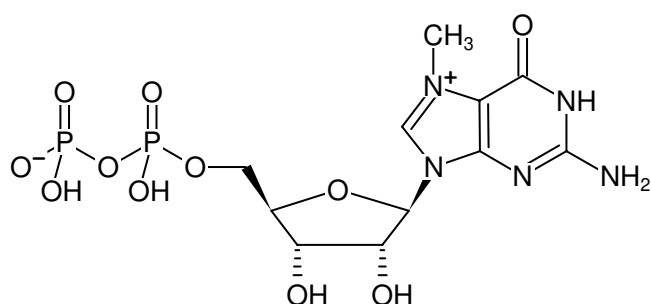


**m⁷GDP - Solid**

7-Methyl-guanosine-5'-diphosphate, Sodium salt

Cat. No.	Amount
NU-1134-10	10 mg
NU-1134-25	25 mg

Structural formula of m⁷GDP - Solid**For general laboratory use.****Shipping:** shipped on gel packs**Storage Conditions:** store at -20 °C

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

Shelf Life: 12 months after date of delivery**Molecular Formula:** C₁₁H₁₇N₅O₁₁P₂ (free acid)**Molecular Weight:** 457.23 g/mol (free acid)**Exact Mass:** 457.04 g/mol (free acid)**CAS#:** 117723-13-4 (free acid), 104809-16-7 (sodium salt)**Purity:** ≥ 95 % (HPLC)**Form:** solid**Color:** white to off-white**Spectroscopic Properties:** λ_{max} 258/280 nm, ε 9.8/8.0 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)**Applications:**Inhibition of cap-dependent translation^[1]Inhibition of mitotic division^[2]Inhibition of decapping^[3]**Selected References:**[1] Allam *et al.* (2010) Initiation factor eIF2- independent mode of c-src mRNA translation occurs via an internal ribosome entry site. *J. Biol. Chem.* **285**:5713.[2] Oulhen *et al.* (2007) After fertilization of sea urchin eggs, eIF4G is post-translationally modified and associated with the cap-binding protein eIF4E. *J. Cell Science* **120**:425.[3] Parrish *et al.* (2007) Vaccinia virus D10 protein has mRNA decapping activity, providing a mechanism for control of host and viral gene expression. *Proc. Natl. Acad. Sci. (USA)* **104**:2139.Shen *et al.* (2001) Structural and thermodynamic behavior of eukaryotic initiation factor 4E in supramolecular formation with 4E-binding protein 1 and mRNA cap analogue, studied by spectroscopic methods. *Chem Pharm Bull* **49 (10)**:1299.Carberry *et al.* (1989) A spectroscopic study of the binding of m7GTP and m7GpppG to human protein synthesis initiation factor 4E. *Biochemistry* **28 (20)**:8078.Beemon *et al.* (1977) In vitro translation yields a possible Rous sarcoma virus src gene product. *Proc Natl Acad Sci U S A.* **74 (8)**:3302.