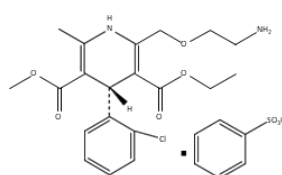


Analysis of Amlodipine and Losartan Potassium

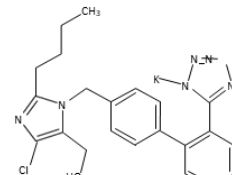
Both amlodipine and losartan potassium are sold worldwide as drug for hypertension. Combination drug containing the two is also studied.

In this note, chromatograms of simultaneous analysis of amlodipine and losartan were shown under two different HPLC condition using Inertsil ODS-4. Condition 1 is based on the assay of amlodipine besylate tablets of United States Pharmacopeia (USP). Condition 2 is a method using eluent of simpler composition. Application for each individual ingredient is also shown in LC technical note No.98 and No.126.

Chemical Structure



Amlodipine Besylate



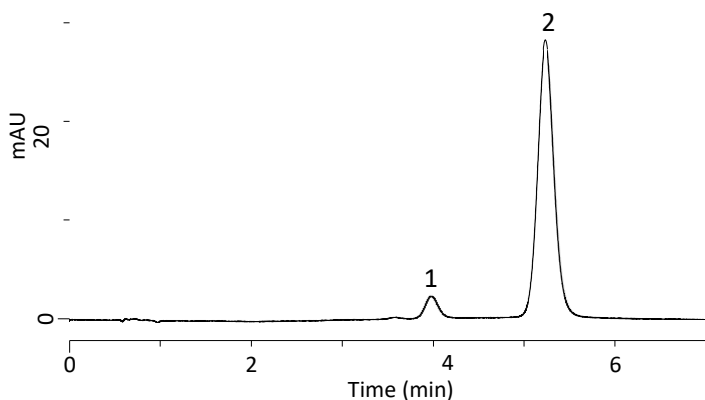
Losartan Potassium

Structures are created using Chemistry 4-D Draw which is provided by ChemInnovation Software, Inc.

HPLC Condition 1

Standard Solution

- 1. Amlodipine Besylate (5 mg/L)
- 2. Losartan Potassium (50 mg/L)

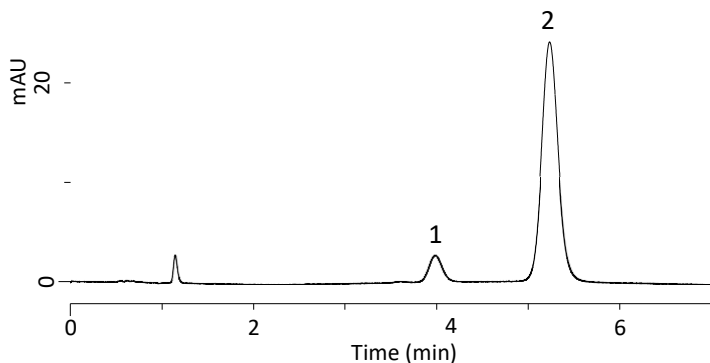


Conditions

Column	: Inertsil ODS-4 HP (3 μ m, 50 x 4.6 mm I.D.)
Cat. No.	: 5020-14068
Eluent	: A) CH ₃ OH B) CH ₃ CN C) 0.7 % Triethylamine (pH 3.0, H ₃ PO ₄) A/B/C = 7/3/10, v/v/v
Flow rate	: 1.0 mL/min
Column Temp.	: 25 °C
Detection	: UV 237 nm
Injection Vol.	: 5 μ L

Tablet Sample

The sample concentration was adjusted to 5 mg/L and 50 mg/L as amlodipine and losartan potassium, respectively.



Example of Pretreatment Method for Tablet Sample

Sample

- Grind tablet into powder
- Weigh the powder equivalent to one tablet

Extraction

- Add diluent*
- Sonication extraction for 5 min
- Make up to 100 mL with diluent

Filtration

- 0.45 μ m membrane filter

Dilution

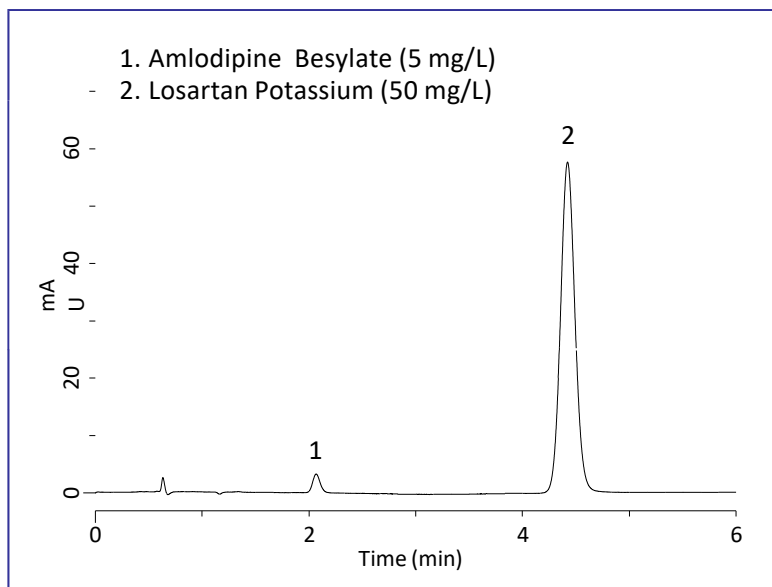
- Adjust the concentration of amlodipine and losartan potassium to 5 mg/L and 50 mg/L, respectively, by adding diluent.

HPLC

* Diluent: eluent

HPLC Condition 2

Standard Solution



Conditions

Column	: Inertsil ODS-4 HP (3 μ m, 50 x 4.6 mm I.D.)
Cat. No.	: 5020-14068
Eluent	: A) CH ₃ CN B) 0.02 % Triethylamine (pH 2.5, H ₃ PO ₄) A/B = 35/65, v/v
Flow rate	: 1.0 mL/min
Column Temp.	: 30 °C
Detection	: UV 226 nm
Injection Vol.	: 5 μ L

Example of Pretreatment Method for Tablet Sample

Sample

- Grind tablet into powder
- Weigh the powder equivalent to one tablet

Extraction

- Add diluent**
- Sonication extraction for 5 min
- Make up to 100 mL with diluent

Filtration

- 0.45 μ m membrane filter

Dilution

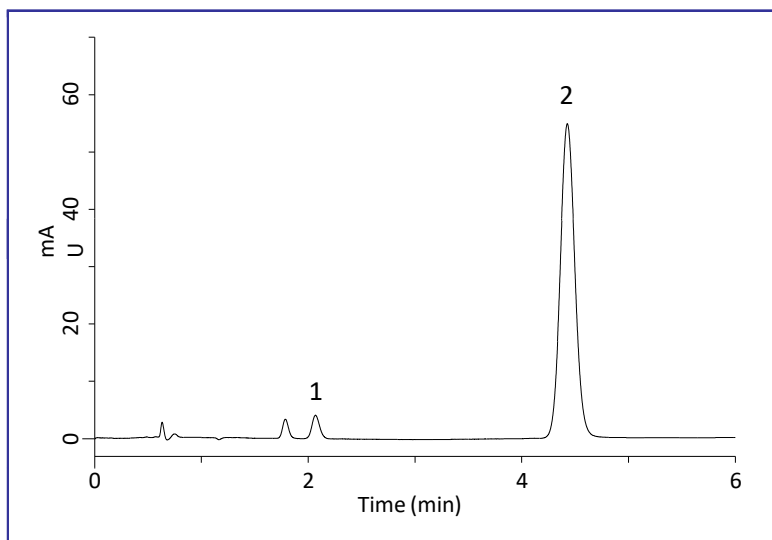
- Adjust the concentration of amlodipine and losartan potassium to 5 mg/L and 50 mg/L, respectively, by adding diluent

HPLC

** Diluent: A/B = 50/50, v/v

Tablet Sample

The sample concentration was adjusted to 5 mg/L and 50 mg/L as amlodipine and losartan potassium, respectively.



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