# **PRODUCT INFORMATION**



## Lauroyl-L-carnitine-d<sub>3</sub> (chloride)

Item No. 26571

CAS Registry No.: 2687960-76-3

Formal Name: (2R)-3-carboxy-N,N-dimethyl-N-(methyl-d<sub>3</sub>)-2-[(1-

oxododecyl)oxy]-1-propanaminium, monochloride

Synonyms: C12:0 Carnitine-d<sub>3</sub>, CAR 12:0-d<sub>3</sub>,

L-Carnitine lauroyl ester-d<sub>3</sub>, L-Lauroylcarnitine-d<sub>3</sub>

MF:  $C_{19}H_{35}D_3NO_4 \bullet CI$ 

FW: 383.0

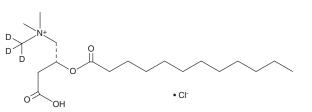
**Chemical Purity:** ≥98% (Lauroyl-L-carnitine)

Deuterium

Incorporation: ≥99% deuterated forms ( $d_1$ - $d_3$ ); ≤1%  $d_0$ 

Supplied as: A solid -20°C Storage: Stability: ≥2 years

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



#### **Laboratory Procedures**

Lauroyl-L-carnitine-d<sub>3</sub> (chloride) is intended for use as an internal standard for the quantification of lauroyl-L-carnitine (Item No. 26550) 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).

Lauroyl-L-carnitine-d<sub>3</sub> (chloride) is supplied as a solid. A stock solution may be made by dissolving the lauroyl-L-carnitine-d<sub>3</sub> (chloride) in the solvent of choice. Lauroyl-L-carnitine-d<sub>3</sub> (chloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of lauroyl-L-carnitine-d<sub>3</sub> (chloride) in DMSO is approximately 10 mg/ml and approximately 20 mg/ml in ethanol and DMF.

### Description

Lauroyl-L-carnitine is an acylcarnitine and a quaternary ammonium-containing cationic surfactant. 1 It has been used to permeabilize porcine enterocytes for delivery of the polar fluorescent probe lucifer yellow (Item No. 25573).

#### Reference

1. Danielsen, E.M. and Hansen, G.H. Intestinal surfactant permeation enhancers and their interaction with enterocyte cell membranes in a mucosal explant system. Tissue Barriers 5(3), e1361900 (2017).

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, 03/27/2023

#### **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