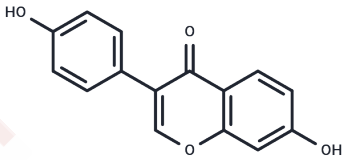
Data Sheet (Cat.No.T1238)

TargetMol

Daidzein

Chemical Properties



CAS No. : 486-66-8

Formula: C15H10O4

Molecular Weight: 254.24

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	Daidzein (Isoflavone) is an isoflavone extract from soy, which is an inactive analog of the tyrosine kinase inhibitor genistein. It has antioxidant and phytoestrogenic properties.
Targets(IC50)	Endogenous Metabolite,PPAR
In vivo	Daidzein results in reduced body weight, a fact that may be explained by reduced feed consumption in female rats. Daidzein results in slight, but not significant, decreases in ovarian and uterine weights, and mammary gland size in female rats. [5]
Cell Research	Daidzein is dissolved in DMSO and then diluted with appropriate media[1]. HEK293T cells are plated on 24-well plates at a cell density of approximately 2.5×104 cells/well and are grown to 70-80% confluence. Cells are then transiently transfected with a PPAR-α or PPAR-γ expression plasmid, and a plasmid containing the luciferase gene under the control of three tandem PPAR response elements (PPRE × 3 TK-luciferase) using an X-treme GENE HP DNA Transfection Reagent. Renilla luciferase control vectors are co-transfected to control for transfection efficiency. After transfection, cells are cultured for another 24 h in medium containing DMSO or various concentrations (6.25, 12.5, 25 μM) of Daidzein. Cells are lysed, and luciferase activity is measured and expressed as fold induction, that is normalized to the activity of the renilla luciferase control plasmid[1].

Solubility Information

Solubility	DMSO: 45.4 mg/mL (178.57 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble) (< 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 (7.87 mM),Sonication is recommended. *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	3.9333 mL	19.6665 mL	39.3329 mL
5 mM	0.7867 mL	3.9333 mL	7.8666 mL
10 mM	0.3933 mL	1.9666 mL	3.9333 mL
50 mM	0.0787 mL	0.3933 mL	0.7867 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

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Kim E, et al. Daidzein Augments Cholesterol Homeostasis via ApoE to Promote Functional Recovery in Chronic Stroke. J Neurosci. 2015 Nov 11;35(45):15113-26.
Sakamoto Y1, et al. The Dietary Isoflavone Daidzein Reduces Expression of Pro-Inflammatory Genes through PPARα/γ and JNK Pathways in Adipocyte and Macrophage Co-Cultures. PLoS One. 2016 Feb 22;11(2):e0149676.