# PRODUCT INFORMATION



# Hexestrol

Item No. 29003

CAS Registry No.: 84-16-2

rel-4,4'-[(1R,2S)-1,2-diethyl-1,2-ethanediyl] Formal Name:

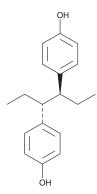
bis-phenol

Synonyms: Hexoestrol, meso-Hexestrol, NSC 9894

MF:  $C_{18}H_{22}O_2$ FW: 270.4 **Purity:** ≥98% UV/Vis.:  $\lambda_{\text{max}}$ : 230 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**

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

Hexestrol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, hexestrol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Hexestrol has a solubility of approximately 0.1 mg/ml in a 1:9 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

Hexestrol is a synthetic non-steroidal estrogen receptor ligand that binds to estrogen receptor  $\alpha$  (ER $\alpha$ ) and ERβ (K<sub>i</sub>s = 0.06 and 0.06 nM for the human and rat receptors, respectively). It inhibits rat liver microsomal and ox brain phospholipid liposomal lipid peroxidation (IC<sub>50</sub>s = 1.5 and 2.75 μM, respectively).<sup>2</sup> It also inhibits porcine microtubule assembly and induces disassembly of preformed microtubules when used at concentrations of 50 and 100  $\mu$ M, respectively, in a cell-free assay. Hexestrol (25 mg/animal) induces kidney tumors in male Syrian hamsters.4

# References

- 1. Kuiper, G.G.J.M., Carlsson, B., Grandien, K., et al. Comparison of the ligand binding specificity and transcript tissue distribution of estrogen receptors α and β. Endocrinology 138(3), 863-870 (1997).
- Wiseman, H. and Halliwell, B. Carcinogenic antioxidants. Diethylstilboestrol, hexoestrol and 17 α-ethynyloestradiol. *FEBES Lett.* **332(1-2)**, 159-163 (1993).
- 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).
- 4. Liehr, J.G., Ballatore, A.M., Dague, B.B., et al. Carcinogenicity and metabolic activation of hexestrol. Chem. Biol. Interact. 55(1-2), 157-176 (1985).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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