

PRODUCT INFORMATION



Cyclopiazonic Acid- $^{13}\text{C}_{20}$ Item No. 31297

Formal Name: (6aR,11aS,11bR)-10-(acetyl- $^{13}\text{C}_2$)-11-hydroxy-7,7-di(methyl- ^{13}C)-2,6,6a,7,11a,11b-hexahydro-9H-pyrrolo[1',2':2,3]isoindolo[4,5,6-cd]indol-9-one-1,2a,2a1,3,4,5,5a,6,6a,7,9,10,11,11a,11b,11c- $^{13}\text{C}_{16}$

Synonym: CPA- $^{13}\text{C}_{20}$
MF: $[\text{C}_{20}^{13}]_{20}\text{H}_{20}\text{N}_2\text{O}_3$

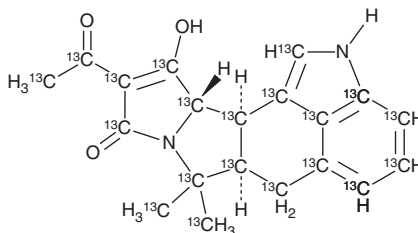
FW: 356.2

Purity: $\geq 98\%$

Supplied as: A 10 $\mu\text{g}/\text{ml}$ solution in acetonitrile

Storage: -20°C

Stability: ≥ 4 years



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

Description

Cyclopiazonic acid- $^{13}\text{C}_{20}$ is intended for use as an internal standard for the quantification of cyclopiazonic acid (Item No. 11326) by GC- or LC-MS. Cyclopiazonic acid is a mycotoxin that has been found in *Penicillium* and *Aspergillus* and an inhibitor of sarcoplasmic/endoplasmic reticulum Ca^{2+} -ATPase (SERCA; $\text{IC}_{50} = 0.6 \mu\text{M}$).^{1,2} *In vivo*, cyclopiazonic acid (11-14 mg/kg) induces ptosis, hypothermia, tremor, and cachexia, as well as induces lethality ($\text{LD}_{50} = 13 \text{ mg/kg}$), 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 Ca^{2+} -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 Ca^{2+} -ATPase inhibitor, on contractile responses in skinned ileal smooth muscle. *Brit. 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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