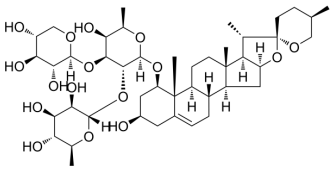
Ophiopogonin D

Cat. No.:	HY-N0515
CAS No.:	945619-74-9
Molecular Formula:	$C_{44}H_{70}O_{16}$
Molecular Weight:	855.02
Target:	PPAR; NF-κB; Calcium Channel
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor; NF-κB; Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (116.96 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.1696 mL	5.8478 mL	11.6956 mL
	5 mM	0.2339 mL	1.1696 mL	2.3391 mL
	10 mM	0.1170 mL	0.5848 mL	1.1696 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (2.92 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ophiopogonin D, isolated from the tubers of Ophiopogon japonicus, is a rare naturally occurring C_{29} steroidal glycoside[1]. Ophiopogonin D is a CYP2J3 inducer that significantly inhibits Ang II induced NF-κB nuclear translocation, IκBα down-regulation, intracellular Ca^{2+} overload and activation of pro-inflammatory cytokines by increasing the expression of CYP2J2/EETs and PPARα in human umbilical vein endothelial cells (HUVECs). Ophiopogonin D has been used to treat inflammatory and cardiovascular diseases for thousands of years[2].

IC_{50} & Target		
	PPARα	NF-κB

REFERENCES

[1]. Wang L , et al. Homo-aro-cholestane, furostane and spirostane saponins from the tubers of Ophiopogonjaponicus. Phytochemistry. 2017 Apr;136:125-132.

[2]. Huang X, et al. Ophiopogonin D and EETs ameliorate Ang II-induced inflammatory responses via activating PPARα in HUVECs. Biochem Biophys Res Commun. 2017 Aug 19;490(2):123-133.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA