

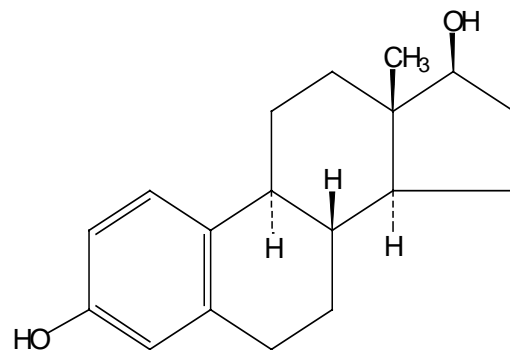
Product Information

BETA-ESTRADIOL

Sigma Prod. No. E8875

CAS NUMBER: 50-28-2

SYNONYMS: Altrad; Bardiol; Dihydrofollicular Hormone; Dihydrofolliculin; Dihydromenformon; Dihydrotheelin; 3,17-beta-Dihydroxyestra-1,3,5(10)-triene; 3,17-beta-Dihydroxy-1,3,5(10)-estratriene; Dihydroxyestrin; 3,17-beta-Dihydroxyoestra-1,3,5-triene; 3,17-beta-Dihydroxy-1,3,5(10)-oestratriene; Dihydroxyoestrin; Dimenformon; Dimenformon Prolongatum; Diogyn; Diogynets; E(sub 2); 3,17-Epidihydroxyestratriene; 3,17-Epidihydroxyoestratriene; Estradiol-17-beta; alpha-Estradiol; 3,17-beta-Estradiol; 17-beta-Estradiol; cis-Estradiol; D-Estradiol; D-3,17-beta-Estradiol; Estraldine; Estra-1,3,5(10)-Triene-3,17-beta-Diol; Estrovite; Femestral; Femogen; Gynergon; Gynestrel; Ovahormon; Ovocycline; Primofol; Progynon



PHYSICAL PROPERTIES:

Appearance: White to white with a yellow cast powder

Molecular formula: C₁₈H₂₄O₂

Molecular weight: 272.4

Melting Point: 173-179°C¹

E^M(280 nm) = 1950²

Optical rotation: +76 to +83° (c = 1% in dioxane @ 25°C)¹

METHOD OF PREPARATION:

Sigma's product is derived from a plant source.³

STABILITY / STORAGE AS SUPPLIED:

β-Estradiol is both light and air sensitive. It is packaged under Argon. Sigma has assayed material that had been stored for approximately two years at room temperature and found it to be greater than 99% pure by TLC.

SOLUBILITY / SOLUTION STABILITY:

β-Estradiol is almost insoluble in water. It is freely soluble in alcohol. Sigma has dissolved 50 mg/mL in ethanol with heating and observed a clear, colorless solution. It is also soluble in acetone and dioxane but only sparingly soluble in vegetable oils.¹ Since this product is sensitive to air, it would be advisable to prepare fresh solutions rather than store solutions for future use.

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APPLICATIONS:

The pharmacology⁴ and HPLC determination of beta-Estradiol in plasma and urine⁵ have been reported.

REFERENCES:

1. *The Merck Index*, 12th ed., #3746 (1996).
2. *Data for Biochemical Research*, 3rd ed., p.197 (1986).
3. Sigma's supplier information.
4. Lievertz, R.W., *Am. J. Obstet. Gynecol.*, vol. 156, 1289 (1987).
5. Slikker, W., et al., *J. Chromatography*, vol. 224, 205 (1981).