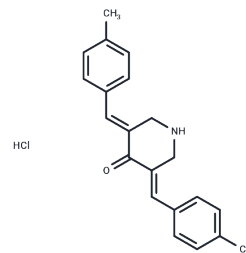


NSC632839

Chemical Properties

CAS No. : 157654-67-6
 Formula: C₂₁H₂₂ClNO
 Molecular Weight: 339.86
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	NSC-632839 (Ubiquitin Isopeptidase Inhibitor II) is a nonselective isopeptidase inhibitor, which inhibits USP2 (EC ₅₀ : 45±4 μM), USP7 (EC ₅₀ : 37±1 μM), and SENP2 (EC ₅₀ : 9.8±1.8 μM).
Targets(IC ₅₀)	DUB
In vitro	NSC 632839 selectively inhibits ubiquitin isopeptidases, evidenced by its mid-micromolar inhibition of z-LRGG-AMC cleavage in crude lysates, without affecting PLA2 activity at concentrations of 1.2-150 μM.
Kinase Assay	In a 96-well-plate, 40 nM USP2, 40 nM USP7, or 20 nM SENP2 is preincubated with a concentration range of NSC 632839 (NCI/NIH developmental therapeutics program) or control for 30 min before supplementation with an equal volume of 60 nM Ub-PLA2/40 μM NBD C6-HPC (USP2 or 7) or 20 nM SUMO3-PLA2/40 μM NBD C6-HPC (SENP2). Relative activity of the enzymes is determined by measuring the RFU values at single time points within the initial linear range (USP, 50 min; USP7, 50 min; and SENP2, 30 min). The RFU values within the initial linear range are normalized such that isopeptidase+vehicle=0% inhibition and isopeptidase+NEM=100% inhibition. The EC ₅₀ values are determined as above. The inhibitory activity of the test compound against the reporter enzyme PLA2 is performed as described above except there is no preincubation step and the data are normalized such that free PLA2+vehicle=0% inhibition and free PLA2+EDTA=100% inhibition. PLA2 activity is determined 8 min after the addition of the reagents[1].

Solubility Information

Solubility	DMSO: 7.5 mg/mL (22.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	0.5% CMC-Na: 2 mg/mL (5.88 mM),Suspension. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9424 mL	14.7119 mL	29.4239 mL
5 mM	0.5885 mL	2.9424 mL	5.8848 mL
10 mM	0.2942 mL	1.4712 mL	2.9424 mL
50 mM	0.0588 mL	0.2942 mL	0.5885 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Nicholson B, et al. Characterization of ubiquitin and ubiquitin-like-protein isopeptidase activities. Protein Sci. 2008 Jun;17(6):1035-43.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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