

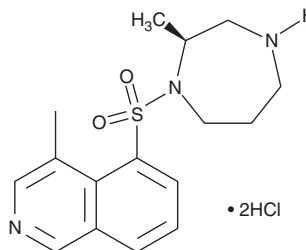
PRODUCT INFORMATION



(S)-H-1152 (hydrochloride)

Item No. 10007653

CAS Registry No.: 451462-58-1
Formal Name: 5-[[[(2S)-hexahydro-2-methyl-1H-1,4-diazepin-1-yl]sulfonyl]-4-methyl-isoquinoline, dihydrochloride
MF: C₁₆H₂₁N₃O₂S • 2HCl
FW: 392.3
Purity: ≥95%
UV/Vis.: λ_{max}: 216, 280, 328 nm
Supplied as: A crystalline 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

(S)-H-1152 (hydrochloride) is supplied as a crystalline solid. To change the solvent, simply evaporate the (S)-H-1152 (hydrochloride) under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of (S)-H-1152 (hydrochloride) in these solvents is approximately 20, 12.5, and 15 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of (S)-H-1152 (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of (S)-H-1152 (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Rho-associated kinase (ROCK), activated by GTP-linked Rho, phosphorylates targets that are involved in cytoskeletal remodeling, smooth muscle contraction, and neuronal development. H-1152 is a potent, specific, ATP-competitive, and cell permeable inhibitor of ROCK ($K_i = 1.6$ nM).^{1,2} It is a more potent inhibitor of ROCK than either Y-27632 ($K_i = 140$ nM) or HA-1077 ($K_i = 330$ nM).² H-1152 poorly inhibits PKA, PKC, and myosin light chain kinase ($K_i = 0.63, 9.27,$ and 10.1 μM, respectively).² It has been used to examine the role of ROCK in such diverse processes as stress fiber assembly, vasoconstriction, as well as spontaneously tonic smooth muscle and neurite extension.³⁻⁶

References

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3. Davies, S.L., Gibbons, C.E., Vizard, T., et al. *Am J Physiol Cell Physiol* **290**, C1543-C1551 (2006).
4. Johnson, R.P., El-Yazbi, A.F., Takeya, K., et al. *J Physiol* **587(11)**, 2537-2553 (2009).
5. Rattan, S. and Patel, C.A. *Am J Physiol Gastrointest Liver Physiol* **294(3)**, G687-G693 (2008).
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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.

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