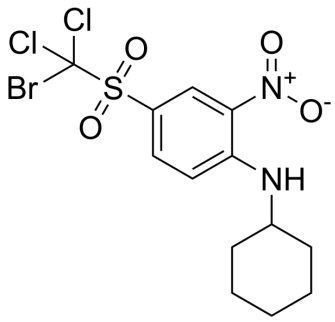
WNK1-IN-1

Cat. No.:	HY-151545
CAS No.:	324022-39-1
Molecular Formula:	$C_{13}H_{15}BrCl_2N_2O_4S$
Molecular Weight:	446.14
Target:	Ser/Thr Protease
Pathway:	Metabolic Enzyme/Protease
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 (224.14 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2414 mL	11.2072 mL	22.4145 mL
	5 mM	0.4483 mL	2.2414 mL	4.4829 mL
	10 mM	0.2241 mL	1.1207 mL	2.2414 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 (5.60 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (5.60 mM); Clear solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2.5 mg/mL (5.60 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

WNK1-IN-1 is a selective inhibitor of WNK1 with an IC_{50} value of 1.6 μM. WNK1-IN-1 inhibits OSR1 phosphorylation with an IC_{50} value of 4.3 μM. WNK1-IN-1 can be used for the research of blood pressure regulation and cancer[1].

IC_{50} & Target

IC50: 1.6 μM (WNK1), 4.3 μM (OSR1 phosphorylation)[1]

In Vitro

WNK1-IN-1 (0-1000 μM; 30 min) shows high potency to WNK1 with an IC_{50} value of 1.6 μM[1].
WNK1-IN-1 (0.2-12.5 μM; 24 h) inhibits endogenous OSR1 phosphorylation with an IC_{50} value of 4.3 μM in MDAMB231 breast-

cancer cells[1].

WNK1-IN-1 (0-100 mM) is 10-fold more potent to WNK1 than WNK3 in Kinase-Glo assay[1].

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

REFERENCES

[1]. Rodriguez M, et al. Synthesis and Structural Characterization of Novel Trihalo-sulfone Inhibitors of WNK1. ACS Med Chem Lett. 2022 Sep 23;13(10):1678-1684.

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