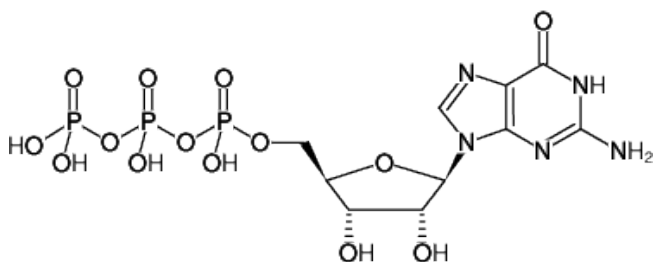




GTP - Solution

Guanosine-5'-triphosphate, Sodium salt

Cat. No.	Amount
GTP_1ML	1 ml (100 mM)
GTP_10ML	10 ml (100 mM)
GTP_100ML	100 ml (100 mM)
GTP_200ML	200 ml (100 mM)



Structural formula of GTP - Solution

For *in vitro* use only!

Shipping: shipped on blue ice

Storage Conditions: store at -20 °C

Additional Storage Conditions: Short term exposure (up to 1 week cumulative) to ambient temperature possible.

Shelf Life: 12 months

Molecular Formula: C₁₀H₁₆N₅O₁₄P₃ (free acid)

Molecular Weight: 523.18 g/mol (free acid)

CAS#: 36051-31-7

Purity: ≥ 99.0 % (HPLC)

Form: clear aqueous solution

Concentration: 100 mM ±2 %

pH: 8.0 ±0.2 (22 °C)

Spectroscopic Properties: λ_{max} 252 nm, ε 14.2 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.0)

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]

Quality Control Specifications: *in vitro* transcription (T7 RNA polymerase): visible RNA fragments after 5 min incubation, DNases, RNases, Nicking Activity: not detectable, Proteases: not detectable

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/flottilins 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 Unilamellar Vesicles Obtained from Bacterial Inner Membranes. *Methods Mol. Biol.* **777**:29.

Katsuki *et al.* (2011) Preparation of dual-color polarity-marked fluorescent microtubule seeds. *Methods Mol. Biol.* **777**:117.

Ramachandran *et al.* (2009) Membrane Insertion of the Pleckstrin Homology



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Domain Variable Loop 1 Is Critical for Dynamin-catalyzed Vesicle Scission.
Molecular Biology of the Cell **20 (22)**:4630.