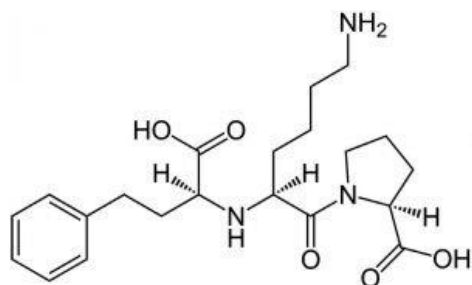
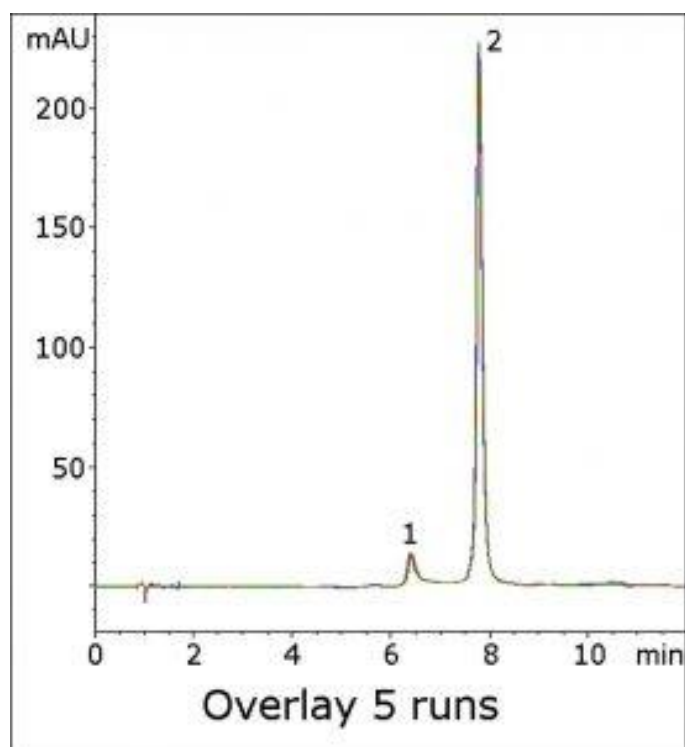


Lisinopril Analysis by HPLC - AppNote

Retention and Peak Shape for Highly Polar Compound

As a highly hydrophilic compound, Lisinopril is not well-suited to Reversed Phase Methods. The USP assay method for Lisinopril uses a highly Aqueous Mobile Phase (96% 2.76 g / L *Monobasic Sodium Phosphate adjusted to pH 5.0* / 4% *Acetonitrile*) in Reversed Phase with an L7 Column.

The Peak efficiency was found to be significantly low when using the USP method. In this method, hydrophilic retention is readily achieved (see *Figure*) with a symmetric Peak shape. The analyte retention shows good repeatability, as shown in the five-run overlay.



Peaks:

1. Impurity
2. Lisinopril

Method Conditions

Column: Cogent Diamond Hydride™, 4μm, 100Å

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75mm

Mobile Phase:

A: DI Water / 0.1% Formic Acid (v/v)

B: Acetonitrile / 0.1% Formic Acid (v/v)

Gradient:

Time (minutes)	%B
0	85
2	20
9	20
10	85

Post Time: 2 minutes

Flow rate: 1.0 mL / minute

Detection: UV @ 215nm

Injection vol.: 5µL

Sample Preparation:

Stock Solution: 1mg / mL Lisinopril in 50% Solvent A / 50% Solvent B diluent

Working Solution: Stock solution was diluted to 0.1 mg / mL with 50% Solvent A / 50% Solvent B diluent

t₀: 0.9 minutes

Note: Lisinopril is an Angiotensin-Converting Enzyme (ACE) inhibitor that is used for treatment of cardiovascular conditions such as hypertension, congestive heart failure, and heart attacks.



Attachment

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