

BGC0222

Chemical Properties

CAS No. :

Formula: C1241H2276N64O552

Molecular Weight: 26927.36

Keep away from moisture

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	BGC0222 is a novel Irinotecan prodrug. As a PEG-cRGD conjugated derivative of Irinotecan, BGC0222 enables the slow and steady release of Irinotecan. It binds to the α V β 3 target with an IC50 of 4.25 μ M and has an IC50 of 58.7 μ M for α V β 5. BGC0222 can induce angiogenesis and demonstrates significant antitumor activity in various tumors.
Targets(IC50)	Integrin
In vitro	BGC0222 (72 h) demonstrates superior antiproliferative activity against HT29, MIA PaCa-2, and MCF-7 tumor cells compared to Irinotecan and NKTR-102, with IC 50 values of 1.83 μ M, 3.95 μ M, and 0.68 μ M, respectively. Additionally, BGC0222 (40 μ M) exhibits significant angiogenic activity, achieving a vessel length of 1930 mm (CAM angiogenesis assay).
In vivo	BGC0222 demonstrates significant antiproliferative activity in HT-29, MIA PaCa-2, NCI-H446, U-87 MG, and MDA-MB-231 xenograft models in nude mice when administered intravenously at doses of 20-60 mg/kg every four days or once weekly for three cycles, with RTV and T/C values both lower than those of Irinotecan. In Sprague-Dawley rats, BGC0222 at 30-90 mg/kg administered intravenously once weekly for 28 days exhibits improved safety compared to Irinotecan, with a maximum tolerated dose (MTD) of 90 mg/kg, exceeding Irinotecan's MTD of less than 60 mg/kg. Additionally, a single intravenous dose of BGC0222 (20-80 mg/kg) in Sprague-Dawley rats results in a slow and steady release of Irinotecan.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.0371 mL	0.1857 mL	0.3714 mL
5 mM	0.0074 mL	0.0371 mL	0.0743 mL
10 mM	0.0037 mL	0.0186 mL	0.0371 mL
50 mM	0.0007 mL	0.0037 mL	0.0074 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

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