

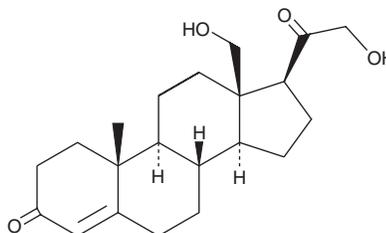
# PRODUCT INFORMATION



## 18-hydroxy-11-deoxy Corticosterone

Item No. 10007851

**CAS Registry No.:** 379-68-0  
**Formal Name:** 18,21-dihydroxy-pregn-4-ene-3,20-dione  
**Synonyms:** 18-Hydroxydeoxycorticosterone, 18-OH-DOC  
**MF:** C<sub>21</sub>H<sub>30</sub>O<sub>4</sub>  
**FW:** 346.5  
**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

18-hydroxy-11-deoxy Corticosterone (18-OH-DOC) is supplied as a solid. A stock solution may be made by dissolving the 18-OH-DOC in the solvent of choice. 18-OH-DOC is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 18-OH-DOC in these solvents is approximately 25 mg/ml.

### Description

18-OH-DOC is a mineralocorticoid secreted by the zona fasciculata of the adrenal gland.<sup>1,2</sup> Its biosynthesis is regulated by adrenocorticotrophic hormone (ACTH; Item No. 24257) as well as angiotensin II (Item No. 17150), which increases 18-OH-DOC production in isolated human adrenal glomerulosa cells.<sup>1,3</sup> 18-OH-DOC can be formed *via* conversion of 11-deoxy corticosterone (DOC; Item No. 22916) in human SK-MEL188 melanoma cells.<sup>4</sup> 18-OH-DOC is an intermediate in the metabolism of progesterone (Item No. 15876) and can be converted to aldosterone (Item No. 15273) by the capsular portion of rat adrenal glands.<sup>3,4</sup> Continuous infusion of 18-OH-DOC (200 µg/rat per day) increases systolic blood pressure in uninephrectomized saline-drinking rats.<sup>2</sup> Plasma levels of 18-OH-DOC are elevated in a *db/db* mouse model of type 2 diabetes.<sup>5</sup>

### References

1. Braley, L.M. and Williams, G.H. The effect of angiotensin II and saralasin on 18-hydroxy-11-deoxycorticosterone production by isolated human adrenal glomerulosa cells. *J. Clin. Endocrinol. Metab.* **49(4)**, 600-603 (1979).
2. Carroll, J.C., Komanicky, P., and Melby, J.C. The relationship between plasma 18-hydroxy-11-deoxycorticosterone levels and production of hypertension in the rat. *J. Steroid Biochem.* **14(10)**, 989-995 (1981).
3. Müller, J. The conversion of 18-hydroxycorticosterone and 18-hydroxy-11-deoxycorticosterone to aldosterone by rat adrenal tissue: Evidence for an alternative biosynthetic pathway. *J. Steroid Biochem.* **13(3)**, 245-251 (1980).
4. Slominski, A., Gomez-Sanchez, C.E., Foecking, M.F., *et al.* Metabolism of progesterone to DOC, corticosterone and 18OHDOC in cultured human melanoma cells. *FEBS Lett.* **455(3)**, 364-366 (1999).
5. Giesbertz, P., Padberg, I., Rein, D., *et al.* Metabolite profiling in plasma and tissues of *ob/ob* and *db/db* mice identifies novel markers of obesity and type 2 diabetes. *Diabetologia* **58(9)**, 2133-2143 (2015).

#### 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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