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Produktinformation



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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION



17β-Estradiol-d₂ Item No. 9002846

CAS Registry No.: 53866-33-4
Formal Name: estra-1,3,5(10)-triene-2,4-d₂-3,17β-diol
Synonyms: 2,4-Dideuterioestradiol, E₂-d₂,
Estradiol-d₂, β-Estradiol-d₂,
17β-Oestradiol-d₂,

MF: C₁₈H₂₂D₂O₂
FW: 274.4

Chemical Purity: ≥98% (17β-Estradiol)

Deuterium

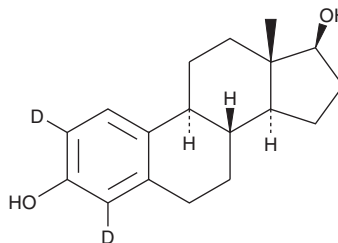
Incorporation: ≥99% deuterated forms (d₁-d₂); ≤1% d₀

UV/Vis.: λ_{max}: 281 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

17β-Estradiol-d₂ contains two deuterium atoms at the 2 and 4 positions. It is intended for use as an internal standard for the quantification of 17β-estradiol (Item Nos. ISO60155 | 10006315) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

17β-Estradiol-d₂ is supplied as a crystalline solid. A stock solution may be made by dissolving the 17β-estradiol-d₂ in the solvent of choice. 17β-Estradiol-d₂ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 17β-estradiol-d₂ in ethanol is approximately 2 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Description

17β-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 17β-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

1. Vance, D.E. Cholesterol and related derivatives, Chapter 23, in *Biochemistry*. Zubay, G., editor, 2nd ed., Macmillan Publishing Company, New York, 725-748 (1988).
2. Miller, W.L. and Tyrrell, J.B. The adrenal cortex, Chapter 12, in *Endocrinology and metabolism*. Felig, P., Baxter, J.D., and Frohman, L.A., editors, 3rd ed., McGraw-Hill, Inc. Health Professions Division, New York, 555-711 (1995).
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

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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