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

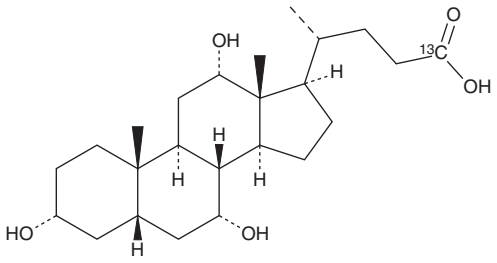
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

Cholic Acid-24-^{13}C

Item No. 40288

CAS Registry No.:	52886-36-9
Formal Name:	(5β)-3α,7α,12α-trihydroxy-cholan-24-oic-24-^{13}C acid
Synonyms:	Cholalic Acid-^{13}C, Cholalin-^{13}C
MF:	$C_{23}[^{13}C]H_{40}O_5$
FW:	409.6
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Cholic acid-24-^{13}C is supplied as a solid. A stock solution may be made by dissolving the cholic acid-24-^{13}C in the solvent of choice, which should be purged with an inert gas. Cholic acid-24-^{13}C is soluble in acetone, methanol, and DMSO.

Description

Cholic acid-24-^{13}C is intended for use as an internal standard for the quantification of cholic acid (Item No. 20250) by GC- or LC-MS. Cholic acid-24-^{13}C is an isotopically labeled form of cholic acid containing ^{13}C at the carbon-24 position. Cholic acid is a primary bile acid.[1] It is formed from cholesterol *via* a multistep process catalyzed by the cytochrome P450 (CYP) isoforms CYP7A1, CYP8B1, and CYP27A1. Cholic acid is conjugated to glycine or taurine by bile acid-CoA:amino acid N-acyltransferase (BAAT) to produce glycocholic acid (GCA; Item No. 20276) and taurocholic acid (TCA; Item No. 16215), respectively, in the liver, and is transformed into the secondary bile acid deoxycholic acid (DCA; Item No. 20756) by intestinal microbiota.[1-3] It induces *C. difficile* colony formation in an agar dilution assay when used at a concentration of 0.1% w/v.[4] Dietary administration of cholic acid (0.4% w/w) increases serum cholesterol levels, biliary phospholipid secretion, and fecal DCA levels in rats.[5]

References

1. Šarenac, T.M. and Mikov, M. Bile acid synthesis: From nature to the chemical modification and synthesis and their applications as drugs and nutrients. *Front. Pharmacol.* **9,** 939 (2018).
2. Hunt, M.C., Siponen, M.I., and Alexson, S.E.H. The emerging role of acyl-CoA thioesterases and acyltransferases in regulating peroxisomal lipid metabolism. *Biochim. Biophys. Acta* **1822(9),** 1397-1410 (2012).
3. Staley, C., Weingarden, A.R., Khoruts, A., *et al.* Interaction of gut microbiota with bile acid metabolism and its influence on disease states. *Appl. Microbiol. Biotechnol.* **101(1),** 47-64 (2017).
4. Sorg, J.A. and Sonenshein, A.L. Bile salts and glycine as cogerminants for *Clostridium difficile* spores. *J. Bacteriol.* **190(7),** 2505-2512 (2008).
5. Uchida, K., Nomura, Y., and Takeuchi, N. Effects of cholic acid, chenodeoxycholic acid, and their related bile acids on cholesterol, phospholipid, and bile acid levels in serum, liver, bile, and feces of rats. *J. Biochem.* **87(1),** 187-194 (1980).

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