Product Data Sheet

KDM4D-IN-1

Cat. No.: HY-101928 CAS No.: 2098902-68-0 Molecular Formula: $C_{11}H_{7}N_{5}O$ Molecular Weight: 225.21

Target: Histone Demethylase

Pathway: **Epigenetics**

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: 7.14 mg/mL (31.70 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	4.4403 mL	22.2015 mL	44.4030 mL
	5 mM	0.8881 mL	4.4403 mL	8.8806 mL
	10 mM	0.4440 mL	2.2201 mL	4.4403 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: ≥ 0.71 mg/mL (3.15 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- β -CD in saline) Solubility: ≥ 0.71 mg/mL (3.15 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	KDM4D-IN-1 is a new histone lysine demethylase 4D (KDM4D) inhibitor with an IC $_{50}$ value of 0.41 \pm 0.03 μ M.	
IC ₅₀ & Target	IC50:0.41 \pm 0.03 μ M (KDM4D) ^[1]	
In Vitro	KDM4D-IN-1 (Compound 10r) is the most potent one with an IC ₅₀ value of 0.41±0.03 μM against KDM4D. KDM4D-IN-1 displays almost no activity against KDM2B, KDM3B, and KDM5A (IC ₅₀ >10 μM), indicating that KDM4D-IN-1 has a good selectivity for KDM4D against other selected KDMs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

CUSTOMER VALIDATION

• Cell Death Discov. 2021 Oct 11;7(1):284.

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REFERENCES

[1]. Fang Z, et al. Discovery of pyrazolo[1,5-a]pyrimidine-3-carbonitrile derivatives as a new class of histone lysine demethylase 4D (KDM4D) inhibitors. Bioorg Med Chem Lett. 2017 Jul 15;27(14):3201-3204.

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

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