

PRODUCT INFORMATION

Y-27632-d₄ (hydrochloride hydrate)

Item No. 42454

Formal Name: *trans*-4-[(1*R*)-1-aminoethyl]-N-4-pyridinyl-d₄-cyclohexanecarboxamide, dihydrochloride hydrate

MF: C₁₄H₁₇D₄N₃O • 2HCl [H₂O]

FW: 342.3

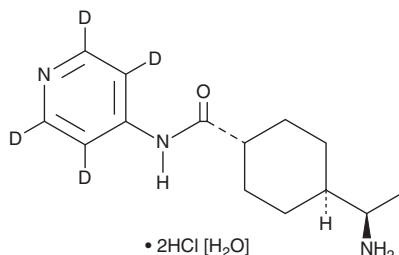
Chemical Purity: ≥95% (Y-27632)

Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Y-27632-d₄ (hydrochloride hydrate) is intended for use as an internal standard for the quantification of Y-27632 by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Y-27632-d₄ (hydrochloride hydrate) is supplied as a solid. A stock solution may be made by dissolving the Y-27632-d₄ (hydrochloride hydrate) in the solvent of choice, which should be purged with an inert gas. Y-27632-d₄ (hydrochloride hydrate) is slightly soluble in methanol.

Description

Y-27632-d₄ is intended for use as an internal standard for the quantification of Y-27632 (Item No. 10005583) by GC- or LC-MS. Y-27632 is an inhibitor of Rho-associated kinase 1 (ROCK1) and ROCK2 (K_is = 0.03 and 0.05 μM, respectively).¹ It is selective for ROCK1 and ROCK2 over citron Rho-interacting kinase (CRIK), serine/threonine protein kinase N (PKN), PKCα, and myosin light-chain kinase (MLCK; K_is = 1.1, 1.4, 6, and 14 μM, respectively) but does inhibit PKA (K_i = 0.3 μM). Y-27632 inhibits cytokinesis in HeLa cervical cancer cells in a concentration-dependent manner. It increases neurite length in primary rat Schwann cells when used at a concentration of 10 μM.² Y-27632 (10 μM) inhibits dissociation-induced apoptosis and increases colony formation in primary human embryonic stem cells (ESCs).

References

1. Fuentes, E.O., Leemhuis, J., Stark, G.B., *et al.* Rho kinase inhibitors Y27632 and H1152 augment neurite extension in the presence of cultured Schwann cells. *J. Brachial Plex. Peripher. Nerve Inj.* **3**(19), (2008).
2. Ishizaki, T., Uehata, M., Tamechika, I., *et al.* Pharmacological properties of Y-27632, a specific inhibitor of Rho-associated kinases. *Mol. Pharmacol.* **57**(5), 976-983 (2000).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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