

Calycosin

Chemical Properties

CAS No. : 20575-57-9

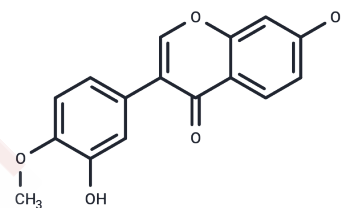
Formula: C₁₆H₁₂O₅

Molecular Weight: 284.26

Storage: Store at low temperature, 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	Calycosin (Cyclosin) acts as a selective estrogen receptor modulator. Calycosin induces apoptosis in human ovarian cancer SKOV3 cells by activating caspases and Bcl-2 family proteins. Calycosin suppresses breast cancer cell growth via ERβ-dependent regulation of IGF-1R, p38 MAPK and PI3K/Akt pathways. Calycosin has antineoplastic effects against osteosarcoma through inducing apoptosis showing in vitro and in vivo investigations. Calycosin was shown to induce angiogenesis in human umbilical vein endothelial cell cultures (HUVEC) in vitro. Calycosin may be an effective skin-lightening agent that regulates the expression of melanogenic enzymes. Calycosin exhibited tyrosinase inhibitory activity with an IC(50) value of 38.4 micromM.
Targets(IC50)	Apoptosis, Tyrosinase

Solubility Information

Solubility	DMSO: 247.5 mg/mL (870.68 mM), Sonication is recommended. Chloroform, Dichloromethane, Ethyl Acetate, Acetone, etc.: Soluble, (< 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 (7.04 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	3.5179 mL	17.5895 mL	35.1791 mL
5 mM	0.7036 mL	3.5179 mL	7.0358 mL
10 mM	0.3518 mL	1.759 mL	3.5179 mL
50 mM	0.0704 mL	0.3518 mL	0.7036 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

Chen J., et al. Calycosin and genistein induce apoptosis by inactivation of HOTAIR/p-Akt signaling pathway in human breast cancer MCF-7 cells. *Cell Physiol Biochem.* 2015;35(2):722-8.

Zhang H, Cai J, Li C, et al. Wogonin inhibits latent HIV-1 reactivation by downregulating histone crotonylation. *Phytomedicine.* 2023: 154855.

Zhou Y., et al. Calycosin induces apoptosis in human ovarian cancer SKOV3 cells by activating caspases and Bcl-2 family proteins. *Tumour Biol.* 2015 Jul;36(7):5333-9.

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