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

Amlodipine

Catalog No: tcsc2357

Available Sizes

Size: 1g

Size: 5g

Specifications

CAS No:
88150-42-9

Formula:
$C_{20}H_{25}ClN_2O_5$

Pathway:
Membrane Transporter/Ion Channel

Target:
Calcium Channel

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 30 mg/mL (73.37 mM)

Observed Molecular Weight:
408.88

Product Description

Amlodipine is a long-acting calcium channel blocker.

Target: Calcium Channel

Amlodipine is a dihydropyridine calcium antagonist (calcium ion antagonist or slow-channel blocker) that inhibits the movement of calcium ions into vascular smooth muscle cells and cardiac muscle cells. Experimental data suggest amlodipine binds to both

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dihydropyridine and nondihydropyridine binding sites. The contractile processes of cardiac muscle and vascular smooth muscle are dependent upon the movement of extracellular calcium ions into these cells through specific ion channels. Amlodipine inhibits calcium ion influx across cell membranes selectively, with a greater effect on vascular smooth muscle cells than on cardiac muscle cells. Negative inotropic effects, or decreased heart muscle contractility, can be detected in vitro, but such effects have not been seen in intact animals at therapeutic doses. Serum calcium concentration is not affected by amlodipine. Within the physiologic pH range, amlodipine is an ionized compound (pKa = 8.6), and its interaction with the calcium channel receptor is characterized by a gradual rate of association and dissociation with the receptor binding site, resulting in a gradual onset of effect. Amlodipine is a peripheral arterial vasodilator that acts directly on vascular smooth muscle to cause a reduction in peripheral vascular resistance and reduction in blood pressure. From Wikipedia.