

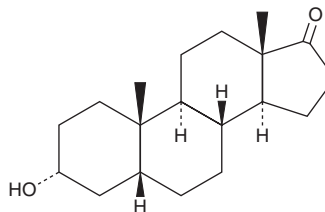
# PRODUCT INFORMATION



## Etiocholanolone

Item No. 34501

**CAS Registry No.:** 53-42-9  
**Formal Name:** (5 $\beta$ )-3 $\alpha$ -hydroxy-androstan-17-one  
**Synonyms:** 5 $\beta$ -Androsterone, 3 $\alpha$ -Etiocholanolone, NSC 50908  
**MF:** C<sub>19</sub>H<sub>30</sub>O<sub>2</sub>  
**FW:** 290.4  
**Purity:**  $\geq$ 98%  
**Supplied as:** A 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

Etiocholanolone is supplied as a solid. A stock solution may be made by dissolving the etiocholanolone in the solvent of choice, which should be purged with an inert gas. Etiocholanolone is soluble in the organic solvent chloroform at a concentration of approximately 10 mg/ml.

### Description

Etiocholanolone is an androgenically inactive metabolite of testosterone and androstenedione and the 5 $\beta$  epimer of androsterone (Item No. 15872).<sup>1,2</sup> It increases the frequency of long channel openings and potentiates GABA-induced chloride currents in HEK293 cells expressing rat  $\alpha_1\beta_2\gamma_2L$  subunit-containing GABA<sub>A</sub> receptors when used at a concentration of 10  $\mu$ M.<sup>3</sup> Etiocholanolone is protective against seizures induced by 6 Hz electroshock or pentylenetetrazol (PTZ; ED<sub>50</sub>s = 76.9 and 139 mg/kg, respectively).<sup>4</sup> It is also pyretic in an IL-1-dependent manner, inducing increases in body temperature in rhesus macaques but not squirrel monkeys that lack testosterone and androstenedione metabolizing enzymes.<sup>5</sup>

### References

1. Chouinard, S., Yueh, M.-F., Tukey, R.H., *et al.* Inactivation by UDP-glucuronosyltransferase enzymes: The end of androgen signaling. *J. Steroid. Biochem. Mol. Biol.* **109(3-5)**, 247-253 (2008).
2. Baulieu, E.-E. and Mauvais-Jarvis, P. Studies on testosterone metabolism. *J. Biol. Chem.* **239(5)**, 1569-1577 (1964).
3. Li, P., Bracamontes, J., Katona, B.W., *et al.* Natural and enantiomeric etiocholanolone interact with distinct sites on the rat  $\alpha_1\beta_2\gamma_2L$  GABA<sub>A</sub> receptor. *Mol. Pharmacol.* **71(6)**, 1582-1590 (2007).
4. Kaminski, R.M., Marini, H., Kim, W.-J., *et al.* Anticonvulsant activity of androsterone and etiocholanolone. *Epilepsia* **46(6)**, 819-827 (2005).
5. Steinetz, B.G., Randolph, C., Werner, R., *et al.* Pyrogenicity of etiocholanolone and interleukin-1 in new and old world monkeys. *Proc. Soc. Exp. Biol. Med.* **217(4)**, 435-438 (1998).

#### 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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