

Product Name: Camptothecin

Catalog No.: 1100

Batch No.: 2

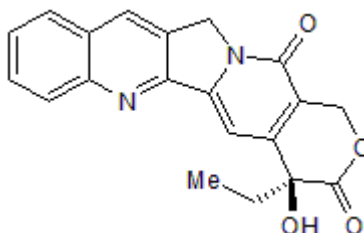
CAS Number: 7689-03-4

EC Number: 444-280-6

IUPAC Name: (S)-4-Ethyl-4-hydroxy-1*H*-pyrano-[3',4':6,7]indolizino[1,2-*b*]quinoline-3,14(4*H*,12*H*)-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₁₆N₂O₄
Batch Molecular Weight: 348.36
Physical Appearance: Beige solid
Solubility: DMSO to 5 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +40.6 (Concentration = .25, Solvent = Chloroform/Methanol (8:2))
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	68.96	4.63	8.04
Found	68.89	4.75	8.12

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

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 USA & CANADA Tel: (800) 343-7475 EUROPE Tel: +44 (0)1235 529449 CHINA Tel: +86 (21) 52380373
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Description:

Cytotoxic plant alkaloid with antitumor properties; prototypic DNA topoisomerase I inhibitor. Induces single strand DNA breaks and protein-DNA crosslinks.

Physical and Chemical Properties:

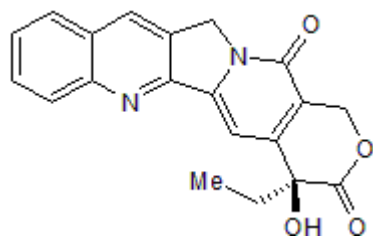
Batch Molecular Formula: C₂₀H₁₆N₂O₄

Batch Molecular Weight: 348.36

Physical Appearance: Beige solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Merck Index **12** 1783.

Hsiang et al (1985) Camptothecin induces protein-linked DNA breaks via mammalian DNA topoisomerase I. *J.Biol.Chem.* **260** 14873. PMID: 2997227.

Liu (1989) DNA topoisomerase poisons as antitumour drugs. *Annu.Rev.Biochem.* **58** 351. PMID: 2549853.

Pantazis et al (1993) Camptothecin derivatives induce regression of human ovarian carcinomas grown in nude mice and distinguish between non-tumorigenic and tumorigenic cells *in vitro*. *Int.J.Cancer* **53** 863. PMID: 8449612.

Storage: Desiccate at +4°C

Solubility & Usage Info:

DMSO to 5 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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