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## Product Data Sheet

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Product Name: GSK-LSD1 2HCl

Cat. No.: GC15368

### Chemical Properties

Cas. No. 1431368-48-7

Chemical Name N-((1R,2S)-2-phenylcyclopropyl)piperidin-4-amine

SMILES C1(N[C@@H]2C[C@H]2C3=CC=CC=C3)CCNCC1Formula  $C_{14}H_{22}Cl_2N_2$  M.Wt 289.24Solubility  $\geq 11.55\text{mg/mL}$  in DMSO Storage Store at  $-20^{\circ}\text{C}$ 

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}\text{C}$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}\text{C}$  for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure 

### Background

GSK-LSD1 2HCl is a selective inhibitor of LSD1 with  $IC_{50}$  value of 16 nM [1].

Lysine (K)-specific demethylase 1A (LSD1) is a flavin-dependent histone demethylase that demethylates mono- and di-methylated lysines and plays an important role in oocyte growth, embryogenesis and tissue-specific differentiation. LSD1 plays a role in acute myeloid leukemia (AML).

GSK-LSD1 2HCl irreversibly inhibited LSD1 with  $IC_{50}$  value of 16 nM and is > 1000 fold selective over LSD2, MAO-A and MAO-B, which were related to FAD utilizing enzymes. In cancer cell lines, GSK-LSD1 2HCl changed gene expression with average  $EC_{50}$  value < 5 nM and inhibited cells growth with average  $EC_{50}$  value < 5 nM. GSK-LSD1 2HCl (10  $\mu\text{M}$ ) inhibited human recombinant dopamine transporter, 5-HT1A and 5-HT transporter by 39%, 49% and 74%, respectively. And no activity against other 55 recombinant receptors (GPCR, transporters, ion channels). GSK-LSD1 2HCl can be used as a chemical probe and a part of the SGC epigenetics [1].

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Reference:

[1]. Structural Genomics Consortium.

<http://www.thesgc.org/chemical-probes/LSD1>.

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