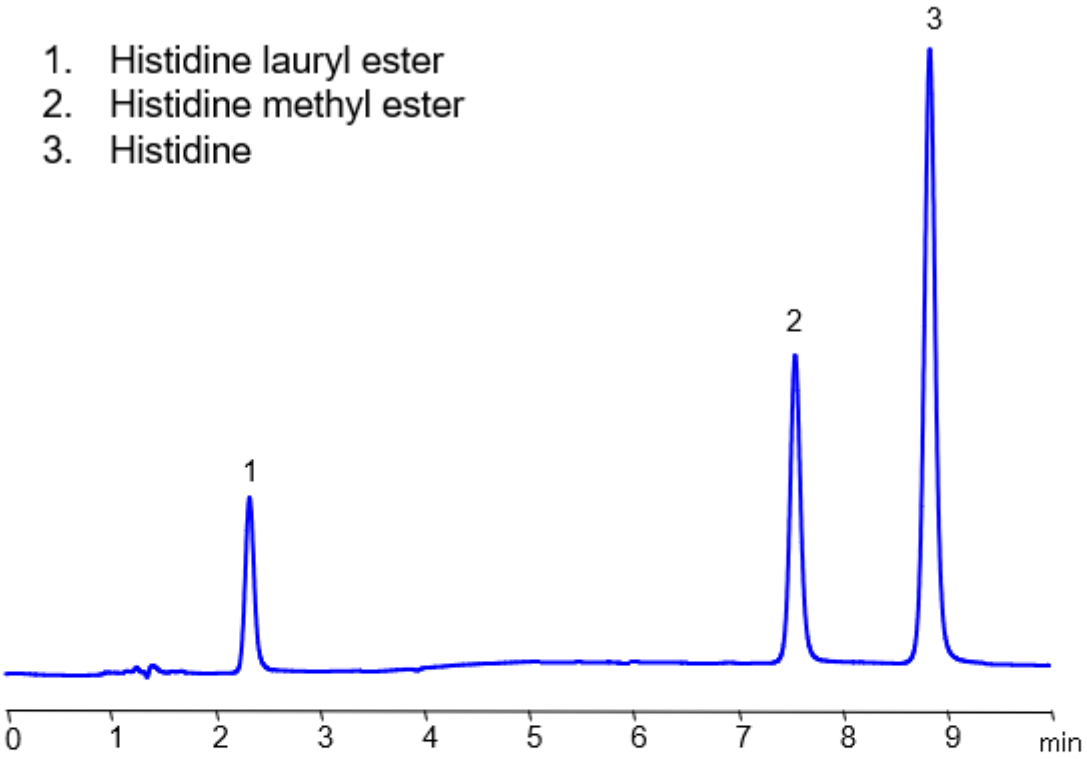
HPLC Method for Separation of Histidine, Histidine Methyl Ester and Histidine lauryl Ester on BIST B+ Column

https://sielc.com/hplc-separation-of-histidine-bist

Chromatogram



Column:	BIST B+
Column size:	3.2 × 100 mm, 5 µm
Column part number:	TBP-32.100.0510
Mobile phase:	Gradient MeCN – 80-50%, 10 min
Buffer:	H_2SO_4 - 0.2%
Flow rate:	0.5 mL/min
Detection:	UV 220 nm

Description

· Separation type: Bridge Ion Separation Technology, or BIST™ by SIELC Technologies

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Histidine is a naturally occurring essential amino acid that the body uses to repair damaged tissue and generate new blood cells. Histidine Methyl Ester is a histidine decarboxylase inhibitor and can be used to synthesize other biological compounds. Histidine Lauryl Ester is another derivative of Histidine. Using SIELC's newly introduced BIST™ method, Histidine and its derivatives can be retained and separated on a positively charged, anion-exchange BIST™ B+ column. There are two keys to this retention method: 1) a multi-charged, negative buffer, such as Sulfuric acid (H2SO4), which acts as a bridge, linking the positively charged dipeptide to the positively charged column surface and 2) a mobile phase consisting mostly of organic solvent (such as MeCN) to minimize the formation of a solvation layer around the charged analytes. Using this new and unique analysis method, Histidine and its derivatives can be UV detected at 220 nm.

Method Parameters

Mobile Phase	Gradient MeCN – 80 – 50%, 10 min
Buffer	H2SO4 – 0.2%
Flow Rate	0.5 ml/min
Detection	UV 220 nm
Peak Retention Time	2.2 min, 7.5 min, 8.9 min
Class of Compounds	Amino acid
Analyzing Compounds	Histidine methyl ester,Histidine

HPLC Column Used

BIST B+, 3.2 x 100 mm, 5 µm, 100 A, dual ended

Order this column at hplc-shop.de →