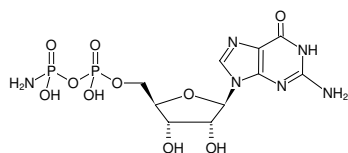


**GppNH₂**

(GMPPN)

Guanosine-5'-(β-amino)-diphosphate, Sodium salt

Cat. No.	Amount
NU-1136S	150 µl (10 mM)
NU-1136L	5 x 150 µl (10 mM)

Structural formula of GppNH₂**For research use only!****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:** C₁₀H₁₆N₆O₁₀P₂ (free acid)**Molecular Weight:** 442.22 g/mol (free acid)**Exact Mass:** 442.04 g/mol (free acid)**Purity:** ≥ 95 % (HPLC)**Form:** solution in water**Color:** colorless to slightly yellow**Concentration:** 10 mM - 11 mM**pH:** 7.5 ± 0.5**Spectroscopic Properties:** λ_{max} 252 nm, ε 13.7 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)**Selected References:**

Rudolph *et al.* (1999) Nucleotide binding to the G12V-mutant of Cdc42 investigated by X-ray diffraction and fluorescence spectroscopy: two different nucleotide states in one crystal. *Protein Sci.* **8** (4):778.

Ott *et al.* (1989) Guanine nucleotide-mediated inhibition of opioid agonist binding. Modulatory effects of ions and of receptor occupancy. *Biochem Pharmacol.* **38** (12):1931.

Eckstein *et al.* (1975) Synthesis of guanosine 5'-di- and -triphosphate derivatives with modified terminal phosphates: effect on ribosome-elongation factor G-dependent reactions. *Biochemistry* **14** (23):5225.