PNU112455A hydrochloride

Cat. No.: HY-112468

CAS No.: 21886-12-4

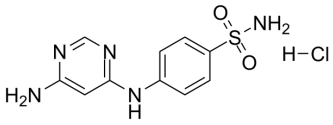
Molecular Formula: $C_{10}H_{12}ClN_5O_2S$

Molecular Weight: 301.75

Target: CDK

Pathway: Cell Cycle/DNA Damage

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (414.25 mM; Need ultrasonic)
H_2O : 20 mg/mL (66.28 mM; Need ultrasonic)

Preparing Stock Solutions

Concentration \ Mass (Solvent)	1 mg	5 mg	10 mg
1 mM	3.3140 mL	16.5700 mL	33.1400 mL
5 mM	0.6628 mL	3.3140 mL	6.6280 mL
10 mM	0.3314 mL	1.6570 mL	3.3140 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 (6.89 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.89 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.89 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

PNU112455A hydrochloride is an ATP-competitive CDK2 and CDK5 inhibitor. PNU112455A hydrochloride binds to the ATP site of CDK2 and CDK5 with K_ms of 3.6 and 3.2 μM, respectively[1].

IC_{50} & Target

CDK2	CDK5
3.6 μM (Km)	3.2 μM (Km)

REFERENCES

[1]. Clare PM, et al. The cyclin-dependent kinases cdk2 and cdk5 act by a random, anticooperative kinetic mechanism. J Biol Chem. 2001 Dec 21;276(51):48292-9.

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