Product Information

Guanosine 5’-triphosphate (sodium salt hydrate)
Item No. 16060

Formal Name: guanosine 5’-(tetrahydrogen triphosphate), disodium salt, trihydrate
Synonym: GTP
MF: C_{10}H_{14}N_{5}O_{14}P_{3} • 2Na [3H_{2}O]
FW: 621.2
Purity: ≥90%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures
For long term storage, we suggest that guanosine 5’-triphosphate (GTP) (sodium salt hydrate) be stored as supplied at -20°C. It should be stable for at least two years.

GTP (sodium salt hydrate) is supplied as a crystalline solid. Aqueous solutions of GTP (sodium salt hydrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of GTP (sodium salt hydrate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

GTP acts as a substrate for the synthesis of RNA during the transcription process and the synthesis of DNA during DNA replication. It is generated by the citric acid cycle and provides a source of energy for protein synthesis and gluconeogenesis, activating substrates in metabolic reactions. GTP is essential for G protein-related signal transduction in second-messenger mechanisms where it is converted to GDP through the action of GTPases.

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/16060