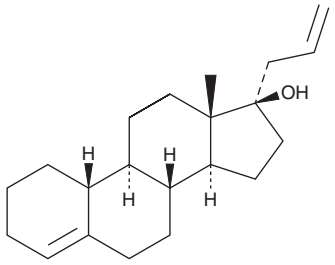
PRODUCT INFORMATION

Allylestrenol

Item No. 46192

CAS Registry No.:	432-60-0
Formal Name:	(17β)-17-(2-propen-1-yl)-estr-4-en-17-ol
Synonyms:	17α-Allyl-17β-hydroxy-4-estren, NSC 37723
MF:	$C_{21}H_{32}O$
FW:	300.5
Purity:	≥98%
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

Allylestrenol is supplied as a solid. A stock solution may be made by dissolving the allylestrenol in the solvent of choice, which should be purged with an inert gas. Allylestrenol is soluble (≥10 mg/ml) in DMSO. Allylestrenol is slightly soluble (0.1-1 mg/ml) in ethanol.

Description

Allylestrenol is a prodrug form of the progesterone receptor agonist 3-keto allylestrenol.[1,2] Unlike 3-keto allylestrenol, allylestrenol is a weak agonist of androgen and progesterone receptors in reporter assays (EC_{50}s = 663 and 381 nM, respectively), and it does not bind to estrogen or glucocorticoid receptors. Allylestrenol protects against embryo resorptions and decreases in serum progesterone levels, fetal weight, and placental weight induced by misoprostol (Item No. 13820) in mice.[3] It decreases ventral prostate and seminal vesicle weight in mature male rats and inhibits testosterone propionate-induced ventral prostate and seminal vesicle growth in castrated immature rats.[4] Neonatal administration of allylestrenol (17.5 µg/animal) decreases bone mineral content in female rats and increases it in male rats but does not affect bone mineral density in either female or male rats.[5]

References

1. McRobb, L., Handelsman, D.J., Kazlauskas, R., *et al.* Structure-activity relationships of synthetic progestins in a yeast-based *in vitro* androgen bioassay. *J. Steroid Biochem. Mol. Biol.* **110(1-2)**, 39-47 (2008).
2. Bergink, E.W., Loonen, P.B., and Kloosterboer, H.J. Receptor binding of allylestrenol, a progestagen of the 19-nortestosterone series without androgenic properties. *J. Steroid Biochem.* **23(2)**, 165-168 (1985).
3. Long, Z. and Xia, H. Allylestrenol prevents misoprostol-induced abortion in mice via progesterone receptor-dependent anti-inflammatory and anti-apoptotic pathways. *Biol. Reprod.* **114(6)**, 1842-1855 (2026).
4. Yasuda, N., Fujino, K., Shiraji, T., *et al.* Effects of steroid 5α-reductase inhibitor ONO-9302 and anti-androgen allylestrenol on the prostatic growth, and plasma and prostatic hormone levels in rats. *Jpn. J. Pharmacol.* **74(3)**, 243-252 (1997).
5. Karabélyos, C., Horváth, C., Holló, I., *et al.* Effect of perinatal synthetic steroid hormone (allylestrenol, diethylstilbestrol) treatment (hormonal imprinting) on the bone mineralization of the adult male and female rat. *Life Sci.* **64(9)**, PL105-PL110 (1999).

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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