Product overview

Name: Nifedipine
Cat No: HB1228
Short description: L-type Ca\(^{2+}\) channel blocker
Biological description: L-type Ca\(^{2+}\) channel blocker. Causes down regulation of NF-κB, proinflammatory cytokines and cell adhesion molecules. Reduces oxidative stress and smooth muscle cell proliferation and shows potential actions against atherosclerosis. Shows neuroprotective actions for dopaminergic neurones and acts as a vasodilator.

Biological action: Blocker
Purity: >98%

Properties

Chemical name: 1,4-Dihydro-2,6-dimethyl-4-(2-nitrophenyl)-3,5-pyridinedicarboxylicaciddimethylester
Molecular Weight: 346.34

Chemical structure:

![Chemical structure](image)

Molecular Formula: C_{17}H_{18}N_{2}O_{6}
CAS Number: 21829-25-4
PubChem identifier: 4485
SMILES: CC1=C(C(C=C(N1)C(=O)OC)C2=CC=CC=N[+](=O)[O-])C(=O)OC
InChi: InChI=1S/C17H18N2O6/c1-9-13(16(20)24-3)15(14(10(2)18-9)17(21)25-4)11-7-5-6-8-12(11)19(22)23/h5-8,15,18H,1-4H3
InChiKey: HYIMSNHJOBLJNT-UHFFFAOYSA-N
MDL number: MFCD00057326
Appearance: Yellow solid

Storing and Using Your Product

Storage instructions: +4 °C (desiccate)
Solubility overview: Soluble in DMSO (100mM)
Important: This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

References for Nifedipine
Nifedipine and nimodipine protect dopaminergic substantia nigra neurons against axotomy-induced cell death in rat vibrionsions via modulating inflammatory responses.


PubMedID: 25038562

Nifedipine inhibits hypoxia induced transvascular leakage through down regulation of NFkB.


PubMedID: 22627105

Nifedipine inhibits vascular smooth muscle cell proliferation and reactive oxygen species production through AMP-activated protein kinase signaling pathway.


PubMedID: 21708289