

Product Name: Coenzyme Q10

Catalog No.: 3003

Batch No.: 1

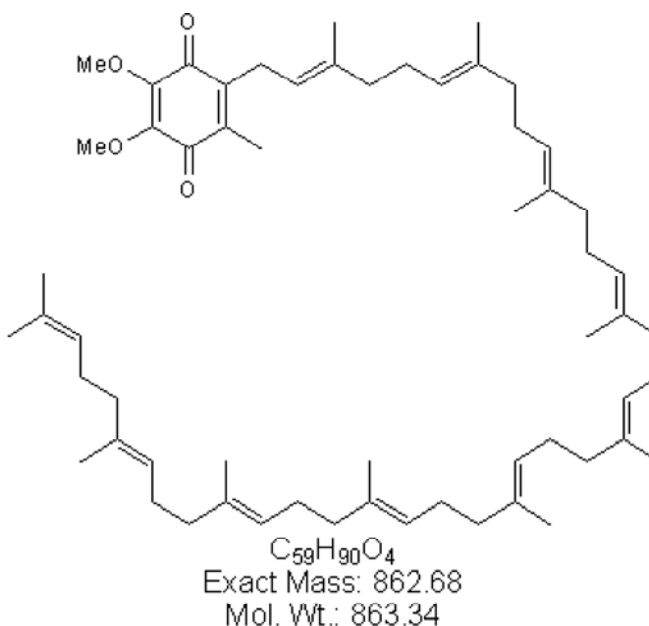
CAS Number: 303-98-0

EC Number: 206-147-9

IUPAC Name: 2-[(2E,6E,10E,14E,18E,22E,26E,30E,34E)-3,7,11,15,19,23,27,31,35,39-Decamethyl-2,6,10,14,18,22,26,30,34,38-tetracontadecaen-1-yl]-5,6-dimethoxy-3-methyl-2,5-cyclohexadiene-1,4-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₅₉H₉₀O₄
Batch Molecular Weight: 863.34
Physical Appearance: Orange crystalline solid
Solubility: ethanol to 5 mM with gentle warming
 chloroform to 50 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows >99.2% purity
Mass Spectrum: Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Coenzyme Q10 is a component of the mitochondrial transporter chain that behaves as a powerful antioxidant. Coenzyme Q10 displays neuroprotective activity. In an animal model of Huntington's disease, Coenzyme Q10 extends survival and delays disease; this effect is more pronounced when combined with Remacemide hydrochloride (Cat. No. 1622). Ferroptosis inhibitor.

Physical and Chemical Properties:

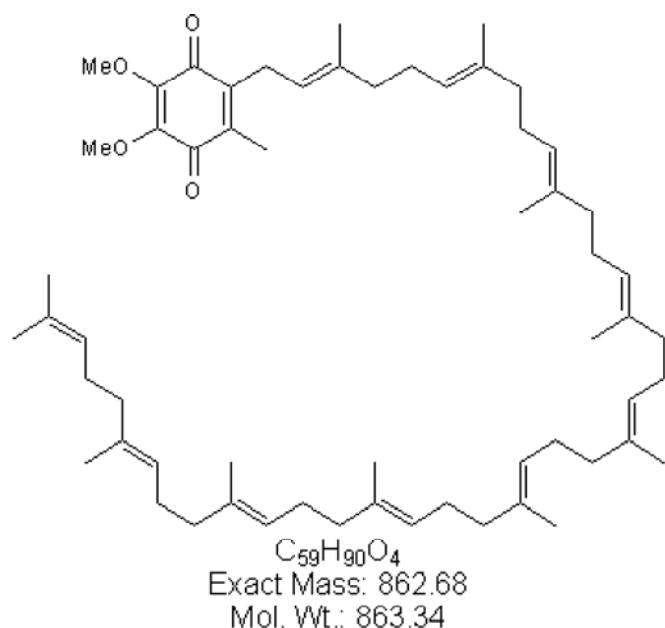
Batch Molecular Formula: C₅₉H₉₀O₄

Batch Molecular Weight: 863.34

Physical Appearance: Orange crystalline solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

ethanol to 5 mM with gentle warming

chloroform to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Yang and Stockwell et al (2016) Ferroptosis: Death by lipid peroxidation. *Trends Cell Biol.* **26** 165. PMID: 26653790.

Young et al (2007) Coenzyme Q10: a review of its promise as a neuroprotectant. *CNS Spectr.* **12** 62. PMID: 17192765.

Shults (2003) Coenzyme Q10 in neurodegenerative diseases. *Curr.Med.Chem.* **10** 1917. PMID: 12871093.

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