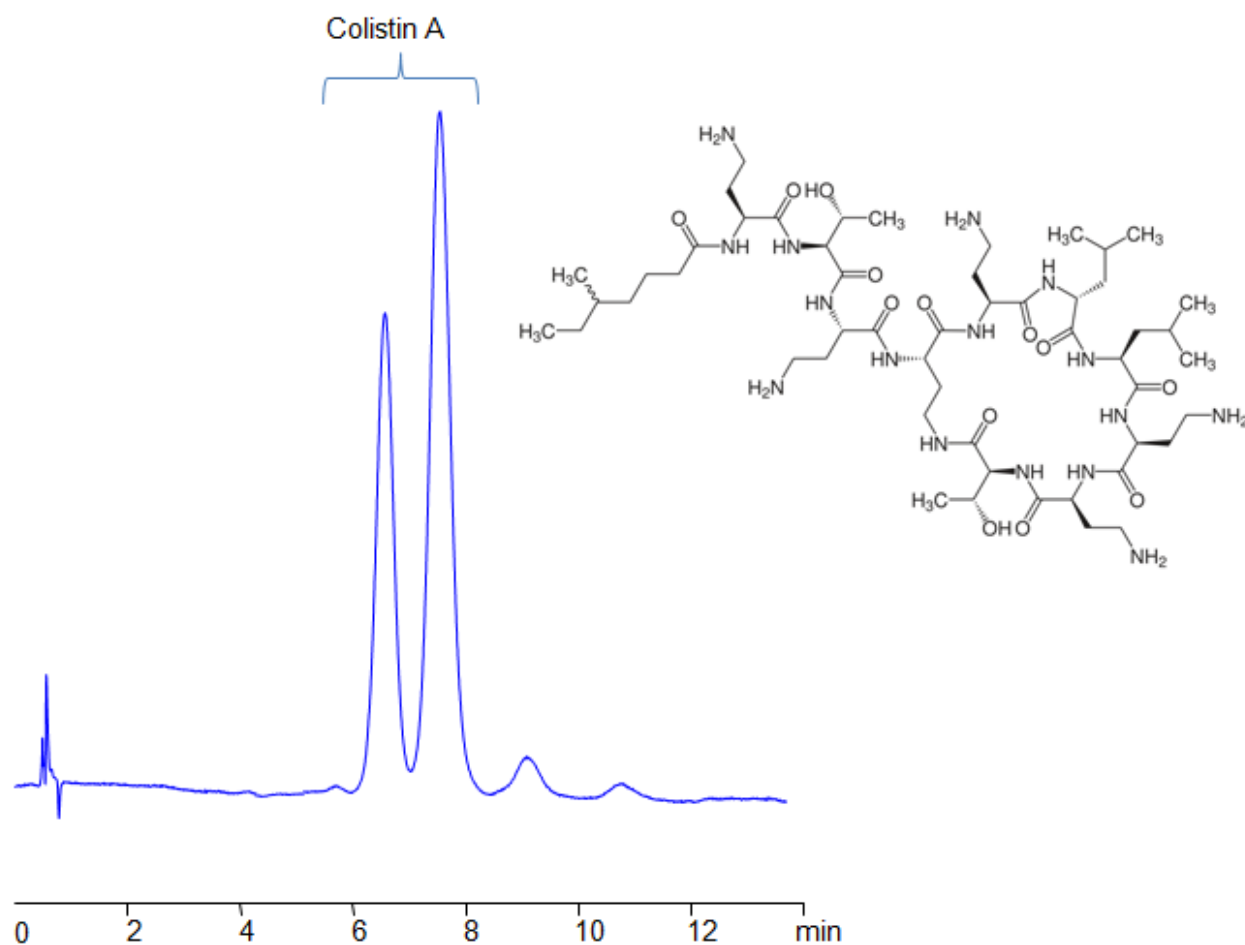


# HPLC Method for Analysis of Colistin A on BIST B+ Column

<https://sielc.com/hplc-method-for-analysis-of-colistin-a>

## Chromatogram



|                            |                                       |
|----------------------------|---------------------------------------|
| <b>Column:</b>             | BIST <sup>TM</sup> B+                 |
| <b>Column Size:</b>        | 4.6 × 50 mm, 5 µm                     |
| <b>Column part number:</b> | TBP-46.50.0510                        |
| <b>Mobile Phase:</b>       | MeCN/H <sub>2</sub> O – 70/30%,       |
| <b>Buffer:</b>             | H <sub>2</sub> SO <sub>4</sub> – 0.2% |
| <b>Flow Rate:</b>          | 1.0 ml/min                            |
| <b>Detection:</b>          | UV 200 nm                             |

## Description

· High Performance Liquid Chromatography (HPLC) Method for Analysis of Colistin A .

Colistin A is a last-resort antibiotic drug with the chemical formula C<sub>53</sub> H<sub>100</sub> N<sub>16</sub> O<sub>13</sub> . It is commonly used to treat Gram-negative bacterial infection, such as pneumonia. It is considered to be a critically important and essential medicine for humans. It is available as a generic medication. It works as a polycationic peptide with both hydrophilic and lipophilic moieties, which leads to it displacing magnesium and calcium bacterial counter ion in the lipopolysaccharide in the bacterial outer membrane. You can find detailed UV spectra of Colistin A and information about its various lambda maxima by visiting the following link.

Using SIELC's newly introduced BIST™ method, Colistin A 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 (H<sub>2</sub>SO<sub>4</sub>), which acts as a bridge, linking the positively-charged Copper and peptide to the positively-charged column surface and 2) a mobile phase consisting mostly of organic solvent (such as MeCN) to minimize the formation of a solvation layer around the charged analytes. Using this new and unique analysis method, Colistin A can be separated, retained, and UV detected at 200 nm

#### Method Parameters

|                     |                                       |
|---------------------|---------------------------------------|
| Mobile Phase        | MeCN – 70%                            |
| Buffer              | H <sub>2</sub> SO <sub>4</sub> – 0.2% |
| Flow Rate           | 1.0 ml/min                            |
| Detection           | UV 200 nm                             |
| Class of Compounds  | Drugs, Antibiotic                     |
| Analyzing Compounds | Colistin A                            |

#### HPLC Column Used

**BIST B+, 4.6 x 50 mm, 5 µm, 100 A, dual ended**

[Order this column at hplc-shop.de →](https://www.hplc-shop.de)