

PRODUCT INFORMATION



Myristoyl-L-carnitine (chloride)

Item No. 26559

CAS Registry No.: 173686-73-2
Formal Name: (2R)-3-carboxy-N,N,N-trimethyl-2-[(1-oxotetradecyl)oxy]-1-propanaminium, monochloride

Synonyms: CAR 14:0, C14:0 Carnitine, L-Carnitine myristoyl ester, L-Carnitine tetradecanoyl ester, L-Myristoylcarnitine, Tetradecanoyl-L-carnitine, L-Tetradecanoylcarnitine

MF: C₂₁H₄₂NO₄ • Cl

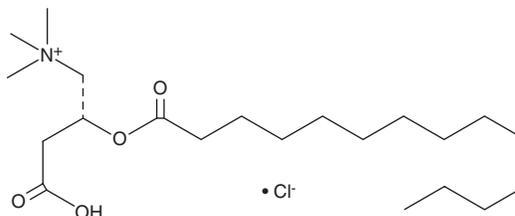
FW: 408.0

Purity: ≥98%

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

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

Myristoyl-L-carnitine (chloride) is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Myristoyl-L-carnitine is a naturally occurring long-chain acylcarnitine.¹ Plasma levels of myristoyl-L-carnitine are decreased in patients with chronic fatigue syndrome and increased in patients with end-stage renal disease.^{1,2}

References

1. Reuter, S.E., Evans, A.M., Faull, R.J., *et al.* Impact of haemodialysis on individual endogenous plasma acylcarnitine concentrations in end-stage renal disease. *Ann. Clin. Biochem.* **42(Pt 5)**, 387-393 (2005).
2. Reuter, S.E. and Evans, A.M. Long-chain acylcarnitine deficiency in patients with chronic fatigue syndrome. Potential involvement of altered carnitine palmitoyltransferase-I activity. *J. Intern. Med.* **270(1)**, 76-84 (2011).

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.

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