
Product Data Sheet

Product Name: Acetyl-L-carnitine-d3 hydrochloride

Cat. No.: GC68097

Chemical Properties

Cas. No. 1334532-17-0

Formula $C_9H_{15}D_3ClNO_4$ M.Wt 242.72

Solubility Storage 4°C, sealed storage, away from moisture

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Background

Acetyl-L-carnitine-d3 (O-Acetyl-L-carnitine-d3) hydrochloride is the deuterium labeled Acetyl-L-carnitine hydrochloride. Acetyl-L-carnitine hydrochloride is a blood-brain permeable acetyl ester of the amino acid L-carnitine found in the body. Acetyl-L-carnitine hydrochloride is often used as a dietary supplement, and exhibits anti-stress-related psychiatric disorders^[1].

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

[2]. Marcon M, et al. Acetyl-L-carnitine as a putative candidate for the treatment of stress-related psychiatric disorders: Novel evidence from a zebrafish model. *Neuropharmacology.* 2019 May 15;150:145-152.

Caution: Product has not been fully validated for medical applications. For research use only.

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