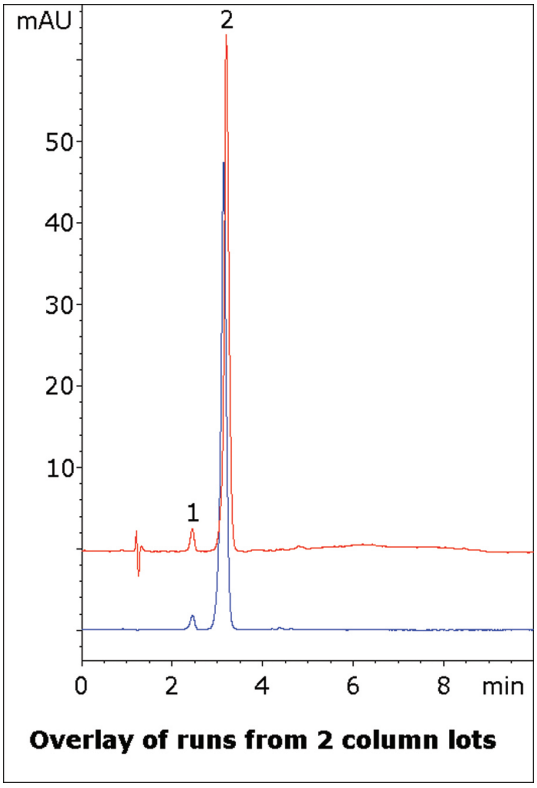
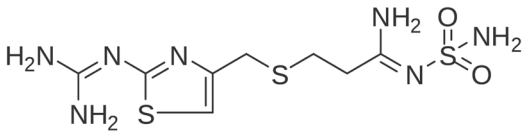
Famotidine Tablet

Separation from matrix component



Overlay of runs from 2 column lots



Famotidine

Note: Famotidine is an acid reducer that is used to treat ulcers, gastroesophageal reflux disease, heartburn, and other related conditions. It is sold under trade names such as Pepcid® and Calmicid®.

Method Conditions

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

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75 mm

Solvents: A: DI H_2O / 0.1% trifluoroacetic acid (v/v)
B: Acetonitrile / 0.1% trifluoroacetic acid (v/v)

Gradient:

time (min.)	%B
0	95
2	95
6	50
7	95

Post Time: 3 min

Injection vol.: 1µL

Flow rate: 1.0 mL/min

Detection: UV 265 nm

Sample: 10mg strength famotidine tablet was ground and added to a 25mL volumetric flask. A portion of 50/50 solvent A / solvent B diluent was added and the flask was sonicated 10 min. It was then diluted to mark and filtered with a 0.45µm nylon syringe filter (MicroSolv Tech Corp.).

Peaks: 1. Matrix component
2. Famotidine

t_0: 0.9 min

Discussion

This method for analysis of famotidine tablets is easy to perform and produces a symmetrical peak shape for the API. This compound has numerous amines which can be problematic in terms of peak shape with conventional columns. Separation from a component from the tablet extract matrix is obtained as well, illustrating specificity of the method. Reproducibility is shown by the overlay of runs from two Cogent Diamond Hydride column lots.

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