

Product Name: Isradipine

Catalog No.: 2004

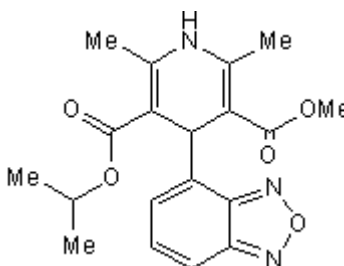
Batch No.: 1

CAS Number: 75695-93-1

IUPAC Name: 4-(2,1,3-Benzoxadiazol-4-yl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinecarboxylic acid methyl 1-methylethyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₂₁N₃O₅
Batch Molecular Weight: 371.39
Physical Appearance: Yellow crystalline solid
Solubility: DMSO to 50 mM
 ethanol to 20 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.58 (Ethyl acetate:Petroleum ether [1:1])
Melting Point: Between 167 - 168°C(dec)
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 61.45 | 5.7 | 11.31 |
| Found | 61.68 | 5.74 | 11.35 |

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

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Description:

Potent and selective L-type voltage-gated Ca²⁺ channel blocker. EC₅₀ and pA₂ values are 1.4 nM and 10.3 for relaxation of depolarization- and Ca²⁺-induced contractions of rabbit aorta respectively; EC₂₅ = 0.45 nM for reduction in rate of spontaneously beating guinea pig right atria. Long-acting antihypertensive agent in vivo, exerting primary effects on vascular tissue with secondary negative chronotropic action.

Physical and Chemical Properties:

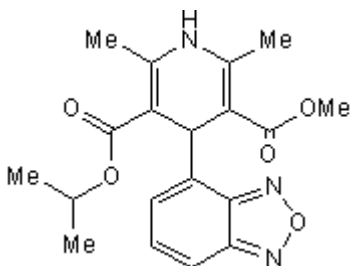
Batch Molecular Formula: C₁₉H₂₁N₃O₅

Batch Molecular Weight: 371.39

Physical Appearance: Yellow crystalline solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Hof et al (1984) PN 200-110, a new calcium antagonist: electrophysiological, inotropic, and chronotropic effects on guinea pig myocardial tissue and effects on contraction and calcium uptake of rabbit aorta. *J.Cardiovasc.Pharmacol.* **6** 399. PMID: 6202964.

Wada et al (1985) Separation of the coronary vasodilator from the cardiac effects of PN 200-110, a new dihydropyridine calcium antagonist, in the dog heart. *J.Cardiovasc.Pharmacol.* **7** 190. PMID: 2580142.

Ruegg and Hof (1990) Pharmacology of the calcium antagonist isradipine. *Drugs* **40** 3.

Storage: Store at RT

Solubility & Usage Info:

DMSO to 50 mM

ethanol to 20 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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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956