

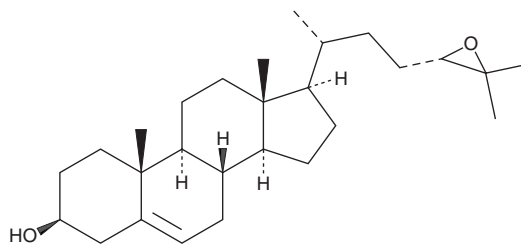
# PRODUCT INFORMATION



## 24(S),25-epoxy Cholesterol

Item No. 10131

**CAS Registry No.:** 77058-74-3  
**Formal Name:** (3 $\beta$ ,24S)-24,25-epoxy-cholest-5-en-3-ol  
**Synonym:** 24(S)-24,25-EC  
**MF:** C<sub>27</sub>H<sub>44</sub>O<sub>2</sub>  
**FW:** 400.6  
**Purity:**  $\geq$ 95%  
**Supplied as:** A 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

24(S),25-epoxy Cholesterol is supplied as a solid. A stock solution may be made by dissolving the 24(S),25-epoxy cholesterol in the solvent of choice, which should be purged with an inert gas. 24(S),25-epoxy Cholesterol is soluble in ethanol.

### Description

24(S),25-epoxy Cholesterol is an oxysterol and the most abundant oxysterol in mouse ventral midbrain.<sup>1</sup> It activates liver X receptors (LXRs) in the developing ventral midbrain to induce stem cell differentiation into dopaminergic neurons. 24(S),25-epoxy Cholesterol inhibits IL-6 production and degranulation of bone marrow-derived murine mast cells that express LXR $\beta$ .<sup>2</sup> It inhibits the conversion of desmosterol to cholesterol by 3 $\beta$ -hydroxysterol  $\Delta$ <sup>24</sup>-reductase (DHCR24/Seladin-1) in CHO-7 and SRD-1 cells when used at a concentration of 2.5  $\mu$ M.<sup>3</sup>

### References

1. Broccoli, V. and Caiazzo, M. Nuclear receptors: Oxysterols detour to neurodevelopment. *Nat. Chem. Biol.* **9(2)**, 70-71 (2013).
2. Nunomura, S., Endo, K., Makishima, M., *et al.* Oxysterol represses high-affinity IgE receptor-stimulated mast cell activation in Liver X receptor-dependent and -independent manners. *FEBS Lett.* **584(6)**, 1143-1148 (2010).
3. Zerenturk, E.J., Kristiana, I., Gill, S., *et al.* The endogenous regulator 24(S),25-epoxycholesterol inhibits cholesterol synthesis at DHCR24 (Seladin-1). *Biochim. Biophys. Acta.* **1821(9)**, 1269-1277 (2012).

#### 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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