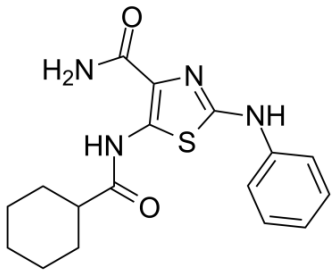
UNC3230

Cat. No.:	HY-110150
CAS No.:	1031602-63-7
Molecular Formula:	$C_{17}H_{20}N_4O_2S$
Molecular Weight:	344.43
Target:	Others
Pathway:	Others
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 : 125 mg/mL (362.92 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.9033 mL	14.5167 mL	29.0335 mL
5 mM	0.5807 mL	2.9033 mL	5.8067 mL
10 mM	0.2903 mL	1.4517 mL	2.9033 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.04 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

UNC3230 is a potent, selective and ATP-competitive PIP5K1C inhibitor with an IC_{50} of ~41 nM. UNC3230 also inhibits PIP4K2C and does not inhibit any of the other lipid kinases that regulate phosphoinositide levels. UNC3230 has antinociceptive and anticancer effects[1].

IC_{50} & Target

IC50: ~41 nM (Phosphatidylinositol 4-phosphate 5 kinase type 1C (PIP5K1C))[1]

In Vitro

Membrane PIP2 levels are significantly reduced by ~45% in dorsal root ganglia (DRG) neurons treated with 100 nM UNC3230 (~2-fold above the IC50) relative to vehicle controls. UNC3230 significantly reduces lysophosphatidic acid (LPA)-evoked calcium signaling in cultured DRG neurons relative to vehicle[1].

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

In Vivo

UNC3230 (2 nmol) significantly increases noxious heat-evoked paw withdrawal latency for two hours after intrathecal

injection in wild-type mice, indicating an antinociceptive effect[1].
UNC3230 (2 nmol; intrathecal injection) is administered then one hour later co-injected 1 nmol LPA with UNC3230 (2 nmol, intrathecal injection). UNC3230 significantly blunts thermal hyperalgesia and mechanical allodynia compared to vehicle[1].
UNC3230 (2 nmol; intrathecal injection) significantly blunts thermal hyperalgesia and mechanical allodynia in the complete Freund's adjuvant (CFA)-inflamed hindpaw (relative to vehicle control) but does not affect thermal or mechanical sensitivity in the control (non-inflamed) hindpaw over a multiday time course[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Wright BD, et al. The lipid kinase PIP5K1C regulates pain signaling and sensitization. Neuron. 2014 May 21;82(4):836-47.

[2]. Peng W, et al. Type Iγ phosphatidylinositol phosphate kinase promotes tumor growth by facilitating Warburg effect in colorectal cancer. EBioMedicine. 2019 Jun;44:375-386.

[3]. Wright BD, et al. Development of a High-Throughput Screening Assay to Identify Inhibitors of the Lipid Kinase PIP5K1C. J Biomol Screen. 2015 Jun;20(5):655-62.

India Contact:
Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com