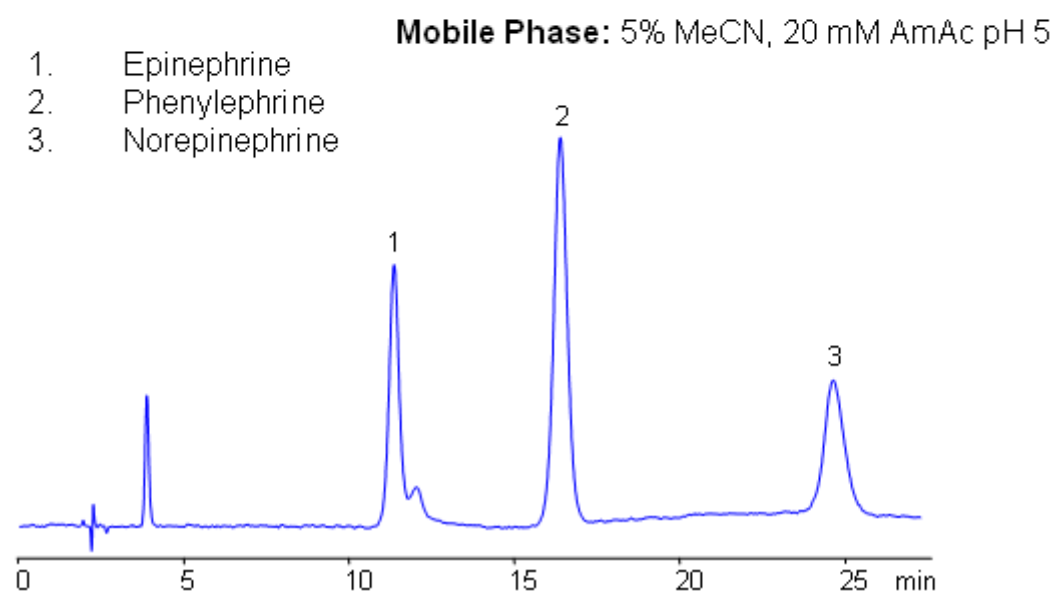
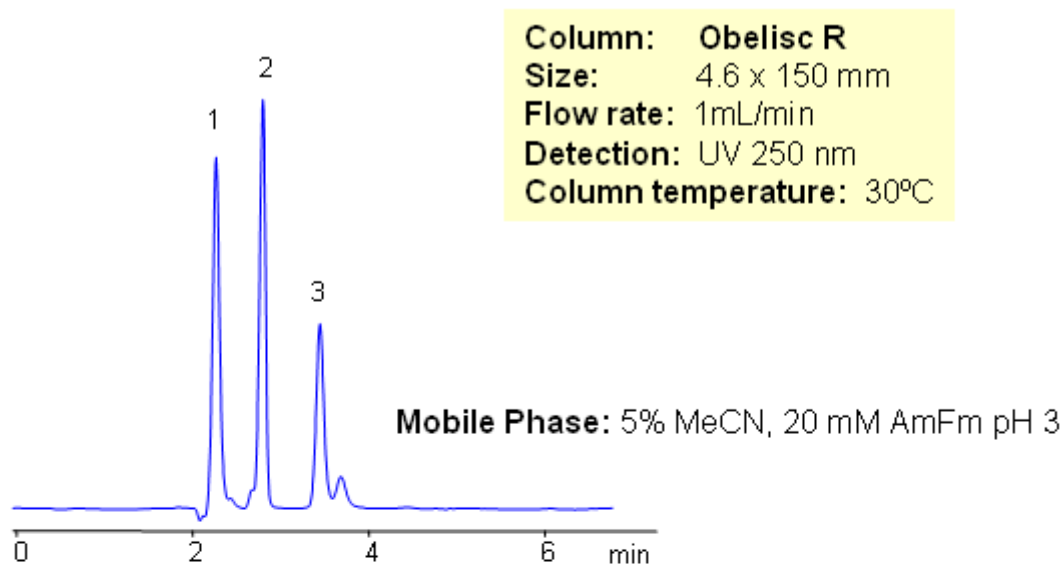


HPLC Separation of Neurotransmitters and Related Drugs

<https://sielc.com/Application-HPLC-Separation-of-Neurotransmitters-and-Related-Drugs>

Chromatogram



Description

Epinephrine and norepinephrine (adrenaline and noradrenaline) are hormones and neurotransmitters. Epinephrine is synthesized from norepinephrine in a synthetic pathway shared by all catecholamines, including L-dopa, dopamine, norepinephrine, and epinephrine. Phenylephrine is used as a decongestant, available as an oral medicine or as a nasal spray. Phenylephrine is now the most common over-the-counter (OTC) decongestant. All three compounds are used in various drug compositions. Separation of epinephrine and norepinephrine is a challenging task due to polarity and close properties of two compounds. Epinephrine, norepinephrine and phenylephrine are separated in this method on Obelisc R mixed-mode HPLC columns. The method is very sensitive to variation of pH and pH adjustment can be used to achieve desired selectivity and retention time. Other catecholamines can be analyzed using this HPLC method. The method can be used as a stability indicating or a impurity profiling approach to the analysis of neurotransmitters in drug formulation, blood, serum and urine.

Method Parameters

Mobile Phase	MeCN/H ₂ O
Buffer	AmFm
Flow Rate	1.0 ml/min
Detection	UV, 250 nm
Class of Compounds	Drug, Acid, Hydrophilic, Ionizable, Hormone
Analyzing Compounds	Phenylalanine, Norepinephrine, Epinephrine

HPLC Column Used

Obelisc R, 4.6×150 mm, 5 µm, 100A

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