



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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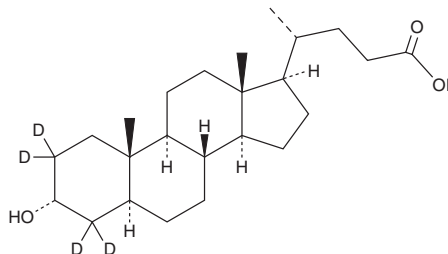
# PRODUCT INFORMATION



## Allolithocholic Acid-d<sub>4</sub>

Item No. 41156

**Formal Name:** (3 $\alpha$ ,5 $\alpha$ )-3-hydroxy-cholan-24-oic-2,2,4,4-d<sub>4</sub> acid  
**Synonyms:** 3 $\alpha$ -hydroxy-5 $\alpha$ -Cholanoic Acid-d<sub>4</sub>, *allo*-LCA-d<sub>4</sub>  
**MF:** C<sub>24</sub>H<sub>36</sub>D<sub>4</sub>O<sub>3</sub>  
**FW:** 380.6  
**Chemical Purity:**  $\geq 98\%$  (Allolithocholic 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  
**Storage:** -20°C  
**Stability:**  $\geq 4$  years



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

### Laboratory Procedures

Allolithocholic acid-d<sub>4</sub> is intended for use as an internal standard for the quantification of allolithocholic acid (Item No. 38158) 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).

Allolithocholic acid-d<sub>4</sub> is supplied as a solid. A stock solution may be made by dissolving the allolithocholic acid-d<sub>4</sub> in the solvent of choice, which should be purged with an inert gas. Allolithocholic acid-d<sub>4</sub> is sparingly soluble (1-10 mg/ml) in ethanol and DMSO.

### Description

Allolithocholic acid is a secondary allomonohydroxy bile acid.<sup>1</sup> It activates large-conductance calcium-activated potassium channels (BK/K<sub>Ca</sub>s; EC<sub>50</sub> = 44.21  $\mu$ M in *Xenopus* oocytes expressing the rat channel). Fecal levels of allolithocholic acid are increased in patients with colorectal cancer.<sup>2</sup> Allolithocholic acid has also been found in the urine of infants with biliary atresia.<sup>3</sup>

### References

1. Bukiya, A.N., McMillan, J., Parrill, A.L., *et al.* Structural determinants of monohydroxylated bile acids to activate  $\beta$ 1 subunit-containing BK channels. *J. Lipid Res.* **49**(11), 2441-2451 (2008).
2. Tadano, T., Kanoh, M., Kondoh, H., *et al.* Kinetic analysis of bile acids in the feces of colorectal cancer patients by gas chromatography-mass spectrometry (GC-MS). *Rinsho Byori.* **55**(5), 417-427 (2007).
3. Makino, I., Sjövall, J., Norman, A., *et al.* Excretion of 3 $\beta$ -hydroxy-5-cholenoic and 3 $\alpha$ -hydroxy-5 $\alpha$ -cholanoic acids in urine of infants with biliary atresia. *FEBS Lett.* **15**(2), 161-164 (1971).

#### 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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