

Certificate of Analysis

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Product Name: (±)-Acetylcarnitine chloride

Catalog No.: 0355

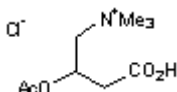
Batch No.: 1

CAS Number: 2504-11-2

EC Number: 219-709-3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₁₈ClNO₄
Batch Molecular Weight: 239.7
Physical Appearance: White solid
Solubility: water to 100 mM
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.33 (Pyridine:Acetic acid:Water:Butanol [3:8:11:14])

¹H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	45.1	7.57	5.84
Found	45.26	7.75	5.72

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Weak cholinergic agonist. Acylcarnitines are important intermediates in lipid metabolism.

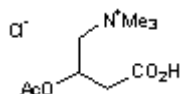
Physical and Chemical Properties:

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Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Chalmers et al (1984) Urinary excretion of *L*-carnitine and acylcarnitines by patients with disorders of organic acid metabolism: evidence for secondary insufficiency of *L*-carnitine. *Pediatr.Res.* **18** 1325. PMID: 6441143.

Coates and Tanaka (1992) Molecular basis of mitochondrial fatty acid oxidation defects. *J.Lipid.Res.* **33** 1099. PMID: 1431593.

Poorthuis et al (1993) Determination of acylcarnitines in urine of patients with inborn errors of metabolism using HPLC after derivatization with 4'-bromophenacyl bromide. *Clin.Chim.Acta.* **216** 53. PMID: 8222273.

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