

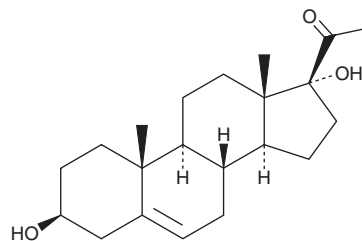
PRODUCT INFORMATION



17 α -hydroxy Pregnenolone

Item No. 29181

CAS Registry No.: 387-79-1
Formal Name: 3 β ,17-dihydroxy-pregn-5-en-20-one
Synonyms: NSC 63853, 17- α -OH Pregnenolone
MF: C₂₁H₃₂O₃
FW: 332.5
Purity: \geq 95%
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

17 α -hydroxy Pregnenolone is supplied as a solid. A stock solution may be made by dissolving the 17 α -hydroxy pregnenolone in the solvent of choice, which should be purged with an inert gas. 17 α -hydroxy Pregnenolone is soluble in the organic solvent dimethyl formamide (DMF) at a concentration of approximately 0.5 mg/ml.

17 α -hydroxy Pregnenolone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 17 α -hydroxy pregnenolone should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 17 α -hydroxy Pregnenolone has a solubility of approximately 0.4 mg/ml in a 1:1.5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

17 α -hydroxy Pregnenolone is a metabolite of pregnenolone (Item No. 19864) and a precursor in the biosynthesis of dehydroepiandrosterone (DHEA; Item No. 15728).¹ It is formed from pregnenolone by cytochrome P450 (CYP) isoform CYP17A1 hydroxylase activity and then converted to dehydroepiandrosterone by CYP17A1-mediated 17,20-lyase activity. Plasma levels of 17 α -hydroxy pregnenolone are elevated in patients with type II 3 β -hydroxysteroid dehydrogenase deficiency, a form of congenital adrenal hyperplasia.²

References

1. Petrunak, E.M., DeVore, N.M., Porubsky, P.R., *et al.* Structures of human steroidogenic cytochrome P450 17A1 with substrates. *J. Biol. Chem.* **289**(47), 32952-32964 (2014).
2. Fiet, J., Giton, F., Boudi, A., *et al.* Plasma 17-OH pregnenolone: Comparison of a time-resolved fluoroimmunoassay using a new tracer 17-OH pregnenolone-3-oxyacetyl-biotine with a radioimmunoassay using 125I 17-OH pregnenolone-3-hemisuccinate-histamine. *Steroids* **66**(2), 81-86 (2001).

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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