

Product Data Sheet

Product Name: 1-Methyladenosine

Cat. No.: GC33463

Chemical Properties

Cas. No. 15763-06-1

SMILES OC[C@@H]1[C@H]([C@H]([C@H](N2C=NC3=C2N=CN(C)C3=N)O1)O)O

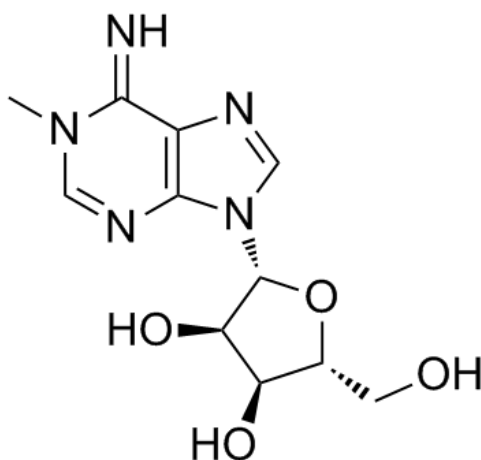
Formula $C_{11}H_{15}N_5O_4$ M.Wt 281.27

Solubility DMSO : 150 mg/mL, Water : 28.1mg/mL Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

1-Methyladenosine is a modified nucleoside that carries a positive charge and strongly disrupts canonical Watson-Crick-Franklin basepairing [1]. The modification based on 1-Methyladenosine can increase the translation of PPAR δ , thereby triggering cholesterol synthesis, activating the Hedgehog signaling pathway, and ultimately promoting the self-renewal of liver cancer stem cells and tumor formation [2]. 1-Methyladenosine is widely used as a tumor marker, since the content is associated

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

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with the occurrence and development of cancer, enabling the early detection of genistein-induced breast cancer in rats [3]. 1-Methyladenosine is widely used as a biochemical indicator to assess the progression of rheumatoid arthritis[4].

References:

- [1] Zhou H, Rauch S, Dai Q, et al. Evolution of a reverse transcriptase to map N 1-methyladenosine in human messenger RNA[J]. Nature methods, 2019, 16(12): 1281-1288.
- [2] Wang Y, Wang J, Li X, et al. N 1-methyladenosine methylation in tRNA drives liver tumourigenesis by regulating cholesterol metabolism[J]. Nature communications, 2021, 12(1): 6314.
- [3] Banys K, Giebultowicz J, Sobczak M, et al. Effect of genistein supplementation on the progression of neoplasms and the level of the modified nucleosides in rats with mammary cancer[J]. in vivo, 2021, 35(4): 2059-2072.
- [4] Tebib J G, Reynaud C, Cedoz J P, et al. Relationship between urinary excretion of modified nucleosides and rheumatoid arthritis process[J]. British journal of rheumatology, 1997, 36(9): 990-995.

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