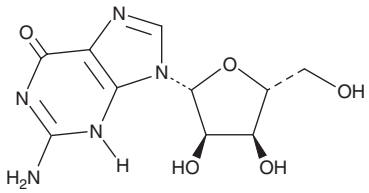
PRODUCT INFORMATION

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: ≥98%
UV/Vis.: λ_{max}: 254 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥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.[1] 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.[2-4]

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).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM