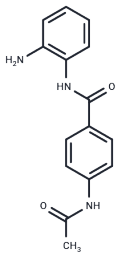
Data Sheet (Cat.No.T1888)

TargetMol

Tacedinaline

Chemical Properties



CAS No. : 112522-64-2

Formula: C15H15N3O2

Molecular Weight: 269.3

Appearance: no data available

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

Biological Description

Description	Tacedinaline (CI994) is a selective class I HDAC inhibitor with potential antineoplastic activity.
Targets(IC50)	Apoptosis,HDAC
In vitro	In models of chemotherapy-resistant pancreatic ductal adenocarcinoma in mice and human prostate tumor, CI-994 consistently demonstrated antitumor activity.
In vivo	CI-994 exhibits antitumor activity, displaying enhanced cytocidal effects in solid tumors. It inhibits cell growth across various cell types, including rat leukemia BCLO cells (IC50=2.5 μM) and LNCaP cells (IC50=7.4 μM). In A-549 and LX-1 cells, CI-994 (<160 mM) increases the number of cells in the G0/G1 phase while decreasing those in the S phase, effectively inhibiting cell growth and inducing apoptosis.
Cell Research	LNCaP cell lines are maintained in RPMI 1640 medium containing 10% fetal bovine serum, 1% penicillin and streptomycin, as the complete culture medium. Cells (2×104) are seeded in 24-well plates and incubated in a 5% CO2 incubator at 37 °C for 1 day. Cultures are treated with CI-994, alone and in combination on day 2 and 4. Cells are washed on day 2 and 4 and media are changed. Mitochondrial metabolism is measured as a marker for cell growth by adding 100 μL/well MTT (5 mg/mL in medium) with 2 hours incubation at 37 °C on Day 6. Crystals formed are dissolved in 500 μL of DMSO. The absorbance is determined using a microplate reader at 560 nm. The absorbance data are converted into cell proliferation percentage. Each assay is performed in triplicate. (Only for Reference)

Solubility Information

Solubility	DMSO: 26.9 mg/mL (99.89 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7133 mL	18.5667 mL	37.1333 mL
5 mM	0.7427 mL	3.7133 mL	7.4267 mL
10 mM	0.3713 mL	1.8567 mL	3.7133 mL
50 mM	0.0743 mL	0.3713 mL	0.7427 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

Moradei OM, et al. J Med Chem. 2007, 50(23), 5543-5546.
Loprevite M, et al. A Oncol Res, 2005, 15(1), 39-48.
Gediya LK, et al. Bioorg Med Chem, 2008, 16(6), 3352-3360.
LoRusso PM, et al. Invest New Drugs, 1996, 14(4), 349-356.
Hubeek I, et al. Oncol Rep, 2008, 19(6), 1517-1523.