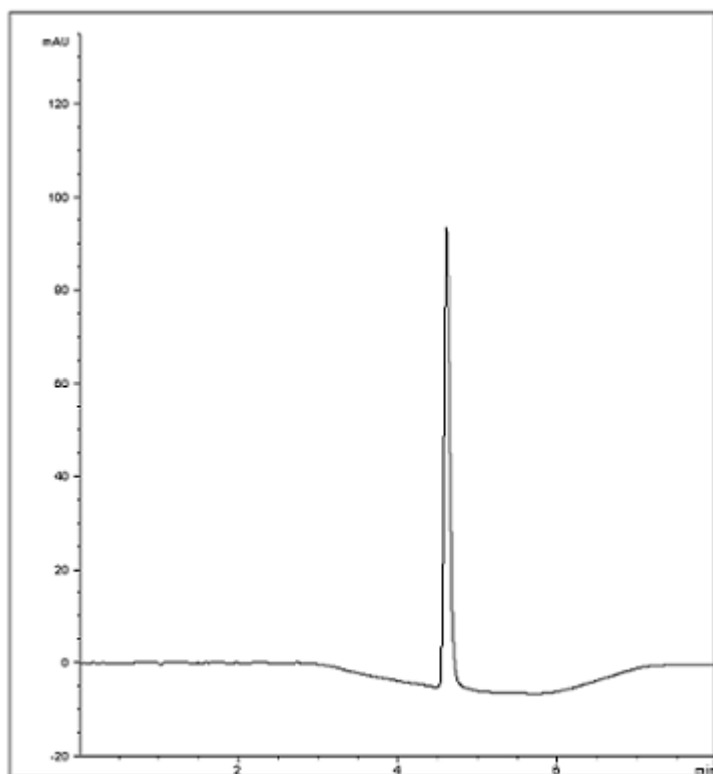


Hydroxychloroquine Sulfate – AppNote

Hydroxychloroquine Sulfate presents a few Complexities to Routine Chromatographic Analysis.

The Amine Groups also interact with lone-Silanols, causing Peak Tailing on regular Silica Columns. In typical Reversed Phased Modes, Buffers are needed in higher concentrations to aid in retention, as well as Ion Pair Reagents. These additives can hinder coupling in Mass Spectrometry and also increases the likelihood of source Contamination. However, the use of a Cogent Diamond Hydride™ Column in Aqueous Normal Phase (ANP) illustrates how Hydroxychloroquine can be readily retained, with good run-to-run precision, and Excellent Peak Shape without Ion Pairing Reagents. (%RSD = 0.09, SD below 0.004.)

This method demonstrates an easy HPLC method that can be quite readily transferred to LCMS.



Peak:

Hydroxychloroquine Sulfate

Method Conditions:

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

Catalog No.: 70000-75P

Dimensions: 4.6 x 75 mm

Mobile Phase:

A. DI Water / 0.1% Formic Acid (v/v)

B. Acetonitrile / 0.1% Formic Acid (v/v)

Gradient:

Time (minutes)	%B
0	80
1	80
3	50
4	50
5	80
8	80

Injection Volume: 1ul

Flow Rate: 1.0 / minute

Detection: 254nm

Sample Preparation: 0.1 mg/mL Hydroxychloroquine Sulfate in 50:50 Acetonitrile: DI H₂O

Note: Hydroxychloroquine is an inexpensive antimalarial drug, now regarded as a safe and reasonably effective treatment for various autoimmune rheumatic diseases including systemic lupus erythematosus.



Attachment

Hydroxychloroquine Sulfate AppNote.pdf 0.1 Mb [Download File](#)

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