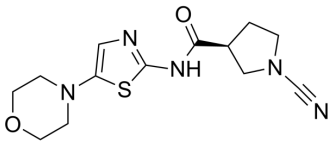
6RK73

Cat. No.:	HY-133118
CAS No.:	1895050-66-4
Molecular Formula:	$C_{13}H_{17}N_5O_2S$
Molecular Weight:	307.37
Target:	Deubiquitinase
Pathway:	Cell Cycle/DNA Damage
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 : 125 mg/mL (406.68 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2534 mL	16.2670 mL	32.5341 mL
	5 mM	0.6507 mL	3.2534 mL	6.5068 mL
	10 mM	0.3253 mL	1.6267 mL	3.2534 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: ≥ 2.08 mg/mL (6.77 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.77 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.77 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

6RK73 is a covalent irreversible and specific UCHL1 inhibitor with an IC_{50} of 0.23 μM. 6RK73 shows almost no inhibition of UCHL3 (IC_{50}=236 μM). 6RK73 specifically inhibit UCHL1 activity in breast cancer[1].

IC_{50} & Target

IC50: 0.23 μM (UCHL1), 236 μM (UCHL3)[1]

In Vitro

6RK73 (5 μM; 1-3 hours) treatment displays strong inhibition of the TGFβ-induced pSMAD2 and pSMAD3, and a decrease of TβRI and total SMAD protein levels in MDA-MB-436 cells[1].

6RK73(5 μM; 24-48 hours) results migration significantly slower than the DMSO control group in MDA-MB-436 cells[1].

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

Cell Viability Assay[1]

Cell Line:	MDA-MB-436 cells
Concentration:	5 μM
Incubation Time:	24, 48 hours
Result:	Migrated significantly slower than the DMSO control group

Western Blot Analysis[1]

Cell Line:	MDA-MB-436 cells
Concentration:	5 μM
Incubation Time:	1, 2, 3 hours
Result:	Displayed strong inhibition of the TGFβ-induced pSMAD2 and pSMAD3, and a decrease of T βRI and total SMAD protein levels.

In Vivo

6RK73 displays a potent inhibition of breast cancer extravasation in zebrafish[1].

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

CUSTOMER VALIDATION

- Clin Transl Med. 2022 Apr;12(4):e797.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Liu S, et al. Deubiquitinase activity profiling identifies UCHL1 as a candidate oncoprotein that promotes TGFβ-induced breast cancer metastasis. Clin Cancer Res. 2019 Dec 19. pii: clincanres.1373.2019.

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