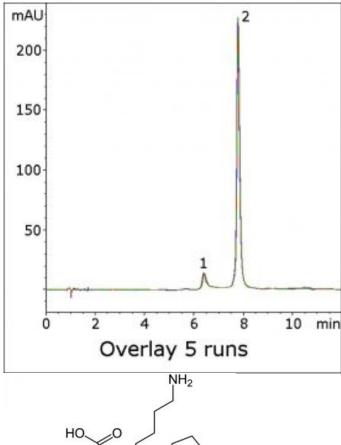


# Lisinopril Analysis by HPLC - AppNote

### **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<sup>™</sup>, 4μm, 100Å

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**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

**to**: 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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