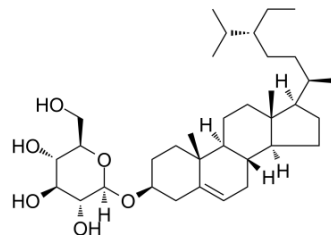


Daucosterol

Cat. No.:	HY-N0410		
CAS No.:	474-58-8		
Molecular Formula:	C ₃₅ H ₆₀ O ₆		
Molecular Weight:	576.85		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 3.33 mg/mL (5.77 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.7336 mL	8.6678 mL	17.3355 mL
5 mM	0.3467 mL	1.7336 mL	3.4671 mL
10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

Daucosterol is a natural sterolin. IC₅₀ value:Target:In vitro: In the study of the effects of daucosterol on the survival of cultured cortical neurons after neurons were subjected to oxygen and glucose deprivation and simulated reperfusion (OGD/R)(2), the results showed that post-treatment of daucosterol significantly reduced neuronal loss, as well as apoptotic rate and caspase-3 activity, displaying the neuroprotective activity. We also found that daucosterol increased the expression level of IGF1 protein, diminished the down-regulation of p-AKT(3) and p-GSK-3β(4), thus activating the AKT(5) signal pathway [1]. Cell counting kit-8 (CCK-8) assay showed that daucosterol significantly increased the quantity of viable cells and the effectiveness of daucosterol was similar to that of basic fibroblast growth factor (bFGF) and epidermal growth factor (EGF) [2]. Daucosterol inhibits the proliferation of human breast cancer cell line MCF-7 and gastric cancer cell lines MGC803, BGC823 and AGS in a dose-dependent manner. Furthermore, daucosterol inhibits murine hepatoma H22 cell growth in ICR mice. Daucosterol treatment induces intracellular ROS generation and autophagy, but not apoptotic cell death. Treatment with ROS scavenger GSH (reduced glutathione), NAC (N-acetyl-L-cysteine) or autophagy inhibitor 3-Methyladenine (3-MA) counteracted daucosterol-induced autophagy and growth inhibition in BGC823 and MCF-7 cancer cells [3].In vivo:

CUSTOMER VALIDATION

- Eur J Pharmacol. 2019 Jul 15;855:112-123.
- Behav Brain Res. 2019 Oct.
- MethodsX. 2020 Feb.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Jiang LH, et al. Daucosterol protects neurons against oxygen-glucose deprivation/reperfusion-mediated injury by activating IGF1 signaling pathway. J Steroid Biochem Mol Biol. 2015 Aug;152:45-52.
- [2]. Jiang LH, et al. Daucosterol promotes the proliferation of neural stem cells. J Steroid Biochem Mol Biol. 2014 Mar;140:90-9.
- [3]. Zhao C, et al. Daucosterol inhibits cancer cell proliferation by inducing autophagy through reactive oxygen species-dependent manner. Life Sci. 2015 Sep 15;137:37-43.
-

Caution: Product has not been fully validated for medical applications. For research use only.

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