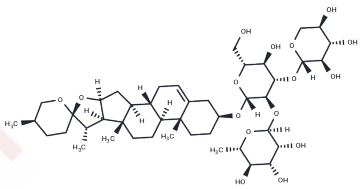
Data Sheet (Cat.No.TN1071)

TargetMol

Ophiopogonin D'

Chemical Properties



CAS No. : 65604-80-0

Formula: C44H70O16

Molecular Weight: 855.02

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	Ophiopogonin D' can activate SIRT1 in a dose-dependent manner. Ophiopogonin D' also noncompetitively inhibits UGT1A6 and UGT1A10.
Targets(IC50)	Sirtuin,UGT
In vitro	In vitro incubation system to model UGT reaction was used. Recombinant UGT isoforms-catalyzed 4-methylumbelliferone (4-MU) glucuronidation and UGT1A4-catalyzed trifluoperazine (TFP) glucuronidation reactions were employed to phenotype the inhibition profile of maidong's components towards the activity of UGT isoforms. Different inhibition potential of maidong's components towards various UGT isoforms was observed. Based on the inhibition kinetic investigation results, ophiopogonin D (OD) noncompetitively inhibited UGT1A6 and competitively inhibited UGT1A8, Ophiopogonin D' (OD') noncompetitively inhibited UGT1A6 and UGT1A10, and ruscorectal (RU) exhibited competitive inhibition towards UGT1A4. The inhibition kinetic parameters were calculated to be 20.6, 40.1, 5.3, 9.0, and 0.02 μM, respectively[1].

Solubility Information

Solubility	DMSO: 8.56 mg/mL (10.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.1696 mL	5.8478 mL	11.6956 mL
5 mM	0.2339 mL	1.1696 mL	2.3391 mL
10 mM	0.117 mL	0.5848 mL	1.1696 mL
50 mM	0.0234 mL	0.117 mL	0.2339 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

The Inhibition of the Components from Shengmai Injection towards UDP-Glucuronosyltransferase.Evid Based Complement Alternat Med. 2014;2014:594354.
Wang L , et al. Homo-aro-cholestane, furostane and spirostane saponins from the tubers of Ophiopogonjaponicus. Phytochemistry. 2017 Apr;136:125-132.
Wang Y, et al. Specific Turn-On Fluorescent Probe with Aggregation-Induced EmissionCharacteristics for SIRT1 Modulator Screening and Living-Cell Imaging. Anal Chem. 2015;87(10):5046-9.

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