

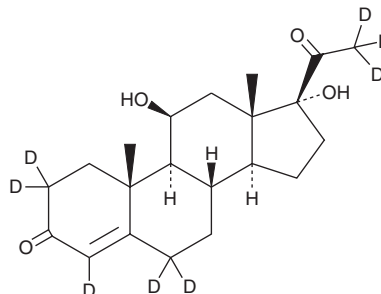
# PRODUCT INFORMATION



## 21-Deoxycortisol-d<sub>8</sub>

Item No. 35556

**CAS Registry No.:** 2479914-04-8  
**Formal Name:** 11,17-dihydroxy-pregn-4-ene-3,20-dione-2,2,4,6,6,21,21,21-d<sub>8</sub>  
**Synonym:** 21-Dehydrohydrocortisone-d<sub>8</sub>  
**MF:** C<sub>21</sub>H<sub>22</sub>D<sub>8</sub>O<sub>4</sub>  
**FW:** 354.5  
**Chemical Purity:** ≥98% (21-Deoxycortisol)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>8</sub>); ≤1% d<sub>0</sub>  
**UV/Vis.:** λ<sub>max</sub>: 241 nm  
**Supplied as:** A crystalline 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

21-Deoxycortisol-d<sub>8</sub> is intended for use as an internal standard for the quantification of 21-deoxycortisol (Item No. 30873) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

21-Deoxycortisol-d<sub>8</sub> is supplied as a crystalline solid. A stock solution may be made by dissolving the 21-deoxycortisol-d<sub>8</sub> in the solvent of choice, which should be purged with an inert gas. 21-Deoxycortisol-d<sub>8</sub> is soluble in DMSO.

### Description

21-Deoxycortisol is a corticosteroid metabolite of 17-hydroxyprogesterone produced in the adrenal gland via 11-hydroxylation by 11β-hydroxylase.<sup>1,2</sup> Serum levels of 21-deoxycortisol are elevated in patients with congenital adrenal hyperplasia that are heterozygous for mutations in CYP2A21, the gene encoding steroid 21-hydroxylase, and have been used as a biomarker for the detection of 21-hydroxylase deficiencies.

### References

1. Fiet, J., Villette, J.-M., Galons, H., *et al.* The application of a new highly-sensitive radioimmunoassay for plasma 21-deoxycortisol to the detection of steroid-21-hydroxylase deficiency. *Ann. Clin. Biochem.* **31**(Pt. 1), 56-64 (1994).
2. Cristoni, S., Cuccato, D., Sciannamblo, M., *et al.* Analysis of 21-deoxycortisol, a marker of congenital adrenal hyperplasia, in blood by atmospheric pressure chemical ionization and electrospray ionization using multiple reaction monitoring. *Rapid Commun. Mass Spectrom.* **18**(1), 77-82 (2004).

#### 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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