

Efonidipine (hydrochloride)

Catalog No: tcsc3624



Available Sizes

Size: 10mg

Size: 50mg



Specifications

CAS No:

111011-53-1

Formula:

$C_{34}H_{39}ClN_3O_7P$

Pathway:

Membrane Transporter/Ion Channel

Target:

Calcium Channel

Purity / Grade:

>98%

Solubility:

DMSO : 8.5 mg/mL (12.72 mM; Need ultrasonic and warming)

Alternative Names:

NZ-105 hydrochloride

Observed Molecular Weight:

668.12

Product Description

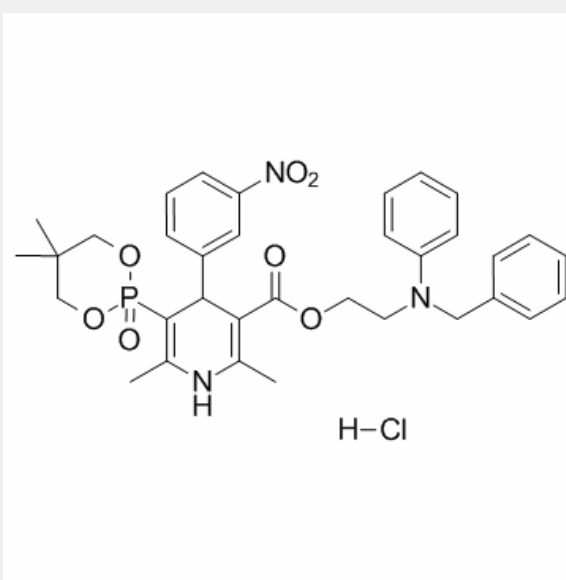
Efonidipine Hcl (NZ-105) is a dual T-type and L-type calcium channel blocker (CCB).

IC50 value:

Target: calcium channel blocker

in vitro: Efonidipine and nifedipine, but not other examined CCBs, also increased the N(6), 2'-O-dibutyryl-adenosine 3',5'-cyclic monophosphate (dbcAMP)-induced StAR mRNA, which reflects the action of adrenocorticotrophic hormone, and efonidipine and R(-)-efonidipine enhanced the dbcAMP-induced DHEA-S production in NCI-H295R adrenocortical carcinoma cells [1]. I(Ca(T)) was blocked mainly by a tonic manner by nifedipine, by a use-dependent manner by mibefradil, and by a combination of both manners by efonidipine. IC50s of these Ca²⁺ channel antagonists to I(Ca(T)) and L-type Ca²⁺ channel current (I(Ca(L))) were 1.2 micromol/l and 0.14 nmol/l for nifedipine; 0.87 and 1.4 micromol/l for mibefradil, and 0.35 micromol/l and 1.8 nmol/l for efonidipine, respectively [4].

in vivo: Twenty hypertensive patients on chronic hemodialysis were given efonidipine 20-60 mg twice daily and amlodipine 2.5-7.5 mg once daily for 12 weeks each in a random crossover manner. The average blood pressure was comparable between the efonidipine and amlodipine periods (151 ± 15/77 ± 8 versus 153 ± 15/76 ± 8 mmHg). The pulse rate did not change significantly during the administration periods [2]. In the UM-X7.1 group, EFO treatment significantly attenuated the decrease of LVEF without affecting blood pressure compared with the vehicle group. EFO treatment decreased heart rate (by approximately 10%) in both groups [3].



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