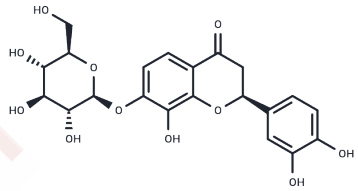
# Data Sheet (Cat.No.TN1644)

TargetMol

## Flavanomarein

### Chemical Properties



CAS No. : 577-38-8

Formula: C21H22O11

Molecular Weight: 450.39

Storage: 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 | Flavanomarein demonstrates potent antioxidative property, including free radical scavenging activity, inhibition of lipid peroxidation, as well as lipid-lowering effects in human HepG2 hepatocellular carcinoma cells treated with free fatty acids (FFAs). |
| Targets(IC50) | Others |
| In vitro | The present study aimed to identify the active compounds of Coreopsis tinctoria and to investigate the molecular mechanisms underlying its effects on lipid dysregulation by measuring lipid levels, reactive oxygen species, lipid peroxidation and fatty acid synthesis. The present results demonstrated that snow chrysanthemum aqueous extracts significantly reduced serum lipid levels and oxidative stress in vivo. The main compounds that were isolated were identified as Flavanomarein (compound 1) and eriodictyol 7-O-β-D glucopyranoside (compound 2). Compounds 1 and 2 demonstrated potent antioxidative properties, including free radical scavenging activity, inhibition of lipid peroxidation, as well as lipid-lowering effects in human HepG2 hepatocellular carcinoma cells treated with free fatty acids (FFAs). Compound 2 was revealed to suppress the elevation of triglyceride levels and inhibit lipid peroxidation following FFA treatment. In addition, it was demonstrated to significantly reduce intracellular levels of reactive oxygen species and improve the mitochondrial membrane potential and adenosine triphosphate levels, thus protecting mitochondrial function in FFA-treated HepG2 cells. Furthermore, compound 2 markedly suppressed the protein expression levels of disulfide-isomerase A3 precursor and fatty acid synthase, thus suppressing FFA-induced lipogenesis in HepG2 cells[1] |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 60 mg/mL (133.22 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.44 mM),Sonication is recommended.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. 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 | 2.2203 mL | 11.1015 mL | 22.203 mL |
| 5 mM | 0.4441 mL | 2.2203 mL | 4.4406 mL |
| 10 mM | 0.222 mL | 1.1101 mL | 2.2203 mL |
| 50 mM | 0.0444 mL | 0.222 mL | 0.4441 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

Eriodictyol 7-O-β-D glucopyranoside from Coreopsis tinctoria Nutt. ameliorates lipid disorders via protecting mitochondrial function and suppressing lipogenesis.Mol Med Rep. 2017 Aug;16(2):1298-1306.