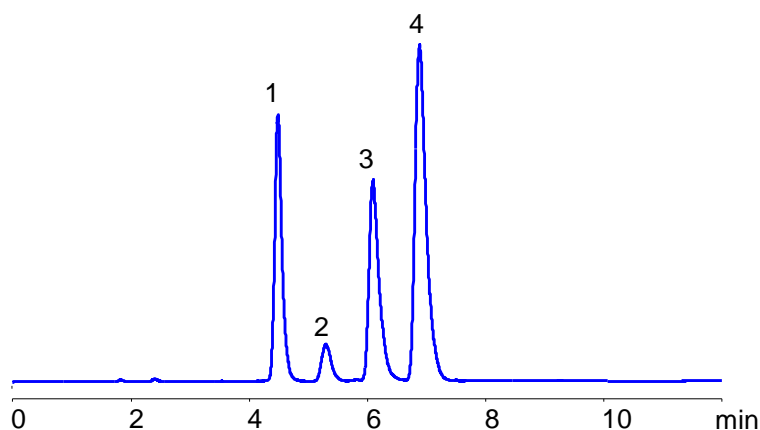
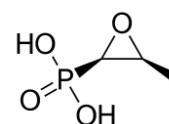


Simultaneous HPLC Analysis of Sucrose, Fosfomycin and Counterions on Amaze TH Mixed-Mode Column

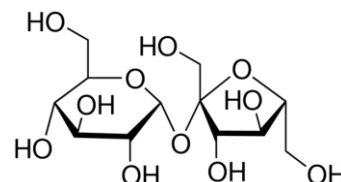
Column:	Amaze TH
Column size:	4.6x150 mm, 5 um, 100A
Mobile phase:	75% ACN with 50 mM AmFm pH 3
Flow rate:	1 ml/min
Detection:	ELSD, 40°C, (MS-compatible mobile phase)



1. Fosfomycin

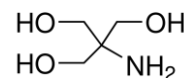


2. Sucrose



3. Sodium ion

4. Tromethamine (TRIS)



Application Notes

Pharmaceutical formulations are usually a complex mixture of active ingredients and excipients. These compounds are very different in properties in terms of hydrophobicity, polarity, and ionic properties. Developing a single HPLC method for analysis of such compounds is difficult and sometimes an impossible task. We have developed a short and robust method for the separations of Fosfomycin antibiotic, sucrose and two counterions which are usually used in the production of Fosfomycin. All components of the mixture are very hydrophilic, while Fosfomycin and citric acid are hydrophilic and acidic.

Compounds in the mixture are separated by a combination of HILIC, anion-exchange and cation-exchange. The method is fully compatible with LC/MS and can be used for the analysis of drug formulations containing hydrophilic and ionizable compounds. The retention time is controlled by the amount of CAN, buffer concentration and buffer pH. All three parameters can be used for adjusting retention time and resolution between peaks. The order of elution for compounds in formulation can often be changed by controlling HILIC and ion-exchange interactions independently.