

Certificate of Analysis

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Product Name: Nifedipine

Catalog No.: 1075

Batch No.: 3

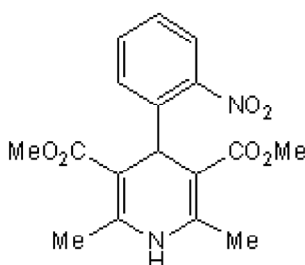
CAS Number: 21829-25-4

EC Number: 244-598-3

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₈N₂O₆
Batch Molecular Weight: 346.34
Physical Appearance: Yellow solid
Solubility: DMSO to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	58.96	5.24	8.09
Found	58.88	5.17	8.08

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

Product Information

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

Description:

Nifedipine is a L-type calcium channel blocker.

Physical and Chemical Properties:

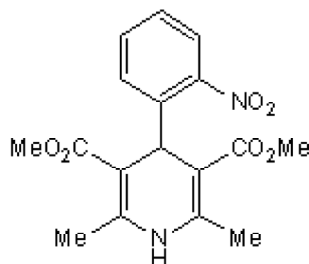
Batch Molecular Formula: C₁₇H₁₈N₂O₆

Batch Molecular Weight: 346.34

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Desiccate 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:

DMSO 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Stork and Cocks (1994) Pharmacological reactivity of human epicardial coronary arteries: phasic and tonic responses to vasoconstrictor agents differentiated by nifed. Br.J.Pharmacol. **113** 1093. PMID: 7889259.

Merck Index **12** 6617.

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