

BG45

Chemical Properties

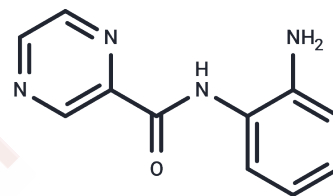
CAS No. : 926259-99-6

Formula: C₁₁H₁₀N₄O

Molecular Weight: 214.22

Appearance: no data available

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



Biological Description

Description	BG45 is an HDAC I type inhibitor with IC ₅₀ of 289 nM, 2.0 μM, 2.2 μM and >20 μM for HDAC3/1/2/6 in cell-free assays, respectively.
Targets(IC ₅₀)	Apoptosis,HDAC
In vitro	BG45 causes significant cell growth inhibition and induces caspase-dependent apoptosis in a series of MM cells. In RPMI8226 cells, BG45 synergistically enhances bortezomib-induced cytotoxicity. [1]
In vivo	In mice bearing MM.1S xenograft of human MM, BG45 (50 mg/kg, i.p.) significantly inhibits MM tumor growth. When in combination with bortezomib, BG45 (50 mg/kg, i.p.) enhances bortezomib-induced cytotoxicity. [1]
Kinase Assay	Kinase assays: Initial rate constants are measured at 21 °C in the presence of 100 mM HEPES (pH 7.5), 0.3 mg/mL poly(Glu-Tyr) peptide substrate, 10 mM MgCl ₂ , 1 mg/mL bovine serum albumin, 5% DMSO, 20 nM MET-KD and various concentrations of ATP and SGX523. Total reaction volumes (20 μL) are quenched with 20 μL Kinase-Glo detection buffer. Luminescence is detected in a plate-reading luminometer and the results are analyzed by nonlinear regression.
Cell Research	The growth inhibitory effects of BG45 in MM cell lines are assessed by measuring 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl tetrasodium bromide (MTT) dye absorbance. To measure proliferation of MM cells, the rate of DNA synthesis is measured by [3H] thymidine uptake.(Only for Reference)

Solubility Information

Solubility	Ethanol: 2 mg/mL (9.33 mM),Heating is recommended. DMSO: 39 mg/mL (182.06 mM),Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.6681 mL	23.3405 mL	46.681 mL
5 mM	0.9336 mL	4.6681 mL	9.3362 mL
10 mM	0.4668 mL	2.334 mL	4.6681 mL
50 mM	0.0934 mL	0.4668 mL	0.9336 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

Minami J, et al. Leukemia. 2014, 28(3), 680-689.

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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