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DATASHEET

Isradipine

Product overview

Name	Isradipine
Cat No	HB1223
Alternative names	PN 200-110
Biological action	Blocker
Purity	>99%
Description	L-type voltage gated calcium channel blocker

Images



Biological Data

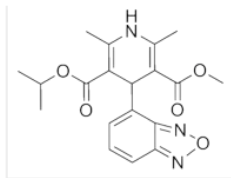
Biological description	L-type voltage gated calcium channel blocker ($EC_{50} = 1.4 \text{ nM}$). Highest affinity for $Ca_v1.3$ and $Ca_v1.2$ channels over $Ca_v1.4$. Displays neuroprotective properties. Blood brain barrier permeable.
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Solubility & Handling

Solubility overview	Soluble in DMSO (50mM) or ethanol (20mM)
Storage instructions	Room temperature
Storage of solutions	Prepare and use solutions on the same day if possible. Store solutions at -20°C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.
Shipping Conditions	Stable for ambient temperature shipping. Follow storage instructions on receipt.
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	4-(2,1,3-Benzoxadiazol-4-yl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinecarboxylic acid methyl 1-methylethyl ester
Molecular Weight	371.39
Chemical structure	



Molecular Formula	C ₁₉ H ₂₁ N ₃ O ₅
CAS Number	75695-93-1
PubChem identifier	3784
SMILES	CC1=C(C(C(=C(N1)C)C(=O)OC(C)C)C2=CC=CC3=NON=C32)C(=O)OC
InChi	InChI=1S/C19H21N3O5/c1-9(2)26-19(24)15-11(4)20-10(3)14(18(23)25-5)16(15)12-7-6-8-13-17(12)22-27-21-13/h6-9,16,20H,1-5H3
InChiKey	HMJIYCCIYRONP-UHFFFAOYSA-N
MDL number	MFCD00153820
Appearance	Yellow solid

References

The L-type channel antagonist isradipine is neuroprotective in a mouse model of Parkinson's disease.

Ilijic E *et al* (2011) *Neurobiol Dis* 43(2)

PubMedID [21515375](#)

Expression and 1,4-dihydropyridine-binding properties of brain L-type calcium channel isoforms.

Sinnegger-Brauns MJ *et al* (2009) *Mol Pharmacol* 75(2)

PubMedID [19029287](#)

L-type voltage-gated calcium channel blockade with isradipine as a therapeutic strategy for Alzheimer's disease.

Anekonda TS *et al* (2011) *Neurobiol Dis* 41(1)

PubMedID [20816785](#)

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.

Hof RP *et al* (1984) *J Cardiovasc Pharmacol* 6(3)

PubMedID [6202964](#)
