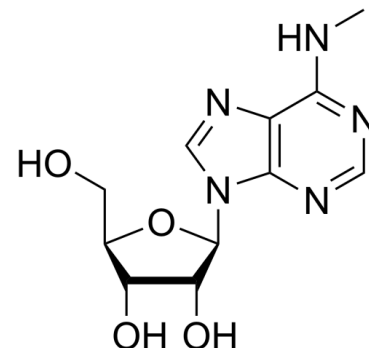


Data Sheet

Product Name:	N6-Methyladenosine
Cat. No.:	CS-3285
CAS No.:	1867-73-8
Molecular Formula:	C ₁₁ H ₁₅ N ₅ O ₄
Molecular Weight:	281.272
Target:	Endogenous Metabolite; Influenza Virus
Pathway:	Anti-infection; Metabolic Enzyme/Protease
Solubility:	DMSO : ≥ 31 mg/mL; H ₂ O : 5.56 mg/mL (ultrasonic; warming; heat to 60°C)



BIOLOGICAL ACTIVITY:

N6-Methyladenosine is the most prevalent internal (non-cap) modification present in the messenger RNA (mRNA) of all higher eukaryotes. N6-Methyladenosine can modify **viral RNAs** and has antiviral activities. *In Vitro*: N6-methyladenosine (m6A) is selectively recognized by the human YTH domain family 2 (YTHDF2) protein to regulate mRNA degradation. N6-methyladenosine (m6A), a prevalent internal modification in the messenger RNA of all eukaryotes, is post-transcriptionally installed by m6A methyltransferase (e.g., MT-A70) within the consensus sequence of G(m6A)C (70%) or A(m6A)C (30%). N6-methyladenosine (m6A)-containing RNAs are greatly enriched in the YTHDF-bound portion and diminished in the flow-through portion^[1]. N6-methyladenosine (m6A), the most abundant internal RNA modification, functions in diverse biological processes, including regulation of embryonic stem cell self-renewal and differentiation. N6-methyladenosine (m6A) is a large protein complex, consisting in part of methyltransferase-like 3 (METTL3) and methyltransferase-like 14 (METTL14) catalytic subunits^[2].

References:

- [1]. Wang X, et al. N6-methyladenosine-dependent regulation of messenger RNA stability. *Nature*. 2014 Jan 2;505(7481):117-20.
- [2]. Li Y, et al. Genome-wide detection of high abundance N6-methyladenosine sites by microarray. *RNA*. 2015 Aug;21(8):1511-8.
- [3]. Dang W, et al. N6-Methyladenosine and Viral Infection. *Front Microbiol*. 2019 Mar 5;10:417.

CAIndexNames:

Adenosine, N-methyl-

SMILES:

OC[C@H]1O[C@H](NC2=NC(=C(N)C(=N2)N)N)[C@H](O)[C@@H](CO)O1

Caution: Product has not been fully validated for medical applications. For research use only.

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