

Product Name: MRS 1845

Catalog No.: 1866

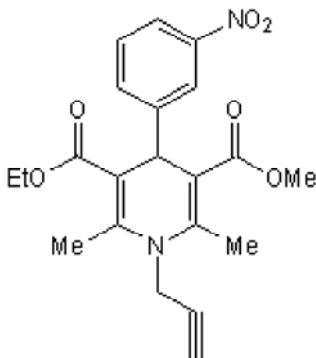
Batch No.: 2

CAS Number: 544478-19-5

IUPAC Name: 1,4-Dihydro-2,6-dimethyl-4-(3-nitrophenyl)-1-(2-propynyl)-3,5-pyridinedicarboxylic acid ethyl, methyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₂₂N₂O₆
Batch Molecular Weight: 398.41
Physical Appearance: Orange crystalline solid
Solubility: ethanol to 10 mM with gentle warming
DMSO to 10 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.55 (Ethyl acetate:Hexane [1:1])
Melting Point: Between 155 - 157°C
HPLC: Shows 98.9% purity
¹H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.31	5.57	7.03
Found	63.39	5.56	7.03

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

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Description:

Potent blocker of store-operated Ca²⁺ channels; inhibits capacitative Ca²⁺ influx in HL-60 cells (IC₅₀ = 1.7 mM).

Physical and Chemical Properties:

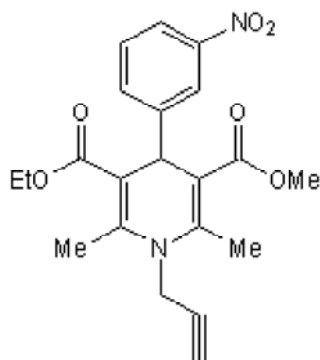
Batch Molecular Formula: C₂₁H₂₂N₂O₆

Batch Molecular Weight: 398.41

Physical Appearance: Orange crystalline solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

ethanol to 10 mM with gentle warming

DMSO to 10 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:

Szikra et al (2009) Calcium homeostasis and cone signaling are regulated by interactions between calcium stores and plasma membrane ion channels. *PLoS ONE* **4** e6723. PMID: 19696927.

Szikra et al (2008) Depletion of calcium stores regulates calcium influx and signal transmission in rod photoreceptors. *J.Physiol.* **586** 4859. PMID: 18755743.

Harper et al (2003) Dihydropyridines as inhibitors of capacitative calcium entry in leukemic HL-60 cells. *Biochem.Pharmacol.* **65** 329. PMID: 12527326.

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