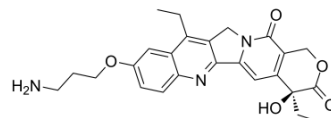


T-2513

Cat. No.:	HY-125930
CAS No.:	288247-87-0
Molecular Formula:	C ₂₅ H ₂₇ N ₃ O 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] .									
IC₅₀ & Target	Topoisomerase I									
In Vitro	<p>SN-38 is the metabolite of T-2513^[1].</p> <p>T-2513 has a broad cytotoxicity against a range of human tumor cell lines^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cytotoxicity Assay^[2]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>WiDr, HT-29, SK-BR-3, MKN-1, SK-LU-1, LX-1, KB, and HeLaS3 cells</td> </tr> <tr> <td>Concentration:</td> <td>15.1-111.5 ng/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours</td> </tr> <tr> <td>Result:</td> <td>Exhibited cytotoxicity against a panel of human tumor cell lines with GI₅₀s 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.</td> </tr> </table>		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.
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In Vivo	<p>T-2513 (1-100 mg/kg) shows Antitumor Activity against Walker-256 carcinoma^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Rats bearing Walker-256 carcinoma^[2]</td> </tr> <tr> <td>Dosage:</td> <td>1, 10, and 100 mg/kg</td> </tr> <tr> <td>Administration:</td> <td></td> </tr> <tr> <td>Result:</td> <td>The ED₅₀ was 23 mg/kg.</td> </tr> </table>		Animal Model:	Rats bearing Walker-256 carcinoma ^[2]	Dosage:	1, 10, and 100 mg/kg	Administration:		Result:	The ED ₅₀ was 23 mg/kg.
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REFERENCES

[1]. Stephan A Veltkamp, et al. Clinical and pharmacologic study of the novel prodrug delimitotecan (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.

Caution: Product has not been fully validated for medical applications. For research use only.

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