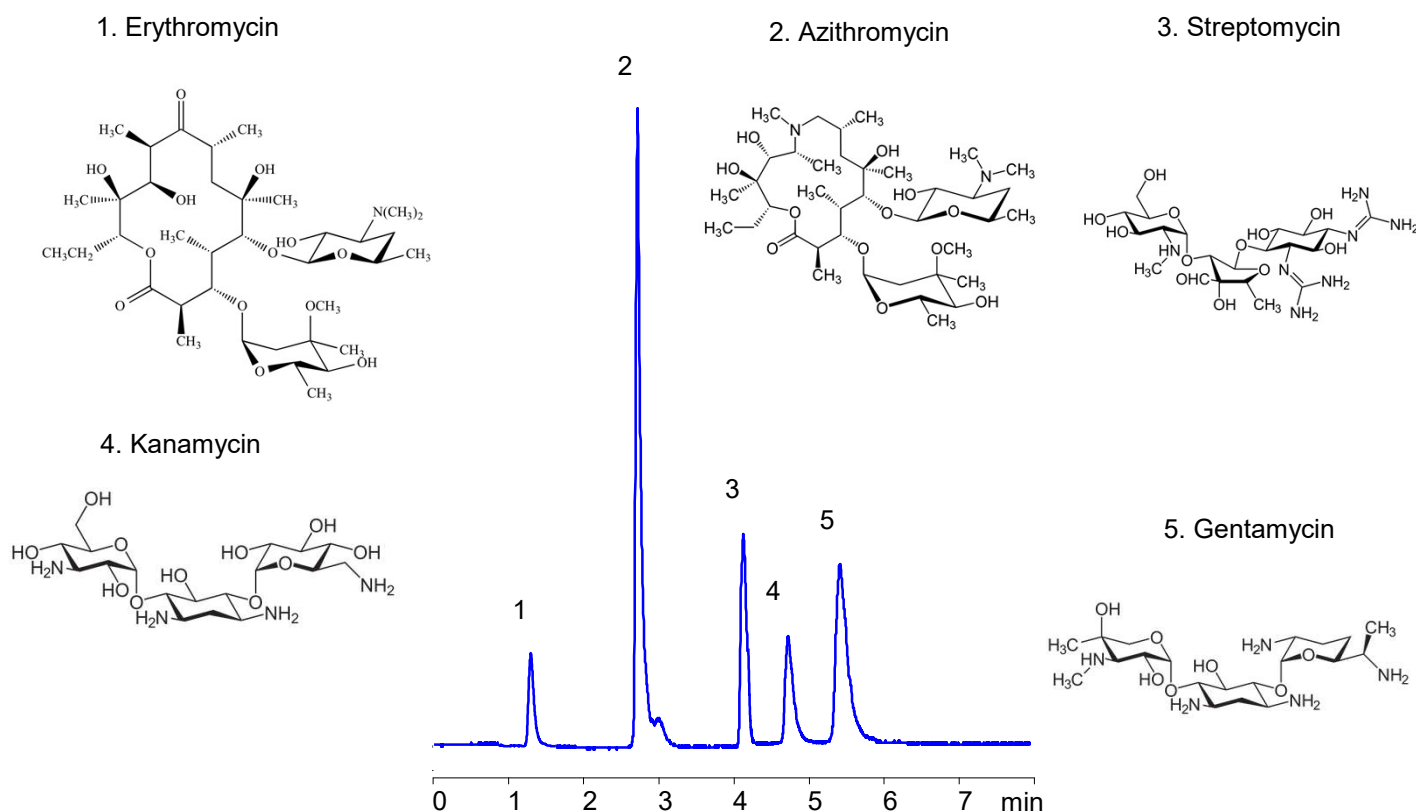


HPLC Analysis of Aminoglycosides in HILIC and Ion-Exchange Modes



Application Notes

Can you imagine that one of the cons of mixed-mode chromatography is a very long retention of polar ionizable compounds due to multiple interactions that enhance each other and provide much higher capacity compared to single-mode chromatography? The typical way to increase the strength of the mobile phase to facilitate elution in mixed-mode chromatography is to change the amount of acetonitrile and buffer concentration. An increase in buffer concentration can negatively affect the sensitivity of your LC/MS analysis. This obstacle can be addressed by doing a gradient of pH instead of the gradient of the buffer. When you do a gradient of pH you can suppress ionization of the stationary phase, decrease ion-exchange interactions and as a result, use less buffer to elute compounds that interact very strongly with the mixed-mode stationary phase. Below you will find an example of an analysis of aminoglycosides with various numbers of basic groups. These compounds are eluting based on HILIC and cation-exchange properties of these antibiotics and Amaze TR stationary phase. Visit our website www.helixchrom.com to learn more.