



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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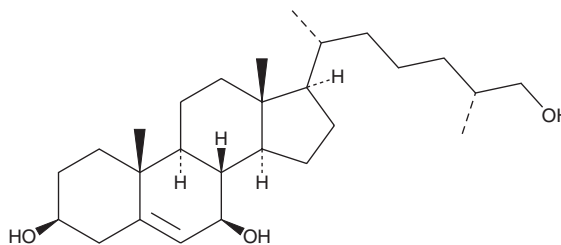
# PRODUCT INFORMATION



## 7 $\beta$ ,27-dihydroxy Cholesterol

Item No. 20102

**CAS Registry No.:** 240129-43-5  
**Formal Name:** (3 $\beta$ ,7 $\beta$ ,25R)-cholest-5-ene-3,7,26-triol  
**Synonym:** 7 $\beta$ ,27-DHC  
**MF:** C<sub>27</sub>H<sub>46</sub>O<sub>3</sub>  
**FW:** 418.7  
**Purity:**  $\geq$ 95%  
**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

7 $\beta$ ,27-dihydroxy Cholesterol is supplied as a crystalline solid. A stock solution may be made by dissolving the 7 $\beta$ ,27-dihydroxy cholesterol in the solvent of choice, which should be purged with an inert gas. 7 $\beta$ ,27-dihydroxy Cholesterol is soluble in organic solvents such as ethanol and dimethyl formamide. The solubility of 7 $\beta$ ,27-dihydroxy cholesterol in these solvents is approximately 20 and 2 mg/ml, respectively.

7 $\beta$ ,27-dihydroxy Cholesterol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 7 $\beta$ ,27-dihydroxy cholesterol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 7 $\beta$ ,27-dihydroxy Cholesterol has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

7 $\beta$ ,27-dihydroxy Cholesterol is an oxysterol and agonist of retinoic acid receptor-related orphan receptor  $\gamma$  (ROR $\gamma$ ) and ROR $\gamma$ t.<sup>1</sup> It activates ROR $\gamma$ - or ROR $\gamma$ t-dependent signaling with EC<sub>50</sub> values of 691 and 1,045 nM, respectively, in reporter assays using HEK293T cells expressing the recombinant human receptors. 7 $\beta$ ,27-dihydroxy Cholesterol is selective for ROR $\gamma$  and ROR $\gamma$ t over a panel of eight additional nuclear receptors at 30  $\mu$ M. It increases IL-17A production in Th17-polarized isolated human naive CD4<sup>+</sup> T cells when used at a concentration of 300 nM. 7 $\beta$ ,27-dihydroxy Cholesterol (60 mg/kg) increases IL-17A production in isolated mouse  $\gamma\delta$  T cells stimulated with 12-myristate 13-acetate (PMA; Item No. 10008014) and ionomycin (Item Nos. 10004974 | 11932).

### Reference

1. Soroosh, P., Wu, J., Xue, X., *et al.* Oxysterols are agonist ligands of ROR $\gamma$ t and drive Th17 cell differentiation. *Proc. Natl. Acad. Sci. USA* **111**(33), 12163-12168 (2014).

#### 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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