

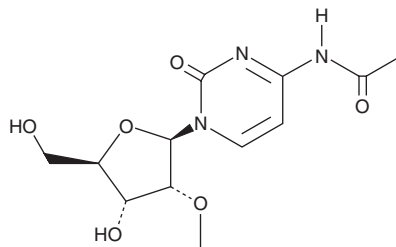
PRODUCT INFORMATION



N⁴-Acetyl-2'-O-methylcytidine

Item No. 40285

CAS Registry No.: 113886-71-8
Formal Name: N-acetyl-2'-O-methyl-cytidine
Synonym: ac⁴Cm
MF: C₁₂H₁₇N₃O₆
FW: 299.3
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

N⁴-Acetyl-2'-O-methylcytidine (ac⁴Cm) is supplied as a solid. A stock solution may be made by dissolving the ac⁴Cm in the solvent of choice, which should be purged with an inert gas. Ac⁴Cm is soluble in DMSO. Ac⁴Cm is slightly soluble in acetonitrile. It is also slightly soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

ac⁴Cm is a pyrimidine nucleoside and a post-transcriptionally modified derivative of cytidine (Item No. 29602).¹ ac⁴Cm has been found in the tRNA and 5S rRNA of *Archaea* thermophiles and increases RNA rigidity and stability through stronger complimentary base pairing with the purine nucleoside guanosine (Item No. 27702) compared to cytidine.^{1,2}

References

1. Kawai, G., Hashizume, T., Yasuda, M., *et al.* Conformational rigidity of N⁴-acetyl-2'-O-methylcytidine found in tRNA of extremely thermophilic archaebacteria (archaea). *Nucleosides and Nucleotides* **11**(2-4), 759-77 (1992).
2. Kowalak, J.A., Dalluge, J.J., McCloskey, J.A., *et al.* The role of posttranscriptional modification in stabilization of transfer RNA from hyperthermophiles. *Biochemistry* **33**(25), 7869-7876 (1994).

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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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