PRODUCT INFORMATION



H-9 (hydrochloride)

Item No. 13312

CAS Registry No.:	116700-36-8	
Formal Name:	N-(2-aminoethyl)-5-isoquinolinesulfonamide,	<u> </u>
	dihydrochloride	N
Synonym:	Protein Kinase Inhibitor H-9	
MF:	$C_{11}H_{13}N_{3}O_{2}S \bullet 2HCI$	• 2HCI
FW:	324.2	Ť
Purity:	≥98%	
UV/Vis.:	λ _{max} : 217 nm	$\gamma \sim \gamma$
Supplied as:	A crystalline solid	U H
Storage:	-20°C	
Stability:	≥4 years	
Information represents	the product specifications. Batch specific analytical resu	Its are provided on each certificate of analysis.

Laboratory Procedures

H-9 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the H-9 (hydrochloride) in an organic solvent of choice, which should be purged with an inert gas. H-9 (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of H-9 (hydrochloride) in these solvents is approximately 10 and 1.5 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 H-9 (hydrochloride) can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of H-9 (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

The H series isoquinolinesulfonamide protein kinase inhibitors are widely used to block signaling pathways in order to elucidate mechanisms of cellular regulation and signal transduction. H-9, an isoquinolinesulfonamide protein kinase inhibitor, is a competitive inhibitor of PKC, PKG, and PKA with K; values of 18, 0.87, and 1.9 μ M, respectively.¹ H-9 has been used to reduce the cAMP-mediated excitatory response to serotonin in C. elegan enteric neurons and to inhibit PKA-mediated phosphorylation in a rat seizure model.^{2,3}

References

- 1. Hidaka, H., Inagaki, M., Kawamoto, S., et al. Isoquinolinesulfonamides, novel and potent inhibitors of cyclic nucleotide dependent protein kinase and protein kinase C. Biochemistry 23(21), 5036-5041 (1984).
- 2. Papaioannou, S., Holden-Dye, L., and Walker, R.J. Evidence for a role for cyclic AMP in modulating the action of 5-HT and an excitatory neuropeptide, FLP17A, in the pharyngeal muscle of Caenorhabditis elegans. Invert. Neurosci. 8(2), 91-100 (2008).
- 3. Vázquez-López, A., Sierra-Paredes, G., and Sierra-Marcuño, G. Role of cAMP-dependent protein kinase on acute picrotoxin-induced seizures. Neurochem. Res. 30(5), 613-618 (2005).

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

SAFFTY 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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