

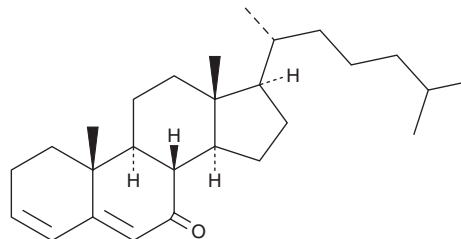
# PRODUCT INFORMATION



## Cholesta-3,5-dien-7-one

Item No. 34320

**CAS Registry No.:** 567-72-6  
**Formal Name:** cholesta-3,5-diene-7-one  
**Synonyms:**  $\Delta^{3,5}$ -Cholestadien-7-one, CSD, NSC 18180, NSC 134914  
**MF:** C<sub>27</sub>H<sub>42</sub>O  
**FW:** 382.6  
**Purity:**  $\geq 95\%$   
**UV/Vis.:**  $\lambda_{\text{max}}$ : 278 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq 2$  years



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

### Laboratory Procedures

Cholesta-3,5-dien-7-one is supplied as a crystalline solid. A stock solution may be made by dissolving the Cholesta-3,5-dien-7-one in the solvent of choice, which should be purged with an inert gas. Cholesta-3,5-dien-7-one is soluble in the organic solvent chloroform at a concentration of approximately 10 mg/ml.

### Description

Cholesta-3,5-dien-7-one is an oxysterol and a negative allosteric modulator of GABA<sub>A</sub> receptors.<sup>1,2</sup> It reduces GABA-induced currents in HEK cells expressing  $\alpha_1\beta_1\gamma_2$  or  $\alpha_4\beta_3\gamma_2$  subunit-containing GABA<sub>A</sub> receptors ( $IC_{50}$ s = 1.5 and 1  $\mu$ M, respectively).<sup>2</sup> Cholesta-3,5-dien-7-one (500 nM) reduces GABA-induced depolarization of peptidergic and non-peptidergic nociceptors, C-LTMRs, and cold thermosensors in isolated mouse dorsal root ganglion (DRG) neurons. *In vivo*, cholesta-3,5-dien-7-one (2, 10, and 50 mg/kg) increases latency to nocifensive behaviors in the hot plate test in mice.

### References

1. Hahn, M., Tang, M., and Subbiah, M.T. Cholest-3,5-dien-7-one formation in peroxidized human plasma as an indicator of lipoprotein cholesterol peroxidation potential. *Biochim. Biophys. Acta* **1255**(3), 341-343 (1995).
2. Niu, C., Leavitt, L.S., Lin, Z., *et al.* Neuroactive type-A  $\gamma$ -aminobutyric acid receptor allosteric modulator steroids from the hypobranchial gland of marine mollusk, *Conus geographus*. *J. Med. Chem.* **64**(10), 7033-7043 (2021).

**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.

**WARRANTY AND LIMITATION OF REMEDY**  
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