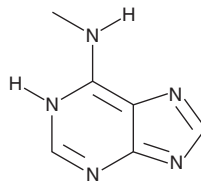


PRODUCT INFORMATION

N⁶-Methyladenine

Item No. 18153

CAS Registry No.: 443-72-1
Formal Name: N-methyl-9H-purin-6-amine
Synonym: NSC 11580
MF: C₆H₇N₅
FW: 149.2
Purity: ≥98%
UV/Vis.: λ_{max}: 210, 265 nm
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

N⁶-Methyladenine is supplied as a crystalline solid. A stock solution may be made by dissolving the N⁶-methyladenine in the solvent of choice. N⁶-Methyladenine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of N⁶-methyladenine in these solvents is approximately 5, 1, and 2 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 N⁶-methyladenine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of N⁶-methyladenine in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

N⁶-Methyladenine is a modified purine that is commonly found in genomes of prokaryotes, protists, and plants.^{1,2} It is less common in higher eukaryotes and extremely rare in mammals.^{1,3} Like methylation of other DNA residues, N⁶-methyladenine represents an epigenetic modification that can affect diverse DNA functions, including replication, repair, and expression.^{1,3}

References

1. Ratel, D., Ravanat, J.L., and Wion, D. N⁶-Methyladenine: The other methylated base of DNA. *BioEssays* **28**(3), 309-315 (2006).
2. Hattman, S. DNA-[adenine] methylation in lower eukaryotes. *Biochem. (Moscow)* **70**(5), 550-558 (2005).
3. Breiling, A. and Lyko, F. Epigenetic regulatory functions of DNA modifications: 5-methylcytosine and beyond. *Epigenetics & Chromatin* **8**, (2015).

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, 11/21/2022

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