

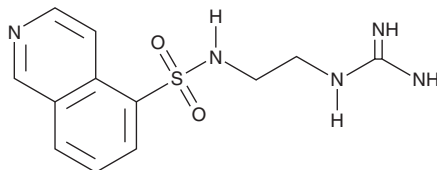
PRODUCT INFORMATION



HA-1004

Item No. 45680

CAS Registry No.: 91742-10-8
Formal Name: N-[2-[(aminoiminomethyl)amino]ethyl]-5-isoquinolinesulfonamide
MF: C₁₂H₁₅N₅O₂S
FW: 293.3
Purity: ≥98%
Supplied as: A 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-1004 is supplied as a solid. A stock solution may be made by dissolving the HA-1004 in the solvent of choice, which should be purged with an inert gas. HA-1004 is slightly soluble (0.1-1 mg/ml) in ethanol and sparingly soluble (1-10 mg/ml) in DMSO.

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 HA-1004 can be prepared by directly dissolving the solid in aqueous buffers. HA-1004 is slightly soluble (0.1-1 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

HA-1004 is an inhibitor of PKG, PKA, myosin light-chain kinase (MLCK), and PKC (K_is = 1.3, 2.3, 70 and 18 μM, respectively, in cell-free assays).¹ It induces relaxation of isolated rabbit aortic strips precontracted with histamine (Item No. 33828), serotonin (Item No. 14332), A23187 (Item No. 11016), angiotensin II (Item No. 17150), or prostaglandin F_{2α} (Item No. 16010; EC₅₀s = 0.32-0.63 μM), as well as phenylephrine (Item Nos. 18619 | 17205) with or without calcium (EC₅₀s = 2.3 and 0.5 μM, respectively). HA-1004 also inhibits histamine-induced bronchoconstriction in guinea pigs without affecting blood pressure when administered intratracheally at a dose of 0.1 mg per animal.²

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. Chapman, R.W., Tozzi, S. and Kreutner, W. Antibronchoconstrictor activity of the intracellular calcium antagonist HA 1004 in guinea pigs. *Pharmacology* **37(3)**, 187-194 (1988).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 05/12/2026

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM