

PRODUCT INFORMATION



Taurocholic Acid-d₄ MaxSpec[®] Standard Item No. 31375

CAS Registry No.: 252030-90-3

Formal Name: 2-[[[(3 α ,5 β ,7 α ,12 α)-3,7,12-trihydroxy-24-oxocholan-24-yl-2,2,4,4-d₄]amino]-ethanesulfonic acid

Synonyms: Ethanesulfonic Acid-d₄, TCA-d₄

MF: C₂₆H₄₁D₄NO₇S

FW: 518.7

Purity: \geq 95%

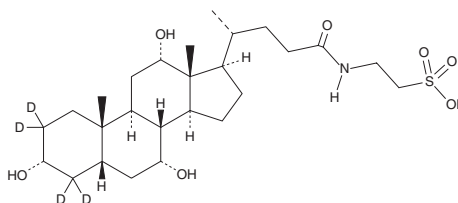
Supplied as: A solution in methanol; in a deactivated glass ampule

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

Storage: -20°C

Stability: \geq 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

Taurocholic acid-d₄ (TCA-d₄) is intended for use as an internal standard for the quantification of TCA (Item No. 16215) by GC- or LC-MS. TCA is a taurine-conjugated form of the primary bile acid cholic acid (Item No. 20250).¹ Serum levels of TCA are decreased in patients with Crohn's disease and those with ulcerative colitis with no extraintestinal manifestations but are increased in patients with ulcerative colitis accompanied by hepatobiliary disease.²

TCA-d₄ MaxSpec[®] standard is a quantitative grade standard of TCA-d₄ (Item No. 21891) 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 TCA-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. 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. Gnewuch, C., Liebisch, G., Langmann, T., *et al.* Serum bile acid profiling reflects enterohepatic detoxification state and intestinal barrier function in inflammatory bowel disease. *World J. Gastroenterol.* **15**(25), 3134-3141 (2009).

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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