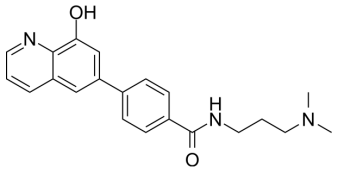
ML324

Cat. No.:	HY-12725
CAS No.:	1222800-79-4
Molecular Formula:	$C_{21}H_{23}N_3O_2$
Molecular Weight:	349.43
Target:	Histone Demethylase; HSV; CMV
Pathway:	Epigenetics; Anti-infection
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 31.25 mg/mL (89.43 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8618 mL	14.3090 mL	28.6180 mL
	5 mM	0.5724 mL	2.8618 mL	5.7236 mL
	10 mM	0.2862 mL	1.4309 mL	2.8618 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: ≥ 2.5 mg/mL (7.15 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ML324 is a potent JMJD2 demethylase inhibitor with antiviral activity. ML324 also exhibits inhibition for the histone demethylase KDM4B, with an IC_{50} of 4.9 μM. ML324 has potent anti-viral activity against both herpes simplex virus (HSV) and human cytomegalovirus (hCMV) infection via inhibition viral IE gene expression[1][2].

IC_{50} & Target

KDM4

In Vitro

ML324 produces a significant reduction in Aa-LPS-induced osteoclastogenesis in osteoclast progenitors[1].

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

CUSTOMER VALIDATION

- Acta Pharmacol Sin. 2021 Apr 13.
- Oncogene. 2021 Apr;40(15):2711-2724.
- PLoS Pathog. 2020 Mar 24;16(3):e1008429.
- Int J Mol Sci. 2022, 23(14), 7586.
- Patent. US20180263995A1.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Rai G, et al. Discovery of ML324, a JMJD2 demethylase inhibitor with demonstrated antiviral activity.

[2]. Joy E. Kirkpatrick, et al. Inhibition of the histone demethylase KDM4B leads to activation of KDM1A, attenuates bacterial-induced pro-inflammatory cytokine release, and reduces osteoclastogenesis. Epigenetics. 2018; 13(5): 557–572.

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