Product Data Sheet

Product Name: NMS-859
Cat. No.: GC32874

Chemical Properties

Cas. No.	1449236-96-7		
SMILES	O=S1(C2=CC=CC=C2C(NC3=CC(NC(CCl)=O)=CC=C3)=N1)=O		
Formula	$C_{15}H_{12}ClN_3O_3S$	M.Wt	349.79
Solubility	DMSO : ≥ 42 mg/mL (120.07 mM)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	NMS-859		

Protocol

Cell experiment: Cells are seeded at 1,600 cells per well in 384-well white clear-bottom plates. Twenty-four hours after seeding, cells are treated with NMS-859 (eight dilution points, in duplicate) and incubated for an additional 72 h at 37°C under a 5% CO2 atmosphere. Cells are then lysed, and the ATP content in each well is determined using a thermostable firefly luciferase-based assay as a measure of cell viability. IC50 values are calculated using the percentage of growth of treated cells versus the untreated control[1].

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References:

[1]. Magnaghi P, et al. Covalent and allosteric inhibitors of the ATPase VCP/p97 induce cancer cell death. Nat Chem Biol. 2013 Sep;9(9):548-56.

Background

NMS-859 is a potent, covalent VCP (p97) inhibitor, with IC50s of 0.37 and 0.36 μM for wild-type VCP in the presence of 60 μM and 1 mM ATP in cells, respectively.

NMS-859 is a potent VCP inhibitor, with IC50s of 0.37 and 0.36 μM for wild-type VCP in the presence of 60 μM and 1 mM ATP in cells, respectively. NMS-859 shows very weak inhibitory activity against VCPC522T. NMS-859 also suppresses the proliferation of cells, with IC50s of 3.5 μM and 3.0 μM in HCT116 and HeLa cell lines, respectively[1].

[1]. Magnaghi P, et al. Covalent and allosteric inhibitors of the ATPase VCP/p97 induce cancer cell death. Nat Chem Biol. 2013 Sep;9(9):548-56.

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