

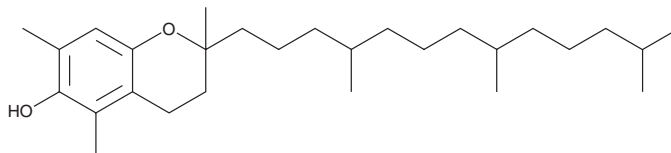
# PRODUCT INFORMATION



## (±)-5,7-Dimethyltolcol

Item No. 27194

**CAS Registry No.:** 493-35-6  
**Formal Name:** 3,4-dihydro-2,5,7-trimethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-ol  
**Synonyms:** *rac*-5,7-Dimethyltolcol, ζ-Tocopherol  
**MF:** C<sub>28</sub>H<sub>48</sub>O<sub>2</sub>  
**FW:** 416.7  
**Purity:** ≥95%  
**Supplied as:** A solution in hexane  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

(±)-5,7-Dimethyltolcol is supplied as a solution in hexane. To change the solvent, simply evaporate the hexane under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, ether, and chloroform purged with an inert gas can be used.

### Description

(±)-5,7-Dimethyltolcol is a form of tocopherol.<sup>1</sup> It has similar antioxidant activity to α-tocol, but lower activity than γ-tocol, in antioxidant assays using menhaden oil or squalene as substrates. It also increases microviscosity of rat liver liposomes containing phosphatidylcholine (PC) by 70.6% when used at a molar ratio of 0.2 to PC.<sup>2</sup> (±)-Dimethyltolcol has been used as an internal standard for the quantification of 5,7-tocol, α- and γ-tocopherol, and α- and γ-tocopheryl quinone by HPLC.<sup>3</sup>

### References

1. Olcott, H.S. and Van der Veen, J. Comparison of antioxidant activities of tocol and its methyl derivatives. *Lipids* **3**(4), 331-334 (1968).
2. Urano, S., Inomori, Y., Sugawara, T., *et al.* Vitamin E: Inhibition of retinol-induced hemolysis and membrane-stabilizing behavior. *J. Biol. Chem.* **267**(26), 18365-18370 (1992).
3. Gao, R., Stone, W.L., Huang, T., *et al.* The uptake of tocopherols by RAW 264.7 macrophages. *Nutr. J.* **1**:2 (2002).

#### 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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