Product Specification Sheet

Product Name: Y-27632

Catalog Number: C9127-2 (powder)

C9127-2s (10 mM in DMSO)

Package Size: 2 mg

Technical information:

Chemical Formula: C₁₄H₂₁N₃O·2HCl

CAS #: 146986-50-7

Molecular Weight: 329.27

Purity: >98%

Formulation: white solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: (1R,4r)-4-((R)-1-aminoethyl)-N-(pyridin-4-yl)cyclohexanecarboxamide

Storage: Store solid powder at 4°C desiccated;

Store DMSO solution at -20°C.

Handling: • For C9127-2 (powder), add 607 uL of DMSO to make 10 mM solution.

• For C9127-2s, before open the vial, centrifuge the vial at 500rpm x 1 min in a 50 mL conical tube to ensure full recovery of sample.

Biological Activity: Y-27632 is widely used as a specific inhibitor of the Rho-associated coiled-

coil forming protein serine/threonine kinase (ROCK) family. It has been found to prevent dissociation-induced apoptosis in human embryonic stem cells and enhance the survival and cloning efficiency of dissociated hES cells without affecting their self-renewal properties or pluripotency. Y-27632 can also enhance survival during the transplantation of ES cell-derived neural

precursors.

Reference: 1. Ishizaki, T. et al. Pharmacological properties of Y-27632, a specific inhibitor of rho-associated kinases. Mol Pharmacol (2000) 57: 976-983.

2. Koyanagi et al. Inhibition of the Rho/ROCK pathway reduces apoptosis during transplantation of embryonic stem cell-derived neural

precursors. J. Neurosci Res (2008) 86: 270-280.

3. Watanabe et al. A ROCK inhibitor permits survival of dissociated human embryonic stem cells. Nat Biotech (2007) 25: 681-686.

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