

# Progesterone

Cell Culture Tested

**Product Code: TC379**

## Product Description:

Molecular weight: 314.46

Molecular formula:  $C_{21}H_{30}O_2$

CAS No.: 57-83-0

Synonym: 4-Pregnene-3,20-dione

Progesterone is a steroid hormone derived from cholesterol. It is one of the key female hormones synthesized in the ovary which plays a central role in regulation of the reproductive system.

Progesterone is a small hydrophobic molecule that can diffuse easily through the plasma membrane of cells. In cell culture systems, progesterone exerts a stimulatory effect on other hormones. The steroid hormone also regulates the proliferation and differentiation of various cell types such as endothelial cells, mammary epithelial cells, osteoblasts as well as cells of the central nervous system.

In cell culture applications, Progesterone is used at a working concentration of 10-50µg/ml.

## Directions:

1. Dissolve 1mg Progesterone in 1ml of absolute ethanol.
2. Mix gently to ensure complete dissolution.

3. Sterilize by filtration through a sterile membrane filter of porosity 0.22 microns or less.
4. Store the stock solutions at -20°C in small aliquots to prevent repeated freeze-thawing.

## Quality Control:

### Appearance

Colorless or white to off-white crystals or powder

### Solubility

33.3mg soluble in 1ml of alcohol

### FTIR

Matches with standard pattern

### Assay

97.00% - 103.00%

### Cell Culture Test

Passes

## Storage and Shelf Life:

Store at 15-30°C in air tight container away from direct sunlight.

Use before expiry date given on the product label.

Revision No.: 0 / 2015

## Disclaimer:

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