

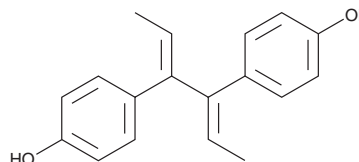
PRODUCT INFORMATION



Dienestrol

Item No. 38954

CAS Registry No.: 84-17-3
Formal Name: 4,4'-(1,2-diethylidene-1,2-ethanediyl)bis-phenol
Synonyms: Dienoestrol, NSC 59809
MF: C₁₈H₁₈O₂
FW: 266.3
Purity: ≥95%
Supplied as: A 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

Dienestrol is supplied as a solid. A stock solution may be made by dissolving the dienestrol in the solvent of choice, which should be purged with an inert gas. Dienestrol is soluble in methanol.

Description

Dienestrol is a synthetic non-steroidal estrogen receptor (ER) agonist and an active metabolite of diethylstilbestrol (Item No. 10006876).¹⁻³ Dienestrol binds to ER α and ER β (K_s = 0.05 and 0.03 nM, respectively) and activates ER α in a reporter assay (EC₅₀ = 3.23 nM).^{1,2} It also inhibits porcine microtubule assembly and induces disassembly of preformed microtubules when used at concentrations of 50 and 100 μ M, respectively, in cell-free assays.⁴ Oral administration of dienestrol (1.5-6.25 μ g/kg) to pregnant rats during gestation and lactation decreases sperm motility and viability and induces prostatitis in mature male offspring.⁵ It induces abortions when administered to pregnant rats at 50 and 75 μ g/kg. Formulations containing dienestrol have been used in the treatment of atrophic vaginitis and vulvar atrophy.

References

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2. Stypuła-Trębas, S., Minta, M., Radko, L., *et al.* Application of the yeast-based reporter gene bioassay for the assessment of estrogenic activity in cow's milk from Poland. *Environ. Toxicol. Pharmacol.* **40**(3), 876-885 (2015).
3. Neumann, H.-G., Metzler, M., and Töpner, W. Metabolic activation of diethylstilbestrol and aminostilbene-derivatives. *Arch. Toxicol.* **39**(1-2), 21-30 (1977).
4. Sato, Y., Murai, T., Oda, T., *et al.* Inhibition of microtubule polymerization by synthetic estrogens: Formation of a ribbon structure. *J. Biochem.* **101**(5), 1247-1252 (1987).
5. Schreiber, E., Alfageme, O., Garcia, T., *et al.* Oral exposure of rats to dienestrol during gestation and lactation: Effects on the reproductive system of male offspring. *Food Chem. Toxicol.* **128**, 193-201 (2019).

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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