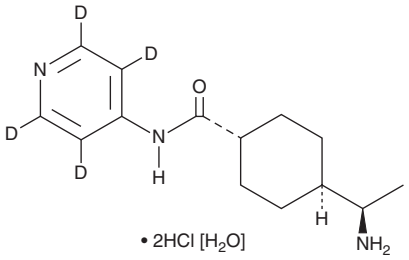
PRODUCT INFORMATION

Y-27632-d_4 (hydrochloride hydrate)

Item No. 42454

Formal Name:	*trans*-4-[(1R)-1-aminoethyl]-N-4-pyridinyl-d_4-cyclohexanecarboxamide, dihydrochloride hyrdrate
MF:	$C_{14}H_{17}D_4N_3O \bullet 2HCl\ [H_2O]$
FW:	342.3
Chemical Purity:	≥95% (Y-27632)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_4); ≤1% d_0
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-d_4 (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-d_4 (hydrochloride hydrate) is supplied as a solid. A stock solution may be made by dissolving the Y-27632-d_4 (hydrochloride hydrate) in the solvent of choice, which should be purged with an inert gas. Y-27632-d_4 (hydrochloride hydrate) is slightly soluble in methanol.

Description

Y-27632-d_4 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).

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