

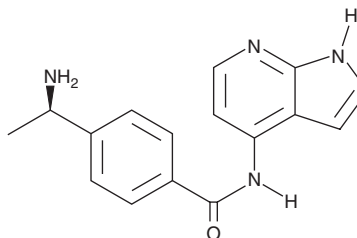
# PRODUCT INFORMATION



**Y-33075**

Item No. 35108

**CAS Registry No.:** 199433-58-4  
**Formal Name:** 4-[(1R)-1-aminoethyl]-N-1H-pyrrolo[2,3-b]pyridin-4-yl-benzamide  
**Synonyms:** RKI-983, SNJ-1656, Y-39983  
**MF:** C<sub>16</sub>H<sub>16</sub>N<sub>4</sub>O  
**FW:** 280.3  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

Y-33075 is supplied as a solid. A stock solution may be made by dissolving the Y-33075 in the solvent of choice, which should be purged with an inert gas. Y-33075 is soluble in DMSO.

## Description

Y-33075 is an inhibitor of Rho-associated kinase 2 (ROCK2; IC<sub>50</sub> = 3.6 nM).<sup>1</sup> It is selective for ROCK2 over PKC and calcium/calmodulin-dependent protein kinase II (CaMKII; IC<sub>50</sub>s = 420 and 810 nM, respectively). Topical application of Y-33075 (0.05% v/v) reduces intraocular pressure in rabbit and cynomolgus monkeys. Y-33075 (10 and 100 μM) increases axonal regeneration at the crush site in a cat model of surgically-induced optic nerve damage.<sup>2</sup> It also inhibits demyelination and reduces the incidence of relapse episodes in a mouse model of chronic relapsing experimental autoimmune encephalomyelitis (EAE).<sup>3</sup>

## References

1. Tokushige, H., Inatani, M., Nemoto, S., *et al.* Effects of topical administration of γ-39983, a selective rho-associated protein kinase inhibitor, on ocular tissues in rabbits and monkeys. *Invest. Ophthalmol. Vis. Sci.* **48(7)**, 3216-3222 (2007).
2. Sagawa, H., Terasaki, H., Nakamura, M., *et al.* A novel ROCK inhibitor, Y-39983, promotes regeneration of crushed axons of retinal ganglion cells into the optic nerve of adult cats. *Exp. Neurol.* **205(1)**, 230-240 (2007).
3. Gao, C., Huang, L., Long, Y., *et al.* Y-39983, a selective Rho-kinase inhibitor, attenuates experimental autoimmune encephalomyelitis via inhibition of demyelination. *Neuroimmunomodulation* **20(6)**, 334-340 (2013).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM