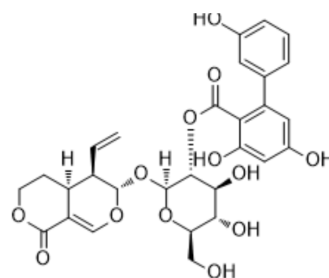


Amarogentin

Cat. No.:	HY-N2447												
CAS No.:	21018-84-8												
Molecular Formula:	C ₂₉ H ₃₀ O ₁₃												
Molecular Weight:	586.54												
Target:	AMPK; Apoptosis												
Pathway:	Epigenetics; PI3K/Akt/mTOR; Apoptosis												
Storage:	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
Powder	-20°C	3 years											
	4°C	2 years											
In solvent	-80°C	6 months											
	-20°C	1 month											



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (170.49 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	1.7049 mL	8.5246 mL	17.0491 mL
		5 mM	0.3410 mL	1.7049 mL	3.4098 mL
10 mM		0.1705 mL	0.8525 mL	1.7049 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.17 mg/mL (3.70 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.17 mg/mL (3.70 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.17 mg/mL (3.70 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Amarogentin is a secoiridoid glycoside that is mainly extracted from Swertia and Gentiana roots. Amarogentin exhibits many biological effects, including anti-oxidative, anti-tumour, and anti-diabetic activities. Amarogentin exerts hepatoprotective and immunomodulatory effects. Amarogentin promotes apoptosis, arrests G2/M cell cycle and downregulates of PI3K/Akt/mTOR signalling pathways. Amarogentin exerts beneficial vasculo-metabolic effect by activating AMPK ^{[1][2][3]} .
In Vitro	Amarogentin (0-20 μM, 24 h) shows antiaging effect on yeasts, by inhibiting oxidative stress ^[3] . Amarogentin (0-10 μM, 24 h) inhibits H ₂ O ₂ -induced oxidative damage (decreased intracellular ROS level and MDA content) in

	the PC12 cells ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Amarogentin (100 mg/kg, p.o.) relieves Carbon tetrachloride (HY-Y0298)-induced liver fibrosis, decreases α -SMA and TGF- β 1 expression in mice ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
	Animal Model: Carbon tetrachloride (HY-Y0298)-induced liver fibrosis mice model ^[1]
	Dosage: 100 mg/kg
	Administration: p.o.
	Result: Decreased hepatic α -SMA and TGF- β 1 expression. Inhibited phosphorylation of JNK, ERK, and p38.

CUSTOMER VALIDATION

- Biochim Biophys Acta Mol Basis Dis. 2023 Mar 9;166667.
- Animal Model Exp Med. 2022 Sep 21.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Disasa D, et al. Amarogentin from *Gentiana rigescens* Franch Exhibits Antiaging and Neuroprotective Effects through Antioxidative Stress. *Oxid Med Cell Longev*. 2020 Aug 1;2020:3184019.
- [2]. Zhang Y, et al. Protective Effects of Amarogentin against Carbon Tetrachloride-Induced Liver Fibrosis in Mice. *Molecules*. 2017 May 6;22(5). pii: E754.
- [3]. Wölfle U, et al. Amarogentin Displays Immunomodulatory Effects in Human Mast Cells and Keratinocytes. *Mediators Inflamm*. 2015;2015:630128.

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

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