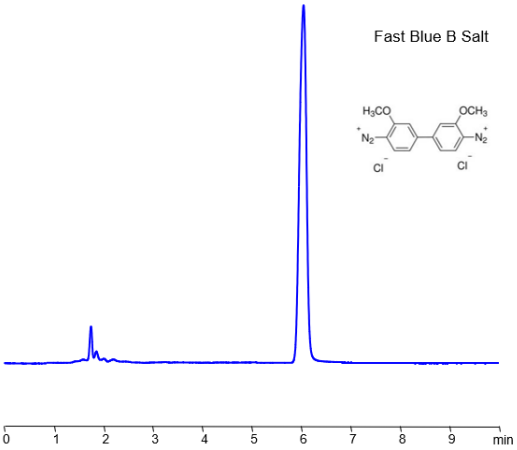
HPLC Method for Analysis of Fast Blue B Salt on BIST B+ Column



Column:	BIST B+
Column size:	4.6 × 150 mm, 5 µm
Column part number:	TBP-46.150.0510
Mobile phase:	Gradient MeCN – 80-60%, 10 min
Buffer:	H_2SO_4 - 0.2%
Flow rate:	1 mL/min
Detection:	UV 320 nm

Fast Blue B Salt is a multicharged basic dye with the chemical formula C14H12Cl4N4O2Zn . It has a a variety of applications in chromatographic testing, including in thin layer chromatography, lipase activity testing. and in testing acid phosphatase in Clostridium perfringens.

Using SIELC's newly introduced BIST™ method, Fast Blue B Salt can be retained 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 analytes to the positively-charged column surface and 2) a mobile phase consisting of a majority of organic solvent (such as MeCN) to minimize the formation of a solvation layer around the charged analytes. Utilizing a step gradient to switch to a completely aqueous MP after 2 minutes allows for retention to occur while also preventing the method from being too long. Using this new and unique analysis method, Fast Blue B Salt can be separated, retained, and UV detected at 320 nm.

Method Parameters

Column	BIST B+, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	Gradient MeCN
Buffer	H3PO4 – 0.2%
Flow Rate	1.0 mL/min
Detection	UV 320 nm

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Quelle: https://sielc.com/hplc-method-of-fast-blue

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