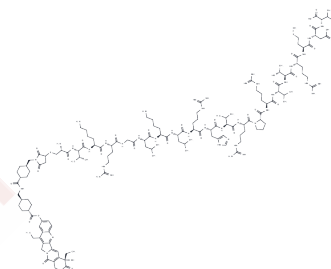


DTS-108

Chemical Properties

CAS No. : 951792-83-9
Formula: C₁₄₅H₂₃₃N₄₃O₃₃S₂
Molecular Weight: 3170.8
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	DTS-108 is a prodrug of SN38 (a topoisomerase I inhibitor). It is a conjugate formed by linking SN38 to a human oligopeptide through an esterase-sensitive crosslinker. DTS-108 exhibits anticancer activity against colorectal cancer, lung cancer, and breast cancer.
Targets(IC50)	Topoisomerase
In vitro	DTS-108 exhibits cytotoxicity against colon cancer cell lines (HCT 116, HT-29, and LS 174T), lung cancer cell line (NCI-H460), and breast cancer cell line (MDA-MB-231) with IC ₅₀ values of 24, 94, 2, 40, and 834 nM, respectively. The compound has a half-life of 400 minutes in human plasma and 290 minutes in dog plasma (2.55 μM, 0-48 h), which is significantly better compared to less than 3 minutes in mouse plasma.
In vivo	At doses of 5 or 10 mg/kg, DTS-108 does not exhibit significant toxicity in dogs, although there is a moderate, non-dose-dependent decrease in white blood cell counts. DTS-108, when administered intravenously at doses ranging from 32 to 95 mg/kg on days 3, 7, and 11, shows dose-dependent antitumor activity in a human tumor xenograft model (HCT116) with a minimum T/C ratio of 10% at 95 mg/kg. Additionally, DTS-108 demonstrates antitumor effects in nude mice implanted with colorectal, lung, and breast cancer cells at 80 mg/kg on days 3, 5, 7, 10, 12, 14, 17, 19, and 21, as well as in rats implanted with colorectal cancer cells at 63 mg/kg on days 14, 18, 21, 25, and 29. In colon cancer mice carrying human HT-29 cells, DTS-108 at 40 mg/kg intravenously shows antitumor activity, which is enhanced when combined with 5-FU (40 mg/kg) or bevacizumab (2 mg/kg).

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.3154 mL	1.5769 mL	3.1538 mL
5 mM	0.0631 mL	0.3154 mL	0.6308 mL
10 mM	0.0315 mL	0.1577 mL	0.3154 mL
50 mM	0.0063 mL	0.0315 mL	0.0631 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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