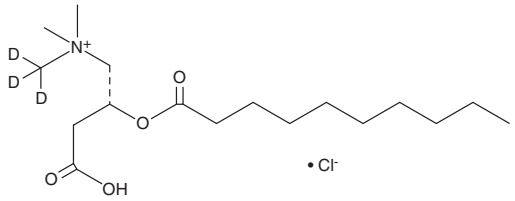
PRODUCT INFORMATION

Decanoyl-L-carnitine-d_3 (chloride)

Item No. 26568

CAS Registry No.: 2483831-87-2
Formal Name: (2R)-3-carboxy-N,N-dimethyl-N-(methyl-d_3)-2-[(1-oxodecyl)oxy]-1-propanaminium, monochloride
Synonyms: CAR 10:0-d_3, C10:0 Carnitine-d_3, (–)-Decanoylcarnitine-d_3, L-Carnitine decanoyl ester-d_3, L-Decanoylcarnitine-d_3
MF: $C_{17}H_{31}D_3NO_4$ • Cl
FW: 354.9
Chemical Purity: ≥98% (Decanoyl-L-carnitine)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_3); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Decanoyl-L-carnitine-d_3 (chloride) is intended for use as an internal standard for the quantification of decanoyl-L-carnitine (Item No. 26549) 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).

Decanoyl-L-carnitine-d_3 (chloride) is supplied as a solid. A stock solution may be made by dissolving the decanoyl-L-carnitine-d_3 (chloride) in the solvent of choice, which should be purged with an inert gas. Decanoyl-L-carnitine-d_3 (chloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of decanoyl-L-carnitine-d_3 (chloride) in ethanol and DMF is approximately 20 mg/ml and approximately 10 mg/ml in DMSO.

Description

Decanoyl-L-carnitine increases the formation of C24 fatty acid intermediates, as well as docosapentaenoic and docosahexaenoic acid (Item No. 90310), in rat hepatocytes.[1]

Reference

1. Tran, T.N., Retterstøl, K., and Christophersen, B.O. Differences in the conversion of the polyunsaturated fatty acids [1-^{14}C]22:4(*n*-6) and [1-^{14}C]22:5(*n*-3) to [^{14}C]22:5(*n*-6) and [^{14}C]22:6(*n*-3) in isolated rat hepatocytes. *Biochim Biophys. Acta.* **1532(1-2)**, 137-147 (2001).

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