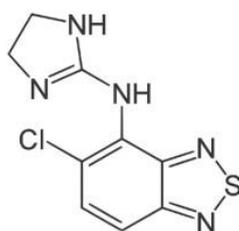
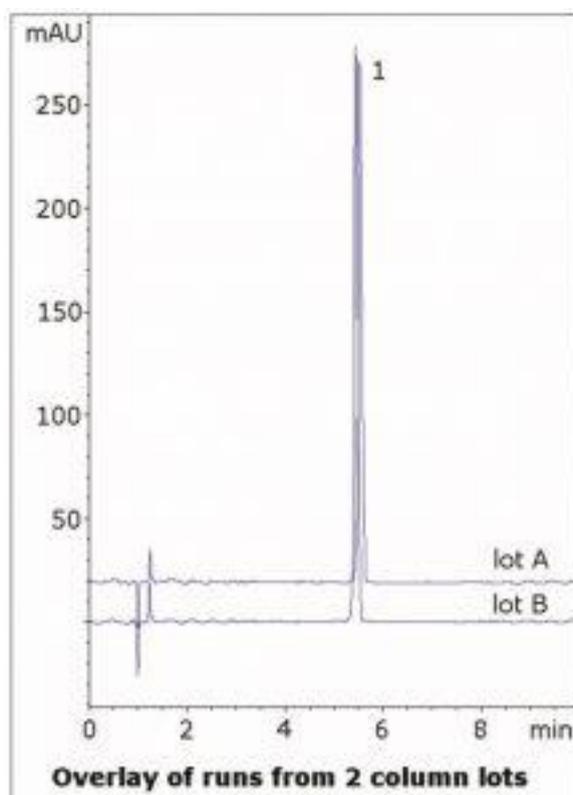


Tizanidine HCl Tablet Analyzed by HPLC - AppNote

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™, 4 μm, 100 Å

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75 mm

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 µL

Flow rate: 1.0 mL / minute

Detection: UV @ 230 nm

Sample Preparation: 4 mg strength Tizanidine HCL tablet was ground and weighed in a 10 mL 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 µm Nylon Syringe Filter (MICROSOLV Tech Corp.).

t_o: 0.9 minutes

Note: Tizanidine is a centrally acting α_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](#)

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