

PRODUCT INFORMATION



Monocrotaline

Item No. 16666

CAS Registry No.: 315-22-0
Formal Name: (3R,4R,5R)-4,5,8,10,12,13,13aR,13bR-octahydro-4,5-dihydroxy-3,4,5-trimethyl-2H-[1,6]dioxacycloundecino[2,3,4-gh]pyrrolizine-2,6(3H)-dione

Synonyms: Crotaline, MCT, NSC 28693

MF: C₁₆H₂₃NO₆

FW: 325.4

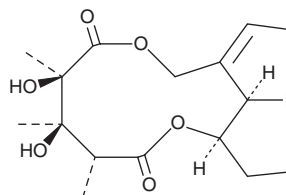
Purity: ≥98%

UV/Vis.: λ_{max}: 217 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

Monocrotaline is supplied as a crystalline solid. A stock solution may be made by dissolving the monocrotaline in the solvent of choice, which should be purged with an inert gas. Monocrotaline is soluble in organic solvents such as chloroform, DMSO, and dimethyl formamide (DMF). The solubility of monocrotaline in chloroform is approximately 5 mg/ml and approximately 1 mg/ml in DMSO and DMF.

Description

Monocrotaline is a natural 11-membered macrocyclic pyrrolizidine alkaloid used in an animal model of pulmonary hypertension.^{1,2} It is metabolized by cytochrome P450 3A4 in the liver to monocrotaline pyrrole. Administration of monocrotaline or its metabolite monocrotaline pyrrole to rats causes progressive lung injury featuring pulmonary vascular remodeling, pulmonary hypertension, and compensatory right heart hypertrophy.^{1,2}

References

1. Gomez-Arroyo, J.G., Farkas, L., Alhussaini, A.A., *et al.* The monocrotaline model of pulmonary hypertension in perspective. *Am. J. Physiol. Lung Cell. Mol. Physiol.* **302**(4), L363-L369 (2012).
2. Maarman, G., Lecour, S., Butrous, G., *et al.* A comprehensive review: The evolution of animal models in pulmonary hypertension research; are we there yet? *Pulm.Circ.* **3**(4), 739-756 (2013).

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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