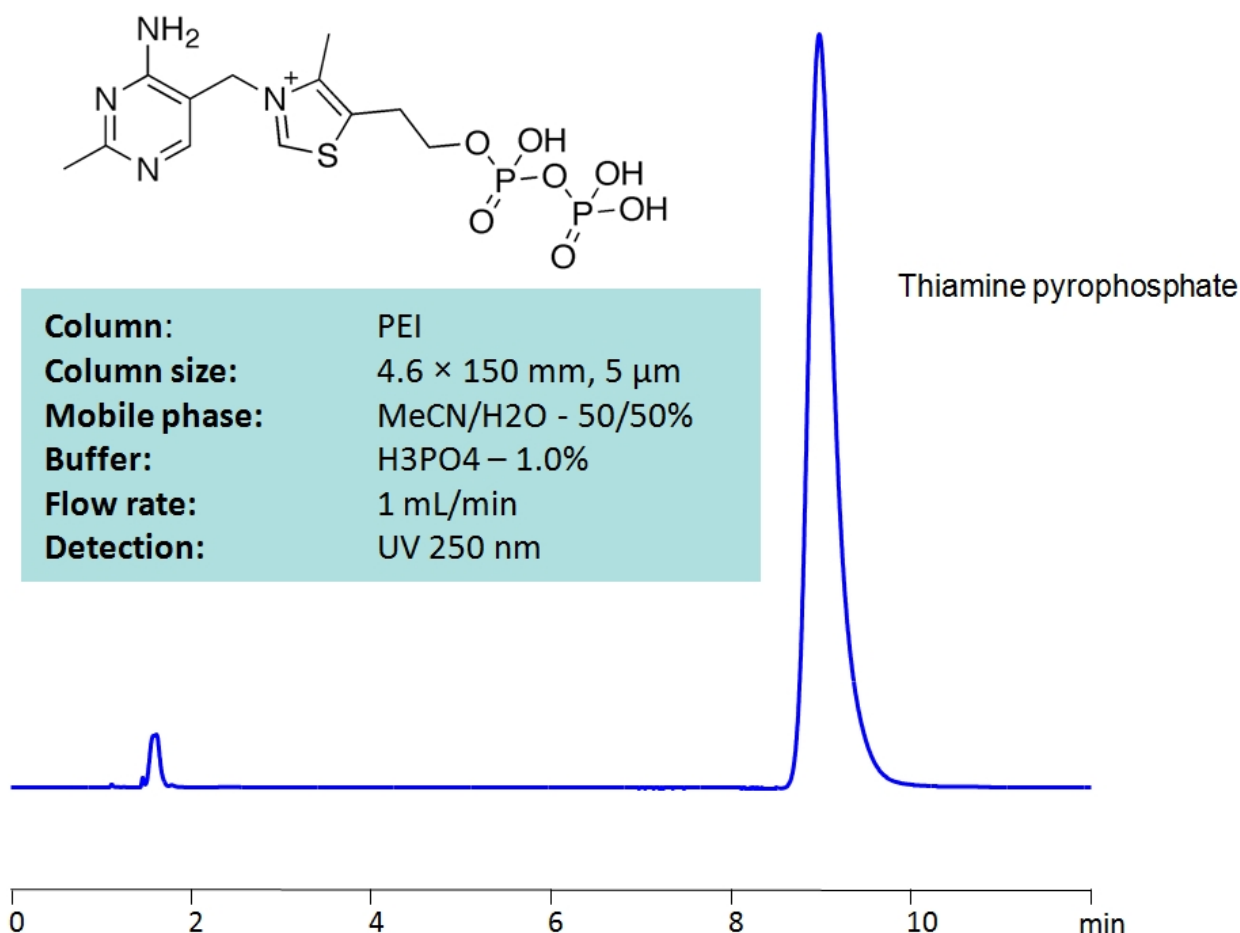


HPLC Determination of Thiamine Pyrophosphate on PEI Column

<https://sielc.com/hplc-determination-of-thiamine-pyrophosphate-on-pei-column>

Chromatogram



Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of Thiamine diphosphate (Thiamine pyrophosphate) .

Thiamine Pyrophosphate , an active form of Vitamin B1, is a vitamin with the chemical formula C₁₂ H₁₉ N₄ O₇ P₂ S + . B1 is a water soluble vitamin with a key function of energy metabolism. It is not produced in the body naturally and is stored in very small amounts; therefore must be regularly consumed through diet of whole grains, nuts, seeds, and legumes. It is vital as a coenzyme in carbohydrate metabolism and in decarboxylation of pyruvate, alpha-ketoglutarate, and branched-chain keto acids.

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

Thiamine diphosphate (Thiamine pyrophosphate) can be retained and analyzed using the PEI stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a phosphoric acid buffer. Detection is performed using UV.

Method Parameters

Mobile Phase

MeCN -50%,

Buffer	H3PO4 – 1.0%
Flow Rate	1.0 ml/min
Detection	UV 250 nm
Class of Compounds	Vitamin, Drug
Analyzing Compounds	Thiamine diphosphate (Thiamine pyrophosphate)

HPLC Column Used

PEI, 4.6×150 mm, 5 µm, 100A

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