

PRODUCT INFORMATION



Taurochenodeoxycholic Acid-d₄ MaxSpec[®] Standard

Item No. 31362

CAS Registry No.: 1207294-24-3

Formal Name: 2-[[[(3 α ,5 β ,7 α)-3,7-dihydroxy-24-oxocholan-24-yl]-2,2,4,4-d₄]amino]ethanesulfonic acid

Synonyms: Taurochenodeoxycholate-d₄, TCDCA-d₄

MF: C₂₆H₄₀D₄NO₆S

FW: 502.7

Purity: $\geq 95\%$

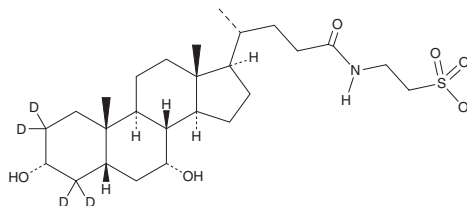
Supplied as: A solution in methanol; in a deactivated glass ampule

Concentration: 100 $\mu\text{g/ml}$ (nominal); see certificate of analysis for verified concentration

Storage: -20°C

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

Taurochenodeoxycholic acid-d₄ (TCDCA-d₄) is intended for use as an internal standard for the quantification of TCDCA (Item No. 20275) by GC- or LC-MS. TCDCA is a taurine-conjugated form of the primary bile acid chenodeoxycholic acid (CDCA; Item No. 10011286).¹ Serum levels of TCDCA increase approximately 5-fold within two hours and begin to decrease within four hours during an oral lipid tolerance test in humans.² Serum levels of TCDCA are increased in patients with liver cirrhosis and may serve as a marker of disease progression.³

TCDCA-d₄ MaxSpec[®] standard is a quantitative grade standard of TCDCA-d₄ (Item No. 21905) 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. The verified concentration is provided on the certificate of analysis. This TCDCA-d₄ 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. Hoffman, A.F. The continuing importance of bile acids in liver and intestinal disease. *Arch. Intern. Med.* **159**(22), 2647-2658 (1999).
2. Schmid, A., Neumann, H., Karrasch, T., *et al.* Bile acid metabolome after an oral lipid tolerance test by liquid chromatography-tandem mass spectrometry (LC-MS/MS). *PLoS One* **11**(2), e0148869 (2016).
3. Wang, X., Xie, G., Zhao, A., *et al.* Serum bile acids are associated with pathological progression of hepatitis B-induced cirrhosis. *J. Proteome Res.* **15**(4), 1126-1134 (2016).

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

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