CREATIVE BIOMART®
Assay Kit

L-Carnitine Assay Kit

Product Information

Cat.No. Kit-0506

Product Overview

L-Carnitine Assay Kit is used for measuring free L-carnitine.

Description

Carnitine is a quaternary ammonium compound biosynthesized from lysine and methionine. It is required for fatty acid transport into the mitochondrial matrix via the carnitine/acylcarnitine shuttle where β-oxidation occurs, acetate is generated and the acetate utilized in the TCA cycle for the generation of energy. Carnitine exists in two stereoisomers. Only L-carnitine is biologically active. The L-Carnitine Assay Kit is a simple convenient means of measuring free L-Carnitine in biological samples such as serum. The assay transfers an acetyl group from CoA to Carnitine and the free CoA formed is further processed with subsequent oxidation of the Oxi-Red probe to give fluorescence (Ex/Em = 535/587 nm) and absorbance (570 nm). The normal range for serum L-Carnitine is ~10-70 µM. The detection sensitivity is ~1 µM (fluorometric) and ~10 µM (colorimetric).

Target Species

Mammals

Usage

For research use only (RUO)

Storage

Store the kit at -20°C, protect from light. Allow Assay Buffer to warm to room temperature before use. Briefly centrifuge vials prior to opening. Read the entire protocol before performing the assay.

Kit Components

Components 100 Assays Cap CodeCarnitine Assay Buffer 25 mL WMCarnitine Probe (in DMSO) 0.2 mL RedCarnitine Converting Enzyme lyophilized PurpleCarnitine Substrate Mix 400 µL BlueCarnitine Development Mix lyophilized GreenCarnitine Standard (10 µmol) lyophilized Yellow

Detection method Colorimetric, Fluorometric

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Compatible Sample Types

Biological Fluid, Cell Culture Supernatant, Plasma, Serum, Tissue Culture Supernatant, Urine

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