



# LKT Laboratories, Inc.

## Y27632 Dihydrochloride

Phone: 888-558-5227  
651-644-8424  
Fax: 888-558-7329  
Email: [getinfo@lctlabs.com](mailto:getinfo@lctlabs.com)  
Web: [lctlabs.com](http://lctlabs.com)

### Product Information

Product ID Y1000  
CAS No. 129830-38-2  
Chemical Name

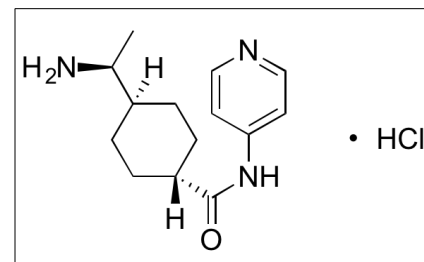
Synonym

Formula  $C_{14}H_{21}N_3O \cdot 2HCl$   
Formula Wt. 320.26  
Melting Point  $286.2^{\circ}C$   
Purity  $\geq 99\%$   
Solubility DMSO 64 mg/mL warmed (199.83 mM), water 14 mg/mL (43.71 mM)

Store Temp Ambient

Ship Temp Ambient

**Description** Y27632 is a selective inhibitor of Rho-associated protein kinase (ROCK); Y27632 binds to the catalytic site of ROCK, preventing binding of Ras-related GTPase Rho A, which is involved in actin cytoskeleton reorganization, cell adhesion, and cell migration. Y27632 inhibits downstream endothelin and TGF- $\beta$ -related signaling. This compound exhibits neuroprotective and neuromodulatory activity, displaying benefit in animal models of Parkinson's Disease and inhibiting conditioned place aversion in animal models of memory formation. Reduces dissociation-induced apoptosis in embryonic and neural stem cells. Increases stem cell cloning efficiency.



### Pricing and Availability

*Bulk quantities available upon request*

Product ID	Size	List Price
Y1000	1 mg	\$92.00
Y1000	5 mg	\$245.30
Y1000	25 mg	\$714.70

**References** Rodriguez-Perez AI, Dominguez-Mejide A, Lanciego JL, et al. Inhibition of Rho kinase mediates the neuroprotective effects of estrogen in the MPTP model of Parkinson's disease. *Neurobiol Dis.* 2013 Oct;58:209-19. PMID: 23774254.

Wang J, Wang YH, Hou YY, et al. The small GTPase RhoA, but not Rac1, is essential for conditioned aversive memory formation through regulation of actin rearrangements in rat dorsal hippocampus. *Acta Pharmacol Sin.* 2013 Jun;34(6):811-8. PMID: 23564082.

Zhang XH, Sun NX, Feng ZH, et al. Interference of Y-27632 on the signal transduction of transforming growth factor beta type 1 in ocular Tenon capsule fibroblasts. *Int J Ophthalmol.* 2012;5(5):576-81. PMID: 23166867.

Ishizaki T, Uehata M, Tamechika I, et al. Pharmacological properties of Y-27632, a specific inhibitor of rho-associated kinases. *Mol Pharmacol.* 2000 May;57(5):976-83. PMID: 10779382.

Kuwahara K, Saito Y, Nakagawa O, et al. The effects of the selective ROCK inhibitor, Y27632, on ET-1-induced hypertrophic response in neonatal rat cardiac myocytes--possible involvement of Rho/ROCK pathway in cardiac muscle cell hypertrophy. *FEBS Lett.* 1999 Jun 11;452(3):314-8. PMID: 10386613.

Hirose M, Ishizaki T, Watanabe N, et al. Molecular dissection of the Rho-associated protein kinase (p160ROCK)-regulated neurite remodeling in neuroblastoma N1E-115 cells. *J Cell Biol.* 1998 Jun 29;141(7):1625-36. PMID: 9647654.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.