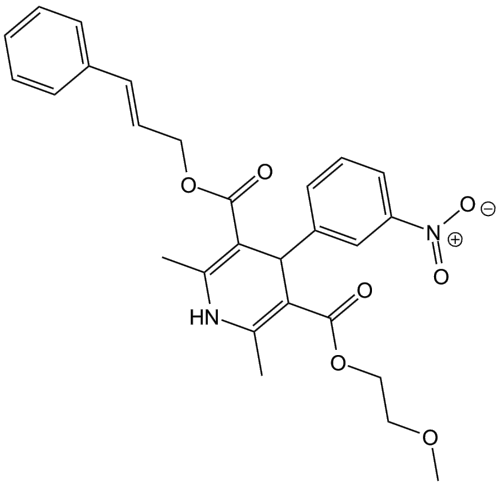
Product Data Sheet

Product Name: Cilnidipine
Cat. No.: GC12312

Chemical Properties

Cas. No.	132203-70-4		
Chemical Name	3-O-(2-methoxyethyl) 5-O-[(E)-3-phenylprop-2-enyl] 2,6-dimethyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3,5-dicarboxylate		
SMILES	CC1=C(C(C(=C(N1)C)C(=O)OCC=CC2=CC=CC=C2)C3=CC(=CC=C3)[N+](=O)[O-])C(=O)OCCOC		
Formula	$C_{27}H_{28}N_2O_7$	M.Wt	492.52
Solubility	≥ 24.6mg/mL in DMSO	Storage	4°C, protect from light
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Cilnidipine(FRC8653) is a dual L- and N-type calcium channel blocker and displays antihypertensive, sympatholytic and neuroprotective activity. IC50 value:Target: calcium channelCilnidipine has

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displayed renal and vascular protective effects and improved baroreflex sensitivity in patients with hypertension. It has also demonstrated neuroprotective effects in a rat focal brain ischemia model by removing free radicals and activating the phosphatidylinositol 3-kinase pathway.

References:

[1]. Masuda T, Ogura MN, Moriya T, et al. Beneficial effects of L- and N-type calcium channel blocker on glucose and lipid metabolism and renal function in patients with hypertension and type II diabetes mellitus. Cardiovasc Ther. 2011 Feb;29(1):46-53. doi: 10
[2]. Morimoto S, Yano Y, Maki K, Iwasaka T. Renal and vascular protective effects of cilnidipine in patients with essential hypertension. J Hypertens. 2007 Oct;25(10):2178-83.
[3]. Takahara A, Konda T, Enomoto A, Kondo N. Neuroprotective effects of a dual L/N-type Ca(2+) channel blocker cilnidipine in the rat focal brain ischemia model. Biol Pharm Bull. 2004 Sep;27(9):1388-91.
[4]. Murai Y, Uneyama H, Ishibashi H et al. Preferential inhibition of L- and N-type calcium channels in the rat hippocampal neurons by cilnidipine. Brain Res. 2000 Jan 31;854(1-2):6-10.