

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: C₅H₅N₅O₂ • HCl

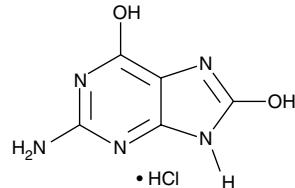
FW: 203.6

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

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MATERIAL SAFETY DATA

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