

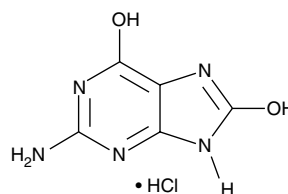
Product Information



8-hydroxy Guanine (hydrochloride)

Item No. 89290

CAS Registry No.: 1246818-54-1
Formal Name: 2-amino-1H-purine-6,8-dione, monohydrochloride
Synonyms: NSC 22720, 8-Oxoguanine
MF: C₅H₅N₃O₂ • HCl
FW: 203.6
Purity: ≥90% (contains <10% acetic acid)
Stability: ≥1 year at room temperature
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 284 nm



Laboratory Procedures

For long term storage, we suggest 8-hydroxy guanine (hydrochloride) be stored as supplied at room temperature. It should be stable for at least one year.

8-hydroxy Guanine (hydrochloride) is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For greater aqueous solubility, 8-hydroxy guanine (hydrochloride) can be directly dissolved in 2 M NaOH (1 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. We do not recommend storing the aqueous solution for more than one day.

8-hydroxy Guanine is produced by oxidative degradation of DNA by hydroxyl radical.¹⁻³ It serves as a measure of oxidative stress in biological systems.^{1,2}

References

1. Spencer, J.P.E., Jenner, A., Chimel, K., *et al.* DNA strand breakage and base modification induced by hydrogen peroxide treatment of human respiratory tract epithelial cells. *FEBS Lett.* **374**, 233-236 (1995).
2. Jaruga, P., Zastawny, T.H., Skokowski, J., *et al.* Oxidative DNA base damage and antioxidant enzyme activities in human lung cancer. *FEBS Lett.* **341**, 59-64 (1994).
3. Zastawny, T.H., Altman, S.A., Randers-Eichhorn, L., *et al.* DNA base modifications and membrane damage in cultured mammalian cells treated with iron ions. *Free Radic. Biol. Med.* **18**, 1013-1022 (1995).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/89290

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

Copyright Cayman Chemical Company, 09/24/2012

Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com