

## Guanosine 5'-triphosphate sodium salt (GTP)

Cat. # BST06

Upon arrival store at 4°C (desiccated)

See datasheet for storage after reconstitution

### Material

Guanosine 5'-triphosphate (GTP) is supplied as a white powder. Chemical formula  $C_{10}H_{16}N_5O_{14}P_3 \cdot xNa^+$ . The molecular weight of the compound is 523.18. CAS # 36051-31-7, EC # 252-847-2.

### Storage and Reconstitution

Briefly centrifuge to collect the product at the bottom of the tube. The lyophilized compound, when stored desiccated to <10% humidity at 4°C or -70°C is stable for 6 months. The GTP should be reconstituted to 100 mM with 100  $\mu$ l of cold de-ionized water. The GTP should then be aliquoted into experiment sized amounts, snap frozen in liquid nitrogen and stored at or below -20°C. The GTP stock is stable for 6 months if stored at or below -20°C.

### Purity

Compound is greater than 95% pure as determined by HPLC analysis.

### Uses

Generally GTP is a carrier of phosphates and pyrophosphates involved in channeling chemical energy into specific biosynthetic and signal transduction pathways. GTP is required for tubulin stability and for the formation of microtubules in vivo and in vitro.

### Quality Control

GTP is >95% pure by HPLC analysis and can support the polymerization of tubulin heterodimers into microtubules under the following conditions; 5 mg/ml tubulin in 80 mM PIPES pH8.0, 1 mM EGTA, 2 mM  $MgCl_2$  was incubated at 37°C for 30 minutes in the presence of 1mM GTP. Under these conditions an  $OD_{340nm}$  of between 0.75-1.0 was achieved, indicating >90% tubulin polymerization.

### Product Citations / Related Products

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