

m7GTP sodium

Chemical Properties

CAS No. :

Formula: C₁₁H₁₈N₅O₁₄P₃.xNa

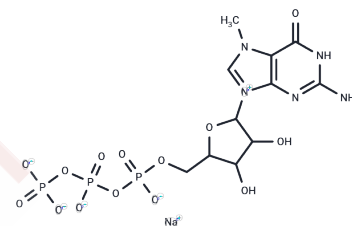
Molecular Weight:

Keep away from moisture

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	m7GTP sodium (7-Methyl-guanosine-5'-triphosphate sodium) is a structural analog of the mRNA cap that inhibits protein synthesis in vitro by binding to eIF4E (eukaryotic translation initiation factor), and is commonly used to study protein synthesis involving mRNA.
Targets(IC50)	Nucleoside Antimetabolite/Analog,Others
In vitro	m7GTP sodium acts as a competitive inhibitor of the eukaryotic translation initiation factor eIF4E. In various in vitro assays, m7GTP sodium is commonly used to block cap-dependent translation. For example, at 200µM, m7GTP sodium effectively inhibits the binding of eIF4E to capped mRNAs in cell-free systems or lysates, impairing translation initiation[1].

Solubility Information

Solubility	H ₂ O: 200 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Reference

Tsurumura T, Qiu H, Yoshida T, Tsumori Y, Hatakeyama D, Kuzuhara T, Tsuge H. Conformational polymorphism of m7GTP in crystal structure of the PB2 middle domain from human influenza A virus. PLoS One. 2013 Nov 29;8(11): e82020.

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