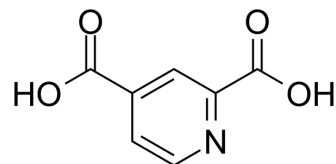


2,4-PDCA

Cat. No.:	HY-W017132		
CAS No.:	499-80-9		
Molecular Formula:	C ₇ H ₅ NO ₄		
Molecular Weight:	167.12		
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 : 100 mg/mL (598.37 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
	1 mM	5.9837 mL	29.9186 mL	59.8372 mL	
5 mM	1.1967 mL	5.9837 mL	11.9674 mL		
10 mM	0.5984 mL	2.9919 mL	5.9837 mL		

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (14.96 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (14.96 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (14.96 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

2,4-PDCA (2,4 pyridine dicarboxylic acid) is a broad-spectrum inhibitor of 2OG oxygenase, including JmjC domain-containing family of histone demethylases (JHDMs). 2,4-PDCA is a target chemical in the field of bio-based plastics^{[1][2][3]}.

REFERENCES

[1]. Brewitz L, et al. Fluorinated derivatives of pyridine-2,4-dicarboxylate are potent inhibitors of human 2-oxoglutarate dependent oxygenases. J Fluor Chem. 2021

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[2]. Gómez-Álvarez H, et al. Bioconversion of lignin-derived aromatics into the building block pyridine 2,4-dicarboxylic acid by engineering recombinant *Pseudomonas putida* strains. *Bioresour Technol.* 2022 Feb;346:126638.

[3]. Brewitz L, et al. Fluorinated derivatives of pyridine-2,4-dicarboxylate are potent inhibitors of human 2-oxoglutarate dependent oxygenases. *J Fluor Chem.* 2021 Jul;247:109804.

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

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