

Product Data Sheet

Product Name: 1-Methyladenosine-d3 hydrochloride

Cat. No.: GC72838

Chemical Properties

Cas. No.

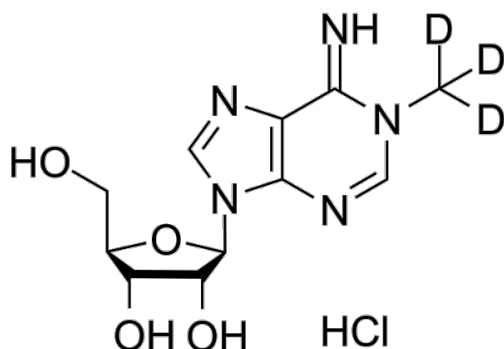
Formula $C_{11}H_{13}D_3ClN_5O_4$ M.Wt 320.75

Solubility DMSO : 50 mg/mL (155.88 mM);
Need ultrasonic and warming) Storage -20°C, sealed storage, away from moisture and light

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-Metladosine-d3 drochloride is the drochloride salt form of deuterium labeled 1-Metladosine . 1-Metladosine is an RNA modification that can serve as a tumor marker, with elevated levels in the body associated with cancer development. Following 1-metladosine metlation, upregulation of PPAR δ expression regulates cholesterol metabolism and activates Hedgehog signaling pathway, driving liver tumorigenesis.

References:

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019;53(2):211-216.
- [2]. Hauenschild R, et al. The reverse transcription signature of N-1-metladosine in RNA-Seq is sequence dependent. *Nucleic Acids Res*. 2015 Nov 16;43(20):9950-64.
- [3]. Banys K, et al. Effect of Genistein Supplementation on the Progression of Neoplasms and the Level of the Modified Nucleosides in Rats With Mammary Cancer. *In Vivo*. 2021 Jul-Aug;35(4):2059-2072.
- [4]. Wang Y, et al. N 1-metladosine metlation in tRNA drives liver tumourigenesis by regulating cholesterol metabolism[J]. *Nature communications*, 2021, 12(1): 6314.

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