



Product Information

Product ID C0264

CAS No. 36687-82-8

Chemical Name 3-Carboxy-2-hydroxy-N,N,N-trimethyl-1-prop- anaminium inner salt tartrate

Synonym

Formula $2(C_7H_{15}NO_3)_2 \cdot C_4H_6O_6$

Formula Wt. 472.49

Melting Point

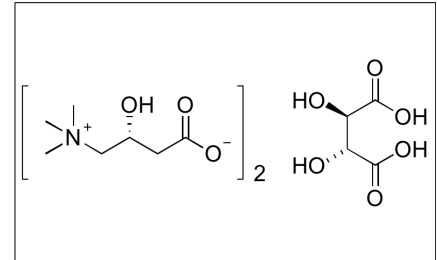
Purity $\geq 98\%$

Solubility Soluble in water.

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.



Bulk quantities available upon request

Product ID	Size
C0264	1 g
C0264	5 g
C0264	25 g

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.