

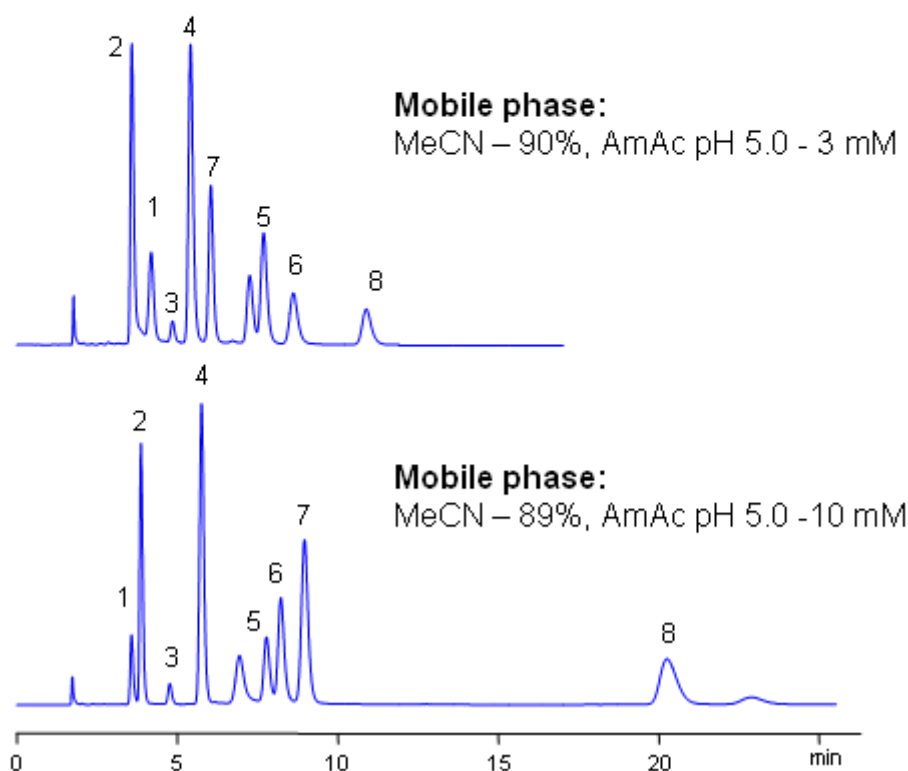
# HPLC Separation of Vitamin C, Vitamin Group B, and Related Impurities

<https://sielc.com/Application-HPLC-Separation-of-Vitamin-C-Vitamin-Group-B-and-Related-Impurities>

## Chromatogram

1. Pyridoxine (Vitamin B<sub>6</sub>)
2. 4-Aminopyridine/Fampridine
3. Riboflavin (Vitamin B<sub>2</sub>)
4. 3-Aminopyridine
5. Isonicotinic acid
6. Nicotinic acid
7. Barbituric acid
8. Ascorbic acid

**Column: Obelisc N**  
**Size:** 4.6 x 150 mm  
**Flow:** 1.0 mL/min  
**Detection:** UV 250 nm



## Description

Vitamin C (ascorbic acid) and Vitamins Group B are separated on Obelisc N mixed-mode column. Method can be used in quantitation and determination of polar vitamins in various formulations and dietary supplements. HPLC method can be based on UV, Evaporative Light Scattering Detection (ESLD), RI or MS detection. Effect of sample matrix can be eliminated by changing mobile phase conditions. Buffer concentration, buffer pH and amount of ACN will affect every vitamin differently due to difference in polar and ionic properties.

## Method Parameters

<b>Mobile Phase</b>	MeCN/H <sub>2</sub> O
<b>Buffer</b>	AmAc pH 5.0
<b>Flow Rate</b>	1.0 ml/min
<b>Detection</b>	UV, 250 nm

<b>Class of Compounds</b>	Drug, Vitamin B■, Hydrophobic, Ionizable
<b>Analyzing Compounds</b>	Pyridoxine, Ascorbic acid, Niacinamide, Pantothenic acid, Caffeine, Riboflavin, Barbituric Acid, 3- Aminopyrine

#### HPLC Column Used

**Obelisc N , 4.6×150 mm, 5 µm, 100A**

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