

PRODUCT INFORMATION

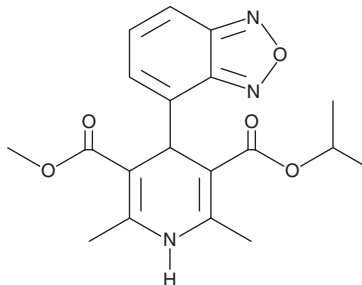


Isradipine

Item No. 17536

CAS Registry No.: 75695-93-1
Formal Name: 4-(2,1,3-benzoxadiazol-4-yl)-
1,4-dihydro-2,6-dimethyl-
3,5-pyridinedicarboxylic acid,
3-methyl 5-(1-methylethyl) ester

Synonym: PN 200-110
MF: C₁₉H₂₁N₃O₅
FW: 371.4
Purity: ≥98%
UV/Vis.: λ_{max}: 228, 276, 324 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Isradipine is supplied as a crystalline solid. A stock solution may be made by dissolving the isradipine in the solvent of choice, which should be purged with an inert gas. Isradipine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of isradipine in these solvents is approximately 10 mg/ml.

Description

Isradipine is a selective L-type calcium channel blocker with long-acting antihypertensive activity.¹ It demonstrates an EC₅₀ value of 1.4 nM for relaxation of depolarization-induced contractions of rabbit aorta and an EC₂₅ value of 0.45 nM for reduction in rate of spontaneously beating guinea pig right atria.¹ By suppressing calcium influx into the cytoplasm and Ca_v1.2 expression, isradipine has been shown to attenuate β-amyloid oligomer toxicity in an *in vitro* model of Alzheimer's disease.²

References

1. Hof, R.P., Scholtysik, G., Loutzenhiser, R., *et al.* 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. Biomed. Sci.* **6(3)**, 399-406 (1984).
2. Anekonda, T.S. and Quinn, J.F. Calcium channel blocking as a therapeutic strategy for Alzheimer's disease: The case for isradipine. *Biochim. Biophys. Acta* **1812(12)**, 1584-1590 (2011).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM