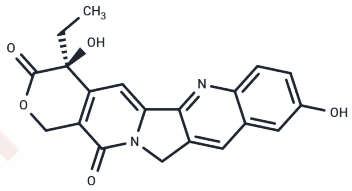
Data Sheet (Cat.No.T2764)

TargetMol

(S)-10-Hydroxycamptothecin

Chemical Properties



CAS No. : 19685-09-7

Formula: C20H16N2O5

Molecular Weight: 364.35

Appearance: no data available

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

Biological Description

Description	(S)-10-Hydroxycamptothecin (10-HCPT) is a DNA topoisomerase I inhibitor used as a clinical therapeutic agent against hepatoma.
Targets(IC50)	Apoptosis,Topoisomerase
In vitro	In the CAM model, 10-Hydroxycamptothecin (25 nM) inhibits angiogenesis in a concentration-dependent manner. In mice carrying Colo 205 xenografts, oral administration of 10-Hydroxycamptothecin (2.5-7.5 mg/kg) every two days significantly suppresses tumor cell growth.
In vivo	(S)-10-Hydroxycamptothecin inhibits cell growth in BT-20 cells (IC50=34.3 nM) and MDA-231 cells (IC50=7.27 nM), demonstrating its efficacy. It also induces the formation of cleavable complexes mediated by human topoisomerase I in pBR322 plasmid DNA (EC50=0.35 μM). Additionally, in human microvascular endothelial cells (HMEC), (S)-10-Hydroxycamptothecin dose-dependently inhibits cell growth (IC50=0.31 μM), significantly hampers HMEC migration (IC50=0.63 μM), and impedes angiogenesis (IC50=0.96 μM).
Cell Research	Cells are exposed to various concentrations of 10-Hydroxycamptothecin for 72 hours. Cell growth is monitored by the standard MTT assay.(Only for Reference)

Solubility Information

Solubility	DMSO: 20 mg/mL (54.89 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7446 mL	13.7231 mL	27.4461 mL
5 mM	0.5489 mL	2.7446 mL	5.4892 mL
10 mM	0.2745 mL	1.3723 mL	2.7446 mL
50 mM	0.0549 mL	0.2745 mL	0.5489 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

Ling YH, et al. Cancer Biochem Biophys, 1990, 11(1), 23-30.
Vladu B, et al. Mol Pharmacol, 2000, 57(2), 243-251.
Xiao D, et al. Life Sci, 2001, 69(14), 1619-1628.
Ping YH, et al. Oncol Rep, 2006, 15(5), 1273-1279.