DATA SHEET

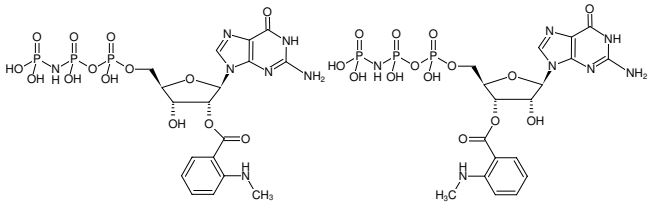
Jena Bioscience

Mant-GppNHp

(Mant-GMPPNP)

2'/3'-O-(N-Methyl-anthraniloyl)-guanosine-5'-[(β,γ)-imido]triphosphate, Triethylammonium salt

Cat. No.	Amount
NU-207S	10 µl (10 mM)
NU-207L	5 x 10 µl (10 mM)



Structural formula of Mant-GppNHp

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: 6 months after date of delivery

Molecular Formula: $C_{18}H_{24}N_7O_{14}P_3$ (free acid)

Molecular Weight: 655.34 g/mol (free acid)

Exact Mass: 655.06 g/mol (free acid)

CAS#: 148821-01-6

Purity: ≥ 90 % (HPLC)

Form: solution in water

Color: colorless to slightly yellow

Concentration: 10 mM - 11 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{max} 252/355 nm, ε 22.6/5.7 L mmol^{-1} cm^{-1} (Tris-HCl pH 7.5), λ_{exc} 355 nm, λ_{em} 448 nm

Applications:
Inhibition of AC-isoforms[1, 2]

Specific Ligands:

Gs/Gi-proteins[3]

Selected References:

[1] Gille *et al.* (2003) Mant-substituted guanine nucleotides: A novel class of potent adenylyl cyclase inhibitors. *Life Sciences* **74**:271.

[2] Gille *et al.* (2003) 2' (3')-O- (N-methylanthraniloyl)-substituted GTP analogs: a novel class of potent competitive adenylyl cyclase inhibitors. *J. Biol. Chem.* **278**:12672.

[3] Gille and Seifert (2003) Low affinity interactions of BODIPY-FL-GTPγS and BODIPY-FL-GppNHp with Gi- and Gs-proteins. *Naunyn Schmiedebergs Archiv of Pharmacology* **368**:210.

Wehner *et al.* (2012) The guanine cap of human guanylate-binding protein 1 is responsible for dimerization and self-activation of GTP hydrolysis. *FEBS J.* **279 (2)**:203.

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Ugolev *et al.* (2008) Liposomes Comprising Anionic but Not Neutral Phospholipids Cause Dissociation of Rac (1 or 2).RhoGDI Complexes and Support Amphiphile-independent NADPH Oxidase Activation by Such Complexes. *J. Biol. Chem.* **281 (28)**:19204.

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Graham *et al.* (1999) The conserved arginine in rho-GTPase-activating protein is essential for efficient catalysis but not for complex formation with Rho.GDP and aluminum fluoride. *Biochemistry* **38**:985.

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Herrmann *et al.* (1996) Differential interaction of the ras family GTP-binding proteins H-Ras, Rap1A, and R-Ras with the putative effector molecules Raf kinase and Ral-guanine nucleotide exchange factor. *J. Biol. Chem.* **271**:6794.

Herrmann *et al.* (1995) Quantitative analysis of the complex between p21ras and the Ras-binding domain of the human Raf-1 protein kinase. *J. Biol. Chem.* **270**:2901.

Neal *et al.* (1990) Hydrolysis of GTP by p21NRAS, the NRAS protooncogene product, is accompanied by a conformational change in the wild-type protein: use of a single fluorescent probe at the catalytic site. *Proc. Natl. Acad. Sci. USA* **87**:3562.