

CAY10744

Chemical Properties

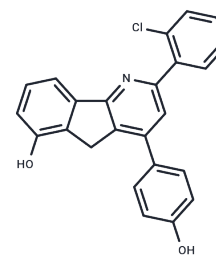
CAS No. : 2375613-31-1

Formula: C₂₄H₁₆ClNO₂

Molecular Weight: 385.84

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	CAY10744 is a topoisomerase II- α poison. ¹ It inhibits topoisomerase II- α by 78.9% when used at a concentration of 20 μ M. CAY10744 is selective for topoisomerase II- α over topoisomerase I providing 100 and 0% inhibition, respectively, at 100 μ M. It inhibits proliferation of HCT15 colon, T47D breast, DU145 prostate, and HeLa cervical cancer cells (IC ₅₀ s = 0.014, 0.00267, 0.072, and 2.46 μ M, respectively). CAY10744 induces apoptosis in T47D cells when used at concentrations of 10 and 30 μ M. CAY10744 (12 mg/kg per day) reduces tumor growth in an MDA-MB-231 orthotopic mouse model of breast cancer.
Targets(IC50)	Others,Topoisomerase

Solubility Information

Solubility	DMF:PBS (pH 7.2) (1:2): 0.3 mg/mL (0.78 mM),Sonication is recommended. Ethanol: 12 mg/mL (31.1 mM),Sonication is recommended. DMF: 20 mg/mL (51.83 mM),Sonication is recommended. DMSO: 5 mg/mL (12.96 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5917 mL	12.9587 mL	25.9175 mL
5 mM	0.5183 mL	2.5917 mL	5.1835 mL
10 mM	0.2592 mL	1.2959 mL	2.5917 mL
50 mM	0.0518 mL	0.2592 mL	0.5183 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.

Reference

Kadayat, T.M., Park, S., Shrestha, A., et al. Discovery and biological evaluations of halogenated 2,4-diphenyl indeno[1,2-b]pyridinol derivatives as potent topoisomerase IIa-targeted chemotherapeutic agents for breast cancer. *J. Med. Chem.* 62, 8194-8234 (2019).

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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