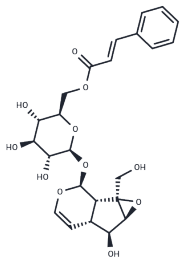
Data Sheet (Cat.No.T2787)

TargetMol

Picroside I

Chemical Properties



CAS No. : 27409-30-9

Formula: C24H28O11

Molecular Weight: 492.47

Appearance: no data available

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

Biological Description

Description	Picroside I (6'-Cinnamoylcatalpol), a hepatoprotective agent, is reported to be antimicrobial and used against hepatitis B. It has antioxidant, and anti-inflammatory activities, it may be the valuable anti-invasive drug candidates for cancer therapy by suppressing Collagenases and Gelatinases. Picroside I can enhance basic fibroblast growth factor(bFGF)-, staurosporine- or dbc-mitogen-activated protein (MAP)-induced neurite outgrowth from PC12D cells.
Targets(IC50)	MMP,STAT
In vitro	Picroside I and Picroside II caused a concentration-dependent (> 0.1 microM) enhancement of basic fibroblast growth factor (bFGF, 2 ng/ml)-, staurosporine (10 nM)- and dibutyryl cyclic AMP (dbcAMP, 0.3 mM)-induced neurite outgrowth from PC12D cells. Furthermore, picrosides-induced enhancements of the bFGF-action were markedly inhibited by GF109203X (0.1 microM), a protein kinase C inhibitor. The expression of phosphorylated MAP kinase was markedly increased by bFGF (2 ng/ml) and dbcAMP (0.3 mM), whereas that was not enhanced by staurosporine (10 nM). Picrosides had no effect on the phosphorylation of MAP kinase induced by bFGF or dbcAMP and also unaffected it in the presence of staurosporine. These results suggest that Picroside I and Picroside II enhance bFGF-, staurosporine- or dbcAMP-induced neurite outgrowth from PC12D cells, probably by amplifying a down-stream step of MAP kinase in the intracellular MAP kinase-dependent signaling pathway.

Solubility Information

Solubility	H2O: 10 mg/mL (20.31 mM),Sonication is recommended. Ethanol: 10 mg/mL (20.31 mM),Sonication is recommended. DMSO: 55 mg/mL (111.68 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0306 mL	10.1529 mL	20.3058 mL
5 mM	0.4061 mL	2.0306 mL	4.0612 mL
10 mM	0.2031 mL	1.0153 mL	2.0306 mL
50 mM	0.0406 mL	0.2031 mL	0.4061 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

Chander R, et al. Picroliv, picroside-I and kutkoside from Picrorhiza kurrooa are scavengers of superoxide anions. Biochem Pharmacol. 1992 Jul 7;44(1):180-3.

Huang B, Lin B, Zheng H, et al.Discovery of natural products as influenza neuraminidase inhibitors: in silico screening, in vitro validation, and molecular dynamic simulation studies.Molecular Diversity.2025: 1-17.