

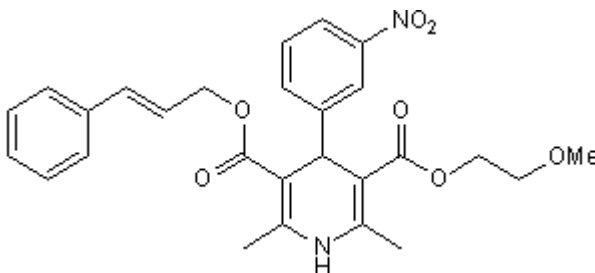
Certificate of Analysis

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Product Name: Cilnidipine **Catalog No.:** 2629 **Batch No.:** 1
CAS Number: 132203-70-4
IUPAC Name: 1,4-Dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid 2-methoxyethyl (2E)-3-phenyl-2-propenyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₇H₂₈N₂O₇
Batch Molecular Weight: 492.52
Physical Appearance: Yellow crystalline solid
Solubility: DMSO to 100 mM
 ethanol to 10 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: Between 105 - 107°C
HPLC: Shows >99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	65.84	5.73	5.69
Found	65.75	5.69	5.68

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

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Description:

Dual L- and N-type calcium channel blocker that displays antihypertensive, sympatholytic and neuroprotective activity. Lowers mean blood pressure and reduces the size of cerebral infarction in the rat model of focal brain ischemia.

Physical and Chemical Properties:

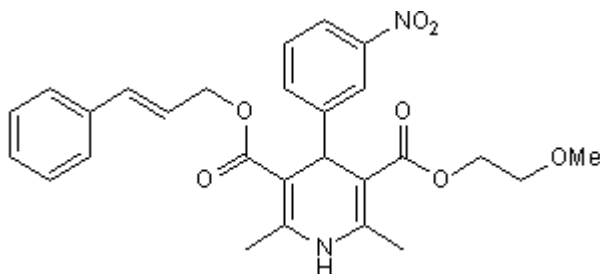
Batch Molecular Formula: C₂₇H₂₈N₂O₇

Batch Molecular Weight: 492.52

Physical Appearance: Yellow crystalline solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Murai et al (2000) Preferential inhibition of L- and N-type calcium channels in the rat hippocampal neurons by cilnidipine. *Brain Res.* **854** 6. PMID: 10784100.

Takahara et al (2004) Neuroprotective effects of a dual L/N-type Ca²⁺ channel blocker cilnidipine in the rat focal brain ischemia model. *Biol.Pharm.Bull.* **27** 1388. PMID: 15340224.

Nap et al (2004) The evaluation of the N-type channel blocking properties of cilnidipine and other voltage-dependent calcium antagonists. *Fund.Clin.Pharmacol.* **18** 309.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol 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.

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