

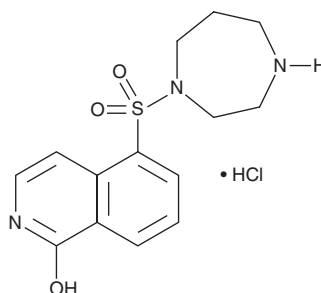
PRODUCT INFORMATION



HA-1100 (hydrochloride)

Item No. 14413

CAS Registry No.: 155558-32-0
Formal Name: 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-1(2H)-isoquinolinone, monohydrochloride
MF: C₁₄H₁₇N₃O₃S • HCl
FW: 343.8
Purity: ≥98%
UV/Vis.: λ_{max}: 246, 300 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

HA-1100 (hydrochloride) is supplied as a A crystalline solid. A stock solution may be made by dissolving the HA-1100 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. HA-1100 (hydrochloride) is soluble in the organic solvent DMSO. The solubility of HA-1100 (hydrochloride) in DMSO is approximately 1.1 mg/ml.

HA-1100 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, HA-1100 (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. HA-1100 (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

HA-1100, a cell-permeable hydroxylated metabolite of HA-1077 (Item No. 10010559), is a potent inhibitor of Rho-associated kinase (ROCK) (K_i = 150 nM).¹ It less effectively inhibits protein kinase A (K_i = 2.2 μM).¹ It has been used to explore the role of ROCK in hypoxic and ischemic signaling as well as arterial relaxation.²⁻⁵

References

1. Jacobs, M., Hayakawa, K., Swenson, L., *et al.* The structure of dimeric ROCK I reveals the mechanism for ligand selectivity. *J. Biol. Chem.* **281**(1), 260-268 (2006).
2. Nakamura, K., Nishimura, J., Hirano, K., *et al.* Hydroxyfasudil, an active metabolite of fasudil hydrochloride, relaxes the rabbit basilar artery by disinhibition of myosin light chain phosphatase. *J. Cereb. Blood Flow Metab.* **21**(7), 876-885 (2001).
3. Takemoto, M., Sun, J., Hiroki, J., *et al.* Rho-kinase mediates hypoxia-induced downregulation of endothelial nitric oxide synthase. *Circulation* **106**(1), 57-62 (2002).
4. Wolfrum, S., Dendorfer, A., Rikitake, Y., *et al.* Inhibition of rho-kinase leads to rapid activation of phosphatidylinositol 3-kinase/protein kinase Akt and cardiovascular protection. *Arterioscler. Thromb. Vasc. Biol.* **24**(10), 1842-1847 (2004).
5. Satoh, S., Utsunomiya, T., Tsurui, K., *et al.* Pharmacological profile of hydroxy fasudil as a selective rho kinase inhibitor on ischemic brain damage. *Life Sci.* **69**(12), 1441-1453 (2001).

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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