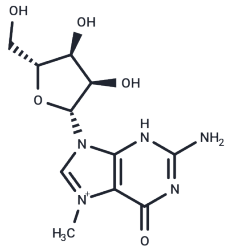
Data Sheet (Cat.No.T7319)

TargetMol

7-Methylguanosine

Chemical Properties



CAS No. : 20244-86-4

Formula: C11H16N5O5+

Molecular Weight: 298.28

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 is a novel cNIIIB nucleotidase inhibitor with an IC50 of 87.8 ± 7.5 μM.
Targets(IC50)	Nucleoside Antimetabolite/Analog,Endogenous Metabolite,DNA/RNA Synthesis

Solubility Information

Solubility	DMSO: 250 mg/mL (838.14 mM),Sonication is recommended. H2O: 83.33 mg/mL (279.37 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (3.35 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3526 mL	16.7628 mL	33.5255 mL
5 mM	0.6705 mL	3.3526 mL	6.7051 mL
10 mM	0.3353 mL	1.6763 mL	3.3526 mL
50 mM	0.0671 mL	0.3353 mL	0.6705 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

Kozarski M , Kubacka D , Wojtczak B A , et al. 7-Methylguanosine monophosphate analogues with 5'-(1,2,3-triazoyl) moiety: Synthesis and evaluation as the inhibitors of cNIIIB nucleotidase[J]. Bioorganic & Medicinal Chemistry, 2018, 26(1):191.

Li H, Yu K, Hu H, et al.METTL17 coordinates ferroptosis and tumorigenesis by regulating mitochondrial translation in colorectal cancer.Redox Biology.2024: 103087.

Kozarski M, Kubacka D, Wojtczak BA,et al.7-Methylguanosine Modifications in Transfer RNA (tRNA).Bioorg Med Chem. 2018 Jan 1;26(1):191-199.