

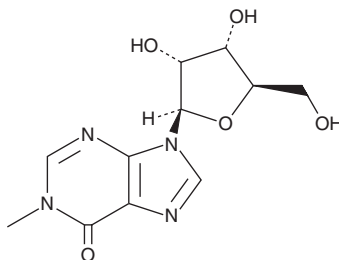
PRODUCT INFORMATION



1-Methylinosine

Item No. 34461

CAS Registry No.: 2140-73-0
Synonyms: 1-methyl Inosine
N¹-Methylinosine
MF: C₁₁H₁₄N₄O₅
FW: 282.3
Purity: ≥95%
UV/Vis.: λ_{max}: 252 nm
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

1-Methylinosine is supplied as a solid. A stock solution may be made by dissolving the 1-methylinosine in the solvent of choice, which should be purged with an inert gas. 1-Methylinosine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 1-methylinosine in these solvents is approximately 15 and 10 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 1-methylinosine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 1-methylinosine in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

1-Methylinosine is a methylated purine nucleoside formed during the degradation of tRNA.¹ Urinary levels of 1-methylinosine are increased in patients with acute myelomonocytic leukemia or large cell lung carcinoma. Urinary levels are also increased in patients with breast cancer and are associated with a reduced five-year survival rate.²

References

1. Mitchell, E.P., Evans, L., Schultz, P., *et al.* Modified nucleosides in human serum. *J. Chromatogr.* **581(1)**, 31-40 (1992).
2. Sasco, A.J., Rey, F.A., Reynaud, C., *et al.* Breast cancer prognostic significance of some modified urinary nucleosides. *Cancer Lett.* **108(2)**, 157-162 (1996).

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.

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