

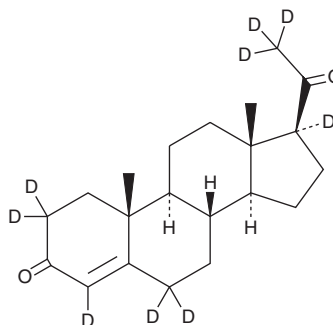
PRODUCT INFORMATION



Progesterone-d₉

Item No. 25047

CAS Registry No.: 15775-74-3
Formal Name: pregn-4-ene-3,20-dione-2,2,4,6,6,17,21,21,21-d₉
Synonym: Cyclogest-d₉
MF: C₂₁H₂₁D₉O₂
FW: 323.5
Chemical Purity: ≥98% (Progesterone)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₉); ≤1% d₀
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

Progesterone-d₉ is intended for use as an internal standard for the quantification of Progesterone (Item No. 15876) 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).

Progesterone-d₉ is supplied as a solid. A stock solution may be made by dissolving the progesterone-d₉ in the solvent of choice, which should be purged with an inert gas. Progesterone-d₉ is soluble in organic solvents such as acetonitrile, methanol, and ethanol. The solubility of progesterone-d₉ in these solvents is approximately 1 mg/ml.

Description

Progesterone is the biosynthetic precursor of all other steroid hormones.¹ Progesterone is synthesized from cholesterol by the sequential action of desmolase in the mitochondria, which produces pregnenolone, followed by Δ^{4,5}-isomerase in the outer mitochondrial membrane and smooth endoplasmic reticulum of steroid-secreting cells. Progesterone activates the human progesterone receptor with an EC₅₀ value of 0.5 nM.²

References

1. Erickson, G.F. The ovary: Basic principles and concepts. A. Physiology. *Endocrinology and Metabolism* Felig, P., Baxter, J.D., and Frohman, L.A., editors, 3rd edition, McGraw-Hill, Inc (1995).
2. Pedram, B., van Oeveren, A., Mais, D.E., et al. A tissue-selective nonsteroidal progesterone receptor modulator: 7,9-Difluoro-5-(3-methylcyclohex-2-enyl)-2,2,4-trimethyl-1,2-dihydrochromeno[3,4-f]quinoline. *J. Med. Chem.* **51**(13), 3696-3699 (2008).

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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