

## (C16) Hexadecanoylcarnitine

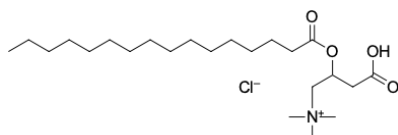
<http://www.lumiprobe.com/p/hexadecanoylcarnitine-18877-64-0>

Hexadecanoylcarnitine, also called as palmitoyl-L-carnitine, is an endogenous acylcarnitine and acts as a key energy donor for  $\beta$ -oxidation. Hexanoylcarnitine chloride is used as an analytical standard in HPLC-MS and MS/MS studies.

Hexanoylcarnitine has surface activity, has a diphilic character and has detergent properties. Hexanoylcarnitine has surface activity, is diphilic and has detergent properties. Hexanoylcarnitine promotes the transfer of long-chain fatty acids from cytoplasm to mitochondria during fatty acid oxidation. The substance accumulates in the myocardium during ischemia and affects the levels of phosphate and free fatty acids in the myocardium and on the myocardial vascular endothelium. In experimental models, palmitoyl-L-carnitine levels increased with age and induced mitochondrial dysfunction in neurons.

Palmitoyl-L-carnitine may be used as an analytical standard to quantify the analyte in biological samples of patients with continuous ambulatory peritoneal dialysis (CAPD) or automated peritoneal dialysis (APD) using HPLC-MS. It may also be used as an analytical reference standard for the separation and identification of underivatized palmitoyl-L-carnitine in human plasma samples.

The product is used primarily as a control for MS/MS.



**Structure of (C16) Hexadecanoylcarnitine**

### General properties

Appearance: white solid

Molecular weight: 436.07

CAS number: 18877-64-0

Molecular formula:  $C_{23}H_{46}ClNO_4$

Solubility: DMF, DMSO, ethanol

Quality control: NMR  $^1H$  and HPLC-MS (95+%)

Storage conditions: 24 months after receipt at  $-20^\circ C$  in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.

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