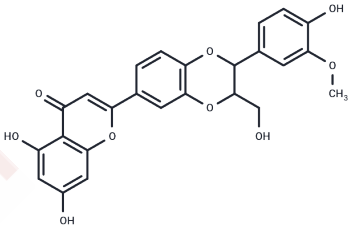
Data Sheet (Cat.No.TN2334)

TargetMol

(Rac)-Hydnocarpin

Chemical Properties



CAS No. : 51419-48-8

Formula: C25H20O9

Molecular Weight: 464.43

Storage: 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	(Rac)-Hydnocarpin is a natural flavonolignan derived from the flowers of Pueraria lobata that demonstrates strong cytotoxic effects against multiple ovarian cancer cell lines while maintaining minimal toxicity toward normal ovarian surface epithelial cells. (Rac)-Hydnocarpin triggers intrinsic apoptotic signaling through activation of caspase-9 and caspase-3 with limited involvement of caspase-8, driven by reactive oxygen species generation as a dominant mediator of apoptosis. (Rac)-Hydnocarpin additionally reprograms tumor-associated immune cells by reducing M2 macrophage markers and pro-tumoral mediators including matrix metalloproteinase-2/9, C-C motif chemokine ligand 5, transforming growth factor-β, and vascular endothelial growth factor, while enhancing macrophage phagocytosis, reinforcing its role as a multifunctional anticancer agent.
Targets(IC50)	MMP,Caspase

Solubility Information

Solubility	DMSO: 25 mg/mL (53.83 mM),Sonication is recommeded. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1532 mL	10.7659 mL	21.5318 mL
5 mM	0.4306 mL	2.1532 mL	4.3064 mL
10 mM	0.2153 mL	1.0766 mL	2.1532 mL
50 mM	0.0431 mL	0.2153 mL	0.4306 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

Arya JS, et al. Exploring Mitochondria-Mediated Intrinsic Apoptosis by New Phytochemical Entities: An Explicit Observation of Cytochrome c Dynamics on Lung and Melanoma Cancer Cells. J Med Chem. 2019 Sep 12;62(17): 8311-8329.