

Product Data Sheet

Product Name: MC3817 free base

Cat. No.: GC79144

Chemical Properties

Cas. No.

Formula $C_{33}H_{37}N_9O$

M.Wt 575.71

Solubility

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

MC3817 free base is a selective DNMT1 inhibitor. MC3817 free base inhibits DNMT1 and DNMT3A/3L with IC_{50} s of 0.044 μ M and > 10 μ M, respectively. MC3817 free base inhibits P53-dependent cancer cell proliferation, induces apoptosis and DNA damage. MC3817 free base elevates cleaved Caspase 3, P53, and γ H2AX. MC3817 free base can be used in non-small cell lung cancer,

Caution: Product has not been fully validated for medical applications. For research use only.

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colon cancer, cervical cancer, triple-negative breast cancer and histiocytic lymphoma research [1].

In Vitro, MC3817 (compound 14) (0.05-100 μ M, 48 h) free base exhibits antiproliferative activity against A549 and H460 (non-small cell and lung cancer), HCT-116 (colon cancer), HeLa (cervical cancer), MDA-MB-231 (triple-negative breast cancer), and U937 (histiocytic lymphoma) cells^[1]. MC3817 (2 μ M, 24-48 h) free base induces S/G2M phase arrest and triggers apoptotic cell death in HCT-116 cells^[1]. MC3817 (0.5-5 μ M, 16-48 h) free base triggers DNA damage and activates the p53/ γ H2AX pathway, leading to cell-cycle arrest and apoptosis in HCT 116 cells^[1]. MC3817 (2.5 μ M, 48 h) free base induces a much higher level of apoptosis in HCT-116 P53 WT cells compared with HCT-116 P53^{-/-} cells^[1].

References:

[1]. Zwergel C, et al. Quinoline-Based DNA Methyltransferase Inhibitors Featuring Basic Side Chains: Design, Synthesis, and Insight in Biochemical and Anticancer Cell Properties. J Med Chem. 2025;68(22):23886-23909.

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