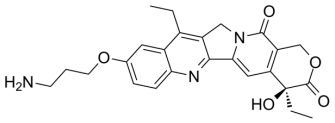
T-2513

Cat. No.:	HY-125930
CAS No.:	288247-87-0
Molecular Formula:	$C_{25}H_{27}N_3O_5$
Molecular Weight:	449.5
Target:	Topoisomerase; DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	T-2513 is a selective topoisomerase I inhibitor. T-2513 binds covalently to and stabilizes the topoisomerase I-DNA complex and inhibits DNA replication and RNA synthesis, ultimately leading to cell death[1].
IC_{50} & Target	Topoisomerase I
In Vitro	SN-38 is the metabolite of T-2513[1]. T-2513 has a broad cytotoxicity against a range of human tumor cell lines[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[2]

Cell Line:	WiDr, HT-29, SK-BR-3, MKN-1, SK-LU-1, LX-1, KB, and HeLaS3 cells
Concentration:	15.1-111.5 ng/mL
Incubation Time:	24 hours
Result:	Exhibited cytotoxicity against a panel of human tumor cell lines with GI_{50}s of 32.1, 97.6, 38.6, 15.6, 111.5, 15.1, 34.0, and 50.9 ng/mL for WiDr, HT-29, SK-BR-3, MKN-1, SK-LU-1, LX-1, KB, and HeLaS3 cells, respectively.

In Vivo

T-2513 (1-100 mg/kg) shows Antitumor Activity against Walker-256 carcinoma[2].

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Animal Model:	Rats bearing Walker-256 carcinoma[2]
Dosage:	1, 10, and 100 mg/kg
Administration:	
Result:	The ED_{50} was 23 mg/kg.

REFERENCES

[1]. Stephan A Veltkamp, et al. Clinical and pharmacologic study of the novel prodrug delimotecan (MEN 4901/T-0128) in patients with solid tumors. Clin Cancer Res. 2008 Nov 15;14(22):7535-44.

[2]. S Okuno, et al. Complete regression of xenografted human carcinomas by camptothecin analogue-carboxymethyl dextran conjugate (T-0128). Cancer Res. 2000 Jun 1;60(11):2988-95.

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