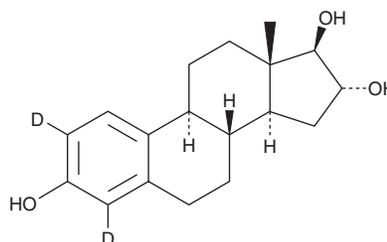


PRODUCT INFORMATION



Estriol-d₂ Item No. 9002845

CAS Registry No.: 53866-32-3
Formal Name: estra-1,3,5(10)-triene-2,4-d₂-3,16 α ,17 β -triol
Synonyms: E₃-d₂, 16 α -hydroxy-17 β -Estradiol-d₂, 1,3,5(10)-Estratriene-3,16 α ,17 β -triol-d₂
MF: C₁₈H₂₂D₂O₃
FW: 290.4
Chemical Purity: $\geq 98\%$ (Estriol)
Deuterium Incorporation: $\geq 99\%$ deuterated forms (d₁-d₂); $\leq 1\%$ d₀
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

Estriol-d₂ is intended for use as an internal standard for the quantification of estriol (Item No. 10006484) 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).

Estriol-d₂ is supplied as a crystalline solid. A stock solution may be made by dissolving the estriol-d₂ in the solvent of choice, which should be purged with an inert gas. Estriol-d₂ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of estriol-d₂ in these solvents is approximately 5, 20, and 30 mg/ml, respectively.

Description

Estriol is a metabolite of estradiol (Item Nos. ISO60155 | 10006315) and a major estrogen produced in the later stages of pregnancy. In a longitudinal study in healthy pregnant women, total plasma estriol levels increased from <10 ng/ml at 8-10 weeks gestation to approximately 150 ng/ml at week 38.¹ The majority of the estriol synthesized in the later stages of pregnancy originates from fetal dehydroepiandrosterone sulfate (DHEAS; Item No. 15873) and serves as a direct marker of fetal adrenal gland activity.² Saliva contains primarily unbound and unconjugated estriol and is commonly used for monitoring estriol levels.^{2,3} Plasma levels of estriol in males and non-pregnant females is less than 2 ng/ml.⁴

References

1. Peter, M., Dörr, H.G., and Sippell, W.G. Changes in the concentrations of dehydroepiandrosterone sulfate and estriol in maternal plasma during pregnancy: A longitudinal study in healthy women throughout gestation and at term. *Horm. Res.* **42(6)**, 278-281 (1994).
2. Goodwin, T.M. A role for estriol in human labor, term and preterm. *Am. J. Obstet. Gynecol.* **180(1 Pt 3)**, S208-S213 (1999).
3. Voss, H.F. Hormonal pathways of preterm birth. *Am. J. Obstet. Gynecol.* **180(1)**, S226-S231 (1999).
4. Electronic Citation. Steroid levels in humans, (1999). Anonymous

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.

WARRANTY AND LIMITATION OF REMEDY

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