

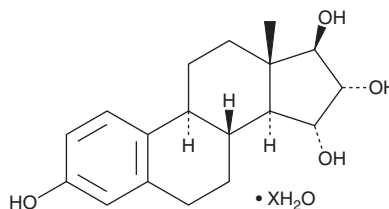
PRODUCT INFORMATION



Estetrol (hydrate)

Item No. 18232

Formal Name:	estra-1,3,5(10)-triene-3,15 α ,16 α ,17 β -tetrol, hydrate
Synonyms:	E4, 15 α -Hydroxyestriol
MF:	C ₁₈ H ₂₄ O ₄ • XH ₂ O
FW:	304.4
Purity:	≥95%
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

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

Estetrol (hydrate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, estetrol (hydrate) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Estetrol (hydrate) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Estetrol is an estrogen steroid hormone exclusively produced by fetal liver from estradiol (Item No. 10006315) and estriol (Item No. 10006484) during pregnancy. It binds to estrogen receptors (ERs) with 4-fold higher affinity for ER α over ER β and exhibits estrogenic effects in most tissues expressing ERs (bone, brain, vagina, and endometrium).^{1,2} In breast tumors, however, estetrol acts as an estrogen antagonist in the presence of estradiol, preventing tumor growth.^{1,2}

References

- Coelingh Bennink, H.J.T., Holinka, C.F., and Diczfalusy, E. Estetrol review: Profile and potential clinical applications. *Climacteric*. **11(Suppl 1)**, 47-58 (2008).
- Giretti, M.S., Guevara, M.M.M., Cecchi, E., *et al.* Effects of estetrol on migration and invasion in T47-D breast cancer cells through the actin cytoskeleton. *Front. Endocrinol. (Lausanne)* **5(80)**, 1-8 (2014).

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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