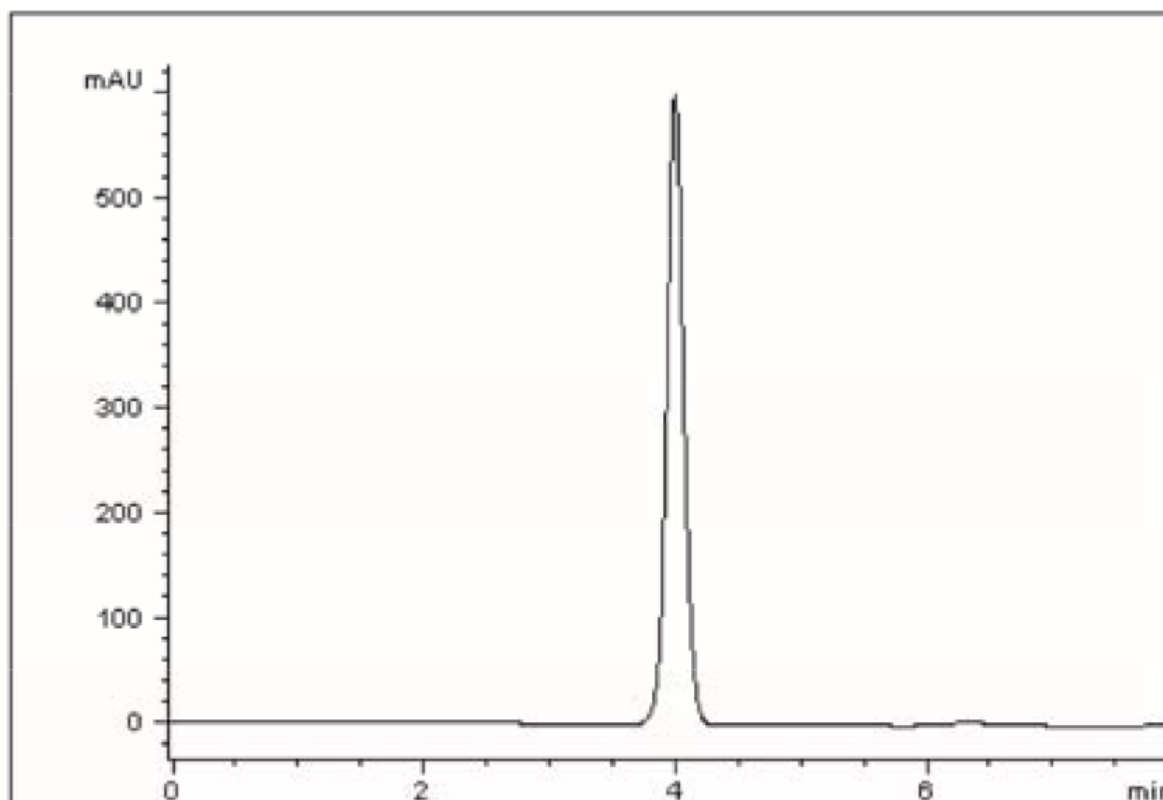


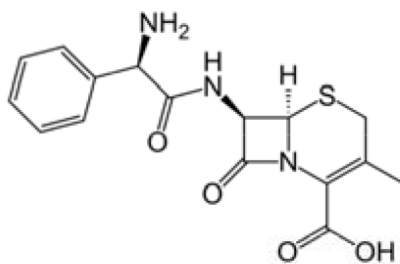
Antibiotic Keflex Analyzed with HPLC - AppNote

Analysis of Polar Antibiotic Main Active Ingredient: Cephalexin Monohydrate

Cephalexin Monohydrate, commercially known as Keflex, is a semi synthetic Cephalosporin antibacterial drug, analysis of which is of great interest to scientists from many research fields. There is a need for a rapid, efficient and inexpensive analytical method to be applied for analysis of formulations during industrial process development as well as for monitoring of the drug level in patients after administration.

In the Chromatogram shown below, Keflex was sufficiently retained using a gradient HPLC method and the Cogent Diamond Hydride Column and the peak shape is very symmetrical. The advantages of using the selected column and method are: fast equilibration between runs when gradient analysis is used, and very easy transfer to MS detection. Due to the high organic content of the Mobile Phase used, the ionization efficiency of an MS detector would be much better when compared to the Mobile Phase with a high concentration of Water.





PEAK:

Cephalexin Monohydrate

Method Conditions

Column: Cogent Diamond Hydride™, 4µm, 100Å

Catalog No.: 70000 -7.5

Dimensions: 4.6 x 75mm

Mobile Phase:

A: DI Water with 0.1% Formic Acid

B: 90:5 Acetonitrile / 0.1% Formic Acid

Gradient:

Time (Minutes)	%B
0	90
1	90
4	20
5	20
6	90

Injection vol.: 5µl

Flow rate: 1.0ml / minute

Detection: UV @ 260nm

Sample Preparation: Cefalexin ; Keflex. Final concentration: 1mg / ml in DI Water. The solution was filtered through a 0.45µm Nylon Syringe Filter (*MicroSolv Tech Corp*).



Attachment

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