

LSD1-IN-46

## Chemical Properties

CAS No. :	2982716-97-0
Formula:	C <sub>22</sub> H <sub>29</sub> N <sub>3</sub> O
Molecular Weight:	351.49
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	LSD1-IN-46 is a potent and orally active inhibitor of lysine-specific demethylase 1 (LSD1) with an IC <sub>50</sub> value of 0.082 $\mu$ M. It effectively blocks $\beta$ -catenin-mediated transcriptional programs, thereby inhibiting the stemness of gastric cancer cells. LSD1-IN-46 exhibits significant antitumor activity and can be utilized in gastric cancer research.
Targets(IC <sub>50</sub> )	Histone Demethylase
In vitro	LSD1-IN-46 (Compound X-1) at concentrations of 0.5-2 $\mu$ M over 5 days increases H3K4me <sub>1/2</sub> levels in MKN-45 cells; this effect is absent in LSD1 knockout cells. Additionally, LSD1-IN-46 inhibits the self-renewal, sphere formation, and colony-forming abilities of MKN-45 cells, while downregulating the expression of $\beta$ -catenin, c-Myc, and stem cell markers OCT4, NANOG, and SOX2.
In vivo	LSD1-IN-46 (Compound X-1), administered orally by gavage at a dosage of 10-20 mg/kg once daily for 11 consecutive days, results in a reduction of both the size and weight of tumors in BALB/c nude mice that have been subcutaneously injected with MFC gastric cancer cells.

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.845 mL	14.2252 mL	28.4503 mL
5 mM	0.569 mL	2.845 mL	5.6901 mL
10 mM	0.2845 mL	1.4225 mL	2.845 mL
50 mM	0.0569 mL	0.2845 mL	0.569 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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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