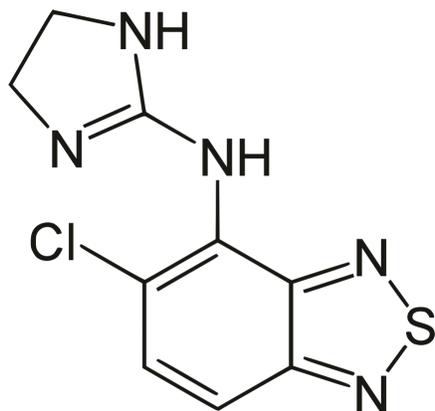
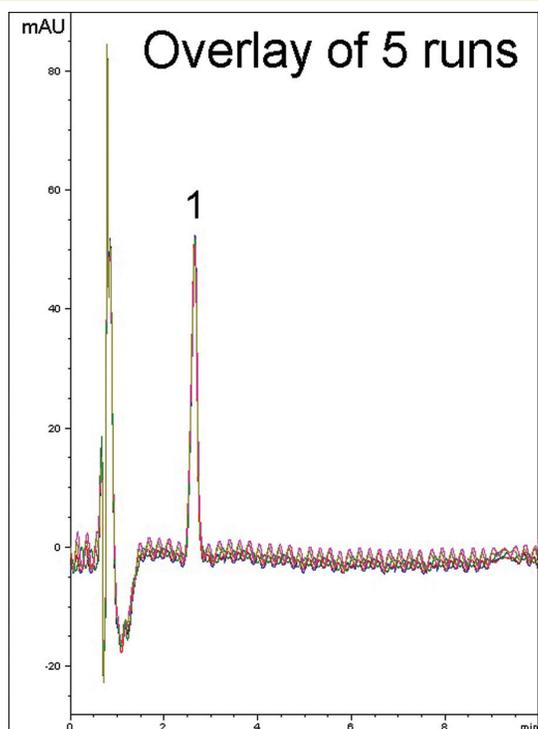


Tizanidine HCl Tablet

Excellent run to run precision



Tizanidine

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.

Method Conditions

Column: Cogent Amide™, 4 μ m, 100Å

Catalog No.: 40036-05P

Dimensions: 4.6 x 50 mm

Solvents: A: 90% DI H₂O / 10% acetonitrile / 0.1% formic acid (v/v)
B: Acetonitrile / 0.1% formic acid (v/v)

Gradient:	time (min.)	%B
	0	90
	2	90
	6	40
	7	90

Injection vol.: 3.0 μ L

Flow rate: 1.0mL/min

Detection: UV 230 nm

Sample: 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 min. It was then diluted to mark and filtered with a 0.45 μ m nylon syringe filter (MicroSolv Tech Corp). An aliquot was then diluted 1:10 with a diluent of 10% solvent A / 90% solvent B.

Peak: 1. Tizanidine

Discussion

Tizanidine has several amine groups which can present problems to chromatographers. Residual silanols on the surface of ordinary silica-based columns can electrostatically interact with these groups, causing peak tailing. The Cogent Amide column is virtually free of residual silanols and therefore a symmetrical peak shape can be obtained. An overlay of five consecutive runs demonstrates the run-to-run precision when using these columns.