

Ripasudil free base

Catalog No: tcsc3402



Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

223645-67-8

Formula:

$C_{15}H_{18}FN_3O_2S$

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 (free base)

Observed Molecular Weight:

323.39

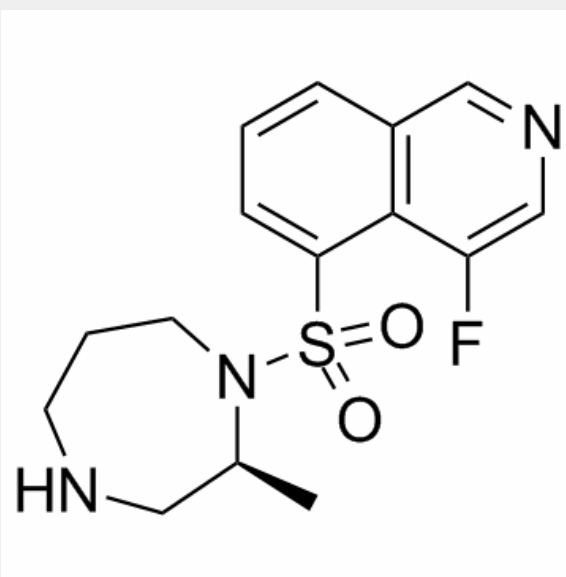
Product Description

Ripasudil free base (K-115 free base) is a specific inhibitor of **ROCK**, with **IC₅₀**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 IC₅₀s of 19 and 51 nM for ROCK2 and ROCK1, respectively. Ripasudil also shows less potent inhibitory activities against CaMKIIα, PKACα and PKC, with IC₅₀s 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) significantly 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].



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