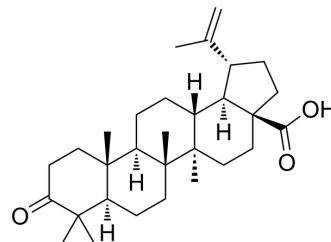


Betulonic acid

| | | | |
|---------------------------|--|-------|---------|
| 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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 - [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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