

PRODUCT INFORMATION



Estradiol Benzoate

Item No. 10006487

CAS Registry No.: 50-50-0
Formal Name: estra-1,3,5(10)-triene-3,17 β -diol
3-benzoate

Synonyms: β -Estradiol Benzoate,
17 β -Estradiol 3-Benzoate,
17 β -Oestradiol Benzoate,
E₂ Benzoate

MF: C₂₅H₂₈O₃

FW: 376.5

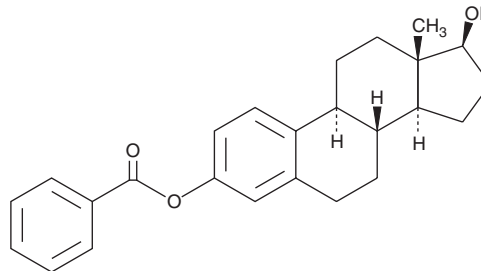
Purity: \geq 98%

UV/Vis.: λ_{max} : 202, 230 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: \geq 4 years



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

Laboratory Procedures

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

Description

Estradiol benzoate is an estradiol analog which contains a benzyl ester at the C-3 position. It is often used in combination with a progestin to induce estrus in domestic livestock.¹ Estradiol benzoate binds to the human and murine estrogen receptor α (ER α), and chicken ER with IC₅₀ values in the range of 22-28 nM.² This reflects a 6-10 fold reduction in binding affinity compared to estradiol.²

References

1. Cavalieri, J., Hepworth, G., and Macmillan, K.L. Ovarian follicular development in Holstein cows following synchronisation of oestrus with oestradiol benzoate and an intravaginal progesterone releasing insert for 5-9 days and duration of the oestrous cycle and concentrations of progesterone following ovulation. *Anim. Reprod. Sci.* **81**, 177-193 (2004).
2. Matthews, J., Celius, T., Halgren, R., *et al.* Differential estrogen receptor binding of estrogenic substances: A species comparison. *J. Steroid. Biochem. Mol. Biol.* **74(4)**, 223-234 (2000).

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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