

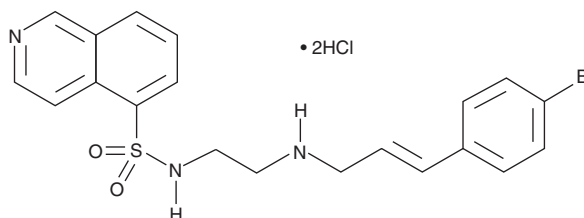
PRODUCT INFORMATION



H-89 (hydrochloride)

Item No. 10010556

CAS Registry No.: 130964-39-5
Formal Name: N-[2-[[3-(4-bromophenyl)-2-propen-1-yl]amino]ethyl]5-isoquinolinesulfonamide, dihydrochloride
Synonyms: 5-Isoquinolinesulfonamide, Protein Kinase Inhibitor H-89
MF: C₂₀H₂₀BrN₃O₂S • 2HCl
FW: 519.3
Purity: ≥98%
UV/Vis.: λ_{max}: 215, 260 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

H-89 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the H-89 (hydrochloride) in an organic solvent purged with an inert gas. H-89 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of H-89 (hydrochloride) in these solvents is approximately 0.15, 25, and 30 mg/ml, respectively.

H-89 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, H-89 (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. H-89 (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Protein kinase A (PKA) regulates multiple signal transduction events *via* protein phosphorylation and is integral to all cellular responses involving the cyclic AMP second messenger system. H-89 is a potent, cell permeable inhibitor of PKA that demonstrates an IC₅₀ value of 0.14 μM and a K_i value of 48 nM in standard kinase assays.^{1,2} While widely used to disrupt PKA signaling, the inhibitory activity of H-89 is non-selective. H-89 also inhibits S6K1, MSK1, ROCK2, PKBa, and MAPKAP-K1b with IC₅₀ values of 0.08, 0.12, 0.27, 2.6, and 2.8 μM, respectively.¹

References

1. Davis, S.P., Reddy, H., Caivano, M., *et al.* Specificity and mechanism of action of some commonly used protein kinase inhibitors. *Biochem J.* **351**, 95-105 (2000).
2. Engh, R.A., Girod, A., Kinzel, V., *et al.* Crystal structures of catalytic subunit of cAMP-dependent protein kinase in complex with isoquinolinesulfonyl protein kinase inhibitors H7, H8, and H89 structural implications for selectivity. *J. Biol. Chem.* **271**(42), 26157-26164 (1996).

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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