

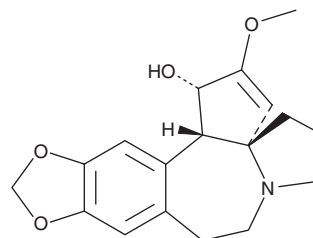
PRODUCT INFORMATION



Cephalotaxine

Item No. 36521

CAS Registry No.: 24316-19-6
Synonyms: (-)-Cephalotaxine, NSC 128487, NSC 245454, ZINC19795976
MF: C₁₈H₂₁NO₄
FW: 315.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Taxus wallichiana*



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

Laboratory Procedures

Cephalotaxine is supplied as a solid. A stock solution may be made by dissolving the cephalotaxine in the solvent of choice, which should be purged with an inert gas. Cephalotaxine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of cephalotaxine in these solvents is approximately 5, 12, and 10 mg/ml, respectively.

Description

Cephalotaxine is an alkaloid that has been found in *Cephalotaxus* and has anticancer and antiviral activities.¹⁻³ It is cytotoxic to HL-60, NB4, MOLT-4, K562, Jurkat, and Raji cells (IC₅₀s = 4.91, 16.88, 7.09, 22.59, 5.54, and 18.08 μM, respectively).¹ Cephalotaxine (5-20 μM) induces mitochondrial apoptosis, as well as impairs lysosomal acidification and autophagic flux in HL-60 cells. It reduces infectivity and hepatitis B virus (HBV) surface antigen (HBsAg) secretion in HBV-infected HepG2 2.2.15 cells when used at concentrations ranging from 10 to 100 μM.² Cephalotaxine (20, 40, and 80 μM) also reduces viral infectivity in Zika virus-infected Vero cells.³

References

1. Liu, T., Guo, Q., Zheng, S., *et al.* Cephalotaxine inhibits the survival of Leukemia cells by activating mitochondrial apoptosis pathway and inhibiting autophagy flow. *Molecules* **26(10)**, 2996 (2021).
2. Romero, M.R., Serrano, M.A., Efferth, T., *et al.* Effect of cantharidin, cephalotaxine and homoharringtonine on "in vitro" models of hepatitis B virus (HBV) and bovine viral diarrhoea virus (BVDV) replication. *Planta Med.* **73(6)**, 552-558 (2007).
3. Lai, Z.-Z., Ho, Y.-J., and Lu, J.-W. Cephalotaxine inhibits Zika infection by impeding viral replication and stability. *Biochem. Biophys. Res. Commun.* **22(4)**, 1052-1058 (2020).

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.

WARRANTY AND LIMITATION OF REMEDY
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