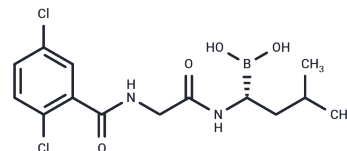


Ixazomib

Chemical Properties

CAS No. : 1072833-77-2
Formula: C₁₄H₁₉BCl₂N₂O₄
Molecular Weight: 361.03
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Ixazomib (MLN2238) , a second generation, boron-containing peptide proteasome inhibitor (PI), inhibits the chymotrypsin-like proteolytic (β5) site of the 20S proteasome (IC ₅₀ /K _i : 3.4/0.93 nM, in cell-free assays), also inhibits the caspase-like (β1) and trypsin-like (β2) proteolytic sites (IC ₅₀ : 31/3500 nM).
Targets(IC ₅₀)	Proteasome,Caspase,Autophagy
Kinase Assay	Kinase assay : Calu-6 cells are cultured in MEM containing 10% fetal bovine serum and 1% penicillin/streptomycin and plated 1 day before the start of the experiment at 1 × 10 ⁴ cells per well in a 384-well plate. Proteasome activity is assessed by monitoring hydrolysis of the chymotrypsin-like substrate Suc-LLVY-aminoluciferin in the presence of luciferase using the Proteasome-Glo assay reagents according to the manufacturer's instructions. Luminescence is measured using a LEADseeker instrument.
Cell Research	Calu-6 cells are cultured in MEM containing 10% FBS and 1% penicillin/streptomycin and plated 1 day before the start of the experiment at 1 × 10 ⁴ cells per well in a 384-well plate. For IC ₅₀ determinations, cells are treated with varying concentrations of Bortezomib or MLN2238 in DMSO (0.5% final, v/v) for 1 hour at 37 °C. For reversibility experiments, cells are treated with either 1 μM Bortezomib or MLN2238 for 30 minutes at 37 °C and then washed thrice in medium to remove the Bortezomib or MLN2238. Cells are incubated for an additional 4 hours at 37 °C, after which the medium is removed and replaced with fresh medium. (Only for Reference)

Solubility Information

Solubility	DMSO: 67 mg/mL (185.6 mM), Ethanol: 9 mg/mL (24.92 mM), 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	2.7699 mL	13.8493 mL	27.6985 mL
5 mM	0.554 mL	2.7699 mL	5.5397 mL
10 mM	0.277 mL	1.3849 mL	2.7699 mL
50 mM	0.0554 mL	0.277 mL	0.554 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

Chen X, Chen Y, Ou Y, et al. Bortezomib inhibits NLRP3 inflammasome activation and NF- κ B pathway to reduce psoriatic inflammation. *Biochemical Pharmacology*. 2022, 206: 115326.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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