

## Certificate of Analysis

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**Product Name:** (±)-Propionylcarnitine chloride

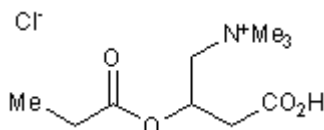
**Catalog No.:** 0611

**Batch No.:** 4

**CAS Number:** 18828-58-5

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>10</sub>H<sub>20</sub>ClNO<sub>4</sub>  
**Batch Molecular Weight:** 253.73  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.23 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])  
**Melting Point:** Between 148 - 150°C  
**HPLC:** Shows 95.4% purity  
<sup>1</sup>H NMR: Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	47.34	7.94	5.52
Found	46.97	7.89	5.51

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

**Product Name:** (±)-Propionylcarnitine chloride

**Catalog No.:** 0611

**Batch No.:** 4

CAS Number: 18828-58-5

**Description:**

Homolog of acetylcarnitine chloride (Cat. No. 0355).  
Acylcarnitines are important intermediates in lipid metabolism.

**Physical and Chemical Properties:**

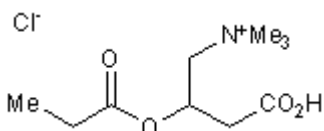
Batch Molecular Formula: C<sub>10</sub>H<sub>20</sub>ClNO<sub>4</sub>

Batch Molecular Weight: 253.73

Physical Appearance: White solid

**Minimum Purity:** >95%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**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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