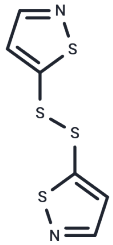
Data Sheet (Cat.No.T23095)

TargetMol

NU 9056

Chemical Properties



CAS No. : 1450644-28-6

Formula: C6H4N2S4

Molecular Weight: 232.37

Storage: Store at low temperature
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	NU 9056 is an effective and selective inhibitor of KAT5 histone acetyltransferase with an IC50 of 2 μM. NU 9056 blocks DNA damage response and inhibits protein acetylation in prostate cancer cell lines.
Targets(IC50)	Apoptosis,Histone Acetyltransferase
In vitro	NU 9056 shows IC50s of 60, 36, and >100 μM for KAT5, p300, pCAF and GCN5, respectively. In LNCaP cells, NU 9056 (17 μM, 24 μM, 36 μM) activates both caspase 3 and caspase 9 in a time- and concentration-dependent manner thereby inducing apoptosis. NU 9056 (2.5 μM, 5 μM, 10 μM, 20 μM, 40 μM) decreases the levels of acetylated histone H4K16, H3K14 and H4K8. NU 9056 causes a reduction of androgen receptor, prostate specific antigen, p53 and p21 protein levels[2].
In vivo	In mice, NU 9056 (2 μg/g) inhibits Tip60 and reduces H2A.Z binding at the the +1 nucleosome of Arc and Syp and the -1 nucleosome of Arc. NU 9056 increases the acetylation at the +1 nucleosome of Gria4 and the -1 nucleosome of Fos, Tacstd2, and Gria4[1].

Solubility Information

Solubility	DMSO: 112.5 mg/mL (484.14 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (14.2 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3035 mL	21.5174 mL	43.0348 mL
5 mM	0.8607 mL	4.3035 mL	8.607 mL
10 mM	0.4303 mL	2.1517 mL	4.3035 mL
50 mM	0.0861 mL	0.4303 mL	0.8607 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

Klotilda Narkaj, et al. Blocking H2A.Z Incorporation via Tip60 Inhibition Promotes Systems Consolidation of Fear Memory in Mice. eNeuro. 2018 Nov 8;5(5):ENEURO.0378-18.2018.
Chen G, Zhu X, Li J, et al. Celastrol inhibits lung cancer growth by triggering histone acetylation and acting synergically with HDAC inhibitors. Pharmacological Research. 2022: 106487
Kelly Coffey, et al. Characterisation of a Tip60 specific inhibitor, NU9056, in prostate cancer. PLoS One. 2012;7(10): e45539.