

# Coenzyme Q10

## General:

Coenzyme Q10 belongs to the ubiquinones (mitoquinone) and represents an important component of the electron transport within the ATP-generating respiratory chain of mitochondria. They are ubiquitously found in most animal, plant and human cells which contain mitochondria (with exception of gram-positive bacteria and cyanobacteria) and occur in the organism in quite large quantities. So the "total concentration" of the substance in a human being is estimated at 0.5 to 1.5 g.

Coenzyme Q10 plays an important role in muscle cells, which require large quantities of energy. Especially in cardiac muscle cells, a small deficit of 5- 10% of coenzyme Q10 can lead to disturbances of heart functions. Coenzyme Q10 serum levels decrease with age, from 40-50 years onwards. Coenzyme Q10 is also considered an antioxidant, which protects the cells against free radicals. Unlike vitamins, the cells can form coenzyme Q10 in sufficient quantity. In addition, a normal diet supplies coenzyme Q10 in sufficient quantities. Corn germ oil, wheat germ oil, meat and butter show a high content of ubiquinone. Vegetables show lower concentrations.

## See also **Oxidation status**.

Indication: reduced myocardial function, rhythmic disorders, hypertonia, cardiac insufficiency, angina pectoris, heart operations, vitamin E insufficiency.

Material: 1 ml serum

TAT: 7-10 days\*

Method: HPLC

Units: mg/l

Ref.- range: 0.8-1.40

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>