

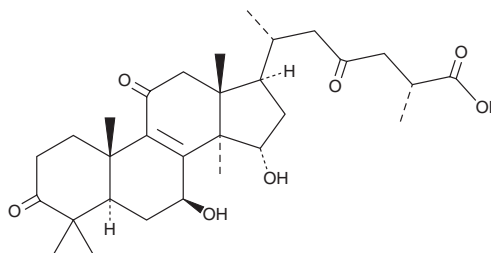
PRODUCT INFORMATION



Ganoderic Acid A

Item No. 26674

CAS Registry No.: 81907-62-2
Formal Name: (25R)-7 β ,15 α -dihydroxy-3,11,23-trioxo-lanost-8-en-26-oic acid
MF: C₃₀H₄₄O₇
FW: 516.7
Purity: \geq 95%
UV/Vis.: λ_{max} : 252 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 2 years
Item Origin: Fungi/*Ganoderma lucidum* karst.



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ganoderic acid A is supplied as a crystalline solid. A stock solution may be made by dissolving the ganoderic acid A in the solvent of choice. Ganoderic acid A is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of ganoderic acid A in these solvents is approximately 3, 1, and 5 mg/ml, respectively.

Description

Ganoderic acid A is a triterpene that has been found in *Ganoderma* and has diverse biological activities.¹⁻⁵ It reduces cell viability, expression of superoxide dismutase 1 (SOD1), SOD2, and SOD3, and production of reactive oxygen species (ROS) in PC3 prostate cancer cells.¹ Ganoderic acid A (2-100 μ g/ml) reduces hypoxia-induced apoptosis in H9c2 cardiomyocytes.² It inhibits LPS-induced activation of NF- κ B, release of TNF- α , IL-1 β , and IL-6, and mitochondrial activity in primary mouse cortical microglia.³ Ganoderic acid A (20 and 40 mg/kg) reduces lung myeloperoxidase (MPO) activity, neutrophil infiltration, and NF- κ B signaling, as well as bronchoalveolar lavage fluid (BALF) levels of TNF- α , IL-1 β , and IL-6 in a mouse model of LPS-induced lung injury.⁴ It also reduces weight gain and hepatic lipid accumulation and improves insulin sensitivity in a mouse model of high-fat diet-induced obesity.⁵

References

1. Gill, B.S., Kumar, S., and Gill, N. Evaluating anti-oxidant potential of ganoderic acid A in STAT 3 pathway in prostate cancer. *Mol. Biol. Rep.* **43**(12), 1411-1422 (2016).
2. Zhang, X., Xiao, C., and Liu, H. Ganoderic acid A protects rat H9c2 cardiomyocytes from hypoxia-induced injury via up-regulating miR-182-5p. *Cell Physiol. Biochem.* **50**(6), 2086-2096 (2018).
3. Chi, B., Wang, S., Bi, S., et al. Effects of ganoderic acid A on lipopolysaccharide-induced proinflammatory cytokine release from primary mouse microglia cultures. *Exp. Ther. Med.* **15**(1), 847-853 (2018).
4. Wan, B., Li, Y., Sun, S., et al. Ganoderic acid A attenuates lipopolysaccharide-induced lung injury in mice. *Biosci. Rep.* **39**(5), BSR20190301 (2019).
5. Zhu, J., Jin, J., Ding, J., et al. Ganoderic Acid A improves high fat diet-induced obesity, lipid accumulation and insulin sensitivity through regulating SREBP pathway. *Chem. Biol. Interact.* **290**, 77-87 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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