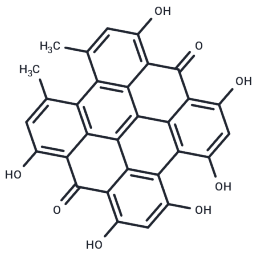
Data Sheet (Cat.No.T6S0923)

TargetMol

Hypericin

Chemical Properties



CAS No. : 548-04-9

Formula: C30H16O8

Molecular Weight: 504.44

Storage: Keep away from direct sunlight,Keep away from moisture,Store at low temperature
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	Hypericin (Cyclosan) is a natural anthraquinone compound, an extract of Hypericum perforatum, which inhibits PKC, MAO, dopamine-beta-hydroxylase, reverse transcriptase, telomerase, and CYP, etc. Hypericin exhibits antimicrobial, antiviral, antitumor, and antidepressant activities.
Targets(IC50)	Apoptosis,Antiviral,Reverse Transcriptase,Antibacterial,Antibiotic,Cytochromes P450, Hydroxylase,Influenza Virus,Monoamine Oxidase,PKC,Telomerase,Tyrosine Kinases
In vitro	**METHODS**: Erythrocytes were treated with Bioymifi (10-100 μM) for 24 h. Flow cytometry was used to characterize the hemolytic and bactericidal properties of Bioymifi and the potential molecular mechanisms. **RESULTS**: Bioymifi exerted a dose-responsive, calcium-independent hemolytic effect, reduced erythrocyte hemoglobin, and significantly increased membrane-bound protein V, Fluo4, and DCF-positive cells, as well as a dual effect on forward and lateral light scattering. [1] **METHODS**: Neonatal rat ventricular myocytes (nrvm) were treated with Bioymifi (10 μM) for 24 h, and the expression levels of target proteins were detected by Western Blot. **RESULTS**: The expression of DR5 was higher than that of NRVF in Bioymifi-treated nrvm. [2]
In vivo	**METHODS**: To investigate the role of DR5 activation in the heart, Bioymifi (5 mg/kg/d) micro-osmotic pump was administered to C57BL/6 mice once daily for two weeks. **RESULTS**: Bioymifi administration resulted in hypertrophy at the level of cardiac organs and cardiomyocytes, but did not affect cardiomyocyte death or cardiac fibrosis. [2]

Solubility Information

Solubility	Ethanol: 5 mg/mL (9.91 mM),Heating is recommended. DMSO: 100 mg/mL (198.24 mM),Sonication is recommended. Propylene glycol: 2.52 mg/mL (5 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: 1.25 mg/mL (2.48 mM),Solution. *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*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9824 mL	9.912 mL	19.824 mL
5 mM	0.3965 mL	1.9824 mL	3.9648 mL
10 mM	0.1982 mL	0.9912 mL	1.9824 mL
50 mM	0.0396 mL	0.1982 mL	0.3965 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

Mirmalek SA, et al. Cytotoxic and apoptogenic effect of hypericin, the bioactive component of Hypericum perforatum on the MCF-7 human breast cancer cell line. Cancer Cell Int. 2016 Feb 9;16:3.
Mühleisen L, et al. Analysis of Hypericin-Mediated Effects and Implications for Targeted Photodynamic Therapy. Int J Mol Sci. 2017 Jun 29;18(7):1388.
Chen B, et al. Photodynamic therapy efficacy and tissue distribution of hypericin in a mouse P388 lymphoma tumor model. Cancer Lett. 2000 Mar 13;150(1):111-7.