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: \( C_{19}H_{30}O_{5} \)
Batch Molecular Weight: 338.44
Physical Appearance: Orange solid
Solubility: DMSO to 100 mM, ethanol to 100 mM
Storage: Store at RT

2. ANALYTICAL DATA

HPLC: Shows >99% purity
\(^1\)H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th>Element</th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>67.43</td>
<td>67.51</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>8.93</td>
<td>8.95</td>
</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
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**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: C_{19}H_{30}O_{5}
- Batch Molecular Weight: 338.44
- Physical Appearance: Orange solid
- Minimum Purity: >99%

**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:**