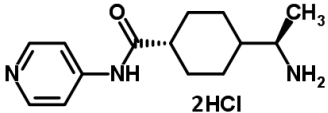




## Product Specification Sheet

<b>Product Name</b>	Stemolecule™ Y27632
<b>Description</b>	Y27632 is a cell-permeable small molecule Rho-associated kinase (ROCK) inhibitor <sup>1</sup> . Y27632 has been found to prevent apoptosis as well as enhance the survival and cloning efficiency of dissociated human embryonic stem (ES) cells without affecting their self-renewal properties or pluripotency <sup>2</sup> . This molecule has also been shown to enhance survival during the transplantation of ES cell-derived neural precursors <sup>3</sup> . Y27632 in combination with Pifithrin-μ significantly improves cell recovery after cryopreservation <sup>4</sup> .
<b>Catalog Number</b>	04-0012-10
<b>Size</b>	10 mg
<b>Alternate Name</b>	(1R,4r)-4-((R)-1-aminoethyl)-N-(pyridine-4-yl)cyclohexanecarboxamide dihydrochloride
<b>Chemical Formula</b>	C <sub>14</sub> H <sub>23</sub> Cl <sub>2</sub> N <sub>3</sub> O
<b>Structure</b>	
<b>Molecular Weight</b>	320.3
<b>CAS Number</b>	146986-50-7
<b>Purity</b>	Greater than 97% by HPLC analysis
<b>Formulation</b>	White solid
<b>Solubility</b>	For a 10 mM concentrated stock solution of Y27632, reconstitute the compound by adding 3.12 ml of DMSO to the entire contents of the vial. If precipitate is observed, warm the solution to 37°C for 2 to 5 minutes. For cell culture, the media should be prewarmed prior to adding the reconstituted compound. Note: for most cells, the maximum tolerance to DMSO is less than 0.5%. This molecule is soluble in DMSO at 100 mM
<b>Storage and Stability</b>	Store powder at 4°C protected from light. Following reconstitution, store aliquots at -20°C. Stock solutions are stable for 6 months when stored as directed.
<b>Quality Control</b>	The purity of Y27632 was determined by HPLC analysis. The accurate mass was determined by mass spectrometry. Cellular toxicity of Y27632 was tested on mouse embryonic stem cells.

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## Product Specification Sheet

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3. Koyanagi, M., Takahashi, J., Arakawa, Y., Doi, D., Fukuda, H., Hayashi, H., Narumiya, S., and Hashimoto, N. (2008) Inhibition of the Rho/ROCK pathway reduces apoptosis during transplantation of embryonic stem cell-derived neural precursors. *J. Neurosci Res.* 86: 270-280.
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