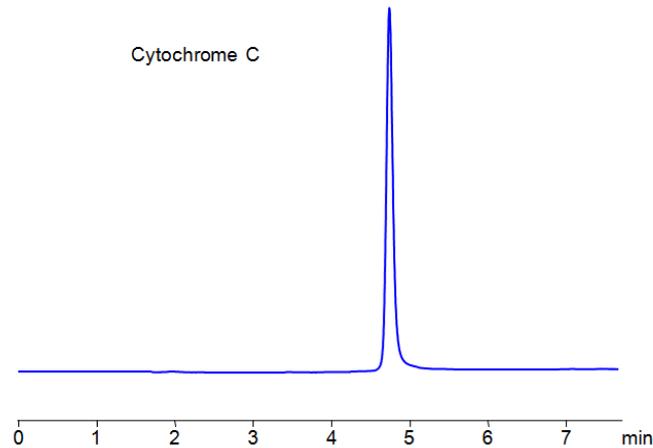


HPLC Method for Analysis of Cytochrome C on BIST™ B+ Column



Column:	BIST™ B+
Column Size:	4.6 × 150 mm, 5 µm
Column part number:	TBP-46.150.0510
Mobile phase:	Gradient MeCN – 60 → 10 %, in 10 min
Buffer:	H ₂ SO ₄ – 0.2%
Flow Rate:	1.0 ml/min
Detection:	UV 395 nm

Cytochrome C, also known as cytochrome complex, is a mitochondrial protein that is essential to both the respiratory electron transport chain and the apoptosis cycle of cells with the chemical formula C₄₂H₅₂FeN₈O₆S₂. It is a small hemeprotein that is usually associated with the inner membrane of the mitochondrion. It is primarily used to detect peroxide production in biological systems.

Using SIELC's newly introduced BIST™ method, this essential protein 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 amine analytes to the positively-charged column surface and 2) a mobile phase consisting mostly of organic solvent to minimize the formation of a solvation layer around the charged analytes. Using this new and unique analysis method, Cytochrome C can be retained and UV detected at 395 nm.

Method Parameters

Column	BIST B+, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN
Buffer	H ₂ SO ₄ – 0.2%
Flow Rate	1.0 mL/min
Detection	UV 395 nm

Quelle: <https://sielc.com/hplc-method-of-cytochrome-c>