

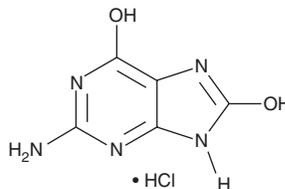
PRODUCT INFORMATION



8-Hydroxyguanine (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: C₅H₅N₅O₂ • HCl
FW: 203.6
Purity: ≥90% (contains <10% acetic acid)
UV/Vis.: λ_{max}: 284 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years



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

Laboratory Procedures

8-Hydroxyguanine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the 8-hydroxyguanine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. 8-Hydroxyguanine (hydrochloride) is soluble in the organic solvent ethanol at a concentration of approximately 100 µg/ml. For greater aqueous solubility, 8-hydroxyguanine (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.

Description

8-Hydroxyguanine 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).

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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