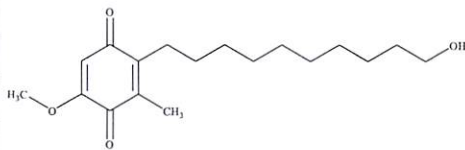


## Certificate of Analysis


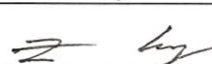
Certificate No.: 20260618002

Date: June 18, 2026

Retest date: June 15, 2029

<b>Compound Name:</b>	<b>Idebenone Impurity 15</b>	
<b>Synonyms:</b>	2-(10-hydroxydecyl)-5-methoxy-3-methylcyclohexa-2,5-diene-1,4-dione	
<b>TLC Catalogue Number:</b>	I-1528	
<b>CAS Number:</b>	116460-82-3	
<b>Alternate CAS Number:</b>	N/A	
<b>Molecular Weight:</b>	308.42	
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>28</sub> O <sub>4</sub>	
<b>Source:</b>	TLC Pharmaceutical Standards	
<b>Source Lot No.:</b>	7476-046A4	
<b>Storage Conditions:</b>	Store at 2-8 °C	
<b>Solubility:</b>	Methanol	

Test Description	Specifications	Results
<b>Visual Description</b>	Yellow solid	<b>Conforms</b>
<b>Identification</b>		
IR	Conforms to structure	<b>Conforms</b>
MS	Conforms to structure	<b>Conforms</b>
<sup>1</sup> H NMR	Conforms to structure	<b>Conforms</b>
<b>Purity (HPLC)</b>	Not less than 95.0%	<b>98.8%</b>
<b>Impurity (HPLC)</b>	RT 7.53, 0.14%; RT 20.09, 0.63%	
<b>Water Content (KF)</b>	N/A	<b>0.1%</b>
<b>Residual Solvents (NMR)</b>	0.1% <i>n</i> -hexane and 0.1% dichloromethane	
<b>Assay (%)</b>	Not less than 90.0%	<b>98.5%</b>
<b>Recommendation:</b>	<b>Release.</b>	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		06/18/2026
Approved by:	Quality Assurance		06/18/2026

**Attachments:** Peak Attribution Table, Assay Calculation, HPLC, IR, MS and NMR spectra.