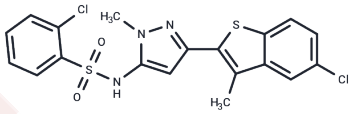
Data Sheet (Cat.No.T40661)

TargetMol

ML-60218

Chemical Properties



CAS No. : 577784-91-9

Formula: C19H15Cl2N3O2S2

Molecular Weight: 452.38

Storage: 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	ML-60218 is an inhibitor of broad-spectrum RNA pol III with IC50s of 32 and 27 μM for Saccharomyces cerevisiae and human. ML-60218 disrupts already assembled viroplasms and hampers the formation of new viroplasms.
Targets(IC50)	DNA/RNA Synthesis
In vitro	ML-60218 reverses SAHA-stimulated tRNA expression in PANC-1 and BxPC-3 cells. ML-60218 enhances the ability of HDAC inhibitors to induce apoptosis and cell cycle arrest. The combination of SAHA and ML-60218 produces enhanced suppression of proliferation in human pancreatic adenocarcinoma by impairing cell cycle progression and inducing apoptosis[1]. ML-60218 interferes with the formation of higher-order structures of VP6, the protein forming the DLP outer layer, without compromising its ability to trimerize. ML-60218-mediated (10 μM) viroplasm disruption causes NSP5 dephosphorylation. Electron microscopy of ML-60218-treated DLPs shows dose-dependent structural damage[2].

Solubility Information

Solubility	DMSO: 252.5 mg/mL (558.16 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 (7.29 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	2.2105 mL	11.0527 mL	22.1053 mL
5 mM	0.4421 mL	2.2105 mL	4.4211 mL
10 mM	0.2211 mL	1.1053 mL	2.2105 mL
50 mM	0.0442 mL	0.2211 mL	0.4421 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

Yee NS, et al. Targeting developmental regulators of zebrafish exocrine pancreas as a therapeutic approach in human pancreatic cancer. Biol Open. 2012;1(4):295-307.
Wei W, Zhang S, Han H, et al.NAT10-mediated ac4C tRNA modification promotes EGFR mRNA translation and gefitinib resistance in cancer.Cell Reports.2023, 42(7).
Eichwald C, et al. Identification of a Small Molecule That Compromises the Structural Integrity of Viroplasms and Rotavirus Double-Layered Particles. J Virol. 2018;92(3):e01943-17. Published 2018 Jan 17.
Wu L, et al. Novel small-molecule inhibitors of RNA polymerase III. Eukaryot Cell. 2003;2(2):256-264.