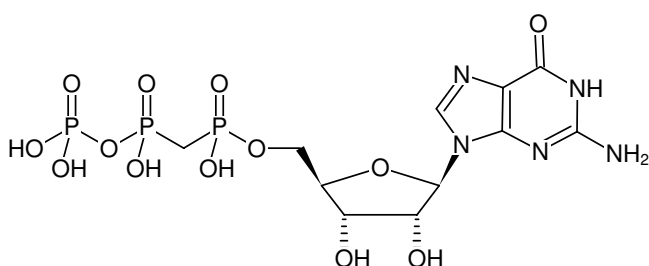


**GpCpP**

(GMPCPP)

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

Cat. No.	Amount
NU-405S	100 $\mu$ l (10 mM)
NU-405L	5 x 100 $\mu$ l (10 mM)



Structural formula of GpCpP

**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#:** 14997-54-7**Purity:**  $\geq$  95 % (HPLC)**Form:** solution in water**Color:** colorless to slightly yellow**Concentration:** 10 mM - 11 mM**pH:** 7.5  $\pm$  0.5**Spectroscopic Properties:**  $\lambda_{\max}$  252 nm,  $\epsilon$  13.7 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.5)**Applications:**Atomic force microscopy<sup>[1]</sup>Cryomicroscopy<sup>[2]</sup>Assembly of microtubule<sup>[3]</sup>Dynamic of microtubule bundles<sup>[4]</sup>**Specific Ligands:**Tubulin<sup>[5]</sup>GTP cyclohydrolase<sup>[6]</sup>**Selected References:**[1] Thomson *et al.* (2003) Large fluctuations in the disassembly rate of microtubules revealed by atomic force microscopy. *Ultramicroscopy* **97**:239.[2] Meurer-Grob *et al.* (2001) Microtubule structure at improved resolution. *Biochemistry-US* **40** (27):8000.[3] Dixit *et al.* (2009) Microtubule plus-end tracking by CLIP-170 requires EB1. *PNAS USA* **106**:492.[4] Laan *et al.* (2008) Force-generation and dynamic instability of microtubule bundles. *PNAS USA* **105**:8920.[5] Shanker *et al.* (2007) Enhanced microtubule binding and tubulin assembly properties of conformationally constrained Paclitaxel derivatives. *Biochemistry* **46**:11514.[6] Ren *et al.* (2005) GTP cyclohydrolase II structure and mechanism. *J. Biol. Chem.* **280**:36912.Franck *et al.* (2010) Direct physical study of kinetochore-microtubule interactions by reconstitution and interrogation with an optical force clamp. *Methods* **51** (2):242.Nitzsche *et al.* (2010) Studying kinesin motors by optical 3D-nanometry in gliding motility assays. *Methods Cell. Biol.* **95**:247.Gell *et al.* (2010) Microtubule dynamics reconstituted in vitro and imaged by single-molecule fluorescence microscopy. *Methods Cell. Biol.* **95**:221.Peters *et al.* (2010) Insight into the molecular mechanism of the multitasking kinesin-8 motor. *EMBO J.* **29** (20):3437.Khrapunovich-Baine *et al.* (2009) Distinct Pose of Discodermolide in Taxol Binding Pocket Drives a Complementary Mode of Microtubule Stabilization. *Biochemistry* **48** (49):11677.Nitzsche, *et al.* (2009) Quantum-dot-assisted characterization of microtubule rotations during cargo transport. *Nature Nanotechnology* **3**:553.Asbury *et al.* (2007) Tension applied through the Dam1 complex promotes

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