

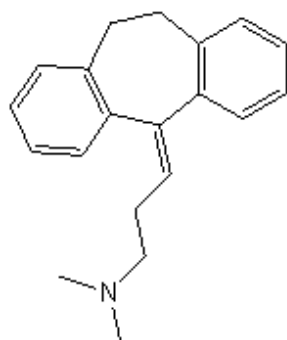
# USP Methods for the Analysis of Amitriptyline using a Legacy L1 Column

<https://sielc.com/Application-USP-Methods-for-the-Analysis-of-Amitriptyline-using-a-Legacy-L1-Column>

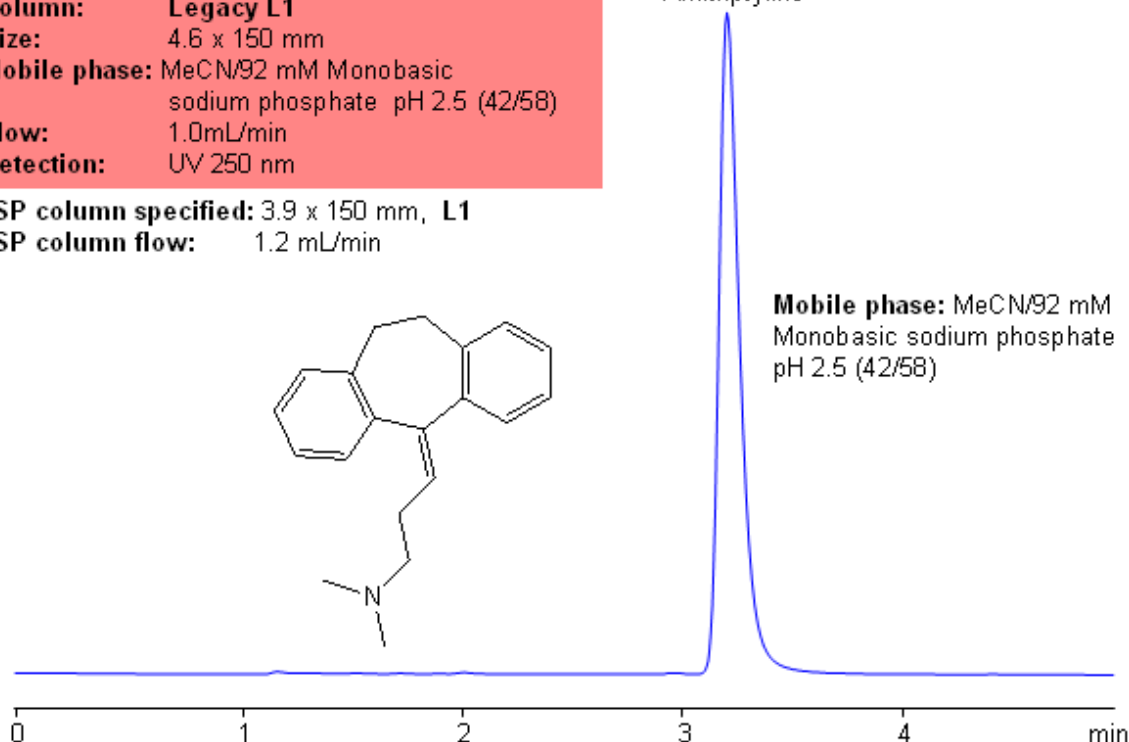
## Chromatogram

**Column:** Legacy L1  
**Size:** 4.6 x 150 mm  
**Mobile phase:** MeCN/92 mM Monobasic sodium phosphate pH 2.5 (42/58)  
**Flow:** 1.0 mL/min  
**Detection:** UV 250 nm

**USP column specified:** 3.9 x 150 mm, L1  
**USP column flow:** 1.2 mL/min



Amitriptyline



**Mobile phase:** MeCN/92 mM Monobasic sodium phosphate pH 2.5 (42/58)

## Description

Application Notes: Amitriptyline is a tricyclic antidepressant. While it is an older drug, it is still just as effective as newer SSRI's. According to the USP methods, amitriptyline hydrochloride contains no less than 99% and no more than 100.5% of amitriptyline. The USP HPLC method for the separation of amitriptyline was developed on Legacy L1 column according to the US Pharmacopeia methodology. L1 classification is assigned to reversed-phase HPLC column containing C18 ligand. Support for the material is spherical silica gel with particle size 3-10 µm and pore size of 100-120 Å. Resolution between critical pairs corresponds to rules and specifications of USP.

Application Columns: Legacy L1 C18 HPLC column · Application compounds: Amitriptyline · Mobile phase: MeCN/92 mM monobasic sodium · Detection technique: UV · Reference: USP35: NF30

## Method Parameters

<b>Mobile Phase</b>	MeCN/92 mM NaH <sub>2</sub> PO <sub>4</sub> pH 2.5 (42/58)
<b>Buffer</b>	NaH <sub>2</sub> PO <sub>4</sub>
<b>Flow Rate</b>	1.0 ml/min
<b>Detection</b>	UV, 250 nm
<b>Class of Compounds</b>	Drug, Nerve pain medication and antidepressant, Hydrophobic, Ionizable

Analyzing Compounds

Amitriptyline

HPLC Column Used

**Legacy L1, 4.6x150 mm, 5 µm, 100A**

[Order this column at hplc-shop.de →](https://www.hplc-shop.de)