

Certificate of Analysis

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Product Name: Idebenone

Catalog No.: 3002

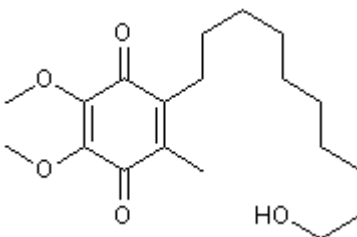
Batch No.: 1

CAS Number: 58186-27-9

IUPAC Name: 2-(10-Hydroxydecyl)-5,6-dimethoxy-3-methyl-2,5-cyclohexadiene-1,4-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₃₀O₅
Batch Molecular Weight: 338.44
Physical Appearance: Orange solid
Solubility: DMSO to 100 mM
ethanol to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows >99% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	67.43	8.93	
Found	67.51	8.95	

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

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IUPAC Name: 2-(10-Hydroxydecyl)-5,6-dimethoxy-3-methyl-2,5-cyclohexadiene-1,4-dione

Description:

Antioxidant and neuroprotective agent. Protects mitochondrial membranes against lipid peroxidation and blocks glutamate neurotoxicity in vitro and in vivo. Inhibits apoptosis of astrocytes via increased NGF production.

Physical and Chemical Properties:

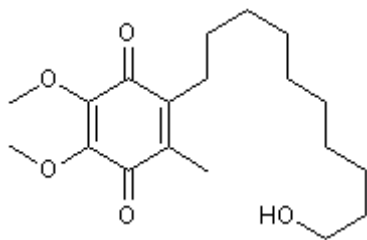
Batch Molecular Formula: C₁₉H₃₀O₅

Batch Molecular Weight: 338.44

Physical Appearance: Orange solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 100 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:

Zs-Nagy (1990) Chemistry, toxicology, pharmacology and pharmacokinetics of idebenone: a review. Arch.Gerontol.Geriatri. **11** 177. PMID: 15374467.

Civenni et al (1999) Inhibitory effect of the neuroprotective agent idebenone on arachidonic acid metabolism in astrocytes. Eur.J.Pharmacol. **370** 161. PMID: 10323265.

Takuma et al (2000) CV-2619 protects cultured astrocytes against reperfusion injury via nerve growth factor production. Eur.J.Pharmacol. **406** 333. PMID: 11040339.

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