

Product Name: MCU i4

Catalog No.: 7195

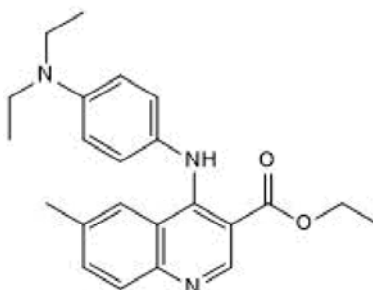
Batch No.: 1

CAS Number: 371924-24-2

IUPAC Name: 4-[[4-(Diethylamino)phenyl]amino]-6-methyl-3-quinolinecarboxylic acid ethyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₃H₂₇N₃O₂
Batch Molecular Weight: 377.49
Physical Appearance: Orange/brown solid
Solubility: DMSO to 50 mM
ethanol to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	73.18	7.21	11.13
Found	72.77	7.29	11.03

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

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Description:

MCU i4 is a negative modulator of mitochondrial calcium (Ca²⁺) uniporter (MCU) complex, which binds to MICU1, a regulatory protein within MCU complex. MCU i4 reduces mitochondrial Ca²⁺ uptake in multiple cell lines including MEFs, MDA-MB,231 and HEK293T cells, and demonstrates a negative effect on mitochondrial membrane potential. In ex vivo muscle fibres, MCU i4 reduces mitochondrial Ca²⁺ uptake and impairs muscle cell growth.

Physical and Chemical Properties:

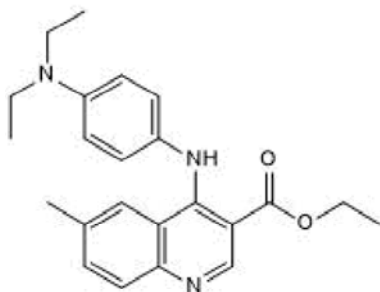
Batch Molecular Formula: C₂₃H₂₇N₃O₂

Batch Molecular Weight: 377.49

Physical Appearance: Orange/brown solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 50 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:

Di Marco et al (2020) A high-throughput screening identifies MICU1 targeting compounds. *Cell Rep.* **30** 2321. PMID: 32075766.

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