**Product Name:** Y-27632  
**CAS No.:** 146986-50-7  
**Cat. No.:** HY-10071  
**MWt:** 247.34  
**Formula:** C_{14}H_{21}N_{3}O  
**Purity:** >98%  
**Solubility:** H.O (100 mM) or PBS (100 mM)

**Mechanisms:**  
- Pathways: Cell Cycle/DNA Damage; Target: ROCK  
- Pathways: TGF-beta/Smad; Target: ROCK

**Biological Activity:**
Y-27632 is a selective ROCK1 (p160ROCK) inhibitor with Ki of 140 nM, exhibits >200-fold selectivity over other kinases, including PKC, cAMP-dependent protein kinase, MLCK and PAK.  
IC50 value: 140 nM (Ki)  
Target: ROCK1  
in vivo: Y-27632 inhibits ROCK-II while displaying little activity against PKC, cAMP-dependent protein kinase and myosin light-chain kinase (MLCK) with Ki of 26 μM, 25 μM and > 250 μM, respectively, as well as PKA activated by another Rho-family GTPase member, Cdc42. Y-27632 inhibits smooth-muscle contraction induces by various agonists including phenylephrine, histamine, acetylcholine, serotonin, endothelin, and thromboxane with IC50 of 0.3-1 μM, by selectively inhibiting Ca²⁺ sensitization. Y-27632 suppresses Rho-induced, p160ROCK-mediated formation of stress fibres in cultured cells. In human embryonic stem (hES) cells, Y-27632 treatment at 10 μM mar...

**References:**
[5]. Lemeshchenko VV, et al. [Y-27632 induces calcium-independent glutamate release in rat brain synaptosomes by the mechanism which is distinct from exocytosis].Bi...

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**Caution: Not fully tested. For research purposes only**  
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