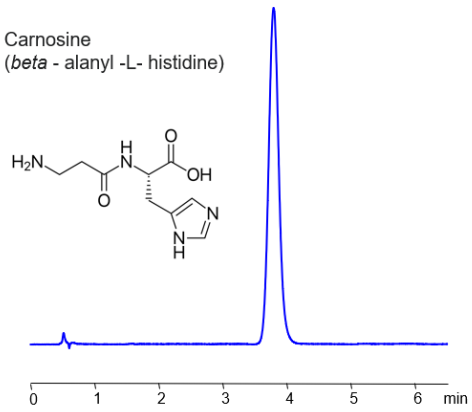
HPLC Method for Analysis of Carnosine (beta-alanyl-L-histidine) on BIST B+ Column



Column:	BIST B+
Column size:	4.6 × 50 mm, 5 µm
Mobile phase:	MeCN - 75 %,
Buffer:	H_2SO_4 – 0.2%
Flow rate:	1.0 mL/min
Detection:	UV 205 nm

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

Carnosine is a dipeptide molecule synthesized from beta-alanine and histidine. It is a naturally occurring pH buffer with antioxidant properties found in muscles. Using SIELC's newly introduced BIST™ method, Carnosine can be retained on a positively charged, antion-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 peptide 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, Carnosine can be separated, retained, and UV detected at 205 nm.

Method Parameters

Column	BI ST B+ , 4.6×50 mm, 5 µm, 100 Å
Mobile Phase	MeCN – 75%
Buffer	H2SO4 – 0.2%
Flow Rate	1.0 mL/min
Detection	UV 205 nm

Quelle: https://sielc.com/hplc-method-of-carnosine

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