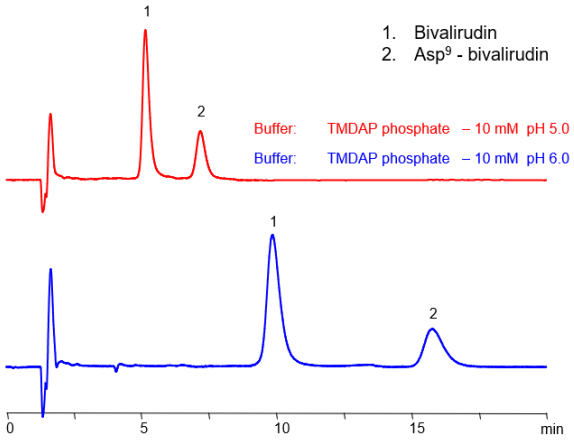
HPLC Method for Analysis of Bivalirudin and Asp9 – bivalirudin on BIST A+



Column:	BIST™ A+
Column size:	2.1 × 100 mm, 3 µm
Column part number:	TAP-21.100.0310
Mobile phase:	MeCN/H_2O - 30/70%
Buffer:	TMDAP phosphate – 10 mM pH 5.0, pH 6.0
Flow rate:	0.2 mL/min
Detection:	UV 275 nm

Bivalirudin is a short, 21-amino-acid peptide with the chemical formula C98H138N24O33 . It has 2 basic and 6 acidic groups. It is sold as a direct thrombin inhibitor (DTI), which is used as an anticoagulant.

Asp 9 -bivalirudin is a process impurity and can be a result of the degradation of the drug bivalirudin. It has the chemical formula C98H137N23O34 .

SIELC's new BIST™ mode can retain and separate Bivalirudin and its degradant with a TMDAP phosphate buffer, and the respective retention times can be controlled by altering the pH of the buffer.

Method Parameters

Column	BIST A+, 2.1 x 100 mm, 3 µm, 100 Å, dual ended
Mobile Phase	MeCN – 30%
Buffer	TMDAP phosphate – 5 mM pH 5.0, pH 6.0
Flow Rate	0.2 mL/min
Detection	UV 275 nm

Quelle: https://sielc.com/hplc-method-for-bivalirudin