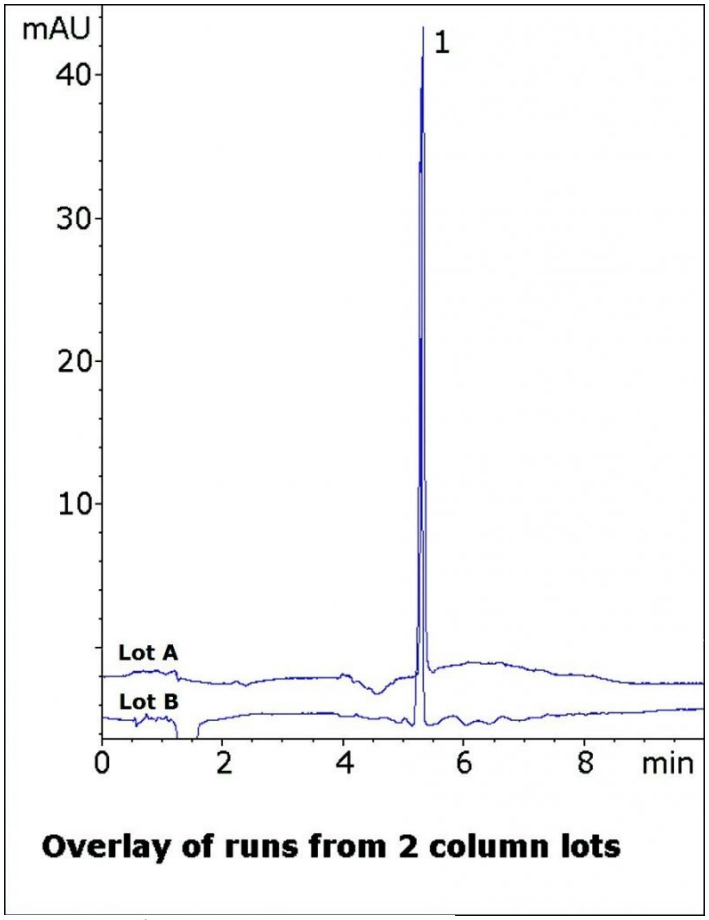
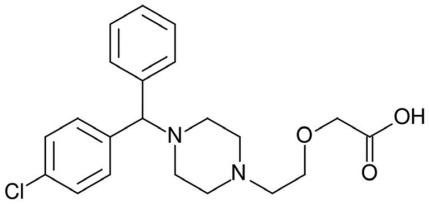
Cetirizine Tablet Analyzed with HPLC – AppNote

Efficient and Symmetrical Peak of API from Zyrtec® Tablet

This Application Note shows how very Efficient Peaks can be achieved for Cetirizine from a tablet formulation and how the API Peak can be well Retained with excellent Symmetry. Even with ion pairing in Reversed Phase Methods, a Peak with acceptable Efficiency and Symmetry could be difficult to obtain.

With this Method, ion pairing agents are not necessary, which means the Method is suitable for LCMS. Furthermore, the high organic content of the Mobile Phase improves the Sensitivity with LCMS.





Peak:

Cetirizine

Method Conditions

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

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75mm

Mobile Phase:

A: DI Water with 10mM Ammonium Acetate

B: 95:5 Acetonitrile / Solvent A (v/v)

Gradient:

Time *(minutes)*	%B
0	100
2	100
6	50
7	100

Post Time: 3 minutes

Injection vol.: 1µL

Flow rate: 1.0mL / minute

Detection: UV @ 230nm

Sample Preparation: 10mg strength Cetirizine Tablet was ground and added to a 25mL volumetric flask with a portion of 50:50 Solvent A / Solvent B. After sonicating for 10 minutes, it was diluted to mark and mixed. Then a portion was filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.) and diluted 1:4 with the same diluent.

t0: 0.9 minutes

Note: *Cetirizine is a second-generation antihistamine used to treat allergies (e.g. Hay Fever, Hives, etc.). It used to be available only by prescription in the U.S., but is now sold over the counter. The trade name is Zyrtec®, but generic versions are also available.*

Attachment

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