# PRODUCT INFORMATION



## Taurocholic Acid-d<sub>4</sub> (sodium salt)

Item No. 21891

CAS Registry No.: 2410279-93-3

Formal Name:  $2-[[(3\alpha,5\beta,7\alpha,12\alpha)-3,7,12-trihydroxy-$ 

24-oxocholan-24-yl-2,2,4,4-d<sub>4</sub>]amino]ethanesulfonic acid, monosodium salt

Ethanesulfonic Acid-d<sub>4</sub>, TCA-d<sub>4</sub> Synonym:

C<sub>26</sub>H<sub>40</sub>D<sub>4</sub>NO<sub>7</sub>S • Na MF:

FW: 541.7

**Chemical Purity:** ≥98% (Taurocholic Acid)

Deuterium

Incorporation:  $\geq$ 99% deuterated forms (d<sub>1</sub>-d<sub>4</sub>);  $\leq$ 1% d<sub>0</sub>

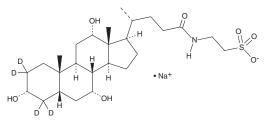
Supplied as: A solid

-20°C; Store in the dark in a tightly Storage:

sealed container

Stability: ≥2 years Special Conditions: Light sensitive

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



### **Laboratory Procedures**

Taurocholic acid-d<sub>4</sub> (TCA-d<sub>4</sub>) (sodium salt) is intended for use as an internal standard for the quantification of TCA (Item No. 16215) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

#### Description

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.<sup>2</sup>

#### 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.

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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