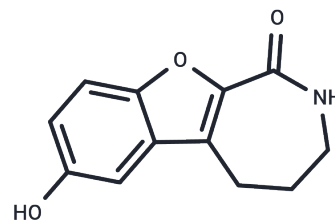


CID755673

Chemical Properties

CAS No. : 521937-07-5
Formula: C₁₂H₁₁NO₃
Molecular Weight: 217.22
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	CID755673 is an effective and specific cell-active inhibitor for PKD (IC ₅₀ : 182 nM); exhibits selective PKD1 inhibition when compared with PLK1, AKT, CAMKII α , CAK, and PKC isoforms.
Targets(IC ₅₀)	Serine/threonine kinase
In vitro	In an acute pancreatitis model in rats, CID755673 significantly ameliorates the severity of necrosis and pancreatitis through its inhibitory action on PKD/PKD1.
In vivo	In HeLa cells, CID755673 significantly blocks the PMA-induced nuclear export of HDAC5 and also inhibits protein transport mediated by PKD. Furthermore, CID755673 directly inhibits the activity of PKD1 in LNCaP prostate cancer cells. This compound effectively prevents the migration and invasion of prostate cancer cells, as well as inhibiting tumor cell proliferation, and altering cell cycle distribution.
Kinase Assay	In Vitro Radiometric PKD Kinase Assay: The radiometric kinase assay is carried out by coincubating 0.5 μ Ci of [γ - ³² P]ATP, 20 μ M ATP, 50 ng of purified recombinant human PKD (PKD1, PKD2, and PKD3) or CAMKII α proteins, and 2.5 μ g of Syntide-2 in 50 μ l of kinase buffer that contains 50 mM Tris-HCl, pH 7.5, 4 mM MgCl ₂ , 10 mM β -mercaptoethanol. The reaction is carried out under conditions that the initial rate is within the linear kinetic range. The filter papers are then washed three times in 0.5% phosphoric acid, air-dried, and counted using a Beckman LS6500 multipurpose scintillation counter.
Cell Research	Cell proliferation was determined by counting the number of viable cells upon trypan blue staining. Cell proliferation is measured by CellTiter-Glo Luminescent Cell Viability Assay according to the manufacturer's instructions.(Only for Reference)

Solubility Information

Solubility	DMSO: 21.7 mg/mL (100 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.6036 mL	23.0181 mL	46.0363 mL
5 mM	0.9207 mL	4.6036 mL	9.2073 mL
10 mM	0.4604 mL	2.3018 mL	4.6036 mL
50 mM	0.0921 mL	0.4604 mL	0.9207 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Sharlow ER, et al. J Biol Chem. 2008, 283(48), 33516-33526.

Yuan J, et al. Front Physiol. 2012, 3, 60.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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