

MC3817

Chemical Properties

CAS No. :

Formula: C33H40Cl3N9O

Molecular Weight: 685.10

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	MC3817 is a selective DNMT inhibitor, with IC50 values of 0.044 μ M for DNMT1 and greater than 10 μ M for DNMT3A/3L. It inhibits P53-dependent cancer cell proliferation, induces apoptosis and DNA damage, and elevates the levels of cleaved Caspase 3, P53, and γ H2AX. MC3817 is applicable in research on non-small cell lung cancer, colon cancer, cervical cancer, triple-negative breast cancer, and histiocytic lymphoma.
Targets(IC50)	Apoptosis,Caspase,DNA Methyltransferase,DNA/RNA Synthesis,MDM-2/p53
In vitro	MC3817 (compound 14) demonstrates anticancer activity against various cell lines, including A549 and H460 (non-small cell lung cancer and lung cancer cells), HCT-116 (colon cancer), HeLa (cervical cancer), MDA-MB-231 (triple-negative breast cancer), and U937 (histiocytoma lymphoma) at concentrations ranging from 0.05 to 100 μ M over a period of 48 hours. At 2 μ M, MC3817 causes cell cycle arrest at the S/G2M phase and induces apoptotic cell death in HCT-116 cells over 24 to 48 hours. Within the range of 0.5 to 5 μ M over 16 to 48 hours, MC3817 triggers DNA damage and activates the p53/ γ H2AX pathway, leading to cell cycle arrest and apoptosis in HCT-116 cells. Additionally, at 2.5 μ M over 48 hours, MC3817 induces apoptosis in HCT-116 P53 WT cells at levels significantly higher than those induced in HCT-116 P53 -/- cells.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4596 mL	7.2982 mL	14.5964 mL
5 mM	0.2919 mL	1.4596 mL	2.9193 mL
10 mM	0.146 mL	0.7298 mL	1.4596 mL
50 mM	0.0292 mL	0.146 mL	0.2919 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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