

GSK-J1 lithium salt

Chemical Properties

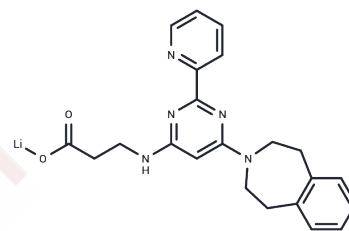
CAS No. : 2309668-29-7

Formula: C₂₂H₂₂LiN₅O₂

Molecular Weight: 395.38

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	GSK-J1 lithium salt is an effective inhibitor of H3K27me3/me2-demethylases JMJD3/KDM6B and UTX/KDM6A, with an IC ₅₀ of 60 nM for KDM6B.
Targets(IC ₅₀)	Histone Demethylase
In vitro	GSK-J1 selectively targets and binds to the endogenous JMJD3 within the KDM6 subfamily of H3K27 demethylases, effectively inhibiting TNF- α production in human primary macrophages through an H3K27-dependent process [1]. Additionally, it demonstrates an 8.5-fold higher inhibitory potency against KDM5C's demethylase activity compared to KDM5B when assessed at 1 mM α -ketoglutarate, with respective IC ₅₀ values of 11 μ M and 94 μ M [3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5292 mL	12.6461 mL	25.2921 mL
5 mM	0.5058 mL	2.5292 mL	5.0584 mL
10 mM	0.2529 mL	1.2646 mL	2.5292 mL
50 mM	0.0506 mL	0.2529 mL	0.5058 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

Kruidenier L, et al. A selective jumonji H3K27 demethylase inhibitor modulates the proinflammatory macrophage response. Nature. 2012 Aug 16;488(7411):404-8.

Heinemann B, et al. Inhibition of demethylases by GSK-J1/J4. Nature. 2014 Oct 2;514(7520):E1-2.

Horton JR, et al. Characterization of a Linked Jumonji Domain of the KDM5/JARID1 Family of Histone H3 Lysine 4 Demethylases. J Biol Chem. 2016 Feb 5;291(6):2631-46.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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