Y-27632 . dihydrochloride

ROCK inhibitor

Y-27632 is a highly potent, cell permeable, selective and ATP competitive inhibitor of ROCK1 and ROCK2 (IC_{50}=800nM). It acts as a potent inhibitor of agonist-induced Ca^{2+}sensitization of myosin phosphorylation and smooth muscle contractions, blocks cell spreading, and suppresses RhoA-induced formation of stress fibers in hepatic stellate cells. Y-27632 significantly reduces the increase of inflammatory cytokines after reperfusion, preventing the development of acute renal failure. There are numerous application for this compound including: anti-nociceptive effect, cardioprotective effects, inhibition of superoxide production, mimicking effect of β-agonists on human cells, and suppression of tumor cell invasion.

There has been a growing interest in Y-27632 for use in stem cell self-renewal and reprogramming. It is known to increase the survival rate of human embryonic stem cells undergoing cryopreservation.

Citations: 172 View Online »

Ordering Information

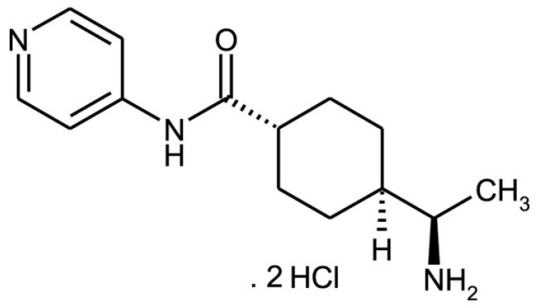
Order Online »

ALX-270-333-M001	1mg
ALX-270-333-M005	5mg
ALX-270-333-M025	25mg

Manuals, SDS & CofA

View Online »

- Selective inhibitor of ROCK1 and ROC/2
- Highly potent inhibitor of smooth muscle contractions
- Media component used in the cryopreservation of stem cells
- Applications in cancer, cardiology, nephrology, neurology, and stem cell studies
- Highly cited


N
O
N
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CH3
H
. 2 HCl
NH2


Y-27632 . dihy
Cat. No.: ALX-27
Lot No.: 0824
Storage: -20°C
25 mg
MW 320.3
Enzo

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Stock solutions are stable for up to 1 month when stored at -20°C.
Handling	Protect from light. Packaged under inert gas. After reconstitution, prepare aliquots and store at -20°C.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	(R)-(+)-trans-N-(4-Pyridyl)-4-(1-aminoethyl)-cyclohexanecarboxamide . 2HCl
Appearance	White to pale yellow powder.
CAS	129830-38-2
Couple Target	ROCK
Couple Type	Inhibitor
Formula	$C_{14}H_{21}N_3O$. 2HCl
Identity	Identity determined by MS and NMR.
MW	247.3 . 73.0
Purity	≥98% (HPLC (UV))
Purity Detail	Enantiomeric excess ≥96%
Solubility	Soluble in DMSO (25mg/ml), methanol (25mg/ml), acetonitrile (<1mg/ml), dioxane (<1mg/ml), water (very soluble).

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