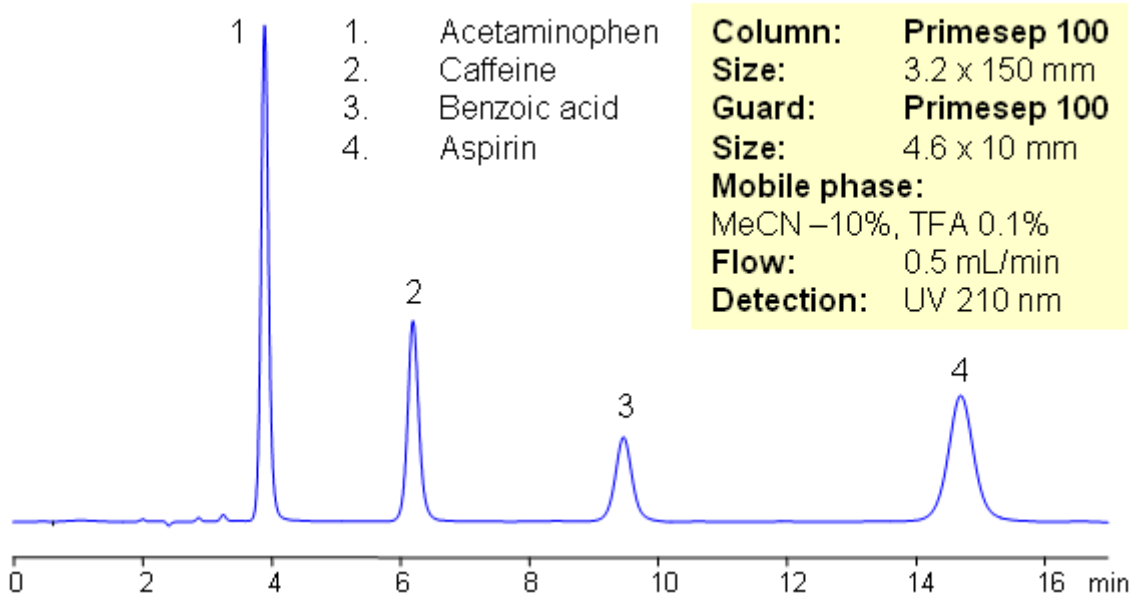
HPLC Separation of Components of Excedrin (Benzoic acid, Acetaminophen, Caffeine, Aspirin)

https://sielc.com/Application-HPLC-Separation-of-Components-of-Excedrin

Chromatogram



Description

Excedrin is over-the-counter pain reliever containing acetaminophen, caffeine and aspirin as active ingredients of this drug composition. Acetaminophen (paracetamol) is used as analgesic and pain reliever. It is a neutral compound with low hydrophobicity. Aspirin or acetylsalicylic acid is used as analgesic and anti-inflammatory component of many OTC compositions. It is weakly acidic and slightly hydrophobic compound. Caffeine is xanthine alkaloid which is psychoactive stimulant drug. All four compounds are separated on mixed-mode Primesep 100 HPLC column with acetonitrile/water/TFA mobile phase. In this HPLC application compounds are retained by reversed phase mechanism. This HPLC method is short and robust.

Method Parameters

Mobile Phase	MeCN/H2O
Buffer	TFA
Flow Rate	0.5 ml/min
Detection	UV, 210 nm
Class of Compounds	Acid, Hydrophilic, Ionizable
Analyzing Compounds	Benzoic acid, Acetaminophen, Caffeine, Aspirin

HPLC Column Used

Primesep 100, 3.2×150 mm, 5 µm, 100A

Order this column at hplc-shop.de →