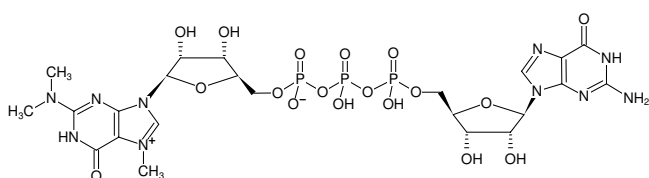



 $m_3^{2,2,7}GP_3G$ (Trimethylated Cap Analog)
 $m_3^{2,2,7}G(5')ppp(5')G$
 $P^1-(5'-2,2,7\text{-trimethyl-guanosyl}) P^3-(5'-(\text{guanosyl}))\text{triphosphate, Sodium salt}$

| Cat. No. | Amount |
|----------|--------|
| NU-853-1 | 1 mg |
| NU-853-5 | 5 mg |


 Structural formula of $m_3^{2,2,7}GP_3G$ (Trimethylated Cap Analog)

For general laboratory use.
Shipping: shipped on gel packs

Storage Conditions: store at $-20\text{ }^\circ\text{C}$

Short term exposure (up to 1 week cumulative) to ambient temperature possible.

Shelf Life: 12 months after date of delivery

Molecular Formula: $C_{23}H_{33}N_{10}O_{18}P_3$ (free acid)

Molecular Weight: 830.49 g/mol (free acid)

Exact Mass: 830.12 g/mol (free acid)

CAS#: 123212-20-4 (acid)

Purity: $\geq 95\%$ (HPLC)

Form: solid

Color: white to off-white

Spectroscopic Properties: λ_{max} 257 nm, λ 260 nm, ϵ 21.6 L $\text{mmol}^{-1} \text{cm}^{-1}$ (Tris-HCl pH 7.5)

Selected References:

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 Stepanov *et al.* (2018) Nucleotide Modifications Decrease Innate Immune Response Induced by Synthetic Analogs of snRNAs and snoRNAs. *Genes (Basel)* **doi:** 10.3390.

 Abdelhamid *et al.* (2014) Multiplicity of 5' cap structures present on short RNAs. *PLoS One* **9** (7):e102895.

 Issur *et al.* (2013) Enzymatic Synthesis of RNAs Capped with Nucleotide Analogues Reveals the Molecular Basis for Substrate Selectivity of RNA Capping Enzyme: Impacts on RNA Metabolism. *PLoS One* **8** (9):e75310.

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 Fischer *et al.* (1991) Diversity in the signals required for nuclear accumulation of U snRNPs and variety in the pathways of nuclear transport. *J. Cell Biology* **113** (4):705.

 Hamm *et al.* (1991) The trimethylguanosine cap structure of U1 snRNA is a component of a bipartite nuclear targeting signal. *Cell* **62** (3):569.