

Certificate of Analysis

Print Date: Jan 15th 2016

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Product Name: Felodipine Catalog No.: 2960 Batch No.: 1

CAS Number: 72509-76-3

IUPAC Name: 4-(2,3-Dichlorophenyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylic acid ethyl methyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{18}H_{19}CI_2NO_4$

Batch Molecular Weight: 384.25

Physical Appearance: Light yellow solid

Solubility: DMSO to 100 mM ethanol to 100 mM

Storage: Store 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 56.26 4.98 3.65 Found 56.31 5.01 3.63



Product Information

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IUPAC Name: 4-(2,3-Dichlorophenyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylic acid ethyl methyl ester

Description:

L-type Ca²⁺ channel blocker that is selective over N-, R-, P/Qand T-type channels. Displays high vascular selectivity; lowers arterial blood pressure without altering cardiac contractility. Antihypertensive.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₈H₁₉Cl₂NO₄ Batch Molecular Weight: 384.25 Physical Appearance: Light yellow solid

Minimum Purity: >98%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 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:

Ljung (1990) Vascular selectivity of felodipine: experimental pharmacology. J.Cardiovasc.Pharmacol. 15 S11. PMID: 1693715.

Furukawa *et al* (1999) Selectivities of dihydropyridine derivatives in blocking Ca²⁺ channel subtypes expressed in *Xenopus* oocytes. J.Pharmacol.Exp.Ther. **291** 464. PMID: 10525060.

Furukawa *et al* (2005) Differential blocking action of dihydropyridine Ca^{2+} antagonists on a T-type Ca^{2+} channel (α_{1G}) expressed in *Xenopus* oocytes. J.Cardiovasc.Pharmacol. *45* 241. PMID: 15725949.