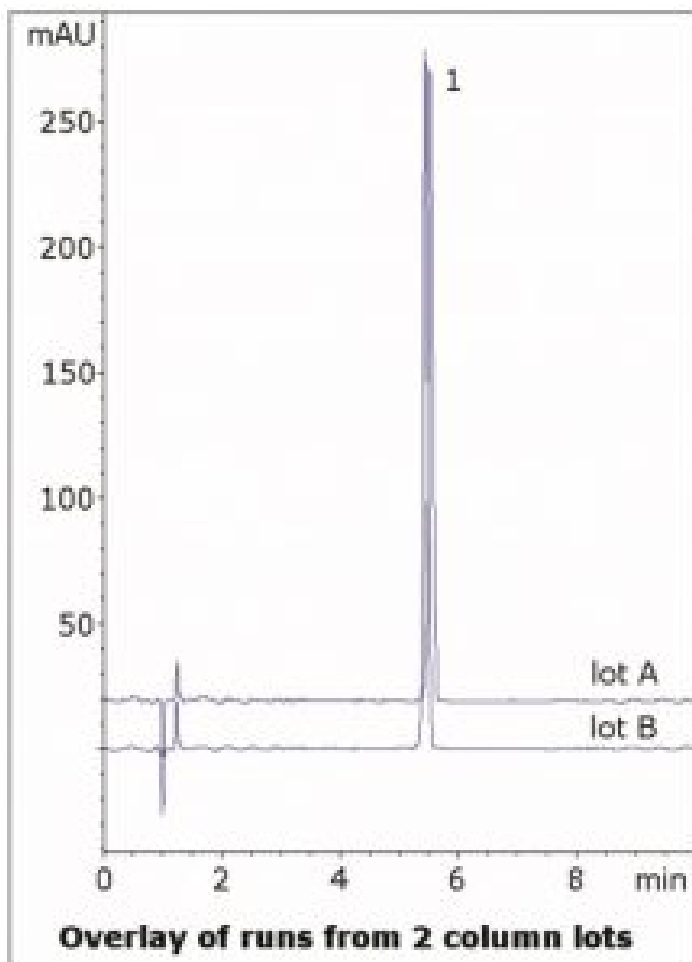


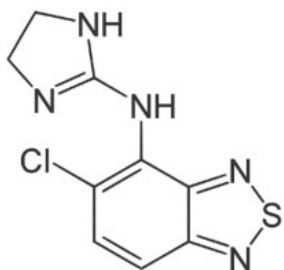
## Tizanidine HCl Tablet Analyzed by HPLC – AppNote

### Separation Method for Tizanidine Compatible with LC-MS

Tizanidine has numerous amine functional groups and can be a challenge for analysis by HPLC. The USP method uses Phosphate in the Mobile Phase which is not compatible with LC-MS. This Method however uses Formic Acid as the Mobile Phase additive and produces a sharp, symmetrical peak.

The USP system suitability for the tailing factor is not more than 1.6, and the Peak obtained has a value of 1.1. Data from two Column lots is shown in the figure, demonstrating Robustness of this Method.





**Peak:**

Tizanidine HCl

**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% Formic Acid (v/v)

B: Acetonitrile / 0.1% Formic Acid (v/v)

**Gradient:**

Time (minutes)	%B
0	95



1	95
6	40
7	95

**Post Time:** 3 minutes

**Injection vol.:** 1 $\mu$ L

**Flow rate:** 1.0mL / minute

**Detection:** UV @ 230nm

**Sample Preparation:** 4mg strength Tizanidine HCL tablet was ground and weighed in a 10mL 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.).

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

**Note:** Tizanidine is a centrally acting  $\alpha$ 2-adrenergic agonist used to treat spasms, cramping, tightness of muscles, and related conditions. It is available under the trade name Zanaflex® as well as generic versions.



## Attachment

**No 232 Tizanidine HCL Tablet Analyzed by HPLC pdf** 0.6 Mb [Download File](#)