

**Product Name:** Amlodipine besylate

**Catalog No.:** 2571

**Batch No.:** 2

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

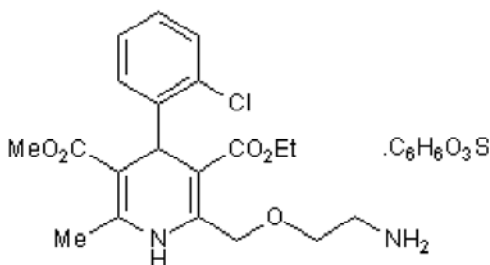
**Batch Molecular Weight:** 567.05

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.7% 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	55.02	5.52	4.96

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

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**Description:**

Amlodipine besylate is a L-type calcium channel blocker that displays antihypertensive properties. Inhibits Ca<sup>2+</sup>-induced contractions in depolarized rat aorta (IC<sub>50</sub> = 1.9 nM) and displays vasoprotective effects in cardiovascular disease. Inhibits proliferation of human vascular smooth muscle cells and epidermoid carcinoma A431 cells (IC<sub>50</sub> = 25 μM).

**Physical and Chemical Properties:**

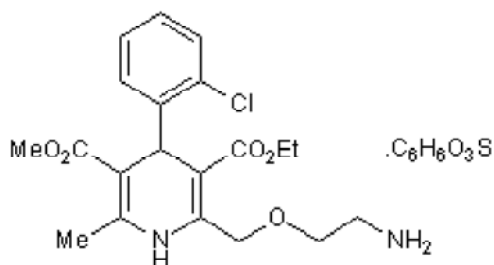
Batch Molecular Formula: C<sub>20</sub>H<sub>25</sub>ClN<sub>2</sub>O<sub>5</sub>.C<sub>6</sub>H<sub>6</sub>O<sub>3</sub>S.

Batch Molecular Weight: 567.05

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

DMSO to 100 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:**

**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 NG-nitro-L-arginine methyl ester-induced hype Hypertens.Res. **28** 689. PMID: 16392774.

**Yoshida et al** (2003) Antiproliferative effect of Ca<sup>2+</sup> channel blockers on human epidermoid carcinoma A431 cells. Eur.J.Pharmacol. **472** 23. PMID: 12860469.

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

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