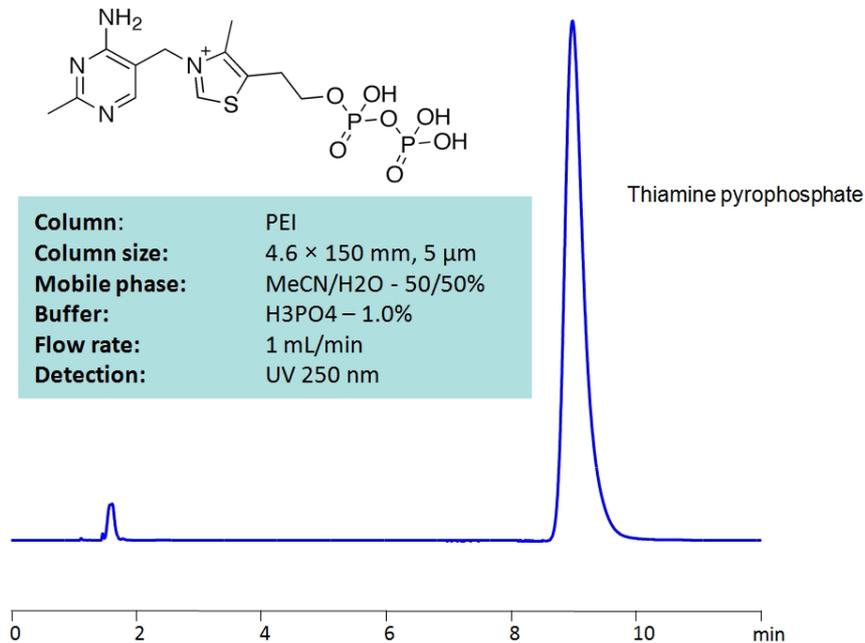


HPLC Determination of Thiamine Pyrophosphate on PEI Column



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 C₁₂H₁₉N₄O₇P₂S + . 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.

SIELC Technologies offers custom phases for customers who require specific separations not achievable with commercially available HPLC phases. Considering the vast array of compounds and mixtures requiring analysis, tailored LC phases can significantly enhance separation results for unique and challenging applications. To learn more about our special custom LC phases designed for your specific separation needs, please contact SIELC Technologies at research@sielc.com . Our team of experts is ready to guide you through the process and create a custom solution that addresses your particular chromatographic challenges.

Method Parameters

Column	PEI, 4.6x150 mm, 5 µm, 100 Å
Mobile Phase	MeCN -50%,
Buffer	H3PO4 – 1.0%
Flow Rate	1.0 mL/min
Detection	UV 250 nm

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