

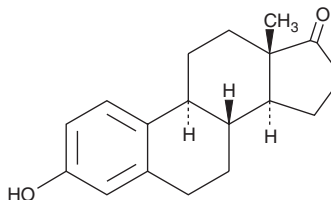
Product Information



Estrone

Catalog No. 10006485

CAS Registry No.: 53-16-7
Formal Name: 3-hydroxy-estra-1,3,5(10)-trien-17-one
Synonym: E₁
MF: C₁₈H₂₂O₂
FW: 270.4
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

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

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

Estrone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, estrone should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Estrone has a solubility of approximately 0.15 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Estrone is one of the three naturally occurring estrogens, the others being estradiol and estriol.¹ Estrone is synthesized from androstenedione by the aromatase enzyme system in the ovaries and placenta, and is also synthesized from estradiol by 17-hydroxy steroid dehydrogenase in the liver.^{1,2} Serum concentrations of estrone in premenopausal women fluctuate according to the menstrual cycle and becomes the most predominant estrogen in postmenopausal women.¹ The binding affinities of estrone to the estrogen receptors α and β (ER α and ER β) are approximately 60% and 37% relative to estradiol.¹

References

1. Gruber, C.J., Tschugguel, W., Schneeberger, C., *et al.* Production and actions of estrogens. *N. Engl. J. Med.* **346**(5), 340-352 (2002).
2. Vance, D.E. Cholesterol and related derivatives, Chapter 23, *in* Biochemistry. Zubay, G., editor, 2nd ed., Macmillan Publishing Company, New York, 725-748 (1988).

Related Products

Daidzein - Cat. No. 10005166 • Genistein - Cat. No. 10005167 • Estradiol - Cat. No. 10006315 • Mifepristone - Cat. No. 10006317 • Norgestrel - Cat. No. 10006319 • Tibolone - Cat. No. 10006321 • Estriol - Cat. No. 10006484 • Ethinyl Estradiol - Cat. No. 10006486 • Estradiol Benzoate - Cat. No. 10006487 • Gestrinone - Cat. No. 10006488

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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 will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

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