

# 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 in



# PRODUCT INFORMATION



# Glycoursodeoxycholic Acid MaxSpec® Standard

Item No. 31602

CAS Registry No.: 64480-66-6

Formal Name: N- $[(3\alpha,5\beta,7\beta)-3,7-dihydroxy-24-$ 

oxocholan-24-yl]-glycine

Synonyms: GUDCA, Ursodeoxycholyl Glycine

MF:  $C_{26}H_{43}NO_{5}$ FW: 449.6 **Purity:** ≥95%

Supplied as: A solution in methanol; in a deactivated glass ampule

100 µg/ml (nominal); see certificate of analysis for verified concentration Concentration:

Storage:

Stability: ≥5 years; Stability testing is ongoing to ensure concentration accuracy. The certificate of analysis and

product expiry date will be updated upon completion of testing.

Special Conditions: Store upright and unopened at -20°C. Warm to room temperature prior to opening.

Light sensitive.

### Description

GUDCA is a glycine-conjugated form of the secondary bile acid ursodeoxycholic acid (UDCA; Item No. 15121). 1,2 It has antioxidant effects in vitro in Barrett's esophagus cells and primary cultured rat neurons.<sup>3,4</sup> GUDCA reduces the levels of inflammatory cytokines and prevents cell death induced by unconjugated bilirubin (Item No. 17161) in an astroglial cell model of neonatal hyperbilirubinemia.<sup>5</sup> Oral administration of GUDCA (500 mg/kg per day) decreases the severity of symptoms and increases the amount of A. muciniphila, a commensal bacterial species commonly decreased in patients with inflammatory bowel disease (IBD), in a mouse model of colitis.<sup>2</sup>

Glycoursodeoxycholic acid MaxSpec® standard is a quantitative grade standard of GUDCA (Item No. 21698) that has been prepared specifically for mass spectrometry or any application where quantitative reproducibility is required. The solution has been prepared gravimetrically and is supplied in a deactivated glass ampule sealed under argon. The concentration was verified by comparison to an independently prepared calibration standard. This glycoursodeoxycholic acid MaxSpec® standard is guaranteed to meet identity, purity, stability, and concentration specifications and is provided with a batch-specific certificate of analysis. Ongoing stability testing is performed to ensure the concentration remains accurate throughout the shelf life of the product. Note: The amount of solution added to the vial is in excess of the listed amount. Therefore, it is necessary to accurately measure volumes for preparation of calibration standards. Follow recommended storage and handling conditions to maintain product quality.

#### References

- 1. Lefebvre, P., Cariou, B., Lien, F., et al. Role of bile acids and bile acid receptors in metabolic regulation. Physiol. Rev. 89(1), 147-191 (2009).
- 2. Van den Bossche, L., Hindryckx, P., Devisscher, L., et al. Ursodeoxycholic acid and its taurine- or glycineconjugated species reduce colitogenic dysbiosis and equally suppress experimental colitis in mice. Appl. Environ. Microbiol. 83(7), e02766-16 (2017).
- Goldman, A., Condon, A., Adler, E., et al. Protective effects of glycoursodeoxycholic acid in Barrett's esophagus cells. Dis. Esophagus 23(2), 83-93 (2010).
- Brito, M.A., Lima, S., Fernandes, A., et al. Bilirubin injury to neurons: Contribution of oxidative stress and rescue by glycoursodeoxycholic acid. Neurotoxicology 29(2), 259-269 (2008).
- 5. Fernandes, A., Vaz, A.R., Falcao, A.S., et al. Glycoursodeoxycholic acid and interleukin-10 modulate the reactivity of rat cortical astrocytes to unconjugated bilirubin. J. Neuropathol. Exp. Neurol. 66(9), 789-798 (2007).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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

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, 07/10/2023

## **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