

## Coenzyme Q10

Cat. No. COEC-013

Lot. No. (See product label)

### Introduction

#### Description

Coenzyme Q10 is an electron transport chain component of the mitochondria, which assists proton and electron transfer across the inner mitochondrial membrane. Studies indicate that Coenzyme Q10 can protect human endothelial cells from oxidative damage by modulating the nitric oxide pathway. In addition, Coenzyme Q10 inhibits LDL oxidation, a major process in the development of atherosclerosis. Coenzyme Q10 is known to suppress the down regulation of NOS3 (endothelial nitric oxide synthase, eNOS) and up-regulation of NOS2 (inducible nitric oxide synthase, iNOS). As a result of its ability to bind  $\text{Ca}^{2+}$ , Coenzyme Q10 can transport this cation across artificial biomimetic membranes.

#### Applications

A mitochondrial transporter chain component

#### Synonyms

CoQ10; Ubidecarenone; Ubiquinone-10; Q-10

### Product Information

#### Appearance

Powder

#### Form

Solid

#### CAS No.

303-98-0

#### Molecular Formula

C<sub>59</sub>H<sub>90</sub>O<sub>4</sub>

#### Molecular Weight

863.34

#### Purity

≥98%

#### Melting Point

48-52° C

#### Boiling Point

~869.0° C at 760 (Predicted)

#### Solubility

Soluble in water (partly), ethanol (5 mM), chloroform (50 mg/ml), and DMF (~10 mg/ml).