Data Sheet (Cat.No.T4S0181)

TargetMol

Hinokiflavone

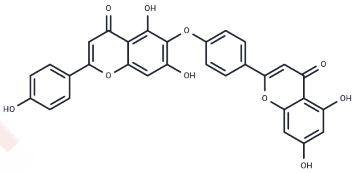
Chemical Properties

CAS No. : 19202-36-9

Formula: C30H18O10

Molecular Weight: 538.46

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	Hinokiflavone, a novel modulator of pre-mRNA splicing activity both in vitro and in cellulo, inhibits the assembly of the spliceosome, particularly blocking the formation of the B complex. Additionally, it acts as a SUMO protease inhibitor by impeding the activity of sentrin-specific protease 1 (SENP1). Hinokiflavone also demonstrates significant cytotoxicity, including the inhibition of MMP-9.
Targets(IC50)	Apoptosis,MMP,Bcl-2 Family,E1/E2/E3 Enzyme,Protease
In vitro	Hinokiflavone exhibited a time- and dose-dependent manner apoptosis induction by upregulating expression of Bax and downregulating Bcl-2 in breast cancer cells.? Furthermore, hinokiflavone significantly inhibited the migration and invasion of breast cancer cells by impairing the process of epithelial-to-mesenchymal transition.?The tumour growth was distinctly inhibited by treatment of hinokiflavone in a xenograft tumour mouse model of MDA-MB-231 cells.?Immunohistochemical analysis of tumour sections showed that MMP-2+ cells and Ki-67+ cells were remarkably decreased in tumour tissues of mice after treatment of hinokiflavone, indicating that hinokiflavone inhibits not only proliferation but also metastasis of breast cancer cells.Hinokiflavone can be a potential drug to breast cancer[2].

Solubility Information

Solubility	DMSO: 55.56 mg/mL (103.18 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 mg/mL (1.86 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	1.8571 mL	9.2857 mL	18.5715 mL
5 mM	0.3714 mL	1.8571 mL	3.7143 mL
10 mM	0.1857 mL	0.9286 mL	1.8571 mL
50 mM	0.0371 mL	0.1857 mL	0.3714 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

Huang W , Liu C , Liu F , et al. Hinokiflavone induces apoptosis and inhibits migration of breast cancer cells via EMT signalling pathway[J]. Cell Biochemistry and Function, 2020, 38(11).
Xiao Y, Cai G P, Feng X, et al.Splicing factor YBX1 regulates bone marrow stromal cell fate during aging.The EMBO Journal.2023: e111762.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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