

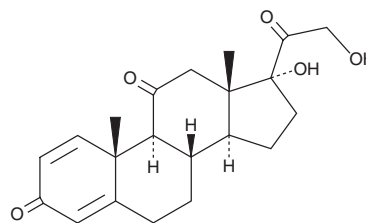
PRODUCT INFORMATION



Prednisone

Item No. 20677

CAS Registry No.: 53-03-2
Formal Name: 17,21-dihydroxy-pregna-1,4-diene-3,11,20-trione
Synonyms: 1,2-Dehydrocortisone, NSC 10023
MF: C₂₁H₂₆O₅
FW: 358.4
Purity: ≥98%
UV/Vis.: λ_{max}: 208, 238 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

Prednisone is supplied as a crystalline solid. A stock solution may be made by dissolving the prednisone in the solvent of choice. Prednisone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of prednisone in these solvents is approximately 3, 30, and 25 mg/ml, respectively.

Prednisone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, prednisone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Prednisone has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Prednisone is a synthetic glucocorticoid with anti-inflammatory and immunosuppressant activities.¹ It inhibits paw swelling induced by sodium urate in mice by 86% when administered at a dose of 12 mg/kg.² Prednisone reduces release of IL-6, monocyte chemoattractant protein-2 (MCP-2), MCP-3, RANTES, and TNF-α in stented arteries in a rabbit model of atherosclerosis.³ Formulations containing prednisone have been used in the treatment of non-Hodgkin lymphoma as part of CHOP chemotherapy and as anti-inflammatory or immunosuppressive agents.

References

1. Brownie, A.C. The metabolism of adrenal cortical steroids. *The Adrenal Gland* **2**, 209-25 (1992).
2. Fitzgerald, T.J., Williams, B., and Uyeki, E.M. Effects of antimitotic and anti-inflammatory agents on sodium urate-induced paw swelling in mice. *Pharmacology* **6(5)**, 265-273 (1971).
3. Ribichini, F., Joner, M., Ferrero, V., et al. Effects of oral prednisone after stenting in a rabbit model of established atherosclerosis. *J. Am. Coll. Cardiol.* **50(2)**, 176-185 (2007).

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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