

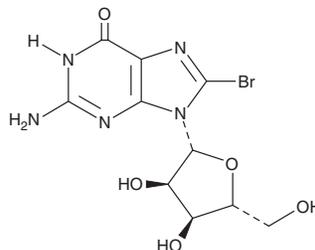
PRODUCT INFORMATION



8-Bromoguanosine

Item No. 18152

CAS Registry No.: 4016-63-1
Formal Name: 8-bromo-guanosine
Synonyms: 2-Amino-8-bromo-6-hydroxypurine riboside, NSC 79211, NSC 174257
MF: C₁₀H₁₂BrN₅O₅
FW: 362.1
Purity: ≥98%
UV/Vis.: λ_{max}: 261 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

8-Bromoguanosine is supplied as a crystalline solid. A stock solution may be made by dissolving the 8-bromoguanosine in the solvent of choice, which should be purged with an inert gas. 8-Bromoguanosine is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of 8-bromoguanosine in these solvents is approximately 20 and 30 mg/ml, respectively.

8-Bromoguanosine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 8-bromoguanosine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 8-Bromoguanosine has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

8-Bromoguanosine is a brominated derivative of guanosine. Purine nucleobases with bromine at position eight are known to preferentially adopt the *syn* conformation as nucleosides and, thus, can be used to reduce the conformational heterogeneity of RNA to potentially enhance its function.¹ It is reported to activate lymphocytes through an intracellular mechanism to exert immunostimulatory effects.^{2,3}

References

1. Yajima, R., Proctor, D.J., Kierzek, R., *et al.* A conformationally restricted guanosine analog reveals the catalytic relevance of three structures of an RNA enzyme. *Chem. Biol.* **14**, 23-30 (2007).
2. Goodman, M.G. and Weigle, W.O. Intracellular lymphocyte activation and carrier-mediated transport of C8-substituted guanine ribonucleosides. *Proc. Natl. Acad. Sci. USA* **81**, 862-866 (1984).
3. Giorgio, S. and Barco, S.C. Intracellular *Leishmania amazonensis* killing induced by the guanine nucleoside 8-bromoguanosine. *Rev. Inst. Med. Trop. S. Paulo.* **40(4)**, 1-9 (1998).

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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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