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Produktinformation

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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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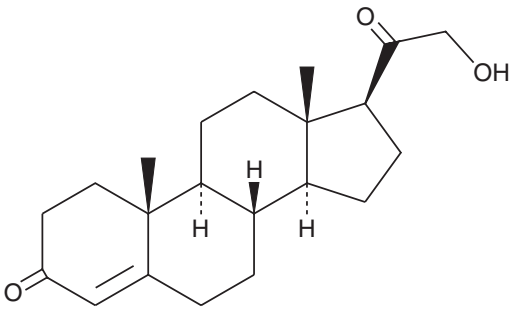
PRODUCT INFORMATION

11-deoxy Corticosterone

Item No. 22916

CAS Registry No.:	64-85-7
Formal Name:	21-hydroxy-pregn-4-ene-3,20-dione
Synonyms:	21-hydroxy Progesterone DOC NSC 11319
MF:	$C_{21}H_{30}O_3$
FW:	330.5
Purity:	≥95%
UV/Vis.:	λ_{max}: 240 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

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

DOC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DOC should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. DOC 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.

Description

DOC is an endogenous mineralocorticoid synthesized in the zona fasciculata and zona glomerulosa of the adrenal gland.[1] It is a metabolite of progesterone (Item No. 15876) and precursor to aldosterone (Item No. 15273) and corticosterone (Item No. 16063).[2] DOC is metabolized to the neuroactive compound (3α,5α)-2,21-dihydroxypregnan-20-one (THDOC), which positively modulates $GABA_A$ receptors and produces effects similar to barbiturates in rats.[3] Injections of naloxone (Item Nos. 15594 | ISO60191) and corticotropin-releasing hormone (CRH) increase, while dexamethasone decreases, DOC in cynomolgus monkeys.[1] DOC levels are increased 3.4-fold in obese and diabetic mice.[2]

References

1. Jimenez, V.A., Porcu, P., Morrow, A.L., *et al.* Adaptations in basal and hypothalamic-pituitary-adrenal-activated deoxycorticosterone responses following ethanol self-administration in cynomolgus monkeys. *Front. Endocrinol.* (Lausanne) **8(19)**, (2017).
2. Hofmann, A., Peitzsch, M., Brunssen, C., *et al.* Elevated steroid hormone production in the db/db mouse model of obesity and type 2 diabetes. *Horm. Metab. Res.* **49(1)**, 43-49 (2017).
3. Majewska, M.D., Harrison, N.L., Schwartz, R.D., *et al.* Steroid hormone metabolites are barbiturate-like modulators of the GABA receptor. *Science* **232(4753)**, 1004-1007 (1986).

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