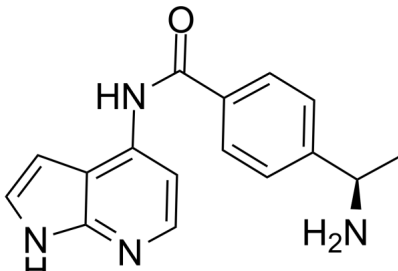


Certificate of Analysis

Catalog Number	BP14296
Product Name	Y-33075

Physical and Chemical Properties

Synonyms	Y 39983
CAS No.	199433-58-4
Chemical Formula	C ₁₆ H ₁₆ N ₄ O
Molecular Weight	280.331
Solubility	DMSO: 50 mg/mL (178.37 mM), Need ultrasonic and warming
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

Product Information

Description	Y-33075 is a selective inhibitor of ROCK derived from Y-27632, and is more potent than Y-27632, with an IC ₅₀ of 3.6 nM.
Targets&IC ₅₀	PKC:420 nM, ROCK:3.6 nM, CaMKII:810 nM
In vitro	Y-33075 (Y-39983) is a potent inhibitor of ROCK(IC ₅₀ of 3.6 nM). Y-33075 also inhibits PKC and CaMKII more potently than Y-27632(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. Y-33075 (Y-39983, 10 μM) extends neurites in the retinal ganglion cells (RGCs) compared with those in RGCs treated without Y-39983. Y-33075 (Y-39983, 1 μM) inhibits the contraction of rabbit ciliary artery segments evoked by histamine in Ca ²⁺ -free solutions.
In vivo	Y-39983 (≥0.01%) significantly lowers intraocular pressure (IOP) at 2 hours after topical administration in rabbits. Y-39983 (0.05%)-treated eyes show significant reduction of IOP between 2 and 7 hours after topical administration in monkeys. Y-39983 (100 μM) increases the regenerating axons of retinal ganglion cells (RGCs) in the eyes of the rats.

Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

Purdue Bioscience Inc.

750 50th St, Brooklyn, NY 11220, USA

<http://www.purduebio.com>

1-877.618.7311

info@purduebio.com

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Purdue Bioscience Inc.