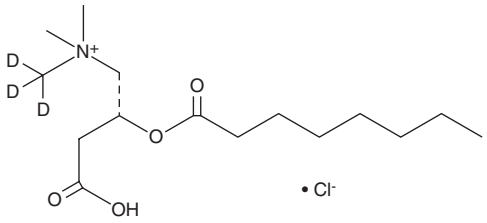
PRODUCT INFORMATION

Octanoyl-L-carnitine-d_3 (chloride)

Item No. 26577

CAS Registry No.: 1334532-24-9
Formal Name: (2R)-3-carboxy-N,N-dimethyl-N-(methyl-d_3)-2-[(1-oxooctyl)oxy]-1-propanaminium, monochloride
Synonyms: CAR 8:0-d_3, C8:0 Carnitine-d_3, L-Carnitine octanoyl ester-d_3 L-Octanoylcarnitine-d_3,
MF: $C_{15}H_{27}D_3NO_4 \bullet Cl$
FW: 326.9
Chemical Purity: ≥98% (Octanoyl-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

Octanoyl-L-carnitine-d_3 is intended for use as an internal standard for the quantification of octanoyl-L-carnitine (Item No. 26558) 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).

Octanoyl-L-carnitine-d_3 (chloride) is supplied as a solid. A stock solution may be made by dissolving the octanoyl-L-carnitine-d_3 (chloride) in the solvent of choice. Octanoyl-L-carnitine-d_3 (chloride) is soluble in the organic solvent DMSO, which should be purged with an inert gas.

Description

Octanoyl-L-carnitine is a medium-chain acylcarnitine and the physiologically active form of octanoyl-DL-carnitine (Item No. 15048).[1] Plasma levels of octanoyl-L-carnitine are elevated in patients with end-stage renal disease on continuous ambulatory peritoneal dialysis (PD) compared with both patients on automated PD and healthy individuals.[2] Octanoyl-L-carnitine does not undergo hydrolysis in the blood or during sample preparation when used as a standard for the quantification of octanoylcarnitine.[1]

References

1. Chace, D.H., DiPerna, J.C., Adam, B.W., *et al.* Errors caused by the use of $_{D,L}$-octanoylcarnitine for blood-spot calibrators. *Clin. Chem.* **47(4),** 758-760 (2001).
2. Di Liberato, L., Arduini, A., Rossi, C., *et al.* L-Carnitine status in end-stage renal disease patients on automated peritoneal dialysis. *J. Nephrol.* **27(6),** 699-706 (2014).

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