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

Y-33075

Catalog No: tcsc0097

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:
199433-58-4

Formula:
$C_{16}H_{16}N_4O$

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

Target:
ROCK;ROCK;ROCK

Purity / Grade:
>98%

Solubility:
H2O :

Alternative Names:
Y 39983

Observed Molecular Weight:
280.32

Product Description

Y-33075 is a selective **ROCK** inhibitor derived from Y-27632, and is more potent than Y-27632, with an **IC_{50}** of 3.6 nM.

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IC50 & Target: IC50: 3.6 nM (ROCK), 420 nM (PKC), 810 nM (CaMKII)[1]

In Vitro: Y-33075 (Y-39983) is a potent ROCK inhibitor, with an IC_{50} of 3.6 nM. Y-33075 also inhibits PKC and CaMKII more potently than Y-27632, and the IC_{50}s of Y-27632 and Y-33075 for PKC are 9.0 μM and 0.42 μM, respectively, whereas the IC_{50}s of Y-27632 and Y-33075 for CaMKII are 26 μM and 0.81 μM, respectively. The IC_{50}s of Y-27632 and Y-33075 for PKC is 82 and 117 times those for ROCK, respectively, whereas the IC_{50}s of Y-27632 and Y-33075 for CaMKII is 236 and 225 times those for ROCK, respectively[1]. Y-33075 (Y-39983, 10 μM) extends neurites in the retinal ganglion cells (RGCs) compared with those in RGCs treated without Y-39983 [2]. Y-33075 (Y-39983, 1 μM) inhibits the contraction of rabbit ciliary artery segments evoked by histamine in Ca^{2+}-free solutions. Y-33075 (10 μM) shows no effect on the $[Ca^{2+}]i$ increase with the high-potassium (high-K) solution[3].

In Vivo: In rabbits, Y-39983 (≥0.01%) significantly lowers intraocular pressure (IOP) at 2 hours after topical administration. In monkeys, Y-39983 (0.05%)-treated eyes show significant reduction of IOP between 2 and 7 hours after topical administration[1]. Y-39983 (100 μM) increases the regenerating axons of retinal ganglion cells (RGCs) in the eyes of the rats[2].