

PRODUCT INFORMATION

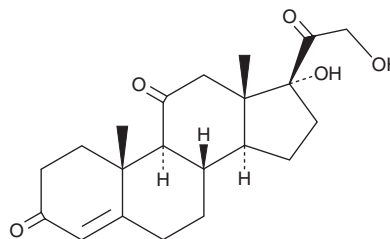


Cortisone

Item No. 30763

CAS Registry No.: 53-06-5
Formal Name: 17,21-dihydroxy-pregn-4-ene-3,11,20-trione
Synonyms: 17 α -hydroxy-11-Dehydrocorticosterone,
Kendall's Compound E,
4-Pregnene-17 α ,21-diol-3,11,20-trione,
Reichstein's Substance Fa

MF: C₂₁H₂₈O₅
FW: 360.4
Purity: \geq 95%
UV/Vis.: λ_{max} : 238 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

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

Cortisone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cortisone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Cortisone has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Cortisone is a glucocorticoid receptor-inert precursor and metabolite of the glucocorticoid cortisol (hydrocortisone; Item No. 20739).^{1,2} Cortisone is converted to glucocorticoid receptor-active cortisol by 11 β -hydroxysteroid dehydrogenase (11 β -HSD1) and is regenerated by metabolism of cortisol by 11 β -HSD2 *in vivo*.

References

1. Dammann, C., Stapelfeld, C., and Maser, E. Expression and activity of the cortisol-activating enzyme 11 β -hydroxysteroid dehydrogenase type 1 is tissue and species-specific. *Chem. Biol. Interact.* **303**, 57-61 (2019).
2. Viglietti, A.I.P., Giambartolomei, G.H., and Delpino, M.V. Endocrine modulation of *Brucella abortus*-infected osteocytes function and osteoclastogenesis via modulation of RANKL/OPG. *Microbes Infect.* **21(7)**, 287-295 (2019).

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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