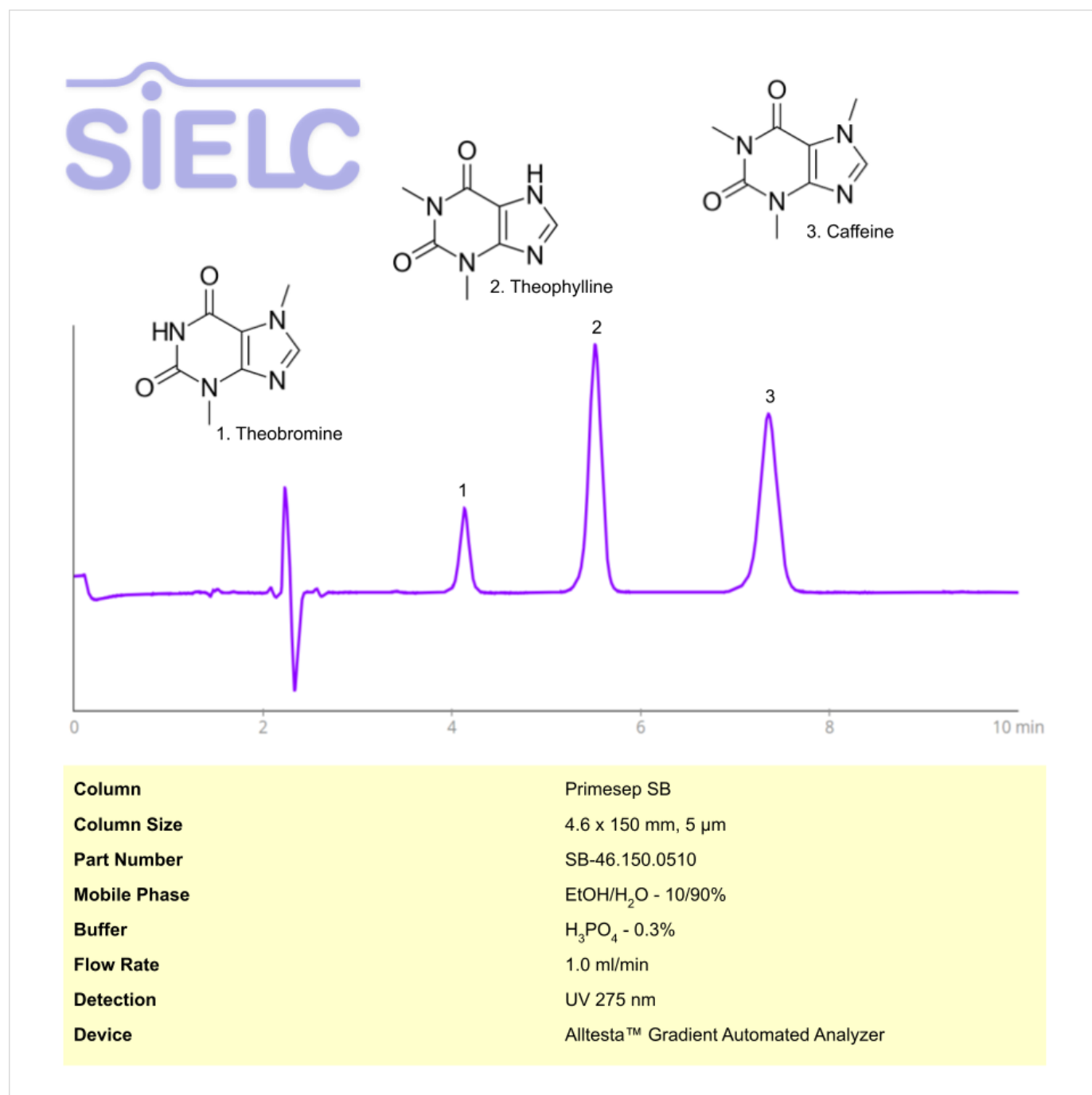


HPLC Method for Analysis of Caffeine, Theophylline and Theobromine on Primesep SB Column on Alltesta™

<https://sielc.com/hplc-method-for-analysis-of-caffeine-theophylline-theobromine-2>

Chromatogram



Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of Caffeine , Theophylline , Theobromine

Caffeine is a natural stimulant and methylxanthine alkaloid. with the molecular formula C₈H₁₀N₄O₂. Caffeine can be found in a variety of plants, including tea, coffee, cocoa, kola nuts, and guarana. Ingestion of it can increase alertness and cognitive function. It can also cause worsening anxiety, heart palpitations, and headaches.

Theophylline is a methylxanthine compound with the molecular formula $C_7H_8N_4O_2$. It is a caffeine metabolite and is often used in forensic analyses. Besides analytical use, it is often used in treating respiratory conditions.

Theobromine is a methylxanthine alkaloid with the molecular formula $C_7H_8N_4O_2$. It is a derivative of caffeine. It can be found in many foods, including chocolate and tea. Despite that, it is toxic to dogs.

You can find detailed UV spectra of Caffeine and information about its various lambda maxima by visiting the following link.

You can find detailed UV spectra of Theophylline and information about its various lambda maxima by visiting the following link.

You can find detailed UV spectra of Theobromine and information about its various lambda maxima by visiting the following link

Method Parameters

Mobile Phase	EtOH- 10%
Buffer	Phosphoric Acid
Flow Rate	1.0 ml/min
Detection	UV 275 nm
Class of Compounds	Alkaloid
Analyzing Compounds	Caffeine, Theophylline, Theobromine

HPLC Column Used

Primesep SB, 4.6 x 150 mm, 5 μ m, 100 A, dual ended

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