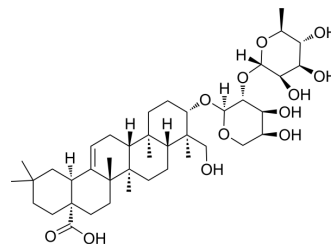


alpha-Hederin

Cat. No.:	HY-N0255		
CAS No.:	27013-91-8		
Molecular Formula:	C ₄₁ H ₆₆ O ₁₂		
Molecular Weight:	750.96		
Target:	Apoptosis		
Pathway:	Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (133.16 mM)
 H₂O : < 0.1 mg/mL (insoluble)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		1.3316 mL	6.6581 mL	13.3163 mL
	5 mM		0.2663 mL	1.3316 mL	2.6633 mL
	10 mM		0.1332 mL	0.6658 mL	1.3316 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: ≥ 2.5 mg/mL (3.33 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (3.33 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (3.33 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

alpha-Hederin (α-Hederin), a monodesmosidic triterpenoid saponin, exhibits promising antitumor potential against a variety of human cancer cell lines. alpha-Hederin could inhibit the proliferation and induce apoptosis of gastric cancer accompanied by glutathione decrement and reactive oxygen species generation via activating mitochondrial dependent pathway^[1].

In Vitro	alpha-Hederin (α -Hederin) is cytotoxic and inhibits proliferation in both cell lines at rather low concentrations. alpha-Hederin (α -Hederin) reduces the mitotic activity in treated cells ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	alpha-Hederin (α -Hederin) has a preventive effect on sensitized rats like thymoquinone. It may intervene in miRNA-126 expression, which consequently could interfere with IL-13 secretion pathway leading to a reduction in inflammatory responses ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Danloy S et al. Effects of alpha-hederin, a saponin extracted from Hedera helix, on cells cultured in vitro. *Planta Med*, 1994 Feb, 60(1):45-9.
- [2]. Maryam Fallahi et al. Effect of Alpha-Hederin, the active constituent of *Nigella sativa*, on miRNA-126, IL-13 mRNA levels and inflammation of lungs in ovalbumin-sensitized male rats. *Planta Med*, 1994 Feb, 60(1):45-9.
- [3]. Wang J, et al. α -Hederin induces the apoptosis of gastric cancer cells accompanied by glutathione decrement and reactive oxygen species generation via activating mitochondrial dependent pathway. *Phytother Res*. 2020;34(3):601-611.
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Caution: Product has not been fully validated for medical applications. For research use only.

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