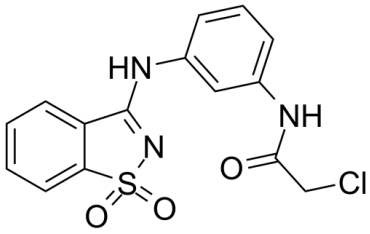
Data Sheet

Product Name:	NMS-859
Cat. No.:	CS-3929
CAS No.:	1449236-96-7
Molecular Formula:	C15H12ClN3O3S
Molecular Weight:	349.79
Target:	p97
Pathway:	Cell Cycle/DNA Damage
Solubility:	DMSO : ≥ 42 mg/mL (120.07 mM)



BIOLOGICAL ACTIVITY:

NMS-859 is a potent, covalent **VCP (p97)** inhibitor, with **IC_{50}**s of 0.37 and 0.36 μM for wild-type VCP in the presence of 60 μM and 1 mM ATP in cells, respectively. IC50 & Target: IC50: 360 nM (Cellular p97, 1 mM ATP), 370 nM (Cellular p97, 60 μM ATP)[1] **In Vitro:** NMS-859 is a potent VCP inhibitor, with IC_{50}s 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 VCP^{C522T}. NMS-859 also suppresses the proliferation of cells, with IC_{50}s of 3.5 μM and 3.0 μM in HCT116 and HeLa cell lines, respectively[1].

PROTOCOL (Extracted from published papers and Only for reference)

Cell Assay: NMS-859 is dissolved in DMSO[1].[1]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% CO_2 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. IC_{50} values are calculated using the percentage of growth of treated cells versus the untreated control[1].

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.

CAIndexNames:

Acetamide, 2-chloro-N-[3-[(1,1-dioxido-1,2-benzisothiazol-3-yl)amino]phenyl]-

SMILES:

O=S1(C2=CC=CC=C2C(NC3=CC(NC(CCl)=O)=CC=C3)=N1)=O

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA