

(C18) Octadecanoylcarnitine

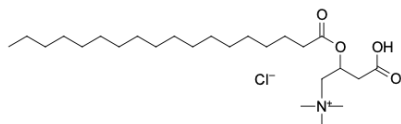
<http://www.lumiprobe.com/p/octadecanoylcarnitine>

Octadecanoyl-L-carnitine, also known as stearyl-L-carnitine is a naturally occurring long-chain acylcarnitine. The substance may be used as an analytical reference standard for MS-MS and chromatography-based techniques.

Octadecanoylcarnitine acts as a carrier of long-chain acyl groups from activated fatty acids across the inner mitochondrial membrane, for their further oxidation in the mitochondria. Octadecanoylcarnitine inhibits sodium-dependent reabsorption of carnitine in human proximal convoluted tubular (HPCT) cells in the kidney.

Plasma levels of octadecanoylcarnitine are decreased in patients with chronic fatigue syndrome, Alzheimer's disease and increased in patients with end-stage renal failure, as well as may be increased in congenital diseases such as celiac disease. Octadecanoylcarnitine is an inhibitor of glycine transporter 2 (GlyT2).

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



Structure of (C18) Octadecanoylcarnitine

General properties

Appearance: white solid

Molecular weight: 464.12

CAS number: 32350-57-5

Molecular formula: $C_{25}H_{50}ClNO_4$

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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