

Product Data Sheet

Product Name: 7-Methylguanosine 5'-diphosphate sodium

Cat. No.: GC62817

Chemical Properties

Cas. No. 104809-16-7

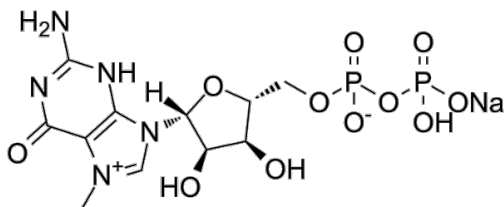
Formula $C_{11}H_{16}N_5NaO_{11}P_2$ M.Wt 479.21

Solubility H_2O : 50 mg/mL (104.34 mM; Need ultrasonic and warming) Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

7-Methylguanosine 5'-diphosphate (7-Methyl-GDP) sodium, a cap analog, can be used in the synthesis of mRNA cap analogues[1].

7-Methylguanosine 5'-diphosphate sodium inhibits binding of eukaryotic initiation factors to reovirus capped mRNA and complex formation involving uncapped mRNA or 18 S rRNA[1]. T. brucei mRNA decapping enzyme (TbDcp2) that cleaves 7-Methylguanosine 5'-diphosphate sodium from capped RNA to generate pRNA, a substrate for TbCe1[2].

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

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- [1]. Sonenberg N, et al. Nonspecific effect of m7GMP on protein-RNA interactions. J Biol Chem. 1978;253(19):6630-6632.
- [2]. Ignatichkina AV, et al. The messenger RNA decapping and recapping pathway in Trypanosoma. Proc Natl Acad Sci U S A. 2015;112(22):6967-6972.

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