

Desmethylglycitein

Chemical Properties

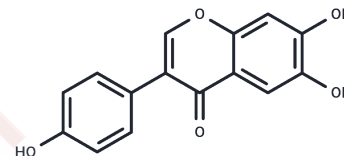
CAS No. : 17817-31-1

Formula: C₁₅H₁₀O₅

Molecular Weight: 270.24

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	Desmethylglycitein (6,7,4'-Trihydroxyisoflavone) , is a novel inhibitor of PKC α in suppressing solar UV-induced matrix metalloproteinase 1, which has antioxidant, and anti-cancer activities.
Targets(IC50)	CDK,PI3K,PKC
In vitro	Molecular studies showed that Desmethylglycitein significantly inhibited acetylcholinesterase and thiobarbituric acid reactive substance (TBARS) activities in the hippocampus of scopolamine-induced mice.In addition, immunohistochemistry and Western blot results revealed that Desmethylglycitein significantly increased brain-derived neurotrophic factor (BDNF) and phosphor cAMP response element binding (CREB) in the hippocampus of mice.
In vivo	A single administration of Desmethylglycitein significantly improved scopolamine-induced cognitive dysfunction in these in vivo tests.Moreover, treatment with Desmethylglycitein alone enhanced learning and memory performance in the same behavioral tests. Desmethylglycitein improves cognitive dysfunction induced by scopolamine and enhances learning and memory by activation of the cholinergic system and the p-CREB/BDNF signaling pathway in mice

Solubility Information

Solubility	DMSO: 247.5 mg/mL (915.85 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 mg/mL (14.8 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7004 mL	18.5021 mL	37.0041 mL
5 mM	0.7401 mL	3.7004 mL	7.4008 mL
10 mM	0.370 mL	1.8502 mL	3.7004 mL
50 mM	0.074 mL	0.370 mL	0.7401 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

A metabolite of daidzein, 6,7,4'-trihydroxyisoflavone, suppresses adipogenesis in 3T3-L1 preadipocytes via ATP-competitive inhibition of PI3K. *Mol Nutr Food Res.* 2013 Aug;57(8):1446-55. doi: 10.1002/mnfr.201200593. Epub 2013 Jun 4.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481