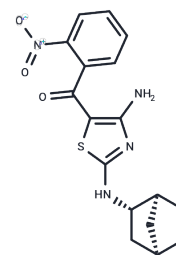


MC180295

Chemical Properties

CAS No. : 2237942-08-2
Formula: C₁₇H₁₈N₄O₃S
Molecular Weight: 358.41
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	MC180295 ((rel)-MC180295) is a novel, potent, and highly selective CDK9 inhibitor with an IC ₅₀ of 5 nM, demonstrating over 22-fold selectivity compared to other CDKs.
Targets(IC ₅₀)	CDK
In vitro	MC180295 is a potent, selective CDK9-Cyclin T1 inhibitor with an IC ₅₀ of 5 nM, displaying at least 22-fold selectivity over other CDKs, including CDK1-Cyclin B (IC ₅₀ , 138 nM), CDK2-Cyclin A (IC ₅₀ , 233 nM), CDK2-Cyclin E (IC ₅₀ , 367 nM), CDK3-Cyclin E (IC ₅₀ , 399 nM), CDK4-Cyclin D (IC ₅₀ , 112 nM), CDK5-P35 (IC ₅₀ , 159 nM), and CDK5-P25 (IC ₅₀ , 186 nM). MC180295 (0.1 μM) demonstrates broad anti-cancer activity in vitro.
In vivo	MC180295 (20 mg/kg, i.p., qod) demonstrates significant anti-tumor activity in mice with SW48 cells without inhibiting human T cell growth in vivo.

Solubility Information

Solubility	DMSO: 150 mg/mL (418.52 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7901 mL	13.9505 mL	27.901 mL
5 mM	0.558 mL	2.7901 mL	5.5802 mL
10 mM	0.279 mL	1.3951 mL	2.7901 mL
50 mM	0.0558 mL	0.279 mL	0.558 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

Zhang H, et al. Targeting CDK9 Reactivates Epigenetically Silenced Genes in Cancer. Cell. 2018 Nov 15;175(5):1244-1258.e26.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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