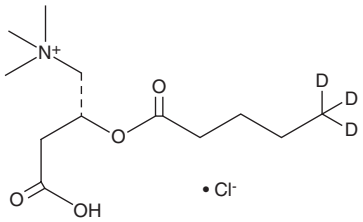
PRODUCT INFORMATION

Valeryl-L-carnitine-d_3 (chloride)

Item No. 27871

Formal Name:	(R)-3-carboxy-N,N,N-trimethyl-2-((pentanoyl-5,5,5-d_3)oxy)propan-1-aminium, monochloride
Synonym:	CAR 5:0-d_3, C5:0 Carnitine-d_3, L-Carnitine valeryl ester-d_3, L-Valerylcarnitine-d_3
MF:	$C_{12}H_{21}D_3NO_4$ • Cl
FW:	284.8
Chemical Purity:	≥95% (Valeryl-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

Valeryl-L-carnitine-d_3 (chloride) is intended for use as an internal standard for the quantification of valeryl-L-carnitine (Item No. 26563) 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).

Valeryl-L-carnitine-d_3 (chloride) is supplied as a solid. A stock solution may be made by dissolving the valeryl-L-carnitine-d_3 (chloride) in the solvent of choice. Valeryl-L-carnitine-d_3 (chloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of valeryl-L-carnitine-d_3 (chloride) in these solvents is approximately 25, 20, and 15 mg/ml, respectively.

Description

Valeryl-L-carnitine is a short-chain acylcarnitine and a derivative of L-carnitine (Item No. 21489). Valeryl-L-carnitine levels increase in the serum of rhesus monkeys following exposure to 7 and 10 Gray units (Gy) of ionizing radiation.[1]

Reference

1. Pannkuk, E.L., Laiakis, E.C., Authier, S., *et al.* Targeted metabolomics of nonhuman primate serum after exposure to ionizing radiation: Potential tools for high-throughput biodosimetry. *RSC Adv.* **6(56)**, 51192-51202 (2016).

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.

WARRANTY AND LIMITATION OF REMEDY
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