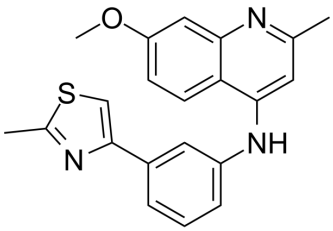
HIF-1α-IN-2

Cat. No.:	HY-115903
CAS No.:	2762315-06-8
Molecular Formula:	$C_{21}H_{19}N_3OS$
Molecular Weight:	361.46
Target:	HIF/HIF Prolyl-Hydroxylase
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (69.16 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7666 mL	13.8328 mL	27.6656 mL
	5 mM	0.5533 mL	2.7666 mL	5.5331 mL
	10 mM	0.2767 mL	1.3833 mL	2.7666 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 (6.92 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.92 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.92 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

HIF-1α-IN-2 is an effective HIF-1α inhibitor with anticancer potencies (IC_{50}s of 28 nM and 15 nM in MDA-MB-231 and MiaPaCa-2 cells, respectively). HIF-1α-IN-2 suppresses HIF-1α expression by blocking transcription and protein translation[1].

IC_{50} & Target

IC_{50}: 28 nM (HIF-1α) in MDA-MB-231, 15 nM (HIF-1α) in MiaPaCa-2[1]

In Vitro

HIF-1α-IN-2 (compound 7f) (5 μM; 72h) suppresses the viability of MDA-MB-231 and MiaPaCa-2 cells with IC_{50}s of 28 nM and 15 nM, respectively[1].
HIF-1α-IN-2 (0-1 μM; 72h) suppresses the expression of HIF-1α and VEGF with dose-dependent effect[1].

HIF-1α-IN-2 (0.25, 0.5, and 1 μM; 16-24h) can significantly inhibit the migration of MDA-MD-231 cells by 56% (0.25 μM), 83% (0.5 μM), and 85% (1 μM), respectively, and also noted in MiaPaCa-2 cells, which demonstrates the unique anti-migration effect of HIF-1α-IN-2[1].

HIF-1α-IN-2 (0-1 μM; 72h) suppresses HIF-1α mRNA levels in MDA-MB-231 cells under hypoxia[1].

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

Cell Viability Assay

Cell Line:	MDA-MB-231 cells, MiaPaCa-2 cells[1]
Concentration:	5 μM
Incubation Time:	72 hours
Result:	Suppressed the viability of these two cell lines with IC_{50} of 28 nM and 15 nM in MDA-MB-231 and MiaPaCa-2 cells, respectively.

Cell Viability Assay

Cell Line:	MDA-MB-231 cells, MiaPaCa-2 cells[1]
Concentration:	5 μM
Incubation Time:	72 hours
Result:	Suppressed the viability of these two cell lines with IC_{50} of 28 nM and 15 nM in MDA-MB-231 and MiaPaCa-2 cells, respectively.

REFERENCES

[1]. Wu YC, et al. Synthesis and evaluation of biarylquinoline derivatives as novel HIF-1α inhibitors. Bioorg Chem. 2022;121:105681.

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