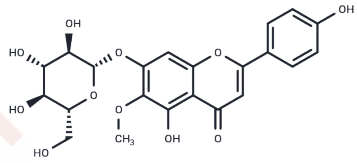
Data Sheet (Cat.No.T4S0217)

TargetMol

HOMOPLANTAGININ

Chemical Properties



CAS No. : 17680-84-1

Formula: C22H22O11

Molecular Weight: 462.40

Storage: Keep away from direct sunlight
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	Homoplantaginin, a flavonoid derived from the traditional Chinese medicine Salvia plebeia, exhibits protective and therapeutic effects on hepatocyte injury and demonstrates potent inhibitory activities against influenza.
Targets(IC50)	NF-κB,TNF
In vitro	Homoplantaginin may be used for the prevention and treatment of endothelial dysfunction associated with insulin resistance, it ameliorates endothelial insulin resistance by inhibiting inflammation and modulating cell signalling via the IKKβ/IRS-1/pAkt/peNOS pathway.
In vivo	Homoplantaginin displayed an antioxidant property in a cell-free system and showed IC (50) of reduction level of DPPH radical at 0.35 microg/ml. In human hepatocyte HL-7702 cells exposed to H(2)O(2), the addition of 0.1-100 microg/ml of Homoplantaginin, which did not have a toxic effect on cell viability, significantly reduced lactate dehydrogenase (LDH) leakage, and increased glutathione (GSH), glutathione peroxidase (GSH-Px) and superoxide dismutase (SOD) in supernatant. In vivo assay, we employed the model of Bacillus Calmette-Guérin (BCG)/lipopolysaccharide (LPS)-induced hepatic injury mice to evaluate efficacy of Homoplantaginin. Homoplantaginin (25-100mg/kg) significantly reduced the increase in serum alanine aminotranseferase (ALT) and aspartate aminotransferase (AST), decreased the levels of tumor necrosis factor-alpha (TNF-alpha) and interleukin-1 (IL-1). The same treatment also reduced the content of thiobarbituric acid-reactive substances (TBARS), elevated the levels of GSH, GSH-Px and SOD in hepatic homogenate. The histopathological analysis showed that the grade of liver injury was ameliorated with reduction of inflammatory cells and necrosis of liver cells in Homoplantaginin treatment mice.

Solubility Information

Solubility	DMSO: 240 mg/mL (519.03 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4.00 mg/mL (8.65 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one.*

In vivo Formulation	*Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1626 mL	10.8131 mL	21.6263 mL
5 mM	0.4325 mL	2.1626 mL	4.3253 mL
10 mM	0.2163 mL	1.0813 mL	2.1626 mL
50 mM	0.0433 mL	0.2163 mL	0.4325 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

Qu X J , Xia X , Wang Y S , et al. Protective effects of Salvia plebeia compound homoplantaginin on hepatocyte injury[J]. Food & Chemical Toxicology, 2009, 47(7):0-1715.