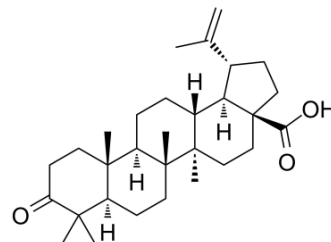


Betulonic acid

Cat. No.:	HY-N1451		
CAS No.:	4481-62-3		
Molecular Formula:	C ₃₀ H ₄₆ O ₃		
Molecular Weight:	454.68		
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 : 6.67 mg/mL (14.67 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.1993 mL	10.9967 mL	21.9935 mL
	5 mM	0.4399 mL	2.1993 mL	4.3987 mL
	10 mM	0.2199 mL	1.0997 mL	2.1993 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: ≥ 0.67 mg/mL (1.47 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 0.67 mg/mL (1.47 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Betulonic acid belongs to the pentacyclic triterpene derivative class, has antitumor activities. In vitro: BEA-NP is found over three-times more permeable than that solubilized by DMSO in Caco-2 cell monocultures. [1] In vivo: The tumor growth in the S180 berry mice orally doses with BEA-NP at 75 mg/kg is inhibited by 50%. Rubusoside is effective in solubilizing BEA, maintaining its cytotoxicity, enhancing its permeability and reducing tumor growth when orally administered. [1] antitumor activities against MGC-803, PC3, Bcap-37, A375, and MCF-7 human cancer cell lines In vivo: The animals are treated with betulonic acid amide (50 mg/kg in Tween aqueous solution) and heptral (6 mg/kg) as hepatoprotective compounds. It is found that betulonic acid amide stimulates the regenerative response in hepatocytes under conditions of combined toxic exposure and promotes recovery of their qualitative and quantitative characteristics. [2]

CUSTOMER VALIDATION

- Catalysis Today. 2020 Aug.

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REFERENCES

- [1]. Zhang J et al. Employing rubusoside to improve the solubility and permeability of antitumor compound betulonic acid. Nanomedicine (Lond). 2016 Oct 19.
- [2]. Semenov DE et al. Hepatoprotective properties of betulonic acid amide and heptral in toxic liver injury induced by carbon tetrachloride in combination with ethanol. Bull Exp Biol Med. 2015 Jan;158(3):336-41.
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Caution: Product has not been fully validated for medical applications. For research use only.

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