



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

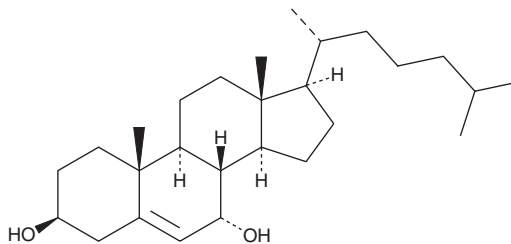
PRODUCT INFORMATION



7 α -hydroxy Cholesterol

Item No. 20098

CAS Registry No.: 566-26-7
Formal Name: cholest-5-ene-3 β ,7 α -diol
MF: C₂₇H₄₆O₂
FW: 402.7
Purity: \geq 98%
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 α -hydroxy Cholesterol is supplied as a crystalline solid. A stock solution may be made by dissolving the 7 α -hydroxy cholesterol in the solvent of choice, which should be purged with an inert gas. 7 α -hydroxy Cholesterol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 7 α -hydroxy cholesterol in these solvents is approximately 20, 0.1, and 2 mg/ml, respectively.

7 α -hydroxy Cholesterol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 7 α -hydroxy cholesterol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 7 α -hydroxy 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 α -hydroxy Cholesterol is an oxysterol and a precursor in the biosynthesis of the bile acids cholic acid (CA; Item No. 20250) and chenodeoxycholic acid (CDCA; Item No. 10011286).^{1,2} It is formed via the oxidation of cholesterol (Item No. 9003100) by cholesterol 7 α -hydroxylase/CYP7A1 in rat liver microsomes.¹ 7 α -hydroxy Cholesterol (40 μ M) increases levels of the adhesion molecules ICAM-1, VCAM-1, and E-selectin in human umbilical vein endothelial cells (HUVECs).³ It increases secretion of chemokine (C-C motif) ligand 2 (CCL2) and matrix metalloproteinase-9 (MMP-9) in serum-deprived THP-1 cells when used at a concentration of 5 μ g/ml.⁴ 7 α -hydroxy Cholesterol has been found in macrophages isolated from atherosclerotic lesions in rabbits fed a high-cholesterol diet.⁵

References

1. Mitropoulos, K.A. and Balasubramaniam, S. Cholesterol 7 α -hydroxylase in rat liver microsomal preparations. *Biochem. J.* **128**(1), 1-9 (1972).
2. Chiang, J.Y.L. Bile acid metabolism and signaling in liver disease and therapy. *Liver Res.* **1**(1), 3-9 (2017).
3. Lemaire, S., Lizard, G., Monier, S., et al. Different patterns of IL-1 β secretion, adhesion molecule expression and apoptosis induction in human endothelial cells treated with 7 α -, 7 β -hydroxycholesterol, or 7-ketocholesterol. *FEBS Lett.* **440**(3), 434-439 (1998).
4. Kim, S.M., Kim, B.Y., Son, Y., et al. 7 α -Hydroxycholesterol induces inflammation by enhancing production of chemokine (C-C motif) ligand 2. *Biochem. Biophys. Res. Commun.* **467**(4), 879-884 (2015).
5. Hultén, L.M., Lindmark, H., Diczfalusy, U., et al. Oxysterols present in atherosclerotic tissue decrease the expression of lipoprotein lipase messenger RNA in human monocyte-derived macrophages. *J. Clin. Invest.* **97**(2), 461-468 (1996).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 08/26/2020

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM