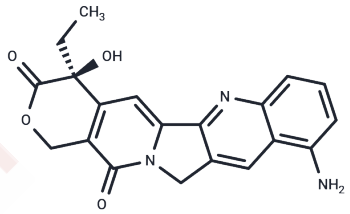
Data Sheet (Cat.No.T3S1957)

TargetMol

9-amino-CPT

Chemical Properties



CAS No. : 91421-43-1

Formula: C20H17N3O4

Molecular Weight: 363.37

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	9-amino-CPT (Aminocamptothecin) is an inhibitor of topoisomerase I with potent anticancer activity.
Targets(IC50)	Topoisomerase
In vitro	9-amino-CPT inhibits PC-3, PC-3M, DU145, and LNCaP cells with IC50 values of 34.1, 10, 6.5, and 8.9 nM, respectively after 96 h of drug exposure [1]. In human bladder (MGH-U1), breast (MCF-7), and colon (HT-29) cancer cell lines, 9-amino-CPT cytotoxicity increases with both higher drug concentrations and longer exposure times. Minimal cell killing is also observed unless 9-amino-CPT concentrations exceed a threshold of 2.7 nM [2].
In vivo	9-amino-CPT inhibits tumor growth at the lowest oral dose (0.35 mg/kg/day), whereas higher oral doses (0.75 and 1 mg/kg/day) and s.c. administration (4 mg/kg/week) causes tumor regression [1]. 9-amino-CPT induces complete remissions in 55 % of SCID mice engrafted with human myeloid leukemia. The oral and intravenous routes are equally effective [3].

Solubility Information

Solubility	DMSO: 3.33 mg/mL (9.16 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.752 mL	13.7601 mL	27.5202 mL
5 mM	0.5504 mL	2.752 mL	5.504 mL
10 mM	0.2752 mL	1.376 mL	2.752 mL
50 mM	0.055 mL	0.2752 mL	0.5504 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

de Souza PL, et al. 9-Aminocamptothecin: a topoisomerase I inhibitor with preclinical activity in prostate cancer. Clin Cancer Res. 1997 Feb;3(2):287-94.

Li ML, et al. Pharmacological determinants of 9-aminocamptothecin cytotoxicity. Clin Cancer Res. 2001 Jan;7(1): 168-74.

Jeha S, et al. Activity of oral and intravenous 9-aminocamptothecin in SCID mice engrafted with human leukemia. Leuk Lymphoma. 1998 Dec;32(1-2):159-64.