Sovesudil hydrochloride

Cat. No.: HY-109191A

CAS No.: 2984963-50-8

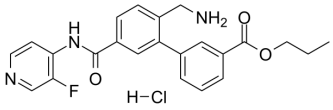
Molecular Formula: $C_{23}H_{23}ClFN_3O_3$

Molecular Weight: 443.9

Target: ROCK

Pathway: Cell Cycle/DNA Damage; Cytoskeleton; Stem Cell/Wnt; TGF-beta/Smad

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 : 62.5 mg/mL (140.80 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2528 mL	11.2638 mL	22.5276 mL
	5 mM	0.4506 mL	2.2528 mL	4.5055 mL
	10 mM	0.2253 mL	1.1264 mL	2.2528 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (4.69 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sovesudil (PHP-201) hydrochloride is a potent, ATP-competitive, locally acting Rho kinase (ROCK) inhibitor with IC_{50}s of 3.7 and 2.3 nM for ROCK-I and ROCK-II, respectively. Sovesudil hydrochloride lowers intraocular pressure (IOP) without inducing hyperemia[1][2].

IC_{50} & Target

ROCK-I	ROCK-II
3.7 nM (IC_{50})	2.3 nM (IC_{50})

In Vitro

Sovesudil (PHP-201) (1 μM; 60 min) hydrochloride is able to induce altered cellular behavior of human trabecular meshwork (HTM) cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Sovesudil (0.1%, 0.3%, and 0.5%; male New Zealand White rabbits) hydrochloride effectively reduces Intraocular Pressure (IOP) in ocular normotensive and acute hypertensive rabbits without causing distinct hyperemia[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Van de Velde S, et al. AMA0076, a novel, locally acting Rho kinase inhibitor, potently lowers intraocular pressure in New Zealand white rabbits with minimal hyperemia. Invest Ophthalmol Vis Sci. 2014;55(2):1006-1016. Published 2014 Feb 18.

[2]. Ha A, et al. Sovesudil (locally acting rho kinase inhibitor) for the treatment of normal-tension glaucoma: the randomized phase II study [published online ahead of print, 2021 Jul 28]. Acta Ophthalmol. 2021;10.1111/aos.14949.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA