

**Product Name:** Camptothecin

**Catalog No.:** 1100

**Batch No.:** 2

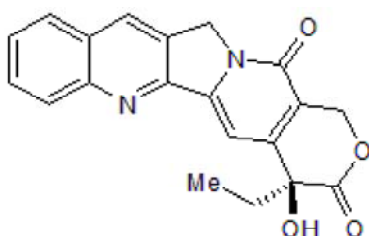
CAS Number: 7689-03-4

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:** C<sub>20</sub>H<sub>16</sub>N<sub>2</sub>O<sub>4</sub>  
**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 98.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = +40.6 (Concentration = .25, Solvent = Chloroform/Methnol (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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**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:**

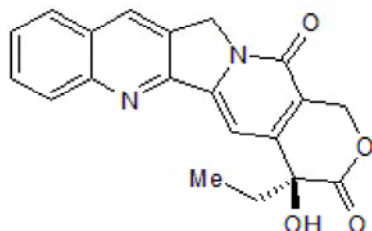
Batch Molecular Formula: C<sub>20</sub>H<sub>16</sub>N<sub>2</sub>O<sub>4</sub>

Batch Molecular Weight: 348.36

Physical Appearance: Beige solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**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.

**References:**

**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.

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

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

Merck Index **12** 1783.

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