

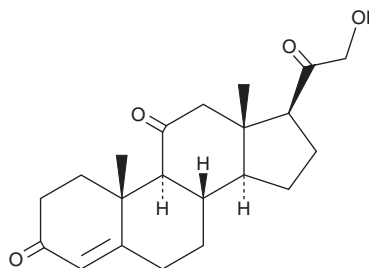
# PRODUCT INFORMATION



## 11-Dehydrocorticosterone

Item No. 32907

**CAS Registry No.:** 72-23-1  
**Formal Name:** 21-hydroxy-pregn-4-ene-3,11,20-trione  
**Synonyms:** 11-DHC, DHCS, Kendall's Compound A, NSC 9702  
**MF:** C<sub>21</sub>H<sub>28</sub>O<sub>4</sub>  
**FW:** 344.4  
**Purity:** ≥90%  
**Supplied as:** A 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

11-Dehydrocorticosterone is supplied as a solid. A stock solution may be made by dissolving the 11-dehydrocorticosterone in the solvent of choice, which should be purged with an inert gas. 11-Dehydrocorticosterone is slightly soluble in chloroform and methanol.

### Description

11-Dehydrocorticosterone is an endogenous mineralocorticoid.<sup>1-3</sup> It increases Na<sup>+</sup>/K<sup>+</sup>-ATPase mRNA expression in vascular smooth muscle cells and inhibits aldosterone action in *B. marinus* toad bladder tissue in a concentration-dependent manner.<sup>1,2</sup> 11-Dehydrocorticosterone decreases the sodium/creatinine ratio and increases the potassium/creatinine ratio in rat urine in a dose-dependent manner in a model of 11 $\beta$ -hydroxysteroid dehydrogenase inhibition induced by carbenoxolone (Item No. 18240).<sup>3</sup> Chronic administration of 11-dehydrocorticosterone increases plasma glucocorticoids levels, body weight gain, and adiposity, as well as induces insulin resistance in mice.<sup>4</sup>

### References

1. Muto, S., Nemoto, J., Ebata, S., *et al.* Corticosterone and 11-dehydrocorticosterone stimulate Na,K-ATPase gene expression in vascular smooth muscle cells. *Kidney Int.* **54(2)**, 492-508 (1998).
2. Brem, A.S., Matheson, K.L., Barnes, J.L., *et al.* 11-Dehydrocorticosterone, a glucocorticoid metabolite, inhibits aldosterone action in toad bladder. *Am. J. Physiol.* **261(5)**, F873-F879 (1991).
3. Souness, G.W. and Morris, D.J. 11-Dehydrocorticosterone in the presence of carbenoxolone is a more potent sodium retainer than corticosterone. *Steroids* **58(1)**, 24-28 (1993).
4. Harno, E., Cottrell, E.C., Keevil, B.G., *et al.* 11-Dehydrocorticosterone causes metabolic syndrome, which is prevented when 11 $\beta$ -HSD1 is knocked out in livers of male mice. *Endocrinology* **154(10)**, 3599-3609 (2013).

#### 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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