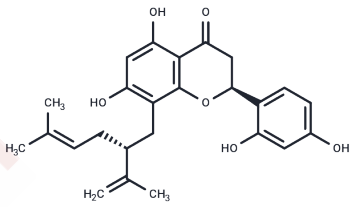
Data Sheet (Cat.No.T5S1000)

TargetMol

Sophoraflavanone G

Chemical Properties



CAS No. : 97938-30-2

Formula: C25H28O6

Molecular Weight: 424.49

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	Sophoraflavanone G (Kushenol F) (Kushenol F), isolated from Sophora flavescens, induces MDA-MB-231 and HL-60 cells apoptosis through suppression of MAPK-related pathways.
Targets(IC50)	Apoptosis
In vitro	Sophoraflavanone G (0-100 μM; 24 hours) reduces HL-60 cell viability in a dose-dependent manner and induces apoptosis by activating caspase-3 and caspase-9, downregulating Bcl-2 and Bcl-xL, upregulating Bax, and releasing cytochrome c from mitochondria to cytoplasm, thus promoting apoptosis via the mitochondrially-mediated intrinsic pathway [1]. Additionally, Sophoraflavanone G (0-40 μM; 24 hours) inhibits MDA-MB-231 cell viability with an IC50 of 29.7 μM in a concentration-dependent manner [2].

Solubility Information

Solubility	DMSO: 145 mg/mL (341.59 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3558 mL	11.7788 mL	23.5577 mL
5 mM	0.4712 mL	2.3558 mL	4.7115 mL
10 mM	0.2356 mL	1.1779 mL	2.3558 mL
50 mM	0.0471 mL	0.2356 mL	0.4712 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

Li ZY, et al. Sophoraflavanone G Induces Apoptosis in Human Leukemia Cells and Blocks MAPK Activation.Am J Chin Med. 2016;44(1):165-76.
Yan Y, Xia X, Fatima A, et al.Antibacterial Activity and Mechanisms of Plant Flavonoids against Gram-Negative Bacteria Based on the Antibacterial Statistical Model.Pharmaceuticals.2024, 17(3): 292.
Huang WC, et al. Sophoraflavanone G from Sophora flavescens induces apoptosis in triple-negative breast cancer cells.Phytomedicine. 2019 Aug;61:152852.