

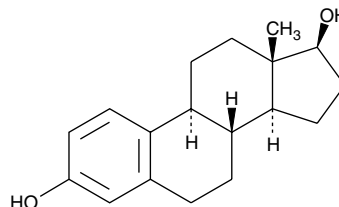
Product Information



Estradiol

Item No. 10006315

CAS Registry No.: 50-28-2
Formal Name: estra-1,3,5(10)-triene-3,17 β -diol
Synonyms: β -Estradiol; 17 β -Estradiol;
17 β -Oestradiol; E₂
MF: C₁₈H₂₄O₂
FW: 272.4
Purity: \geq 98%
Stability: \geq 2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that estradiol be stored as supplied at -20°C. It will be stable for at least two years.

Estradiol is supplied as a crystalline solid. A stock solution may be made by dissolving the estradiol in an organic solvent purged with an inert gas. Estradiol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of estradiol in these solvents is at least 2.5 mg/ml in ethanol and 20 mg/ml in DMSO and DMF.

Estradiol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, estradiol should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Estradiol has a solubility of 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Estrogens direct the development of the female genotype in embryogenesis and at puberty. Estradiol is the major estrogen secreted by the premenopausal ovary. It is synthesized from testosterone primarily in the ovarian granulosa cells and placenta, but small amounts can be produced in the adrenal gland.^{1,2} Plasma estradiol levels increase gradually between days 1-7 of the menstrual cycle followed by a sharp increase to a peak value of about 300 pg/ml on day 12, just prior to ovulation.^{3,4}

References

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3. 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).
4. Munro, C.J., Stabenfeldt, G.H., Cragun, J.R., *et al.* Relationship of serum estradiol and progesterone concentrations to the excretion profiles of their major urinary metabolites as measured by enzyme immunoassay and radioimmunoassay. *Clin. Chem.* **37**, 838-844 (1991).

Related Products

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