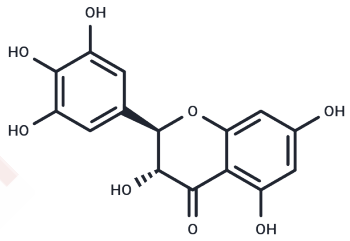
Data Sheet (Cat.No.T2998)

TargetMol

Dihydromyricetin

Chemical Properties



CAS No. : 27200-12-0

Formula: C15H12O8

Molecular Weight: 320.25

Appearance: no data available

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

Biological Description

Description	Dihydromyricetin (Ampelopsin) is a natural antioxidant flavonoid from Ampelopsis grossedentata. Dihydromyricetin is a potent inhibitor of dihydropyrimidinase with an IC50 of 48 μM. Dihydromyricetin can activate autophagy by inhibiting mTOR signaling.
Targets(IC50)	GABA Receptor,Autophagy,DNA/RNA Synthesis,Influenza Virus,mTOR
In vitro	Intraperitoneal injection of 1 mg/kg Dihydromyricetin in rats neutralizes the symptoms of acute alcohol intoxication and eliminates signs of increased tolerance, heightened anxiety, and susceptibility to convulsions. The LD50 for intraperitoneal injection in mice is 1.41 g/kg.
In vivo	Dihydromyricetin (1 μM), as an innovative anti-alcohol intoxication agent, antagonizes acute ethanol-induced enhancements in GABA(A)Rs, as well as increases in GABA(A)R plasticity and expression of the GABA(A)R α4 subunit in the hippocampus and cultured neurons due to ethanol exposure/withdrawal. Additionally, Dihydromyricetin effectively scavenges DPPH radicals and inhibits the increase in lipid peroxidation catalyzed by FeSO4 and ethylenediaminetetraacetic acid in the linoleic acid system.

Solubility Information

Solubility	Ethanol: 60 mg/mL (187.35 mM),Sonication is recommended. DMSO: 60 mg/mL (187.35 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1226 mL	15.6128 mL	31.2256 mL
5 mM	0.6245 mL	3.1226 mL	6.2451 mL
10 mM	0.3123 mL	1.5613 mL	3.1226 mL
50 mM	0.0625 mL	0.3123 mL	0.6245 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

Zhang YS, et al. Yao Xue Xue Bao, 2003, 38(4), 241-244.
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Liu H, Ye F, Sun Q, et al. Scutellaria baicalensis extract and baicalein inhibit replication of SARS-CoV-2 and its 3C-like protease in vitro. Journal of Enzyme Inhibition and Medicinal Chemistry. 2021, 36(1): 497-503
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Li J, Xiao X, Ou Y, et al.USP51/PD-L1/ITGB1-deployed juxtacrine interaction plays a cell-intrinsic role in promoting chemoresistant phenotypes in non-small cell lung cancer.Cancer Communications.2023
He H, Huang Y, Zhang X, et al.Supercritical fluid coating of flavonoids on excipients enhances drug release and antioxidant activity.International Journal of Pharmaceutics.2023: 122593.