Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Efonidipine (hydrochloride monoethanolate)

Catalog No: tcsc3622

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:
111011-76-8

Formula:
$C_{36}H_{45}ClN_3O_8P$

Pathway:
Membrane Transporter/Ion Channel

Target:
Calcium Channel

Purity / Grade:
>98%

Solubility:
DMSO : 8.5 mg/mL (11.90 mM; Need ultrasonic and warming)

Alternative Names:
NZ-105 hydrochloride monoethanolate

Observed Molecular Weight:
714.18

Product Description

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

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IC50 value:

Target: calcium channel blocker

in vitro: Efonidipine and nifedipine, but not other examined CCBs, also increased the N(6), 2\'-O-dibutyryladenosine 3\',5\'-cyclic monophosphate (dbcAMP)-induced StAR mRNA, which reflects the action of adrenocorticotropic 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 + or - 15/77 + or - 8 versus 153 + or - 15/76 + or - 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].