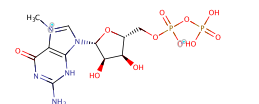


7-Methylguanosine 5'-diphosphate sodium

Chemical Properties

CAS No. :	104809-16-7
Formula:	C ₁₁ H ₁₆ N ₅ NaO ₁₁ P ₂
Molecular Weight:	479.21
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	7-Methylguanosine 5'-diphosphate (7-Methyl-GDP) sodium, a cap analog, is utilized in the synthesis of mRNA cap analogues[1].
Targets(IC50)	Others,Endogenous Metabolite
In vitro	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].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0868 mL	10.4338 mL	20.8677 mL
5 mM	0.4174 mL	2.0868 mL	4.1735 mL
10 mM	0.2087 mL	1.0434 mL	2.0868 mL
50 mM	0.0417 mL	0.2087 mL	0.4174 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Sonenberg N, et al. Nonspecific effect of m7GMP on protein-RNA interactions. J Biol Chem. 1978;253(19):6630-6632.

Ignatochkina 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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