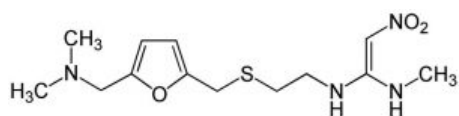
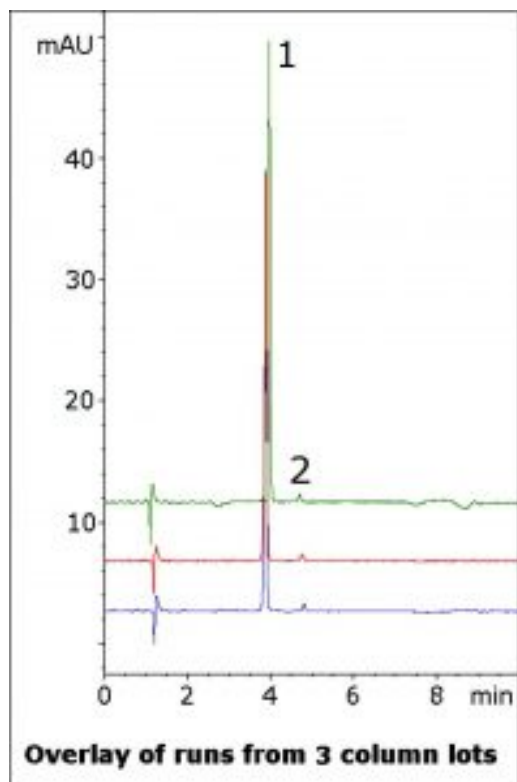


## Ranitidine Tablet Analyzed by HPLC – AppNote

### Excellent Peak Shape of API From an OTC Tablet

Ranitidine has several amine functional groups that can contribute to significant tailing with Reversed Phase Methods. Data shown below uses an extract from a tablet formulation, illustrating how good Peak shape can be obtained. In addition, three Column lots were used to demonstrate the robustness and precision of this Method.



#### Peaks:

1. Ranitidine
2. Matrix Component

### Method Conditions

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

**Catalog No.:** 70000-7.5P

**Dimensions:** 4.6 x 75mm

#### Mobile Phase:

A: DI Water / 0.1% Trifluoroacetic acid (v/v)

B: Acetonitrile / 0.1% Trifluoroacetic acid (v/v)

#### Gradient:

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Time (minutes)	%B
0	95
1	95
6	50
7	95

**Post Time:** 3 minutes

**Injection vol.:** 2 $\mu$ L

**Flow rate:** 1.0mL / minute

**Detection:** UV @ 313nm

**Sample Preparation:** 150mg strength Ranitidine HCl tablet was ground and weighed in a 50mL volumetric flask. A portion of 50:50 Solvent A / Solvent B diluent was added and the flask was sonicated 10 minutes. It was then diluted to mark and filtered with a 0.45 $\mu$ m Nylon Syringe Filter (MicroSolv Tech Corp.). The filtrate was diluted 1:100 for injections.

**t<sub>0</sub>:** 0.9 minutes

**Note:** Ranitidine is an acid reducer that is available over-the-counter. It works as a histamine H<sub>2</sub>-receptor antagonist, in contrast to other acid reducers such as omeprazole which are proton pump inhibitors. It is sold under the trade name Zantac®.



## Attachment

No 217 Ranitidine Tablet Analyzed by HPLC pdf 0.4 Mb [Download File](#)

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