Corticosterone

Product Information

CAS Registry No.: 50-22-6
Formal Name: 11β,21-dihydroxy-preg-4-ene-3,20-dione
Synonyms: 17-deoxy Cortisol, 11β,21-DHP, NSC 9705, 11β,21-dihydroxy Progesterone
MF: C21H30O4
FW: 346.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λmax: 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 (corticotropic 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


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16063

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 or is available via e-mail to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals herein. Cayman warrants only to the original customer that the material will meet our specifications, and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after receipt of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.