



LKT Laboratories, Inc.

Amlodipine

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Product Information

Product ID A5045

CAS No. 88150-42-9

Chemical Name 2-[(2-Aminoethoxy)methyl]-4-(2-chlorophenyl)-1,4-dihydro-6-methyl-3,5-pyridinedicarboxylic acid 3-ethyl 5-methyl ester

Synonym UK-48340

Formula C₂₀H₂₅ClN₂O₅

Formula Wt. 408.88

Melting Point 134-136 °C

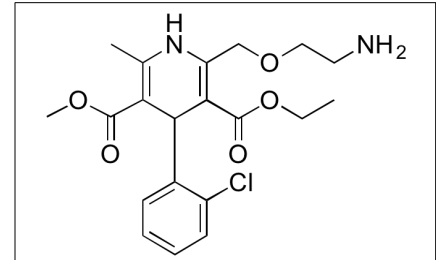
Purity ≥98%

Solubility Soluble in methanol, ethanol (82mg/mL) chloroform and DMSO (82mg/mL).

Store Temp Ambient

Ship Temp Ambient

Description Amlodipine is a dihydropyridine L-type Ca²⁺ channel blocker that exhibits antihypertensive, anti-anginal, and vasodilatory activities. Amlodipine is clinically used to treat hypertension and angina as it induces relaxation of arterial smooth muscles, decreases blood pressure, and increases blood flow to the heart. Amlodipine also inhibits acid sphingomyelinase (FIASMA), which is involved in programmed cell death. Additionally, this compound improves smooth muscle hypertrophy and collagen deposition, preventing arterial remodeling in hypertensive rats.



Bulk quantities available upon request

Product ID	Size
A5045	1 g
A5045	5 g
A5045	10 g

References Chen JL, Shang QH, Hu W, et al. Role of TGF-β1/Smads pathway in carotid artery remodeling in renovascular hypertensive rats and prevention by Enalapril and Amlodipine. *J Geriatr Cardiol.* 2012 Jun;9(2):185-91. PMID: 22916067.

Kornhuber J, Tripal P, Reichel M, et al. Functional Inhibitors of Acid Sphingomyelinase (FIASMA): a novel pharmacological group of drugs with broad clinical applications. *Cell Physiol Biochem.* 2010;26(1):9-20. PMID: 20502000.

Wang JG. A combined role of calcium channel blockers and angiotensin receptor blockers in stroke prevention. *Vasc Health Risk Manag.* 2009;5:593-605. PMID: 19688100.

Fan YY, Kohno M, Nakano D, et al. Cilnidipine suppresses podocyte injury and proteinuria in metabolic syndrome rats: possible involvement of N-type calcium channel in podocyte. *J Hypertens.* 2010 May;28(5):1034-1043. PMID: 20411599.

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