expression levels of target proteins were detected by Western Blot. **RESULTS**: Akt phosphorylation in hCASMCs was rapidly reduced in a time- and dose-dependent manner after Notoginsenoside R1 treatment, but no effect on ERK1/2 and JNK signaling was observed. notoginsenoside R1 caused a modest reduction in p38 MAPK phosphorylation, but this did not reach significance. [2]
In vivo	**METHODS**: To study the effect on neoplastic endothelial hyperplasia, Notoginsenoside R1 (10 mg/kg) was administered intraperitoneally to C57BL/6 J mice once daily for three weeks. A mouse femoral artery injury model was subsequently performed. **RESULTS**: Notoginsenoside R1 attenuated neointimal formation after femoral artery injury in vivo.Notoginsenoside R1 treatment reduced neointimal formation by inhibiting VSMC proliferation. [2]

Solubility Information

Solubility	H2O: 2.5 mg/mL (2.68 mM),Sonication is recommended. DMSO: 25 mg/mL (26.79 mM),Sonication is recommended. 10% DMSO+90% Saline: 2.5 mg/mL (2.68 mM),Solution. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0717 mL	5.3583 mL	10.7166 mL
5 mM	0.2143 mL	1.0717 mL	2.1433 mL
10 mM	0.1072 mL	0.5358 mL	1.0717 mL
50 mM	0.0214 mL	0.1072 mL	0.2143 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.

Reference

Lee CY, et al. Inhibition of human colorectal cancer metastasis by notoginsenoside R1, an important compound from Panax notoginseng. Oncol Rep. 2017 Jan;37(1):399-407.
Chen Z, Ni R, Hu Y, et al.A natural protopanaxatriol from Panax notoginseng enhances osteosarcoma sensitivity to ferroptosis via ASCL4 upregulation.Journal of Functional Foods.2024, 122: 106488.
Fang H, et al. Notoginsenoside R1 inhibits vascular smooth muscle cell proliferation, migration and neointimal hyperplasia through PI3K/Akt signaling. Sci Rep. 2018 May 15;8(1):7595.

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