Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Ripasudil

Catalog No: tcsc3401

Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
887375-67-9

Formula:
$C_{15}H_{23}ClFN_3O_4S$

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

Target:
ROCK;ROCK;ROCK

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
K-115

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Observed Molecular Weight:
395.88

Product Description

Ripasudil (K-115) is a specific inhibitor of **ROCK**, with **IC_{50}**s of 19 and 51 nM for **ROCK2** and **ROCK1**, respectively.

IC50 & Target: IC50: 19 nM (ROCK2), 51 nM (ROCK1)[1]

In Vitro: Ripasudil (K-115) is a potent inhibitor of ROCK, with IC_{50}s of 19 and 51 nM for ROCK2 and ROCK1, respectively. Ripasudil also shows less potent inhibitory activities against CaMKIIα, PKACα and PKC, with IC_{50}s of 370 nM, 2.1 μM and 27 μM, respectively[1]. Ripasudil (K-115; 1, 10 μM) induces cytoskeletal changes, including retraction and cell rounding and reduced actin bundles of cultured trabecular meshwork (TM) cells. Ripasudil (5 μM) sifnificantly reduces transendothelial electrical resistance (TEER), and increases FITC-dextran permeability in Schlemm's canal endothelial (SCE) cell monolayers[2].

In Vivo: Ripasudil (K-115) reduces intraocular pressure (IOP) in a concentration-dependent manner at concentrations between 0.1% and 0.4% in monkey eyes and 0.0625% to 0.5% in rabbit eyes, respectively[1]. Ripasudil (K-115; 1 mg/kg, p.o. daily) shows a neuroprotective effect on retinal ganglion cells (RGCs) after nerve crush (NC). Ripasudil also inhibits the oxidative stress induced by axonal injury in mice. Ripasudil suppresses the time-dependent production of ROS in RGCs after NC injury[3].