

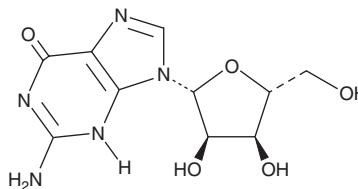
# PRODUCT INFORMATION



## Guanosine

Item No. 27702

CAS Registry No.: 118-00-3  
Synonyms: Guanine Ribonucleoside, NSC 19994  
MF:  $C_{10}H_{13}N_5O_5$   
FW: 283.2  
Purity:  $\geq 98\%$   
UV/Vis.:  $\lambda_{\max}$ : 254 nm  
Supplied as: A crystalline solid  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Guanosine is supplied as a crystalline solid. A stock solution may be made by dissolving the guanosine in the solvent of choice, which should be purged with an inert gas. Guanosine is soluble in the organic solvent DMSO at a concentration of approximately 30 mg/ml.

Guanosine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, guanosine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Guanosine has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Guanosine is a purine nucleoside that is comprised of the purine base guanine attached to a ribose moiety.<sup>1</sup> Mono-, di-, tri-, and cyclic monophosphorylated forms of guanosine (GMP, GDP, GTP, and cGMP, respectively) are essential for a variety of endogenous biochemical processes, such as signal transduction, metabolism, and RNA synthesis.<sup>2-4</sup>

### References

1. Voet, D. and Voet, J.G. *Biochemistry*. 3rd ed., John Wiley & Sons, Hoboken, NJ (2004).
2. Hanson, R.W. and Garber, A.J. Phosphoenolpyruvate carboxykinase. I. Its role in gluconeogenesis. *Am. J. Clin. Nutr.* **25(10)**, 1010-1021 (1972).
3. Neer, E.J. G proteins: Critical control points for transmembrane signals. *Protein Sci.* **3(1)**, 3-14 (1994).
4. Ohta, T., Sarkar, S., and Thach, R.E. The role of guanosine 5'-triphosphate in the initiation of peptide synthesis. III. Binding of formylmethionyl-tRNA to ribosomes. *Proc. Nat. Acad. Sci. USA* **58(4)**, 1638-1644 (1967).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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