

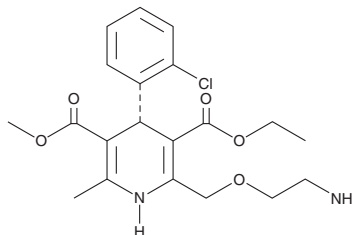
PRODUCT INFORMATION



(S)-Amlodipine

Item No. 46175

CAS Registry No.: 103129-82-4
Formal Name: 2-[(2-aminoethoxy)methyl]-4S-(2-chlorophenyl)-1,4-dihydro-6-methyl-3,5-pyridinedicarboxylic acid, 3-ethyl 5-methyl ester
Synonym: Levamlodipine
MF: C₂₀H₂₅ClN₂O₅
FW: 408.9
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(S)-Amlodipine is supplied as a solid. A stock solution may be made by dissolving the (S)-amlodipine in the solvent of choice, which should be purged with an inert gas. (S)-Amlodipine is soluble (≥10 mg/ml) in ethanol and DMSO.

Description

(S)-Amlodipine is an L-type calcium channel blocker and the S enantiomer of amlodipine (Item Nos. 14838 | 14886).¹ It inhibits L-type calcium channel currents (IC₅₀ = 0.62 μM) and reduces intracellular calcium levels in rat aortic smooth muscle cells. (S)-Amlodipine (1 mg/kg) induces tachycardia, decreases blood pressure, and reduces cardiac and aortic hypertrophy in spontaneously hypertensive rats.² Formulations containing (S)-amlodipine have been used in the treatment of hypertension and coronary artery disease.

References

1. Wang, R.X., Jiang, W.P., Li, X.R., *et al.* Effects of (S)-amlodipine and (R)-amlodipine on L-type calcium channel current of rat ventricular myocytes and cytosolic calcium of aortic smooth muscle cells. *Pharmazie* **63**(6), 470-474 (2008).
2. Yang, Y.L., Yu, L.T., Wu, Z.T., *et al.* Synergic effects of levamlodipine and bisoprolol on blood pressure reduction and organ protection in spontaneously hypertensive rats. *CNS Neurosci. Ther.* **18**(6), 471-474 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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