

# Product Information



## Progesterone 3-PEG<sub>11</sub>-biotin

Item No. 9000645

**Formal Name:** N-(1-(((E)-(17-acetyl-10,13-dimethyl-7,8,9,11,12,13,14,15,16,17-decahydro-1H-cyclopenta[a]phenanthren-3(2H,6H,10H)-ylidene)amino)oxy)-2-oxo-6,9,12,15,18,21,24,27,30,33,36-undeca-3-azaotriacontan-38-yl)-5-((3aS,6aR)-2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl)pentanamide

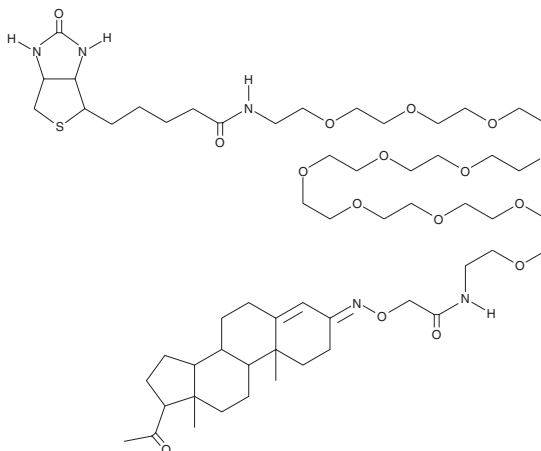
**MF:** C<sub>57</sub>H<sub>97</sub>N<sub>5</sub>O<sub>16</sub>S

**FW:** 1,140.50

**Purity:** ≥98%

**Stability:** ≥1 year at -20°C

**Supplied as:** A solution in ethanol



### Laboratory Procedures

For long term storage, we suggest that progesterone 3-PEG<sub>11</sub>-biotin be stored as supplied at -20°C. It should be stable for at least one year.

Progesterone 3-PEG<sub>11</sub>-biotin is supplied as a solution in ethanol. If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Progesterone, along with pregnenolone, is the biosynthetic precursor of all other steroid hormones. Progesterone is synthesized from cholesterol by the sequential action of desmolase in the mitochondria, which produces pregnenolone, followed by  $\Delta^{4,5}$ -isomerase in the outer mitochondrial membrane and smooth endoplasmic reticulum of steroid-secreting cells.<sup>1</sup> The main function of progesterone is to prepare the uterine lining for implantation of a fertilized ovum and to maintain pregnancy. Measurement of serum or plasma progesterone levels are used as an index to monitor ovulation and investigate luteal function. Progesterone-3-PEG<sub>11</sub>-biotin is an affinity probe that allows progesterone to be detected or immobilized using the biotin ligand. The PEG<sub>11</sub> moiety serves to separate the biotin linker from progesterone with a hydrophilic spacer.

### Reference

1. Erickson, G.F. The ovary: Basic principles and concepts. A. Physiology, Chapter 17, *in* Endocrinology and Metabolism. Felig, P., Baxter, J.D., and Frohman, L.A., editors, 3rd ed., McGraw-Hill, Inc. Health Professions Division, New York, 973-1015 (1995).

### Related Products

Progesterone EIA Kit - Item. No. 582601 • Progesterone 3-biotin - Item. No. 9000644

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

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Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

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