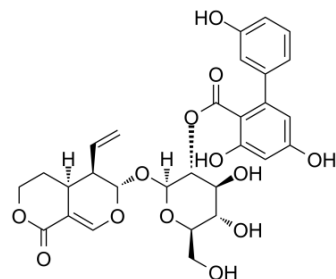


Amarogentin

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:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 130 mg/mL (221.64 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

- 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]}.

REFERENCES

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- [2]. Wölfle U, et al. Amarogentin Displays Immunomodulatory Effects in Human Mast Cells and Keratinocytes. *Mediators Inflamm*. 2015;2015:630128.
- [3]. Zhao JG, et al. Amarogentin secoiridoid inhibits in vivo cancer cell growth in xenograft mice model and induces apoptosis in human gastric cancer cells (SNU-16) through G2/M cell cycle arrest and PI3K/Akt signalling pathway. *J BUON*. 2016 May-Jun;21(3):609-17.
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Caution: Product has not been fully validated for medical applications. For research use only.

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