



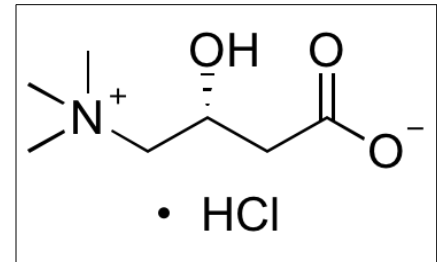
LKT Laboratories, Inc.

L-Carnitine Hydrochloride

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Product Information

Product ID C0263
CAS No. 6645-46-1
Chemical Name 3-Carboxy-2-hydroxy-N,N,N-trimethyl-1-prop- anaminium inner salt hydrochloride
Synonym Lefcar, Metina
Formula C₇H₁₅NO₃ HCl
Formula Wt. 197.66
Melting Point 142° C (dec.)
Purity ≥98%
Solubility



Bulk quantities available upon request

Product ID	Size
C0263	1 g
C0263	5 g
C0263	25 g

Store Temp Ambient
Ship Temp Ambient

Description L-Carnitine is an endogenous quaternary ammonium compound required for fatty acid transport; it is often given as a dietary supplement. The L-isomer is active, exhibiting anti-osteoporotic, antioxidative, and cardioprotective activities. In a clinical setting, L-carnitine administration increases muscle carnitine content and work output while decreasing glycogen utilization during exercise. Additionally, L-carnitine improves postprandial flow-mediated dilation, slightly increasing vascular function. In animal models, L-carnitine increases bone mineral density and decreases bone resorption. L-Carnitine also improves plasma markers of exercise stress such as malondialdehyde. L-Carnitine improves symptoms of cardiovascular disease accompanying myocardial infarction and decreases ventricular arrhythmias, symptoms of angina, and mortality rates.

References DiNicolantonio JJ, Lavie CJ, Fares H, et al. L-carnitine in the secondary prevention of cardiovascular disease: systematic review and meta-analysis. *Mayo Clin Proc.* 2013 Jun;88(6):544-51. PMID: 23597877.

Wall BT, Stephens FB, Constantin-Teodosiu D, et al. Chronic oral ingestion of L-carnitine and carbohydrate increases muscle carnitine content and alters muscle fuel metabolism during exercise in humans. *J Physiol.* 2011 Feb 15;589(Pt 4):963-73. PMID: 21224234.

Volek JS, Judelson DA, Silvestre R, et al. Effects of carnitine supplementation on flow-mediated dilation and vascular inflammatory responses to a high-fat meal in healthy young adults. *Am J Cardiol.* 2008 Nov 15;102(10):1413-7. PMID: 18993165.

Hooshmand S, Balakrishnan A, Clark RM, et al. Dietary l-carnitine supplementation improves bone mineral density by suppressing bone turnover in aged ovariectomized rats. *Phytomedicine.* 2008 Aug;15(8):595-601. PMID: 18539446.

Volek JS, Kraemer WJ, Rubin MR, et al. L-Carnitine L-tartrate supplementation favorably affects markers of recovery from exercise stress. *Am J Physiol Endocrinol Metab.* 2002 Feb;282(2):E474-82. PMID: 11788381.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.