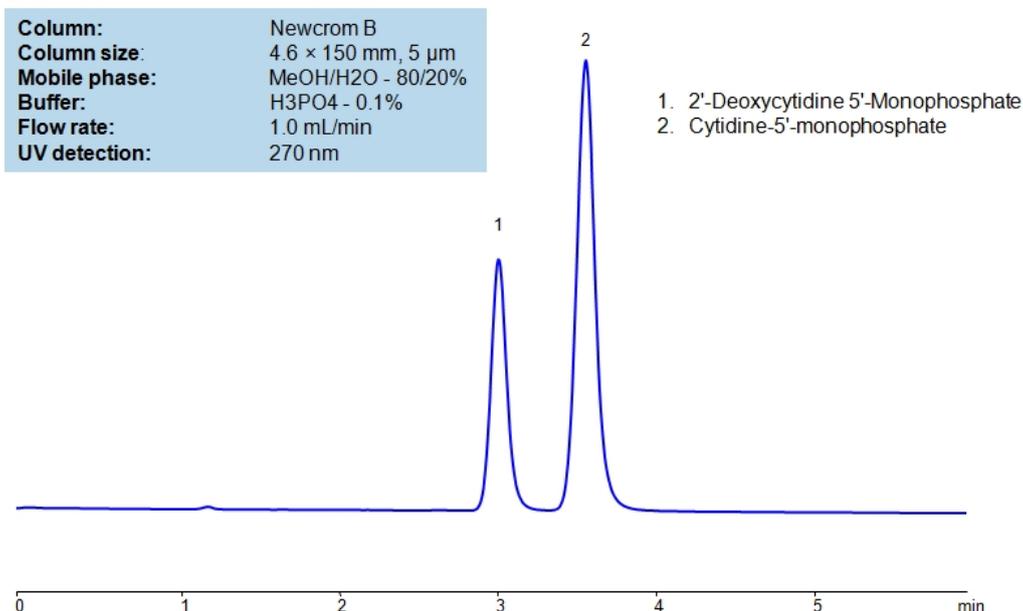


HPLC Separation of Cytidine-5'-monophosphate (CMP) and 2'-Deoxycytidine 5'-Monophosphate (dCMP) on Newcrom B Column



High Performance Liquid Chromatography (HPLC) Method for Analysis of 2'-Deoxycytidine 5'-Monophosphate , Cytidine Monophosphate .

Cytidine-5'-monophosphate is a nucleoside monophosphate with C₉H₁₄N₃O₈P chemical formula. It is a fundamental building block for RNA and DNA as well as an intermediate in phospholipid synthesis.

2'-Deoxycytidine 5'-Monophosphate is a deoxyribonucleotide with C₉H₁₄N₃O₇P chemical formula. It is crucial when it comes to DNA synthesis. dCMP is often used in genetic research, biotechnology, and development of pharmaceuticals with a focus on antiviral and anticancer drugs.

2'-Deoxycytidine 5'-Monophosphate , Cytidine Monophosphate can be retained and analyzed using the Newcrom B stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a phosphoric acid buffer. Detection is performed using UV.

Method Parameters

Column	Newcrom B, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeOH/H ₂ O – 80/20%
Buffer	H ₃ PO ₄ – 0.1%
Flow Rate	1.0 mL/min
Detection	UV 270 nm

Quelle: <https://sielc.com/hplc-separation-of-cmp-and-dcmp>