

# Certificate of Analysis

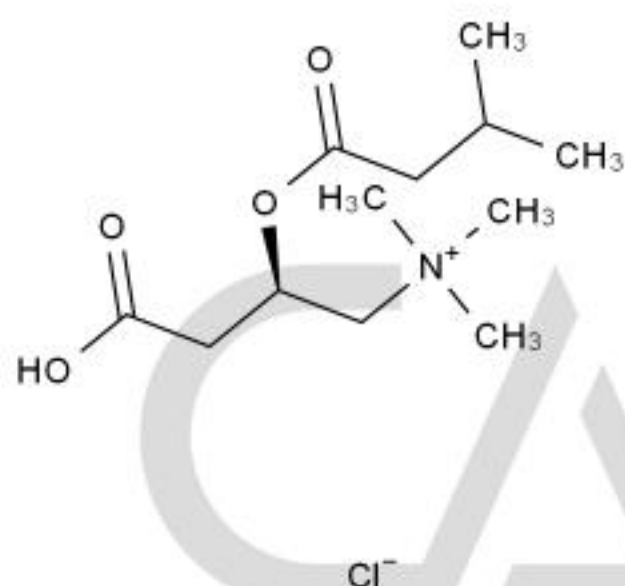
## Reference Material & Standard

|                    |                                                    |                   |                                           |
|--------------------|----------------------------------------------------|-------------------|-------------------------------------------|
| Product Name:      | Isovaleryl L-Carnitine Chloride                    | Catalogue Number: | CCAD303385                                |
| Synonyms:          | N/A                                                | Lot Number:       | 0930-SA-7512                              |
| CAS Number:        | 139144-12-0                                        | Expiry Date:      | Sep 29, 28                                |
| Molecular Formula: | C <sub>12</sub> H <sub>24</sub> NO <sub>4</sub> Cl | Storage:          | 2°C ~ 8°C Protected from light and Sealed |
| Molecular Weight:  | 246.32 35.45                                       |                   |                                           |

Warning:



Chemical Structure:



| Test Items      | Method            | Results                  |
|-----------------|-------------------|--------------------------|
| Appearance      | Visual inspection | White to Off-White Solid |
| Identification: | LC&HNMR           | Confirmed                |
| Purity:         | HPLC              | 97.687%                  |
| Uncertainty     |                   | ±2.0%                    |

## Comment:

The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

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Date: Sep 30, 24

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## Directions:

- 1. Intended use: This product is suitable for identification and quantification of the analyte(s), instrument calibration, method development and quality control in analytical and R&D applications. It is not intended for administration to humans or animals, and shall not be used to diagnose, treat or cure any diseases.*
- 2. Minimum sample size: 1mg is recommended as the minimum sample size.*
- 3. Metrological traceability: This product meets the requirements of ISO 17034 and is traceable to NMI through an unbroken chain of comparisons.*
- 4. Instructions for handling and correct use: Handling in a well-ventilated place.*

## Document Version:

| Revision No. | Date       | Reason for Revision |
|--------------|------------|---------------------|
| 01           | Sep 30, 24 | First release.      |

