

Ganoderic acid K

Chemical Properties

CAS No.:	104700-95-0
Formula:	C ₃₂ H ₄₆ O ₉
Molecular Weight:	574.7
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Ganoderic acid K is an angiotensin-converting enzyme inhibitor. It has anti-tumor, and anti-inflammatory activities.
Targets(IC ₅₀)	Immunology & Inflammation related: None
In vitro	<p>METHODS AND RESULTS: To elucidate the cytotoxicity mechanism of Ganoderma triterpenes, a chemoproteomic study using five purified ganoderic acids, ganoderic acid F (GAF), Ganoderic acid K (GAK), ganoderic B (GAB), ganoderic acid D (GAD) and ganoderic acid AM1 (GAAM1) was conducted. GAF, GAK, GAB, GAD and GAAM1 treatment for 48 h inhibited the proliferation of HeLa human cervical carcinoma cells with IC(50) values of 19.5+/-0.6 microM, 15.1+/-0.5 microM, 20.3+/-0.4 microM, 17.3+/-0.3 microM, 19.8+/-0.7 microM, respectively. The protein expression profiles of HeLa cells treated with each ganoderic acid at dose of 15 microM for 48 h were checked using two-dimensional electrophoresis (2-DE). The possible target-related proteins of ganoderic acids, i.e. proteins with same change tendency in all five ganoderic acids-treated groups compared with control, were identified using MALDI-TOF MS/MS. Twelve proteins including human interleukin-17E, eukaryotic translation initiation factor 5A (eIF5A), peroxiredoxin 2, ubiquilin 2, Cu/Zn-superoxide dismutase, 14-3-3 beta/alpha, TPM4-ALK fusion oncoprotein type 2, PP2A subunit A PR65-alpha isoform, nucleobindin-1, heterogeneous nuclear ribonucleoprotein K, reticulocalbin 1 and chain A of DJ-1 protein were identified. CONCLUSIONS: Ganoderic acids might exert their cytotoxicity by altering proteins involved in cell proliferation and/or cell death, carcinogenesis, oxidative stress, calcium signaling and ER stress.</p>

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.740 mL	8.700 mL	17.400 mL
5 mM	0.348 mL	1.740 mL	3.480 mL
10 mM	0.174 mL	0.870 mL	1.740 mL
50 mM	0.035 mL	0.174 mL	0.348 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Effects of triterpenes from *Ganoderma lucidum* on protein expression profile of HeLa cells. *Phytomedicine*. 2010 Jul;17(8-9):606-13.

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Tel:781-999-4286

E-mail:info@targetmol.com

Address:36 Washington Street,Wellesley Hills,MA 02481