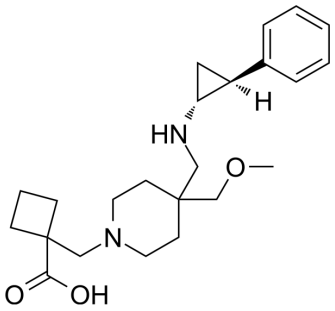
INCB059872

Cat. No.:	HY-141677
CAS No.:	1802909-49-4
Molecular Formula:	$C_{23}H_{34}N_2O_3$
Molecular Weight:	386.53
Target:	Histone Demethylase
Pathway:	Epigenetics
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 200 mg/mL (517.42 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5871 mL	12.9356 mL	25.8712 mL
	5 mM	0.5174 mL	2.5871 mL	5.1742 mL
	10 mM	0.2587 mL	1.2936 mL	2.5871 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: ≥ 5 mg/mL (12.94 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 5 mg/mL (12.94 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

INCB059872 is a potent, orally active, selective and irreversible Lysine-Specific Demethylase 1 (LSD1) inhibitor. INCB059872 can be used for the research of myeloid leukemia[1].

IC_{50} & Target

KDM1/LSD1

In Vitro

INCB059872 (25 nM; 48 hours; 293T cells) increases enhancer activity and gene expression[1].
INCB059872 (25 nM; 24 hours; THP-1 cells) makes THP-1 show a growth defect within one cell doubling time or approximately 3 days. INCB059872 (THP-1 cells) regulates PRO-seq analysis identifies genes and enhancers[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	293T cells
Concentration:	250 nM
Incubation Time:	48 hours
Result:	Increased enhancer activity and gene expression.

In Vivo

INCB059872 (10 mg/kg; p.o.; 0, 4, or 6 days; C57BL/6J mice) makes single-cell RNA-seq revealing changes in bone marrow progenitor populations[1].

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

Animal Model:	Mice[1]
Dosage:	10 mg/kg
Administration:	P.o.; 0, 4, or 6 days
Result:	Single-cell RNA-seq revealed changes in bone marrow progenitor populations.

REFERENCES

[1]. Johnston G, et al. Nascent transcript and single-cell RNA-seq analysis defines the mechanism of action of the LSD1 inhibitor INCB059872 in myeloid leukemia. Gene. 2020;752:144758.

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

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