

Certificate of Analysis

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Product Name: Nilvadipine

Catalog No.: 5711

Batch No.: 1

CAS Number: 75530-68-6

IUPAC Name: 2-Cyano-1,4-dihydro-6-methyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid 3-methyl 5-(1-methylethyl) ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₁₉N₃O₆·½H₂O

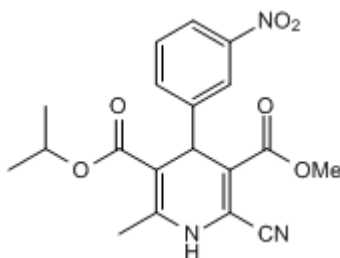
Batch Molecular Weight: 394.38

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM
ethanol to 50 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: At 151°C

HPLC: Shows 99.4% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	57.86	5.11	10.65
Found	57.54	5.13	10.69

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

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Description:

Syk inhibitor. Blocks A β production, APP β secretion and reduces BACE-1 expression in CHO cells over-expressing A β in vitro. Enhances clearance of A β across the blood brain barrier in vivo. Reduces brain A β levels in a mouse tauopathy model. Also L-type calcium channel blocker and antihypertensive.

Physical and Chemical Properties:

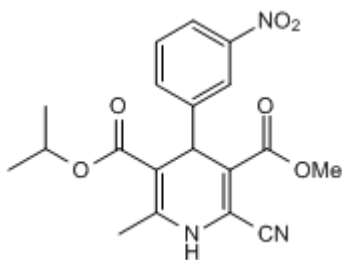
Batch Molecular Formula: C₁₉H₁₉N₃O₆ · ½H₂O

Batch Molecular Weight: 394.38

Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

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

ethanol to 50 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:

Cho et al (1989) Dihydropyrimidines: novel calcium antagonists with potent and long-lasting vasodilative and antihypertensive activity. *J.Med.Chem.* **32** 2399. PMID: 2552119.

Paris et al (2014) The spleen tyrosine kinase (Syk) regulates Alzheimer amyloid- β production and Tau hyperphosphorylation. *J.Biol.Chem.* **289** 33927. PMID: 25331948.

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