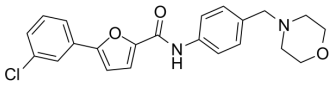
CID 2011756

Cat. No.:	HY-13454
CAS No.:	638156-11-3
Molecular Formula:	$C_{22}H_{21}ClN_2O_3$
Molecular Weight:	396.87
Target:	PKD
Pathway:	Apoptosis

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 : 20 mg/mL (50.39 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.5197 mL	12.5986 mL	25.1972 mL
5 mM	0.5039 mL	2.5197 mL	5.0394 mL
10 mM	0.2520 mL	1.2599 mL	2.5197 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 mg/mL (5.04 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2 mg/mL (5.04 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CID 2011756 is an ATP competitive PKD inhibitor, with an IC_{50} of 3.2 μM for PKD1 in cell free assay, and also shows cellular pan-PKD inhibitory activity against PKD2 and PKD3 (IC_{50}, 0.6 and 0.7 μM, respectively). CID 2011756 also has antitumor activity.

IC_{50} & Target

IC50: 3.2 μM (PKD1), 0.6 μM (Cellular PKD2), 0.7 μM (Cellular PKD3)[1]

In Vitro

CID 2011756 is an ATP-competitive PKD1 inhibitor, with an IC_{50} of 3.2 μM. CID 2011756 decreases the phosphorylation of endogenous PKD1 Ser^{916} in LNCaP cancer cells with an EC_{50} of 10±0.7 μM. CID 2011756 also has cellular pan-PKD inhibitory effects, with IC_{50}s of 0.6±0.1 μM and 0.7±0.2 μM for PKD2 and PKD3, respectively[1].

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

REFERENCES

[1]. Sharlow ER, et al. Discovery of diverse small molecule chemotypes with cell-based PKD1 inhibitory activity. PLoS One. 2011;6(10):e25134.

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