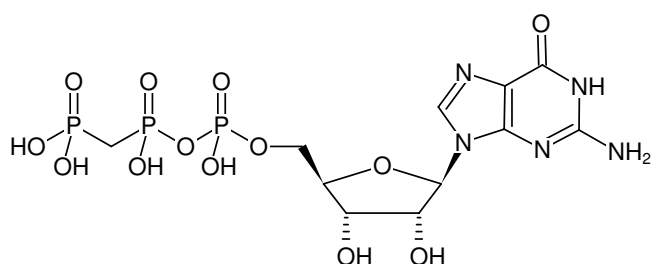


**GppCp**

(GMPPCP)

Guanosine-5'-[( $\beta,\gamma$ )-methylene]triphosphate, Sodium salt

Cat. No.	Amount
NU-402-5	5 mg
NU-402-25	25 mg



Structural formula of GppCp

**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:** C<sub>11</sub>H<sub>18</sub>N<sub>5</sub>O<sub>13</sub>P<sub>3</sub> (free acid)**Molecular Weight:** 521.21 g/mol (free acid)**Exact Mass:** 521.01 g/mol (free acid)**CAS#:** 13912-93-1, 10470-57-2 (sodium salt)**Purity:** ≥ 95 % (HPLC)**Form:** solid**Color:** white to off-white**Spectroscopic Properties:**  $\lambda_{\max}$  252 nm,  $\epsilon$  13.7 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.5)**Applications:**Conformational switch of GTPases<sup>[1]</sup>Dynamics of protein synthesis<sup>[2, 3]</sup>Conformational dynamics of Cdc42<sup>[4]</sup>**Specific Ligands:**Initiation factor IF2<sup>[2]</sup>Initiation factor IF3<sup>[3]</sup>**Selected References:**[1] Hauryliuk *et al.* (2008) Cofactor dependent conformational switching of GTPase. *Biophys. J.* **95**:1704.[2] Grigoriadou *et al.* (2007) A quantitative kinetic scheme for 70S translation initiation complex formation. *J. Mol. Biol.* **373**:562.[3] Grigoriadou *et al.* (2007) The translational fidelity function of IF3 during transition from the 30S initiation complex to the 70S initiation complex. *J. Mol. Biol.* **373**:551.[4] Loh *et al.* (1999) Backbone dynamics of inactive, active, and effector-bound Cdc42Hs from measurements of N-15 relaxation parameters at multiple field strengths. *Biochemistry-US* **38** (39):12547.Jiménez *et al.* (2011) Reconstitution and Organization of Escherichia coli Proto-ring Elements (FtsZ and FtsA) inside Giant Unilamellar Vesicles Obtained from Bacterial Inner Membranes. *J. Biol. Chem.* **286** (13): 11236Labesse *et al.* (2011) Structural and functional characterization of the Mycobacterium tuberculosis uridine monophosphate kinase: insights into the allosteric regulation. *Nucleic Acids Res.* **39** (8):3458.Mooren *et al.* (2009) Dynamin2 GTPase and Cortactin Remodel Actin Filaments. *J. Biol. Chem.* **284** (36):23995.Loh *et al.* (2001) An increase in side chain entropy facilitates effector binding: NMR characterization of the side chain methyl group dynamics in Cdc42Hs. *Biochemistry-US* **40** (15):4590.Gizachew *et al.* (2000) Structure of the complex of Cdc42Hs with a peptide derived from p-21 activated kinase. *Biochemistry-US* **39** (14):3963.Schweins *et al.* (1997) The role of the metal ion in the p21 (ras) catalysed GTP-hydrolysis: Mn<sup>2+</sup> versus Mg<sup>2+</sup>. *J. Mol. Biol.* **266** (4):847.Dye *et al.* (1996) Assembly of microtubules from tubulin bearing the nonhydrolyzable guanosine triphosphate analogue GMPPCP [Guanylyl 5'-(beta,gamma-methylenediphosphonate)]: Variability of growth rates and the hydrolysis of GTP. *Biochemistry-US* **35** (45):14331.Nag *et al.* (1995) Identification of the elongation-factor tu binding-site on 70S escherichia-coli ribosomes by chemical cross-linking. *Indian J. Biochem. Bio.*

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