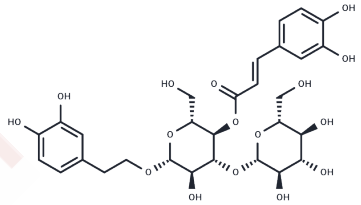
Data Sheet (Cat.No.T3409)

TargetMol

Plantamajoside

Chemical Properties



CAS No. : 104777-68-6

Formula: C29H36O16

Molecular Weight: 640.59

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	Plantamajoside (Y0160) has anti-hepatotoxic, anti-inflammatory, antinociceptive activities, improving sexual function and antioxidant activity.
Targets(IC50)	Apoptosis,Others,NF-κB,Akt,Autophagy,p38 MAPK,PI3K,Src
Kinase Assay	Ca2+ Fluorescence Assay: SH-EP1 human epithelial cells expressing a variant of theα7 nAChR (α7*) are grown in minimal essential medium (MEM) containing nonessential amino acids supplemented with 10% fetal bovine serum, L-glutamine, 100 U/ml penicillin/streptomycin, 250 ng/mL fungizone, 400 µg/mL hygromycin B, and 800 µg/mL geneticin. α7* is a variant of the human α7 nAChR, with two point mutations in the first transmembrane domain (T230P and C241S) that allow for high functional expression in SH-EP1 cells [Groppi VE, Wolfe ML, Berkenpas MB (2003) U.S. Patent 6,693,172 B1]. Cells are grown in a 37 °C incubator with 6% CO2. Cells are trypsinized and plated in 96-well plates with dark side walls and clear bottoms at a density of 2 × 104 cells/well 2 days before analysis. Cells are loaded with a mixture of Calcium reen-1AM in anhydrous dimethylsulfoxide and 20% pluronic F-127. This reagent is added directly to the growth medium of each well to achieve a final concentration of 2 µM Calcium Green-1 AM. Cells are then incubated in the dye for 1 hour at 37 °C and then washed four times with Mark's modified Earle's balanced salt solution (MMEBSS) composed of the following (inmM): 4 CaCl2, 0.8 MgSO4, 20 NaCl, 5.3 KCl, 5.6 D-glucose, 20 Tris-HEPES, and 120 N-methyl-D-glucamine, pH 7.4. After the fourth cycle, the cells are allowed to incubate at 37 °C for at least 10 minutes. The final volume of MMEBSS in each well is 100 µL and atropine is added to all wells for a final concentration of 1 µM. A fluorometric imaging plate reader (FLIPR; Molecular Devices, Union City, CA) is set up to excite Calcium Green at 488 nm using 500 mW of power and reading fluorescence emission of >525 nm. A 0.5 seconds exposure is used to illuminate each well. Fluorescence is detected using an F-stop set of either 2.0 or 1.2. After 30 seconds of baseline recording, test compounds are added to each well of a 96-well plate in 50 µL of a 3 × stock.In each experiment, four wells are used as vehicle (0.2% DMSO) controls.

Solubility Information

Solubility	DMSO: 250 mg/mL (390.27 mM),Sonication is recommended. Pyridine, Methanol, Ethanol, etc.: Soluble,

Solubility	(< 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 (1.56 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	1.5611 mL	7.8053 mL	15.6106 mL
5 mM	0.3122 mL	1.5611 mL	3.1221 mL
10 mM	0.1561 mL	0.7805 mL	1.5611 mL
50 mM	0.0312 mL	0.1561 mL	0.3122 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

Sun Q, et al. Zhongguo Zhong Yao Za Zhi. 2010 Aug;35(16):2095-8.
Jung HY, et al. Environ Toxicol Pharmacol. 2015 Jan;39(1):125-36.
Koo YC, et al. Phytother Res. 2009 Oct;23(10):1479-81.