

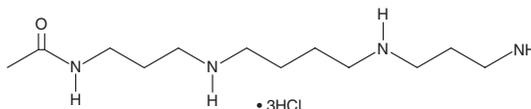
PRODUCT INFORMATION



N¹-Acetylspermine (hydrochloride)

Item No. 17919

CAS Registry No.: 77928-70-2
Formal Name: N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-acetamide, trihydrochloride
MF: C₁₂H₂₈N₄O • 3HCl
FW: 353.8
Purity: ≥95%
Storage: -20°C
Stability: ≥4 years
Supplied as: A crystalline solid



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

N¹-Acetylspermine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the N¹-acetylspermine (hydrochloride) in the solvent of choice. N¹-Acetylspermine (hydrochloride) is soluble in water at a concentration of approximately 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

N¹-Acetylspermine is a monoacetylated derivative of spermine (Item No. 18041), an endogenous polyamine synthesized from spermidine (Item No. 14918), that displays lower K_m and higher V_{max} values than spermine, making it a better substrate of polyamine oxidase than the non-acetylated polyamine.¹ Spermine is required for eukaryotic cell growth and protein synthesis and is involved in the modulation of calcium-dependent immune processes.^{2,3} N¹-Acetylspermine has been used to study the uptake of the anticancer polyamine analog bleomycin-A5 by the human carnitine transporter SLC22A16.⁴

References

1. Bolkenius, F.N. and Seiler, N. Acetyl derivatives as intermediates in polyamine catabolism. *Int. J. Biochem.* **13(3)**, 287-292 (1981).
2. Wallace, H.M., Fraser, A.V., and Hughes, A. A perspective of polyamine metabolism. *Biochem. J.* **376(Pt 1)**, 1-14 (2003).
3. Igarashi, K. and Kashiwagi, K. Polyamines: Mysterious modulators of cellular functions. *Biochem. Biophys. Res. Commun.* **271(3)**, 559-564 (2000).
4. Aouida, M., Poulin, R., and Ramotar, D. The human carnitine transporter SLC22A16 mediates high affinity uptake of the anticancer polyamine analogue bleomycin-A5. *J. Biol. Chem.* **285(9)**, 6275-6284 (2010).

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, 12/20/2022

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