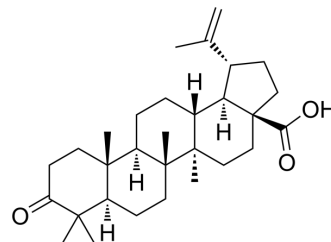


Betulonic acid

Cat. No.:	HY-N1451		
CAS No.:	4481-62-3		
Molecular Formula:	C ₃₀ H ₄₆ O ₃		
Molecular Weight:	454.68		
Target:	Parasite; HSV		
Pathway:	Anti-infection		
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 : 5 mg/mL (11.00 mM; ultrasonic and warming and heat to 60°C)				
		Solvent Concentration	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	1. 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 2. 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 (Betulonic acid), a naturally occurring triterpene, is found in many plants. Betulonic acid has anti-tumor, anti-inflammatory, antiparasitic and anti-viral (HSV-1) activities ^{[2][1][3][4]} .	
IC₅₀ & Target	Plasmodium	HSV-1
In Vitro	Betulonic acid (72 h) inhibits the growth of various types of human tumor cell lines, including MGC-803, PC3, Bcap-37, A375, MCF-7 tumor cell lines, with IC ₅₀ s of 17.7, 13.9, 25.7, 28.9, 18.2 μM, respectively ^[2] . Betulonic acid has antiplasmodial activity, with IC ₅₀ of 10 μM ^[3] . Betulonic acid inhibits HSV-1, ECHO6 and influenza FPV viruses, with EC ₅₀ s of 0.9, 73.32, and 5.7 μM, respectively ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

CUSTOMER VALIDATION

- Pharmacol Res. 2024 May 9:204:107208.
- Catalysis Today. 2020 Aug.

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REFERENCES

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 - [2]. Yang SJ, et, al. Synthesis and biological evaluation of betulonic acid derivatives as antitumor agents. *Eur J Med Chem*. 2015;96:58-65.
 - [3]. Sá MS, et, al. Antimalarial activity of betulinic acid and derivatives in vitro against *Plasmodium falciparum* and in vivo in *P. berghei*-infected mice. *Parasitol Res*. 2009 Jul;105(1):275-9.
 - [4]. Pavlova NI, et, al. Antiviral activity of betulin, betulinic and betulonic acids against some enveloped and non-enveloped viruses. *Fitoterapia*. 2003 Jul;74(5):489-92.
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Caution: Product has not been fully validated for medical applications. For research use only.

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