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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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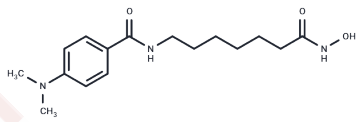
Data Sheet (Cat.No.T2157)

TargetMol

M344

Chemical Properties



CAS No. : 251456-60-7

Formula: C16H25N3O3

Molecular Weight: 307.39

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	M344 (Histone Deacetylase Inhibitor III) is a potent HDAC inhibitor with IC50 of 100 nM and able to induce cell differentiation.
Targets(IC50)	HDAC
Kinase Assay	Enzyme Inhibition : Radioactively labeled chicken core histones are used as the enzyme substrate. The enzyme liberated tritiated acetic acid from the substrate which is quantitated by scintillation counting. IC50 values are results of triple determinations. 50 µL of maize enzyme (at 30 °C) is incubated (30 minutes) with 10 µL of total [3H]acetate-prelabeled chicken reticulocyte histones (1 mg/mL). Reaction is stopped by addition of 36 µL of 1 M HCl/0.4 M acetate and 800 µL of ethyl acetate. After centrifugation (10000 g, 5 minutes) an aliquot of 600 µL of the upper phase is counted for radioactivity in 3 mL of liquid scintillation cocktail. M344 is tested in a starting concentration of 40 µM, and active substances are diluted further.
Cell Research	MEL DS19 cells (murine erythroleukemia cells) are maintained in D-MEM containing 100 units/mL penicillin G sodium and 100 μg/mL streptomycin sulfate supplemented with 10% fetal bovine serum at 37 °C in a 5% CO2 atmosphere. To test M344 for potential to induce cell differentiation, log-phase cells with a population doubling time of 11−13 hours are used. Serial dilutions of M344 are prepared in 24-well plates using 1 mL of D-MEM/well. If M344 are dissolved in DMSO, control wells contains the same amount of solvent (generally 2 μL/mL of medium). Subsequently, the cell suspension is added to the wells. After 72 hours the experiment is evaluated. Cell numbers are counted using a Casy 1 TTC flow cytometer. The proliferation of treated cells is expressed as percent proliferation in comparison with the solvent control. Differentiated MEL cells accumulate hemoglobin. Therefore, the induction of cell differentiation is determined by benzidine staining according to the literature. To 100 μL of cell suspension is added 10 μL of a 0.4% solution of benzidine in 12% acetic acid containing 2% Water2. Within 5 minutes hemoglobin-containing cells stains blue. Benzidine-positive and -negative cells are counted under the microscope in a hemocytometer, and the percentage of positive cells is calculated. M344 is first tested at 10 μM and 50 μM final concentration. According to activity/toxicity profile, a range of concentrations is chosen for a dose−response analysis. (Only for Reference)

Solubility Information

Solubility	Ethanol: 4 mg/mL (13.01 mM), H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 62 mg/mL (201.69 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2532 mL	16.266 mL	32.532 mL
5 mM	0.6506 mL	3.2532 mL	6.5064 mL
10 mM	0.3253 mL	1.6266 mL	3.2532 mL
50 mM	0.0651 mL	0.3253 mL	0.6506 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.

Reference

Jung M, et al. J Med Chem. 1999, 42(22), 4669-4679.
Takai N, et al. Gynecol Oncol. 2006, 101(1), 108-113.