



LKT Laboratories, Inc.

Efonidipine Hydrochloride

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Product Information

Product ID E2258

CAS No. 111011-53-1

Chemical Name 2-(N-benzylanilino)ethyl 5-(5,5-dimethyl-2-oxo-1,3,2λ⁵-dioxaphosphinan-2-yl)-2,6-dimethyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3-carboxylate;hydrochloride

Synonym NZ-105

Formula C₃₄H₃₈N₃O₇P · HCl

Formula Wt. 668.12

Melting Point

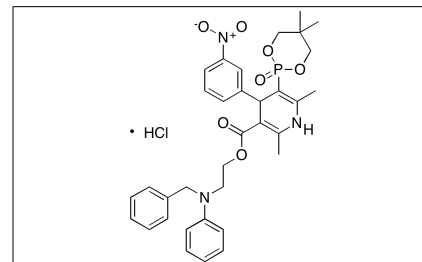
Purity ≥98%

Solubility Soluble in DMSO (5 mg/ml), and ethanol.

Store Temp 4° C

Ship Temp Ambient

Description Efonidipine is a mixture of R(-) and S(+) isomers that exerts long acting blocking actions on both T-type and L-type calcium channels. It has no blocking effects on N-, P/Q- and R-type Ca(2+) channels. While the S(+) isomer is an active blocker of both the T-type and L-type calcium channels, the action of which is similar to the racemic mixture, its R(-) isomer selectively blocks the T-type channel only. In the prevention of cardiovascular disease efonidipine inhibits in a dose dependent manner the Ang II- and K+-induced aldosterone secretion. It suppresses Ang-II and K+-induced mRNA expression of 11-beta-hydroxylase and aldosterone synthase and induces the production of DHEA sulfate, which has anti-atherosclerotic actions.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
E2258	5 mg	\$84.00
E2258	10 mg	\$131.30
E2258	50 mg	\$472.50

References Furukawa T., Miura R, Honda M, et al. Identification of R(-)-isomer of efonidipine as a selective blocker of T-type Ca²⁺ channels. Br. J Pharmacol. 2004 Dec; 143(8):1050-7. PMID:15545287, PMCID:PMC1575949.

Tanaka H, Shigenobu K. Efonidipine hydrochloride: a dual blocker of L- and T-type Ca(2+) channels. Cardiovasc Drug Rev. 2002 Winter; 20(1):81-92. PMID:12070536.

Imafawa K, Okayama S, Takaoka M, et al Inhibitory effect of efonidipine on aldosterone synthesis and secretion on human adrenocarcinoma (H195R) cells. J Cardiovasc Pharmacol. 2006 Jan; 47(1):133-8. PMID:16424797.

Ikeda K, Saito T, Tojo K. Efonidipine, a Ca(2+)-channel blocker, enhances the production of dehydroepiandrosterone sulfate in NCI-H195 R human adrenocortical carcinoma cells. Tohoku J Exp Med. 2011; 224(4):263-71. PMID:21757861.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.