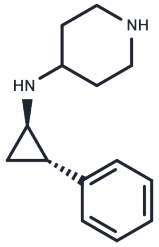
Data Sheet (Cat.No.T82254)

TargetMol

GSK-LSD1

Chemical Properties



CAS No. : 1431368-48-7

Formula: C14H20N2

Molecular Weight: 216.32

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-LSD1 is a selective LSD1 inhibitor with potential anticancer activity that attenuates the expression of CTGF/CCN2, MMP13, LOXL4, and waveform proteins in cancer cells. GSK-LSD1 regulates the cell cycle, induces apoptosis, and can be used to study breast cancer.
Targets(IC50)	Apoptosis,Histone Demethylase
In vitro	**METHODS**: LDH activity was measured at 24 and 48 h in HSC-3 cells treated with different concentrations of GSK-LSD1 (0.1, 1, 10 μM). To assess the cytotoxicity and any nonspecific effects of GSK-LSD1, a lactate dehydrogenase (LDH) assay was performed. **RESULTS**: The 0.1 μM and 1 μM doses did not affect LDH release. However, the 10 μM dose increased LDH activity at 48 h. GSK-LSD1 inhibited phosphorylated AKT, -ERK1/2, and -NF-κB-p65 in HSC-3 cells. [3]
In vivo	**METHODS**: A PDX model was established. GSK-LSD1 (10 mg/kg) was injected into mice with xenografts grown for 16 weeks every two weeks, and the growth of tumors and the expression of related proteins in the mice were observed. **RESULTS**: GSK-LSD1 inhibited further xenograft growth; GSK-LSD1 inhibited the expression of CCN2/CTGF, MMP13, LOXL4 and vimentin in tumor xenografts derived from patients with tonsillar squamous cell carcinoma, while the expression of the tumor suppressor E-cadherin was increased; in addition, GSK-LSD1 inhibited the expression of CTGF in PDXs. [3]

Solubility Information

Solubility	DMSO: 13.78 mg/mL (63.7 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.6228 mL	23.1139 mL	46.2278 mL
5 mM	0.9246 mL	4.6228 mL	9.2456 mL
10 mM	0.4623 mL	2.3114 mL	4.6228 mL
50 mM	0.0925 mL	0.4623 mL	0.9246 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

Ramms B, et al. Systemic LSD1 Inhibition Prevents Aberrant Remodeling of Metabolism in Obesity. Diabetes. 2022 Dec 1;71(12):2513-2529.
Liu Y, Zhang S, Zou G, et al.Generation and characterization of giant panda induced pluripotent stem cells.Science Advances.2024, 10(38): eadn7724.
Hong KS, et al. GSK-LSD1, an LSD1 inhibitor, quashes SARS-CoV-2-triggered cytokine release syndrome in-vitro. Signal Transduct Target Ther. 2020 Nov 17;5(1):267.
Alsaqer SF, et al. Inhibition of LSD1 epigenetically attenuates oral cancer growth and metastasis. Oncotarget. 2017 Jul 27;8(43):73372-73386.

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