

# **$\beta$ -Estradiol**

Cell Culture Tested

**Product Code: TC346**

## **Product Description:**

Molecular Weight: 272.38

Molecular Formula:  $C_{18}H_{24}O_2$

CAS Number: 50-28-2

Synonyms: 17 $\beta$ -Estradiol, 1,3,5-Estratriene-3,17 $\beta$ -diol

$\beta$ -Estradiol is the primary female sex hormone essential for the development and maintenance of tissues of the female reproductive system. It is the most potent form of mammalian estrogenic steroids.

$\beta$ -Estradiol mediates its biological activity in the body by the activation of the estrogen receptor. The activated estrogen receptor protein then translocates to the nucleus and regulates activity of different genes. In cell culture,  $\beta$ -Estradiol acts as a growth stimulant and has effects on cellular differentiation and on cells of the immune system.

## **Directions:**

### **Preparation instructions:**

Solutions of required concentration can be prepared in ethanol. Vortexing may be required to obtain a clear solution. Aliquots of solution must be stored at -20°C. Repeated freeze-thawing must be avoided.

It is recommended to use  $\beta$ -Estradiol with phenol red free medium as phenol red structurally mimics certain non-steroidal estrogens.

## **Quality Control:**

### **Appearance**

White to off white powder

### **Solubility**

Clear colorless solution at 50mg/ml in ethanol

### **Melting range**

173°C to 180°C

### **Water (K.F.)**

NMT 3.5%

### **Assay**

NLT 97.00%

### **Cell Culture Test**

Passes

## **Storage and Shelf Life:**

Sensitive to air and light.

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

Use before expiry date given on the product label.

Revision No.: 0 / 2015

## **Disclaimer:**

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