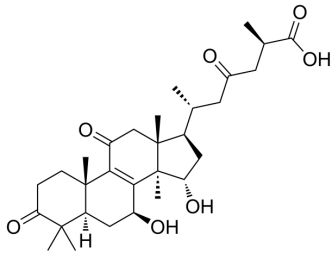
Ganoderic acid A

Cat. No.:	HY-N1447
CAS No.:	81907-62-2
Molecular Formula:	$C_{30}H_{44}O_7$
Molecular Weight:	516.67
Target:	Apoptosis; Autophagy; Endogenous Metabolite
Pathway:	Apoptosis; Autophagy; Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 2 years; -20°C, 1 year (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (120.97 mM; Need ultrasonic)
Ethanol : ≥ 50 mg/mL (96.77 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.9355 mL	9.6774 mL	19.3547 mL
5 mM	0.3871 mL	1.9355 mL	3.8709 mL
10 mM	0.1935 mL	0.9677 mL	1.9355 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: ≥ 2.08 mg/mL (4.03 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.03 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.03 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ganoderic acid A can inhibit of the JAK-STAT3 signaling pathway, also inhibit proliferation, viability, ROS.

In Vitro

A lower doses of Ganoderic acid A enhance HLA class II-mediated antigen presentation and CD4+ T cell recognition of lymphoma[1].
Ganoderic acid A promots cisplatin-induced cell death by enhancing the sensitivity of HepG2 cells to cisplatin mainly via the signal transducer and activator of transcription 3 suppression[2].
Ganoderic acid Ainhibits proliferation, viability, ROS, DPPH, and analyzed the expression of SOD1, SOD2, and SOD3 by Real

	time PCR in a PC-3 cell in a dose-dependent manner[3]. Ganoderic acid A effectively inhibites the proliferation of human osteosarcoma HOS and MG-63 cells in a dose-dependent manner, and induced obvious cell apoptosis in both cells[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Ganoderic acid A treatment significantly prolonged survival of EL4 challenged mice and decreased tumor metastasis to the liver[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Biochem Mol Toxicol. 2019 Nov;33(11):e22392.
- J Pharm Pharmacol. 2024 Feb 8:rgad116.
- Neuropsychiatr Dis Treat. 2021 Aug 14;17:2671-2681.
- Evid-Based Compl Alt. 31 May 2022.

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REFERENCES

[1]. Radwan FF et al. Reduction of myeloid-derived suppressor cells and lymphoma growth by a natural triterpenoid. J Cell Biochem. 2015 Jan;116(1):102-14.

[2]. Yao X et al. Inhibition of the JAK-STAT3 signaling pathway by ganoderic acid A enhances chemosensitivity of HepG2 cells to cisplatin.Planta Med. 2012 Nov;78(16):1740-8.

[3]. Gill BS et al. Evaluating anti-oxidant potential of ganoderic acid A in STAT 3 pathway in prostate cancer. Mol Biol Rep. 2016 Sep 17.

[4]. Shao J et al. [Ganoderic acid A suppresses proliferation and invasion and induces apoptosis in human osteosarcoma cells]. Nan Fang Yi Ke Da Xue Xue Bao. 2015 May;35(5):619-24.

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