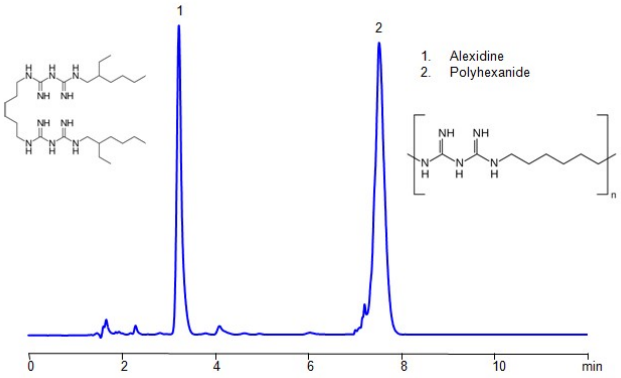
HPLC Method for Separation Alexidine and Polyhexanide on BIST B+ Column



Column:	BIST B+
Column size:	4.6 × 150 mm, 5 µm
Column part number:	TBP-46.150.0510
Mobile phase:	Step Gradient A: MeCN - 75%, H2SO4 - 0.1% / 3 min B: MeCN - 0%, H2SO4 - 0.1% / 6 min
Flow rate:	1.0 mL/min
Detection:	UV 200 nm
Injection volume:	10 µL
Sample:	1. 0.14 mg/ml 2. 0.26 mg/ml
Diluent:	MeCN/H2O – 80/20%
LOD:	1. 8 ppb 2. 10 ppb

Separation type: Bridge Ion Separation Technology, or BIST™ by SIELC Technologies

Alexidine and polyhexanide are both antiseptic agents used for various applications, particularly in the field of medicine and healthcare.

Both alexidine and polyhexanide belong to the biguanide class of antiseptics, and they are known for their effectiveness against a wide range of microorganisms. The specific applications and formulations may vary based on the intended use, and these agents are often used in healthcare settings to prevent infections.

Alexidine and polyhexanide can be retained, separated and analyzed on a BIST B+ mixed-mode stationary phase column using an analytical method with a simple mobile phase of water, Acetonitrile (MeCN) , and a sulfuric acid as a buffer. This analysis method can be detected using UV at 200 nm.

*The step gradient methods involve sudden changes in the solvent composition of the mobile phase, resulting in the baseline's instability. It is necessary to account for this response to be able to interpret, integrate, and process results adequately. The blank sample (sample diluent) has to be analyzed before injecting the sample of interest. When all chromatograms are generated, it is necessary to subtract the blank chromatogram from the sample one before the integration step.

**LOD was determined for this combination of instrument, method, and analyte, and it can vary from one laboratory to another even when the same general type of analysis is being performed

Method Parameters

Column	BIST B+, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Flow Rate	1.0 mL/min
Detection	UV 200 nm
Sample	1. 0.14 mg/ml 2. 0.26 mg/ml
Injection Volume	10 µl

Quelle: https://sielc.com/hplc-determination-of-alexidine-polyhexanide