GSK-LSD1 dihydrochloride

Cat. No.: HY-100546A

CAS No.: 2102933-95-7

Molecular Formula: $C_{14}H_{22}Cl_2N_2$

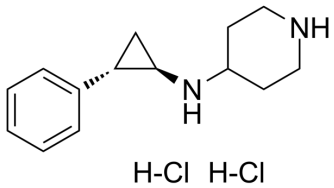
Molecular Weight: 289.24

Target: Histone Demethylase; Monoamine Oxidase

Pathway: Epigenetics; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 62.5 mg/mL (216.08 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.4573 mL	17.2867 mL	34.5734 mL
5 mM	0.6915 mL	3.4573 mL	6.9147 mL
10 mM	0.3457 mL	1.7287 mL	3.4573 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (7.19 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (7.19 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (7.19 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GSK-LSD1 dihydrochloride is a potent, selective and irreversible lysine specific demethylase 1 (LSD1) inhibitor with an IC_{50} of 16 nM.

IC_{50} & Target

IC50: 16 nM (LSD1)[1]

In Vitro

GSK-LSD1 shows more than 1000 fold selectivity over other closely related FAD utilizing enzymes including LSD2, and monoamine oxidases MAO-A, MAO-B[1]. GSK-LSD1 can inhibit KDM1A/LSD1 enzyme activity. GSK-LSD1 induces the formation of LC3-II in U2OS cells. The electronic microscopy shows the formation of autophagosome with GSK-LSD1

treatment. GSK-LSD1 potently inhibits proliferation of varies cancer cell lines by changing gene expression patterns[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Signal Transduct Target Ther. 2022 Apr 13;7(1):102.
- Adv Mater. 2021 May;33(18):e2100949.
- Nat Commun. 2021 Dec 8;12(1):7142.
- Cytokine. 2022 Jan 5;151:155789.
- Patent. US20180263995A1.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Purich D. The Inhibitor Index A Desk Reference on Enzyme Inhibitors, Receptor Antagonists, Drugs, Toxins, Poisons, Biologics, and Therapeutic Leads. ISBN 9781138739215

[2]. Wang Z, et al. Inhibition of H3K4 demethylation induces autophagy in cancer cell lines. Biochim Biophys Acta. 2017 Aug 8;1864(12):2428-2437.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA