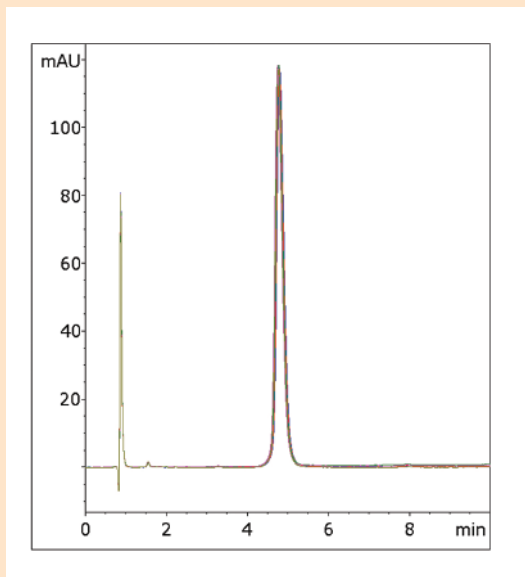
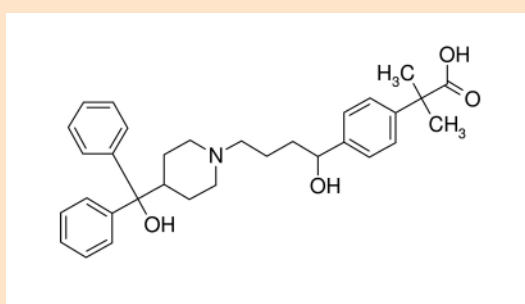


Fexofenadine

Simple Isocratic Assay Method without Amine Additives



Notes:
Fexofenadine is marketed under the trade name Allegra®, but generic versions are also available. In January 2011, the Food and Drug Administration approved over-the-counter sales of the drug without a prescription. It is a widely selling antihistamine used for treatment of hay fever and other allergies. Because it does not cross the blood-brain barrier, it causes less drowsiness than first generation antihistamines.

Method Conditions

Column: Cogent Phenyl Hydride™, 4µm, 100A
Catalog No.: 69020-7.5P
Dimensions: 4.6 x 75 mm
Mobile Phase: 62% DI water/ 38% Acetonitrile/ 0.1% TFA
Temperature: 35 °C
Flow Rate: 1.0 mL/min
Injection Vol.: 5 µL
Sample: **Stock Solution:** 180 mg strength Allegra® tablet was ground and added to a 100 mL volumetric flask. It was diluted with the mobile phase and vortexed 5 min. A portion was filtered with a 0.45 micron nylon syringe filter (MicroSolv Tech Corp).

Peak: Fexofenadine
Detection: UV 220 nm
t₀: 0.87 min

Discussion

Fexofenadine is well-suited for retention with the Phenyl Hydride column since it has a number of aromatic moieties. Also, the tertiary amine can cause peak tailing issues with type B silica-based L11 columns if an amine additive is not used in the mobile phase. The USP assay method for fexofenadine tablets uses triethylamine for this reason. Here, excellent peak shapes are observed from the five-run overlay shown in the figure using only trifluoroacetic acid as the mobile phase additive.

For more information visit www.MTC-USA.com

Cat. No.	Description
69020-7.5P	Phenyl Hydride™ HPLC Column, 100A, 4µm, 4.6mm x 75mm