

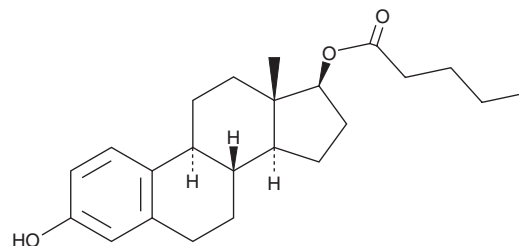
PRODUCT INFORMATION



β -Estradiol 17-valerate

Item No. 22221

CAS Registry No.: 979-32-8
Formal Name: (17 β)-estra-1,3,5(10)-triene-3,17-diol, 17-pentanoate
Synonyms: Estradiol 17 β -valerate, NSC 17590
MF: C₂₃H₃₂O₃
FW: 356.5
Purity: \geq 98%
UV/Vis.: λ_{max} : 282 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 2 years



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

Laboratory Procedures

β -Estradiol 17-valerate is supplied as a crystalline solid. A stock solution may be made by dissolving the β -estradiol 17-valerate in the solvent of choice. β -Estradiol 17-valerate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of β -estradiol 17-valerate in ethanol is approximately 2 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Description

β -Estradiol 17-valerate is a synthetic estrogen.¹⁻³ It increases estrogen receptor β (ER β), but not ER α , levels in the hippocampus and cortex of ovariectomized rats when administered at a dose of 0.3 mg/day.¹ Intradermal administration of β -estradiol 17-valerate (5 μ g/animal) induces transient permanent diestrus and decreases litter size in rats.² β -Estradiol 17-valerate has been used to induce polycystic ovarian syndrome in rats.³ It has been found in wastewater effluent.⁴ Formulations containing β -estradiol 17-valerate have been used in hormone replacement therapy and in the treatment of menopausal symptoms, as well as in oral contraceptives in combination with dienogest.

References

1. Jin, M., Jin, F., Zhang, L., *et al.* Two estrogen replacement therapies differentially regulate expression of estrogen receptors α and β in the hippocampus and cortex of ovariectomized rat. *Brain Res. Mol. Brain Res.* **142(2)**, 107-114 (2005).
2. Seidman, D.S., Itsekson, A., Alesker, M., *et al.* Estradiol valerate as a possible endocrine reproductive disruptor: Evidence from an in vivo rat model. *Fertil. Steril.* **91(4 Suppl)**, 1510-1512 (2009).
3. Dikmen, A., Ergenoglu, A.M., Yeniel, A.O., *et al.* Evaluation of glycemic and oxidative/antioxidative status in the estradiol valerate-induced PCOS model of rats. *Eur. J. Obstet. Gynecol. Reprod. Biol.* **160(1)**, 55-59 (2012).
4. Zhou, Y., Zha, J., Xu, Y., *et al.* Occurrences of six steroid estrogens from different effluents in Beijing, China. *Environ. Monit. Assess.* **184(3)**, 1719-1729 (2012).

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