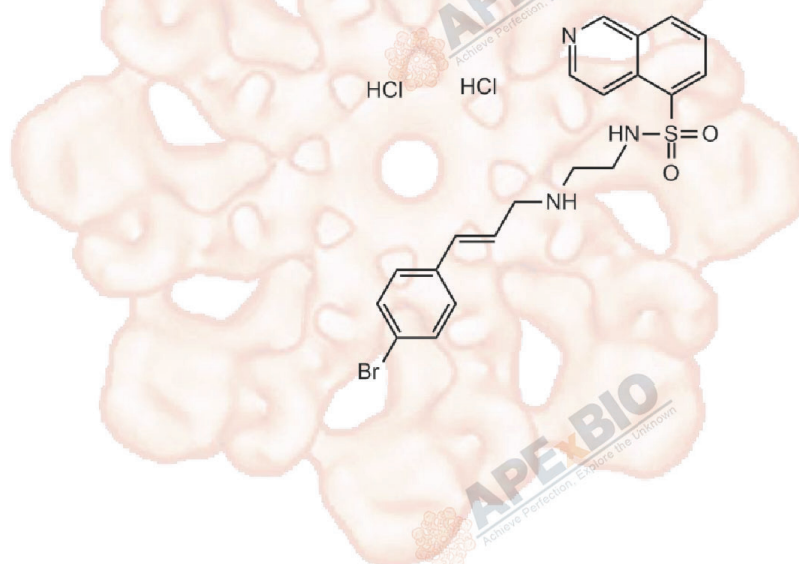


Product Data Sheet

H 89 2HCl

Cat. No.:	B2190
CAS No.:	130964-39-5
Formula:	C ₂₀ H ₂₀ BrN ₃ O ₂ S·2HCl
M.Wt:	519.28
Synonyms:	
Target:	MAPK Signaling
Pathway:	PKA
Storage:	Store at -20°C



Solvent & Solubility

≥51.9 mg/mL in DMSO; insoluble in H₂O; insoluble in EtOH

In Vitro

Preparing Stock Solutions	Solvent	Mass Concentration	Mass		
			1mg	5mg	10mg
		1 mM	1.9257 mL	9.6287 mL	19.2574 mL
		5 mM	0.3851 mL	1.9257 mL	3.8515 mL
		10 mM	0.1926 mL	0.9629 mL	1.9257 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Potent PKA inhibitor

IC₅₀ & Target

48 nM(Ki) (PKA), 80 nM (S6K1)

In Vitro

Cell Viability Assay

Cell Line: PC12D cells

Preparation method:

The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Reacting conditions:

30 μM for 1h

	Applications:	H-89 (30 μ M) significantly inhibited cAMP-dependent histone H2B phosphorylation activity and suppressed Forskolin-induced neurite outgrowth in PC12D cells.
In Vivo	Animal experiment	
	Animal models:	Rats model
	Dosage form:	20 or 200 mg/kg; s.c. twice daily for 2 days;
	Applications:	H89 caused distinct modifications of protein phosphorylation, with the most robust changes in phosphorylation were heterogeneous nuclear ribonucleoprotein (hnRNP), fructose-1,6-bisphosphatase, NSFL1 cofactor p47, all which had potentially regulatory connections to cAMP/PKA.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

- JianHanaWan, ShuHongac, et al. "The regulation of melanocyte-stimulating hormone on the pigment granule dispersion in the xanthophores and melanophores of the large yellow croaker (*Larimichthys crocea*)." Aquaculture. Available online 2 April 2019.
- MXinwei Feng, Junfeng Lu, et al. "Mycobacterium smegmatis Induces Neurite Outgrowth and Differentiation in an Autophagy-Independent Manner in PC12 and C17.2 Cells." Front. Cell. Infect. Microbiol., 19 June 2018.
- Matos, Steven Cordeiro, et al. "Peripheral Neuropathy Induces HCN Channel Dysfunction in Pyramidal Neurons of the Medial Prefrontal Cortex." The Journal of Neuroscience 35.38 (2015): 13244-13256.PMID:26400952

See more customer validations on www.apexbt.com.

References

- 1Chijiwa, T., Mishima, A., Hagiwara, M., Sano, M., Hayashi, K., Inoue, T., Naito, K., Toshioka, T. and Hidaka, H. (1990) Inhibition of forskolin-induced neurite outgrowth and protein phosphorylation by a newly synthesized selective inhibitor of cyclic AMP-dependent protein kinase, N-[2-(p-bromocinnamylamino)ethyl]-5-isoquinolinesulfonamide (H-89), of PC12D pheochromocytoma cells. J Biol Chem. 265, 5267-5272
- 2Davis, M. A., Hinerfeld, D., Joseph, S., Hui, Y. H., Huang, N. H., Leszyk, J., Rutherford-Bethard, J. and Tam, S. W. (2006) Proteomic analysis of rat liver phosphoproteins after treatment with protein kinase inhibitor H89 (N-(2-[p-bromocinnamylamino]-ethyl)-5-isoquinolinesulfonamide). J Pharmacol Exp Ther. 318, 589-595

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for

long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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