

## Certificate of Analysis

[www.tocris.com](http://www.tocris.com)

**Product Name:** Perhexiline maleate

CAS Number: 6724-53-4

IUPAC Name: 2-(2,2-Dicyclohexylethyl)piperidine maleate

**Catalog No.:** 5166

**Batch No.:** 1

EC Number: 229-775-5

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{19}H_{35}N.C_4H_4O_4$

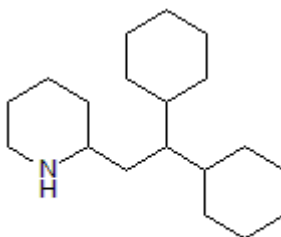
**Batch Molecular Weight:** 393.56

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM  
ethanol to 20 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**



$.C_4H_4O_4$

### 2. ANALYTICAL DATA

**HPLC:** Shows 99.9% purity

**$^1H$  NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

Carbon Hydrogen Nitrogen

	Carbon	Hydrogen	Nitrogen
Theoretical	70.19	9.99	3.56
Found	70.62	10.21	3.57

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

## Product Information

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**Catalog No.:** 5166

**Batch No.:** 1

EC Number: 229-775-5

### Description:

Carnitine palmitoyltransferase 1 and 2 (CPT1/2) inhibitor. Inhibits palmitate oxidation in rat cardiomyocytes and increases cardiac efficiency in isolated rat hearts. Antianginal.

### Physical and Chemical Properties:

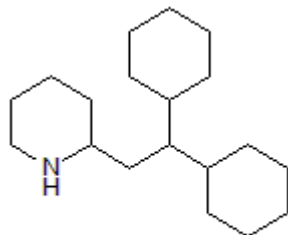
Batch Molecular Formula: C<sub>19</sub>H<sub>35</sub>N.C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>

Batch Molecular Weight: 393.56

Physical Appearance: White solid

**Minimum Purity:** >99%

### Batch Molecular Structure:



.C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>

**Storage:** Store at +4°C

### Solubility & Usage Info:

DMSO to 100 mM

ethanol to 20 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:

**Yin *et al*** (2013) Effects of perhexiline-induced fuel switch on the cardiac proteome and metabolome. *J.Mol.Cell.Cardiol.* **55** 27. PMID: 23277191.

**Unger *et al*** (2005) Dissociation between metabolic and efficiency effects of perhexiline in normoxic rat myocardium. *J.Cardiovasc.Pharmacol.* **46** 849. PMID: 16306812.

**Kennedy *et al*** (1996) Inhibition of carnitine palmitoyltransferase-1 in rat heart and liver by perhexiline and amiodarone. *Biochem.Pharmacol.* **52** 273. PMID: 8694852.

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