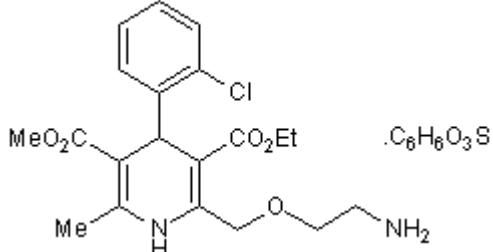


**Product Name:** Amlodipine besylate**Catalog No.:** 2571**Batch No.:** 1**CAS Number:** 111470-99-6**IUPAC Name:** 2-[(2-Aminoethoxy)methyl]-4-(2-chlorophenyl)-1,4-dihydro-6-methyl-3,5-pyridinedicarboxylic acid 3-ethyl 5-methyl ester benzenesulfonate**1. PHYSICAL AND CHEMICAL PROPERTIES****Batch Molecular Formula:** C<sub>20</sub>H<sub>25</sub>ClN<sub>2</sub>O<sub>5</sub>·C<sub>6</sub>H<sub>6</sub>O<sub>3</sub>S**Batch Molecular Weight:** 567.05**Physical Appearance:** White solid**Solubility:**  
water to 10 mM  
DMSO to 100 mM  
ethanol to 50 mM**Storage:** Store at RT**Batch Molecular Structure:****2. ANALYTICAL DATA****Melting Point:** Between 199 - 203°C**HPLC:** Shows 99.4% purity**<sup>1</sup>H NMR:** Consistent with structure**Mass Spectrum:** Consistent with structure**Microanalysis:** Carbon Hydrogen Nitrogen

Theoretical 55.07 5.51 4.94

Found 55.18 5.47 4.95

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Tocris Bioscience is an R&amp;D Systems company

USA & CANADA Tel: (800) 343-7475   EUROPE Tel: +44 (0)1235 529449   CHINA Tel: +86 (21) 52380373  
[www.RnDSystems.com](http://www.RnDSystems.com)

**Product Name:** Amlodipine besylate

**Catalog No.:** 2571

**Batch No.:** 1

**CAS Number:** 111470-99-6

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

**Description:**

L-type calcium channel blocker that displays antihypertensive properties. Inhibits  $\text{Ca}^{2+}$ -induced contractions in depolarized rat aorta ( $\text{IC}_{50} = 1.9 \text{ nM}$ ) and displays vasoprotective effects in cardiovascular disease. Inhibits proliferation of human vascular smooth muscle cells and epidermoid carcinoma A431 cells ( $\text{IC}_{50} = 25 \mu\text{M}$ ).

**Physical and Chemical Properties:**

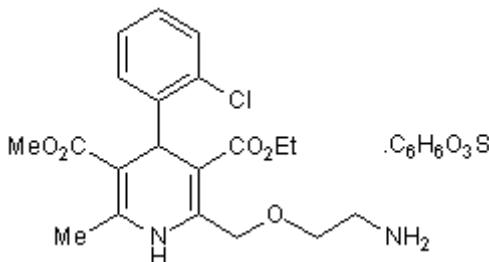
Batch Molecular Formula:  $\text{C}_{20}\text{H}_{25}\text{ClN}_2\text{O}_5\text{.C}_6\text{H}_6\text{O}_3\text{S}$

Batch Molecular Weight: 567.05

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

water to 10 mM

DMSO to 100 mM

ethanol to 50 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Burges et al** (1987) Calcium channel blocking properties of amlodipine in vascular smooth muscle and cardiac muscle in vitro: evidence for voltage modulation of vascular dihydropyridine receptors. *J.Cardiovasc.Pharmacol.* **9** 110. PMID: 2434785.

**Yoshida et al** (2003) Antiproliferative effect of  $\text{Ca}^{2+}$  channel blockers on human epidermoid carcinoma A431 cells. *Eur.J.Pharmacol.* **472** 23. PMID: 12860469.

**Toba et al** (2005) Calcium channel blockades exhibit anti-inflammatory and antioxidative effects by augmentation of endothelial nitric oxide synthase and the inhibition of angiotensin converting enzyme in the *N*<sup>G</sup>-nitro-L-arginine methyl ester-induced hypertensive rat aorta: vasoprotective effects beyond the blood pressure-lowering effects of amlodipine and manidipine. *Hypertens.Res.* **28** 689. PMID: 16392774.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Tocris Bioscience is an R&D Systems company

USA & CANADA Tel: (800) 343-7475   EUROPE Tel: +44 (0)1235 529449   CHINA Tel: +86 (21) 52380373  
[www.RnDSystems.com](http://www.RnDSystems.com)