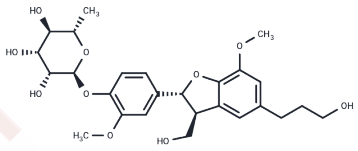
Data Sheet (Cat.No.TN5431)

TargetMol

Icariside E4

Chemical Properties



CAS No. : 126253-42-7

Formula: C26H34O10

Molecular Weight: 506.54

Storage: Store at low temperature,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	Icariside E4 is a natural compound derived from Ulmus minor that acts via AMPK phosphorylation and inhibition of MID1IP2 hypolipidation in HepG1 cells.Icariside E4 has anti-injurious, antioxidant, anti-Alzheimer's and anti-inflammatory effects and inhibits SREBP-1c, liver X receptor-α (LXR) and FASN in Icariside E4 is an effective candidate for the treatment of fatty liver disease and has hypolipidemic potential in HepG1 cells.
Targets(IC50)	Antioxidant,AMPK,Lipid,Fatty Acid Synthase,Liver X Receptor,Potassium Channel
In vitro	IE4 did not show any toxicity in HepG2 cells, but reduced lipid accumulation in HepG2 cells by Oil Red O staining. IE4 activated phosphorylation of AMPK and ACC and inhibited the expression of MID1IP1 in HepG2 cells. Furthermore, IE4 suppressed the expression of SREBP-1c, liver X receptor-α (LXR), and FASN for de novo lipogenesis in HepG2 cells. IE4 has hypolipogenic potential in HepG2 cells via activation of AMPK and inhibition of MID1IP1 as a potent candidate for the treatment of fatty liver disease.[2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9742 mL	9.8709 mL	19.7418 mL
5 mM	0.3948 mL	1.9742 mL	3.9484 mL
10 mM	0.1974 mL	0.9871 mL	1.9742 mL
50 mM	0.0395 mL	0.1974 mL	0.3948 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

Joo T, et al. Inhibition of nitric oxide production in LPS-stimulated RAW 264.7 cells by stem bark of Ulmus pumila L. Saudi J Biol Sci. 2014 ; 21(5):427-435.

Suh JY, et al. Hypolipogenic effects of Icariside E4 via phosphorylation of AMPK and inhibition of MID1IP1 in HepG2 cells. Phytother Res. 2023 ; 37(1):7-14.

Hong EY, et al. Inhibitory Effects of Roseoside and Icariside E4 Isolated from a Natural Product Mixture (No-ap) on the Expression of Angiotensin II Receptor 1 and Oxidative Stress in Angiotensin II-Stimulated H9C2 Cells. Molecules. 2019 ; 24(3):414.

Ferreira-Júnior JC, et al. Isolation of a dihydrobenzofuran lignan, icariside E4, with an antinociceptive effect from Tabebuia roseo-alba (Ridley) Sandwith (Bignoniaceae) bark. Arch Pharm Res. 2015 ; 38(6):950-956.

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