

PRODUCT INFORMATION



Cephalomannine

Item No. 27878

CAS Registry No.: 71610-00-9

Formal Name: α R-hydroxy- β S-[[[(2E)-2-methyl-1-oxo-2-buten-1-yl]amino]-benzenepropanoic acid, (2aR,4S,4aS,6R,9S,11S,12S,12aR,12bS)-6,12b-bis(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,11-dihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester

Synonym: NSC 318735

MF: $C_{45}H_{53}NO_{14}$

FW: 831.9

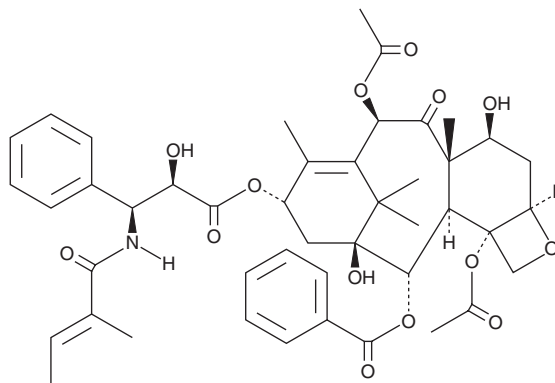
Purity: $\geq 98\%$

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥ 4 years

Item Origin: Plant/*Taxus chinensis*



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

Laboratory Procedures

Cephalomannine is supplied as a crystalline solid. A stock solution may be made by dissolving the cephalomannine in the solvent of choice, which should be purged with an inert gas. Cephalomannine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of cephalomannine in ethanol and DMSO is approximately 15 mg/ml and approximately 10 mg/ml in DMF.

Cephalomannine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cephalomannine should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Cephalomannine has a solubility of approximately 0.12 mg/ml in a 1:7 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Cephalomannine is a taxane diterpenoid and a derivative of paclitaxel (Item No. 10461) that has been found in yew trees and taxol-producing fungi.¹ It inhibits calcium-induced microtubule depolymerization *in vitro* and increases accumulation of vincristine (Item No. 11764) in multidrug-resistant 2780AD ovarian cancer cells.²

References

1. Li, D., Fu, D., Zhang, Y., *et al.* Isolation, purification, and identification of taxol and related taxanes from taxol-producing fungus *Aspergillus niger* subsp. *taxi*. *J. Microbiol. Biotechnol.* **27(8)**, 1379-1385 (2017).
2. Kobayashi, J., Hosoyama, H., Wang, X.-X., *et al.* Effects of taxoids from *Taxus cuspidata* on microtubule depolymerization and vincristine accumulation in MDR cells. *Bioorg. Med. Chem. Lett.* **7(4)**, 393-398 (1997).

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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