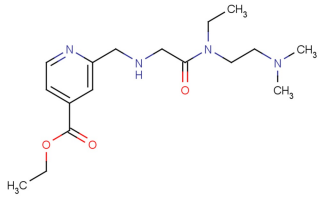
Data Sheet (Cat.No.T15648)

KDM5-C70

Chemical Properties



CAS No.:	1596348-32-1
Formula:	C17H28N4O3
Molecular Weight:	336.43
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	KDM5-C70 is an ethyl ester derivative of KDM5-C49. KDM5-C70 is an effective, cell-permeable, and pan-KDM5 histone demethylase inhibitor. KDM5-C70 has an antiproliferative effect in myeloma cells, inducing a genome-wide elevation of H3K4me3 levels.
Targets(IC_{50})	KDM5 histone demethylase: None
In vitro	KDM5-C70 (50 μM; 7 days; MM.1S myeloma cells) treatment reduces the level of phosphorylation of retinoblastoma protein (Rb) while leaving the total level of phosphorylated Rb (pRb) unchanged, indicating impairment of cell cycle progression. KDM5-C70 (1 nM-10 μM; 7 days; MM.1S myeloma cells) treatment displays antiproliferative effects after 7 days of treatment at elevated concentrations (estimated 50% reduction of viability/proliferation for KDM5-C70 at ~20 μM). Chromatin immunoprecipitation followed by next-generation sequencing displays an enhanced H3K4me3 level around transcription start sites with KDM5-C70 but little change with GSK467A at 50 μM inhibitor concentrations [1].

Solubility Information

Solubility	DMSO: 250 mg/mL (743.10 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.972 mL	14.862 mL	29.724 mL
5 mM	0.594 mL	2.972 mL	5.945 mL
10 mM	0.297 mL	1.486 mL	2.972 mL
50 mM	0.059 mL	0.297 mL	0.594 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Johansson C, et al. Structural analysis of human KDM5B guides histone demethylase inhibitor development. Nat Chem Biol. 2016 Jul;12(7):539-45.
2. Blair LP, et al. KDM5 lysine demethylases are involved in maintenance of 3'UTR length. Sci Adv. 2016 Nov 18;2(11):e1501662.
3. Xia L, Zheng Z, Liu J, et al. Targeting triple-negative breast cancer with combination therapy of EGFR CAR-T cells and CDK7 inhibition[J]. Cancer Immunology Research. 2021

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