

Product Name: Topotecan hydrochloride

Catalog No.: 4562

Batch No.: 3

CAS Number: 119413-54-6

IUPAC Name: 10-[(Dimethylamino)methyl]-4-ethyl-4,9-dihydroxy-1*H*-pyrano[3',4':6,7]indolizino[1,2-*b*]quinoline-3,14(4*H*,12*H*)-dione hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₃H₂₃N₃O₅.HCl.2½H₂O

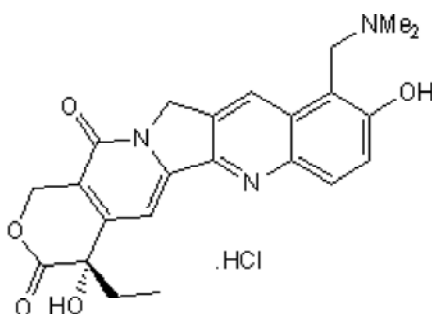
Batch Molecular Weight: 502.95

Physical Appearance: Yellow solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows >98.5% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.93	5.81	8.35
Found	54.74	5.76	8.49

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Topotecan hydrochloride is a DNA topoisomerase I inhibitor; induces rapid apoptotic death in human B-lineage acute lymphoblastic leukemia (ALL) cells. Improves survival in three mouse models of poor prognosis ALL; downregulates B-Myb and MycN expression in neuroblastoma cells. Water-soluble analog of Camptothecin (Cat. No. 1100). Orally bioavailable. Topotecan disrupts the interaction between NHP2L1 and U4 RNA by binding to U4 and inhibits RNA splicing.

Physical and Chemical Properties:

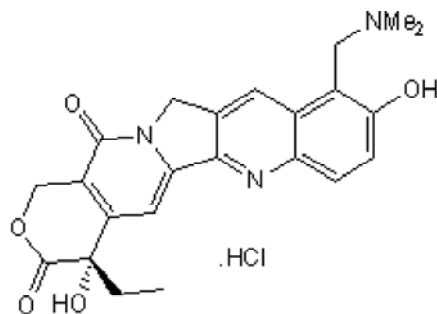
Batch Molecular Formula: C₂₃H₂₃N₃O₅.HCl.2½H₂O

Batch Molecular Weight: 502.95

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Sottile et al (2012) A chemical screen identifies the chemotherapeutic drug topo. as a specific inhibitor of the B-MYB/MYCN axis in neuroblastoma. *Oncotarget*. **3** 535. PMID: 22619121.

Schellens et al (1996) Bioavailability and pharmacokinetics of oral topotecan: a new topoisomerase I inhibitor. *Br.J.Cancer* **73** 1268. PMID: 8630291.

Uckun et al (1995) In vitro and in vivo activity of topo. against human B-lineage acute lymphoblastic leukemia cells. *Blood* **85** 2817. PMID: 7742543.

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 100 mM

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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