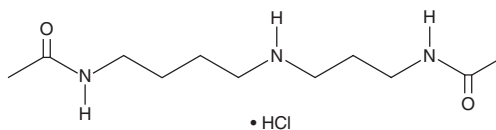


PRODUCT INFORMATION

N¹,N⁸-Diacetylspermidine (hydrochloride)

Item No. 21588

CAS Registry No.: 178244-42-3
Formal Name: N-[4-[[3-(acetylamino)propyl]amino]butyl]-acetamide, monohydrochloride
Synonym: NSC 685959
MF: C₁₁H₂₃N₃O₂ • HCl
FW: 265.8
Purity: ≥95%
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

N¹,N⁸-Diacetylspermidine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the N¹,N⁸-diacetylspermidine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. N¹,N⁸-Diacetylspermidine (hydrochloride) is soluble in the organic solvent DMSO at a concentration of approximately 0.1 mg/ml.

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 N¹,N⁸-diacetylspermidine (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of N¹,N⁸-diacetylspermidine (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

N¹,N⁸-Diacetylspermidine is a diacetylated derivative of spermidine (Item No. 14918), a natural polyamine.^{1,2} N¹,N⁸-Diacetylspermidine has been found in human urine and is elevated in the urine of patients with colorectal and urogenital malignancies. It is selectively elevated in those with malignant conditions over those with benign urogenital hyperplasias, making this polyamine a potential biomarker for cancer detection.

References

1. Hiramatsu, K., Sugimoto, M., Kamei, S., *et al.* Diagnostic and prognostic usefulness of N¹,N⁸-diacetylspermidine and N¹,N¹²-diacetylspermine in urine as novel markers of malignancy. *J. Cancer Res. Clin. Oncol.* **123**(10), 539-545 (1997).
2. Kawakita, M. and Hiramatsu, K. Diacetylated derivatives of spermine and spermidine as novel promising tumor markers. *J. Biochem.* **139**(3), 315-322 (2006).

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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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