

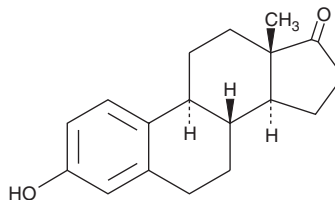
PRODUCT INFORMATION



Estrone

Item 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%
UV/Vis.: λ_{max}: 281 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

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.

Description

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 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).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM