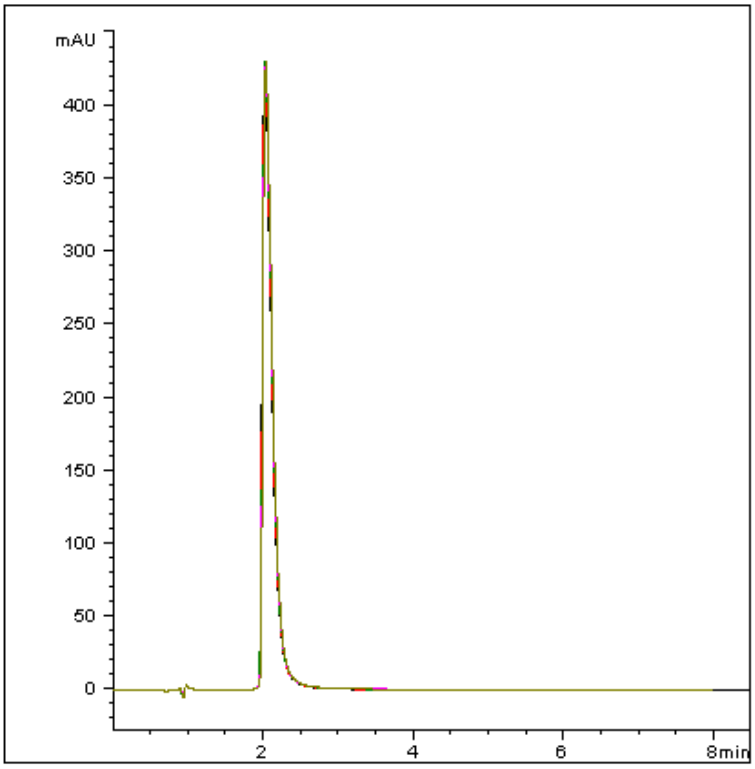
Moxifloxacin Hydrochloride Analyzed with HPLC – AppNote

Simple and Precise Retention of a Polar Antibiotic

Moxifloxacin Hydrochloride requires the addition of buffers as well as ion pair reagents to aid in retention on regular Reversed Phase Columns per the current USP Method.

In this simple isocratic Method, we retain this polar compound with good Run-to-Run Precision. (%RSD = 0.22, SD below 0.004.) This Method can be easily transferred to LCMS.



Peak:

Moxifloxacin hydrochloride

Method Conditions:

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

Catalog No.: 70000-75P

Dimensions: 4.6 x 75mm

Mobile Phase: (50:50) DI Water with 0.1% Formic Acid / Acetonitrile

Injection vol.: 1µL

Flow rate: 1.0mL / minute

Detection: UV @ 220nm

Sample Preparation: Moxifloxacin Hydrochloride 2.0mg / mL in Mobile Phase.

Notes: *Moxifloxacin is a broad-spectrum antibiotic that is active against both Gram-positive and Gram-negative*

bacteria. It functions by inhibiting cell replication by preventing production of DNA gyrase, an enzyme which allows the untwisting required to replicate one DNA double helix into two. Notably the drug has 100 times higher affinity for bacterial DNA gyrase than for mammalian. It is marketed worldwide under the brand name Avelox for oral treatment.

Attachment

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