

SB-T-1214

Chemical Properties

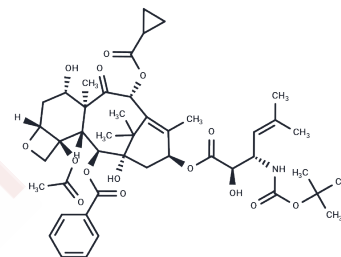
CAS No. : 178250-23-2

Formula: C45H59NO15

Molecular Weight: 853.95

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	SB-T-1214 (SBT) is a taxane-based drug known for its ability to effectively suppress the expression of stem cell-related genes (Oct4, Sox2, and c-Myc) and induce apoptosis in drug-resistant tumorigenic CD133+/CD44+ colon cancer spheroids. In Pgp+ DLD-1 human colon tumor xenograft mouse models, SB-T-1214 successfully inhibits tumor growth. This compound is relevant for anti-tumor research, particularly against drug-resistant tumors such as colon, pancreatic, and renal cancers.
Targets(IC50)	Apoptosis,OCT,c-Myc
In vitro	SB-T-1214, at concentrations ranging from 0.5 to 5000 nM over 72 hours, exhibits potent FR-specific anticancer activity, with IC50 values of 2.82 nM for ID8 cells, 1.89 nM for MX-1 cells, 2.66 nM for L1210-FR cells, and 4.89 nM for WI-38 cells. Additionally, when used at 0.1 to 1 μM over 48 hours, it induces apoptosis in colon cancer cells and spheres enriched in CSCs at 0.1 μM, resulting in the loss of integrity of floating spheres and generating 1.5-3% secondary spheres in HCT116, HT29, and DLD-1 cells. Furthermore, SB-T-1214 at 0.1 μM for 24-24 hours significantly downregulates most stemness genes, including SOX1, ACAN, and COL1A1, in CD133+/CD44+ spheroids of HCT116, HT29, and DLD-1 cells, and inhibits the protein expression of pluripotency markers Oct4, Sox2, and c-Myc.
In vivo	SB-T-1214, administered at 10-40 mg/kg either via intraperitoneal or intravenous injection every three days for three doses (on days 5, 8, and 11), significantly inhibits tumor growth in a Pgp+ DLD-1 human colon cancer xenograft mouse model, demonstrating effective results at a dose of 20 mg/kg.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.171 mL	5.8551 mL	11.7103 mL
5 mM	0.2342 mL	1.171 mL	2.3421 mL
10 mM	0.1171 mL	0.5855 mL	1.171 mL
50 mM	0.0234 mL	0.1171 mL	0.2342 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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