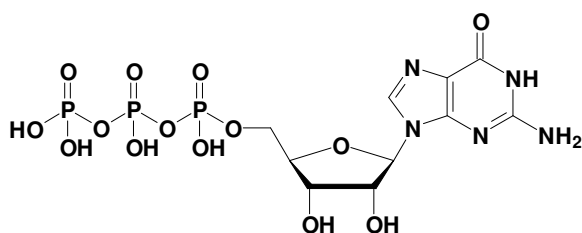


GTP, solution

Guanosine 5'-triphosphate, sodium salt

100 mM

Cat. No.	Amount
NU-1012	1 ml (100 μ mol)



For *in vitro* use only

Quality guaranteed for 12 months

Store at -20°C, short term (up to one week) exposure to ambient temperature possible

Concentration

100 mM +/-2%

Form

clear aqueous solution, pH 8.0 +/-0.2 (4°C)

Purity

>99%

Molecular Formula

C₁₀H₁₃N₅O₁₄P₃ (Anion)

Molecular Weight

520.15 (Anion)

Absorbance

absorbance max: 252 nm (pH 7)

ϵ at absorbance max: 14.2 mmol⁻¹ cm⁻¹

Quality Control Specifications

in vitro transcription:

suitable

contamination with bacterial and human DNA:

not detectable

activity of DNase, Protease or Phosphatase:

not detectable

Description

Ultrapure GTP supplied as clear aqueous solution (pH 8.0).

Applications

- Assembly of ribosomal units [1]
- Microdomain formation by small GTPases [2]
- Antiviral activity of large GTPases (dynamin superfamily) [3]
- Regulation of exocytosis by Rho GTPases [4]
- Mechanism of hydrolysis by ADP-ribosylation factors[5]

Specific Ligands:

- Guanylate binding proteins [6]
- Yeast septins [7]

Selected References:

[1] Blombach *et al.* (2011) Assembling the archeal ribosome: roles for transition factor-related GTPases. *Biochemical Society Transactions* **39**:45.

[2] Stuermer (2011) Microdomain-forming proteins and the role of the reggies/flotillins during axon regeneration in zebrafish. *Biochimica Biophysica Acta, Molecular Basis of Disease* **1812**:415.

[3] Haller *et al.* (2011) Human MxA protein: An Interferon-induced Dynamin-like GTPase with broad antiviral activity. *J. Interferon and Cytokine Research* **31**:79.

[4] Stephane *et al.* (2011) Rho GTPases and exocytosis: what are the molecular links? *Seminars in Cell and Developmental Biology* **22**:27.

[5] East *et al.* (2011) Models for the function of Arf GAPs. *Seminars in Cell and Developmental Biology* **22**:3.

[6] Vestal *et al.* (2011) The guanylate binding proteins: Emerging insights into the biochemical properties and functions of this family of large interferon-induced guanosine triphosphatase. *J. Interferon and Cytokine Research* **31**:89.

[7] Younghoon *et al.* (2011) Septin structure and function in yeast and beyond. *Trends in Cell Biology* **21**:141.

Drummond *et al.* (2011) Reconstitution and Organization of Escherichia coli Proto-ring Elements (FtsZ and FtsA) inside Giant



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