Lalistat 1

Cat. No.: HY-116815

CAS No.: 501104-16-1

Molecular Formula: $C_{12}H_{18}N_4O_3S$

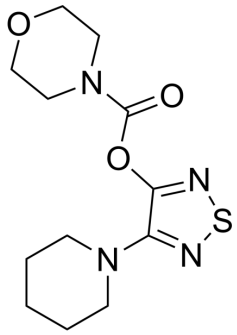
Molecular Weight: 298.36

Target: Bacterial; Beta-lactamase

Pathway: Anti-infection

Storage: -20°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 20 mg/mL (67.03 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.3517 mL	16.7583 mL	33.5166 mL
	5 mM	0.6703 mL	3.3517 mL	6.7033 mL
	10 mM	0.3352 mL	1.6758 mL	3.3517 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Lalistat 1 is a potent, selective, and competitive inhibitor of lysosomal acid lipase (LAL) and against purified human LAL (phLAL) with an IC_{50} of 68 nM. Lalistat 1 is a inhibitor of immunoglobulin A1 protease (IgA1P) proteases for H. influenzae, has less effects on other serine hydrolases (trypsin or β-lactamase, etc.). Lalistat 1 can be used for the research of niemann-pick type C (NPC) disease[2].

IC_{50} & Target

IC50: 68 nM (human LAL)[1]

In Vitro

Lalistat 1 (0-100 μM) shows activity against different non-typeable H. influenzae (NTHi) IgAP variants from clinical isolates in Elisa assay. It shows a dose-dependent inhibition of IgA1P B1 and B2, but at higher inhibitor concentrations, consistent with the higher expression levels of these variants. Nearly complete inhibition of IgA1P B1 and B2 is observed at 50 μM, with complete inhibition at 100 μM[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Anton I Rosenbaum , et al. Thiadiazole carbamates: potent inhibitors of lysosomal acid lipase and potential Niemann-Pick type C disease therapeutics. J Med Chem . 2010 Jul 22;53(14):5281-9.

[2]. Livia Shehaj, et al. Small-Molecule Inhibitors of Haemophilus influenzae IgA1 Protease.ACS Infect Dis. 2019 Jul 12;5(7):1129-1138.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

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