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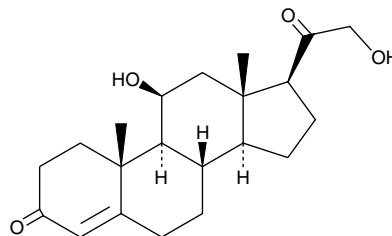
Product Information



Corticosterone

Item No. 16063

CAS Registry No.: 50-22-6
Formal Name: 11 β ,21-dihydroxy-pregn-4-ene-3,20-dione
Synonyms: 17-deoxy Cortisol, 11 β ,21-DHP, NSC 9705, 11 β ,21-dihydroxy Progesterone
MF: C₂₁H₃₀O₄
FW: 346.5
Purity: \geq 98%
Stability: \geq 2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max} : 241 nm



Laboratory Procedures

For long term storage, we suggest that corticosterone be stored as supplied at -20°C. It should be stable for at least two years.

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

Corticosterone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, corticosterone should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Corticosterone has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Corticosterone is a steroid hormone produced in the cortex of the adrenal glands that binds to both glucocorticoid and mineralocorticoid receptors.¹ It is produced in response to ACTH (corticotrophic hormone) and is the precursor to aldosterone synthesis.² Since the production of glucocorticoids is increased by stress, it is often used as a biomarker of stress.³ Plasma corticosterone levels have a circadian variation and corticosterone may be important in the regulation of the sleep-wake cycle.^{4,5}

References

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3. Goymann, W., Möstl, E., and Gwinner, E. Corticosterone metabolites can be measured noninvasively in excreta of European stonechats (*Saxicola torquata rubicola*). *The Auk* **119**(4), 1167-1173 (2002).
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5. Millsbaugh, J.J., Washburn, B.E., Milanick, M.A., *et al.* Effects of heat and chemical treatments on fecal glucocorticoid measurements: Implications for sample transport. *Wildl. Soc. Bull.* **31**(2), 399-406 (2003).

Related Products

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

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 Safety Data Sheet, which has been sent via email to your institution.

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