HPLC Method for Analysis of Heme B in Blood Samples on Newcrom R1 Column

Separation type: Liquid Chromatography Reverse -phase SIELC Technologies

Heme B, also known as protoheme IX, is a specific type of heme and falls under the class of porphyrin compounds. It is an iron-containing compound that is vital for various biological functions, primarily as a component of hemoglobin and myoglobin, which are essential for oxygen transport and storage in the body. Additionally, heme B is found in certain enzymes such as cytochromes, where it plays a key role in electron transport and redox reactions.

Protoheme can be retained, separated and analyzed using a Newcrom R1 reverse-phase stationary phase column. The analysis employs a gradient method with a simple mobile phase comprising water, acetonitrile (MeCN), and formic acid as a buffer. This method allows for detection using UV 400 nm.

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

Method Parameters

Column	Newcrom R1, 3.2 x 100 mm, 5 µm, 100 Å, dual ended
Mobile Phase	Gradient MeCN- 40-80%, 10 min
Buffer	Formic Acid – 1%
Flow Rate	0.5 mL/min
Detection	UV 400 nm, ESI+ SIM616

Quelle: https://sielc.com/hplc-determination-of-heme-b