

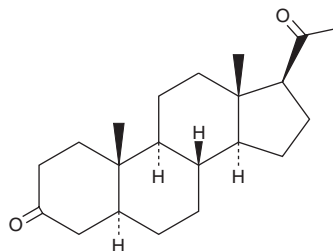
PRODUCT INFORMATION



5 α -Dihydroprogesterone

Item No. 31505

CAS Registry No.: 566-65-4
Formal Name: (5 α)-pregnane-3,20-dione
Synonyms: 5 α -DHP, NSC 18319, 5 α -Pregnanedione
MF: C₂₁H₃₂O₂
FW: 316.5
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

5 α -Dihydroprogesterone (5 α -DHP) is supplied as a solid. A stock solution may be made by dissolving the 5 α -DHP in the solvent of choice, which should be purged with an inert gas. 5 α -DHP is soluble in the organic solvent chloroform at a concentration of approximately 30 mg/ml.

Description

5 α -DHP is a progesterone receptor agonist and metabolite of progesterone (Item No. 15876).¹ It is formed from progesterone by 5 α -reductase.² It induces gene expression mediated by the progesterone receptor (PR) in reporter assays using HepG2 cells expressing equine PR or human PR (EC₅₀s = 14 and 23.1 nM, respectively).¹ 5 α -DHP (0.7 mg/kg) maintains equine pregnancy in the absence of luteal progesterone. It increases proliferation of C4HD murine mammary cells when used at a concentration of 1 μ M and induces tumor formation in a C4HD mouse model of tumorigenesis in a dose-dependent manner.³ 5 α -DHP levels increase locally following spinal cord injury or traumatic brain injury in rats and ischemic brain injury in mice.²

References

- Scholtz, E.L., Krishnan, S., Ball, B.A., *et al.* Pregnancy without progesterone in horses defines a second endogenous biopotent progesterone receptor agonist, 5 α -dihydroprogesterone. *Proc. Natl. Acad. Sci. U.S.A.* **111**(9), 3365-3370 (2014).
- Guenoun, R., Labombarda, F., Gonzalez Deniselle, M.C., *et al.* Progesterone and allopregnanolone in the central nervous system: Response to injury and implication for neuroprotection. *J. Steroid Biochem. Mol. Biol.* **146**, 48-61 (2015).
- Wiebe, J.P., Rivas, M.A., Mercogliano, M.F., *et al.* Progesterone-induced stimulation of mammary tumorigenesis is due to the progesterone metabolite, 5 α -dihydroprogesterone (5 α P) and can be suppressed by the 5 α -reductase inhibitor, finasteride. *J. Steroid Biochem. Mol. Biol.* **149**, 27-34 (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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