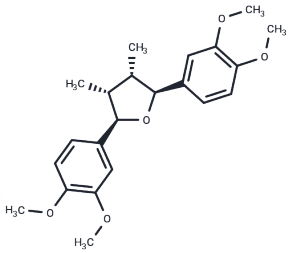
Data Sheet (Cat.No.TN1038)

TargetMol

Galgravin

Chemical Properties



CAS No. : 528-63-2

Formula: C22H28O5

Molecular Weight: 372.45

Storage: 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	Galgravin has anti-inflammatory, and neuroprotective effects, it can promote neuronal survival and neurite outgrowth, protect hippocampal neurons against amyloid beta peptide (Abeta25-35)-induced cytotoxicity, and protect against neuronal death from 1-methyl-4-phenylpyridinium ion (MPP+)-induced toxicity in cultured rat hippocampal neurons.
Targets(IC50)	Apoptosis
In vitro	This approach resulted in the isolation and characterization of eight tetrahydrofuran neolignans: calopeptin (1), machilin-G (2), machilin-I (3), aristolignin (4), nectandrin A (5), veraguensin (6), ganschisandrin (7), and Galgravin (8). Different assays were conducted to evaluate their cytotoxic activities and to determine the possible mechanism(s) related to the activity displayed against human leukemia cells. The most active compounds 4, 5 and 8 gave IC50 values of 14.2 ± 0.7, 16.9 ± 0.8 and 16.5 ± 0.8 μg/mL, respectively, against human leukemia (HL-60) tumor cells. Moreover, these compounds induced specific apoptotic hallmarks, such as plasma membrane bleb formation, nuclear DNA condensation, specific chromatin fragmentation, phosphatidyl-serine exposure on the external leaflet of the plasma membrane, cleavage of PARP as well as mitochondrial damage, which as a whole could be related to the intrinsic apoptotic pathway.

Solubility Information

Solubility	DMSO: 9 mg/mL (24.16 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6849 mL	13.4246 mL	26.8492 mL
5 mM	0.537 mL	2.6849 mL	5.3698 mL
10 mM	0.2685 mL	1.3425 mL	2.6849 mL
50 mM	0.0537 mL	0.2685 mL	0.537 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

Neolignans from Nectandra megapotamica (Lauraceae) Display in vitro Cytotoxic Activity and Induce Apoptosis in Leukemia Cells.Molecules. 2015 Jul 15;20(7):12757-68.