

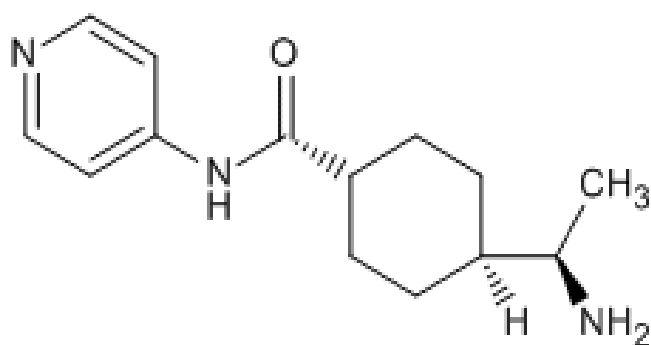
Cat No. 53-B85

Y27632

2mg

Y27632 (dihydrochloride) is a highly potent ATP-competitive inhibitor of Rho-associated coiled-coil forming protein serine/threonine kinase (ROCK). It has been shown to prevent dissociation-induced apoptosis in human embryonic stem cells (hES cells). Y27632 enhances the survival and cloning efficiency of dissociated hES cells without affecting their pluripotency.

TECHNICAL INFORMATION



Other Names: trans-4-[(1R)-1-Aminoethyl]-N-4-pyridinylcyclohexanecarboxamide dihydrochloride

Chemical Formula: C₁₄H₂₁N₃O · 2HCl

CAS Number: 146986-50-7

Molecular Weight: 320.3

Purity: >98% by HPLC

Appearance: White crystalline solid

Solubility: DMSO



For research purposes only

STORAGE AND HANDLING

Storage: Store at 4°C and protected from light. Following reconstitution, store aliquots at -20°C.

Stability: Stock solutions stable at -20°C for up to 2 years.

Shipping Conditions: Shipped at room temperature.

PRODUCT USE

Soluble in DMSO. For a 10mM stock solution of Y27632, reconstitute the compound by adding 624 µl of DMSO to the entire contents of the vial. Incubate in a 37°C water bath for 5 minutes if precipitate is observed. For most cells, the maximum tolerance to DMSO is <0.5%.

REFERENCES

1. Narumiya et al. (2000) Use and properties of ROCK-specific inhibitor Y-27632. *Methods Enzymol.* 325: 273.
2. Ishizaki et al. (2000) Pharmacological properties of Y-27632, a specific inhibitor of rho-associated kinases. *Mol Pharmacol* 57: 976-983.
3. Koyanagi et al. (2008) Inhibition of the Rho/ROCK pathway reduces apoptosis during transplantation of embryonic stem cell-derived neural precursors. *J. Neurosci Res* 86: 270-280.
4. Watanabe et al. (2007) A ROCK inhibitor permits survival of dissociated human embryonic stem cells. *Nat Biotech* 25: 681-686.