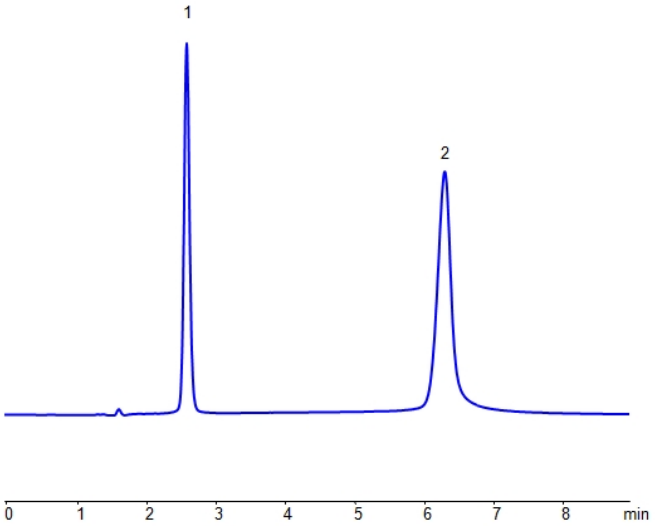
HPLC Separation of Cytidine-5′-diphosphate (CDP) and Adenosine 5′-Triphosphate (ATP) on Newcrom B Column



1. Cytidine 5'-Diphosphate
2. Adenosine 5'-Triphosphate

Column:	Newcrom B
Column size:	4.6 × 150 mm, 5 µm
Mobile phase:	MeCN/H2O 10/85%
Buffer:	Formic Acid - 5%
Detection:	UV, 270nm
Flow rate:	1.0 mL/min

High Performance Liquid Chromatography (HPLC) Method for Analysis of Adenosine Triphosphate , Cytidine Diphosphate .

Cytidine-5′-diphosphate is a nucleoside diphosphate with C9H15N3O11P2chemical formula. It is used by RNA and DNA to draw upon it for building blocks. It is a precursor to cytidine triphosphate.

Adenosine 5′-Triphosphate is a nucleotide with the chemical formula C10H16N5O13P3. It is referred to as “energy currency” of the cell due to it’s importance in cellular energy metabolism. It is generated in the mitochondria and is used in numerous various cellular processes.

Adenosine Triphosphate , Cytidine Diphosphate 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 formic 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	MeCN/H2O – 10/85%
Buffer	Formic Acid – 5%
Flow Rate	1.0 mL/min
Detection	UV 270 nm

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Quelle: https://sielc.com/hplc-separation-of-cdp-and-atp

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