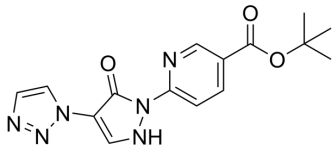
IOX4

Cat. No.:	HY-120110
CAS No.:	1154097-71-8
Molecular Formula:	$C_{15}H_{16}N_6O_3$
Molecular Weight:	328.33
Target:	HIF/HIF Prolyl-Hydroxylase
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 1 year -20°C 6 months



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (152.29 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0457 mL	15.2286 mL	30.4572 mL
	5 mM	0.6091 mL	3.0457 mL	6.0914 mL
	10 mM	0.3046 mL	1.5229 mL	3.0457 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 (7.61 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.34 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.34 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

IOX4 is a selective HIF prolyl-hydroxylase 2 (PHD2) inhibitor with an IC_{50} value of 1.6 nM, induces HIFα in cells and in wildtype mice with marked induction in the brain tissue. IOX4 competes with and displaces 2-oxoglutarate (2OG) at the active site of PHD2[1].

IC_{50} & Target

IC50: 1.6 nM (PHD2)[1]

In Vitro

IOX4 (1-100 μM; 5 hours) determines the EC_{50}s for HIF1α induction are 114 μM, 86 μM and 49.5 μM in MCF-7, Hep3B and

U2OS, respectively[1].

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

CUSTOMER VALIDATION

- Dev Comp Immunol. March 2023, 104598.
- Drug Test Anal. 2022 Feb 23.
- Drug Test Anal. 2021 Oct 5.
- bioRxiv. 2023 Jun 9.

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REFERENCES

[1]. Chan MC, et al. Potent and Selective Triazole-Based Inhibitors of the Hypoxia-Inducible Factor Prolyl-Hydroxylases with Activity in the Murine Brain. PLoS One. 2015 Jul 6;10(7):e0132004.

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