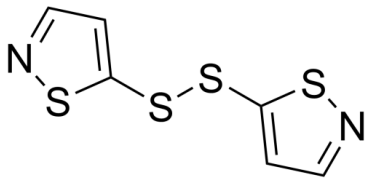
Data Sheet

Product Name:	NU9056
Cat. No.:	CS-0032979
CAS No.:	1450644-28-6
Molecular Formula:	$C_6H_4N_2S_4$
Molecular Weight:	232.37
Target:	Apoptosis; Histone Acetyltransferase
Pathway:	Apoptosis; Epigenetics
Solubility:	DMSO : 125 mg/mL (537.94 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

NU9056 is a potent and selective **Tip60 (KAT5) histone acetyltransferase** inhibitor with an [1][2] of 2 μM. NU9056 shows >16-fold selectivity for **Tip60** over PCAF, p300 and GCN5. NU9056 induces **apoptosis** of prostate cancer cells[1]. ***In Vitro:*** NU9056 (17-36 μM; 24-96 hours) results in both caspase 3 and caspase 9 activation in a time- and concentration-dependent manner[1].
NU9056 (2.5-40 μM; 2 hours) treatment results in decreased levels of acetylated histone H4K16, H3K14 and H4K8, targets for Tip60-mediated acetylation[1].
NU9056 treatment also decreases androgen receptor, prostate specific antigen, p53 and p21 protein levels[1].
In Vivo: The mice are injected with Nu9056 (2 μg/g) and the hippocampus is collected 1 h later. Tip60 inhibition reduces H2A.Z binding at the -1 nucleosome of Arc, and the +1 nucleosome of Arc and Syp. Additionally, Nu9056 increases acetylation at the -1 nucleosome of Fos, Tacstd2, and Gria4, and the +1 nucleosome of Gria4[2].

References:

[1]. Kelly Coffey, et al. Characterisation of a Tip60 specific inhibitor, NU9056, in prostate cancer. PLoS One. 2012;7(10):e45539.

[2]. 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.

CAIndexNames:

Isothiazole, 5,5′-dithiobis-

SMILES:

C1(SSC2=CC=NS2)=CC=NS1

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