



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

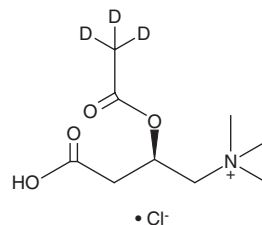
PRODUCT INFORMATION



Acetyl-L-carnitine-d₃ (chloride)

Item No. 26564

CAS Registry No.: 362049-62-5
Formal Name: 2R-(acetyl-d₃-oxy)-3-carboxy-N,N,N-trimethyl-1-propanaminium, monochloride
Synonyms: ALCAR-d₃, C2 Carnitine-d₃, L-Acetylcarnitine-d₃
MF: C₉H₁₅D₃NO₄ • Cl
FW: 242.7
Chemical Purity: ≥95% (Acetyl-L-Carnitine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
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

Acetyl-L-carnitine-d₃ (chloride) is intended for use as an internal standard for the quantification of acetyl-L-carnitine (chloride) (Item No. 16948) 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).

Acetyl-L-carnitine-d₃ is supplied as a solid. A stock solution may be made by dissolving the acetyl-L-carnitine-d₃ in the solvent of choice, which should be purged with an inert gas. Acetyl-L-carnitine-d₃ is slightly soluble in methanol.

Description

Acetyl-L-carnitine is an acetylated form of the essential mitochondrial metabolite L-carnitine (Item No. 21489) that is catabolized by plasma esterases into carnitine.¹⁻³ Acetyl-L-carnitine facilitates the uptake of acetyl-CoA into mitochondria during fatty acid oxidation, enhances acetylcholine production, and stimulates protein and membrane phospholipid synthesis. *In vivo*, acetyl-L-carnitine (100 mg/kg) increases mGlu2/3 receptor protein levels and mechanical pain thresholds in a mouse model of chronic inflammatory pain induced by complete Freund's adjuvant.⁴

References

1. Vaz, F.M. and Wanders, R.J.A. Carnitine biosynthesis in mammals. *Biochem. J.* **361**(Pt 3), 417-429 (2002).
2. Fu, L., Huang, M., and Chen, S. Primary carnitine deficiency and cardiomyopathy. *Korean. Circ. J.* **43**(12), 785-792 (2013).
3. Stieger, B., O'Neill, B., and Krähenbühl, S. Characterization of L-carnitine transport by rat kidney brush-border-membrane vesicles. *Biochem. J.* **309**(Pt 2), 643-647 (1995).
4. Notartomaso, S., Mascio, G., Bernabucci, M., *et al.* Analgesia induced by the epigenetic drug, L-acetylcarnitine, outlasts the end of treatment in mouse models of chronic inflammatory and neuropathic pain. *Mol. Pain* **13**, (2017).

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

Buyer agrees to purchase the material 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, 09/10/2020

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