

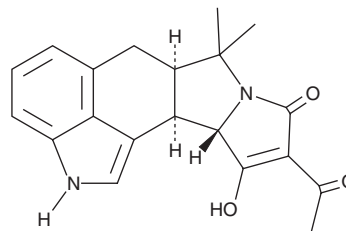
PRODUCT INFORMATION



Cyclopiazonic Acid

Item No. 11326

CAS Registry No.: 18172-33-3
Formal Name: 10-acetyl-2,6,6aR,7,11aS,11bR-hexahydro-11-hydroxy-7,7-dimethyl-9H-pyrrolo[1',2':2,3]isoindolo[4,5,6-cd]indol-9-one
Synonyms: CPA, NSC 117181
MF: C₂₀H₂₀N₂O₃
FW: 336.4
Purity: ≥95%
UV/Vis.: λ_{max}: 224, 281 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Cyclopiazonic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the cyclopiazonic acid in the solvent of choice, which should be purged with an inert gas. Cyclopiazonic acid is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of cyclopiazonic acid in these solvents is approximately 20 mg/ml.

Cyclopiazonic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cyclopiazonic acid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Cyclopiazonic acid has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Cyclopiazonic acid is a mycotoxin that has been found in *Penicillium* and *Aspergillus* and an inhibitor of sarcoplasmic/endoplasmic reticulum Ca²⁺-ATPase (SERCA; IC₅₀ = 0.6 μM).^{1,2} *In vivo*, cyclopiazonic acid (11-14 mg/kg) induces ptosis, hypothermia, tremor, and cachexia, as well as induces lethality (LD₅₀ = 13 mg/kg), in rats.³ It induces tachycardia and sedation in rabbits when administered at a dose of 10 mg/kg.

References

1. Seidler, N.W., Jona, I., Vegh, M., et al. Cyclopiazonic acid is a specific inhibitor of the Ca²⁺-ATPase of sarcoplasmic reticulum. *J. Biol. Chem.* **264**(30), 17816-17823 (1989).
2. Uyama, Y., Imaizumi, Y., and Watanabe, M. Effects of cyclopiazonic acid, a novel Ca²⁺-ATPase inhibitor, on contractile responses in skinned ileal smooth muscle. *Br. J. Pharmacol.* **106**(1), 208-214 (1992).
3. Nishie, K., Cole, R.J., and Dorner, J.W. Toxicity and neuropharmacology of cyclopiazonic acid. *Food Chem. Toxicol.* **23**(9), 831-839 (1985).

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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