

# PRODUCT INFORMATION



## Erinacine A

Item No. 38352

**CAS Registry No.:** 156101-08-5  
**Formal Name:** 2,3,3aR,4,5,5aR,6S,7-octahydro-3a,5a-dimethyl-1-(1-methylethyl)-6-(β-D-xylopyranosyloxy)-cyclohept[e]indene-8-carboxaldehyde

**Synonyms:** Erinacin A, (+)-Erinacin A

**MF:** C<sub>25</sub>H<sub>36</sub>O<sub>6</sub>

**FW:** 432.6

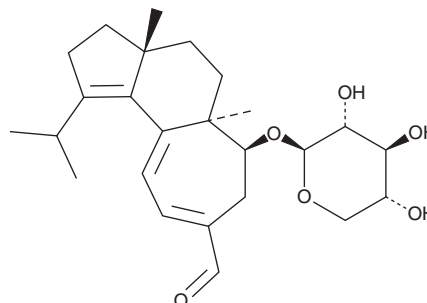
**Purity:** ≥98%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥4 years

**Item Origin:** Natural/Lion's mane mushroom powder



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

### Laboratory Procedures

Erinacine A is supplied as a solid. A stock solution may be made by dissolving the erinacine A in the solvent of choice, which should be purged with an inert gas. Erinacine A is soluble in acetonitrile and methanol.

### Description

Erinacine A is a diterpenoid that has been found in *H. erinaceum* and has anticancer and neuroprotective activities.<sup>1-4</sup> It decreases the viability of, and induces cell cycle arrest at the G<sub>1</sub> phase and production of reactive oxygen species (ROS) in, DLD-1 colorectal cancer cells when used at a concentration of 10 μM.<sup>2</sup> Erinacine A (1 mM) increases the production of nerve growth factor (NGF) in mouse astroglial cells.<sup>1</sup> *In vivo*, erinacine A (1 mg/kg, i.p.) increases the time spent on the rod in a rotarod test in a mouse model of MPTP-induced Parkinson's disease.<sup>3</sup> Oral administration of erinacine A (4 mg/kg) decreases infarct volume in a mouse model of ischemic brain injury induced by transient right common carotid artery occlusion.<sup>4</sup>

### References

1. Kawagishi, H., Shimada, A., Shirai, R., *et al.* Erinacines A, B and C, strong stimulators of nerve growth factor (NGF)-synthesis from the mycelia of *Hericium erinaceum*. *Tetrahedron Lett.* **35(10)**, 1569-1572 (1994).
2. Lu, C.-C., Huang, W.-S., Lee, K.-F., *et al.* Inhibitory effect of erinacines A on the growth of DLD-1 colorectal cancer cells is induced by generation of reactive oxygen species and activation of p70S6K and p21. *J. Funct. Foods* **21**, 474-484 (2016).
3. Lee, K.-F., Tung, S.-Y., Teng, C.-C., *et al.* Post-treatment with erinacine A, a derived diterpenoid of *H. erinaceus*, attenuates neurotoxicity in MPTP model of Parkinson's disease. *Antioxidants (Basel)* **9(2)**, 137 (2020).
4. Hsu, P.-C., Lan, Y.-J., Chen, C.-C., *et al.* Erinacine A attenuates glutamate transporter 1 downregulation and protects against ischemic brain injury. *Life Sci.* **306:120833**, (2022).

#### 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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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM