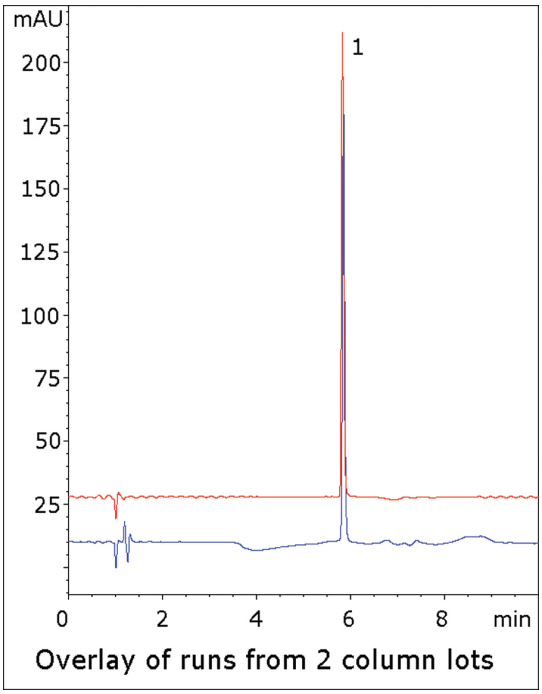
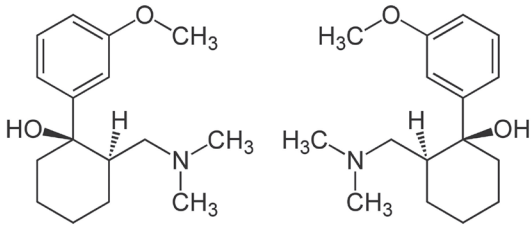
Tramadol Tablet

Tertiary amines – easy and efficient



Overlay of runs from 2 column lots



Tramadol

Note: Tramadol is an analgesic used to treat moderate to moderately severe pain. It can be used in both human and veterinary applications. It is sold under various formulation types and brand names, including Ryzolt®, Ultracet®, and Ultram®.

Method Conditions

Column: **Cogent Bidentate C8™**, 4µm, 100Å

Catalog No.: 40008-75P

Dimensions: 4.6 x 75 mm

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

Gradient:

time (min.)	%B
0	10
2	10
6	50
7	10

Post Time: 3 min

Injection vol.: 1µL

Flow rate: 1.0 mL/min

Detection: UV 228 nm

Sample: 50mg strength tramadol tablet was ground and added to a 10mL volumetric flask. 5mL of 50/50 solvent A / solvent B diluent was added and the flask was sonicated 10 min. Then a portion was filtered with a 0.45µm nylon syringe filter (MicroSolv Tech Corp.). It was then diluted 1:5 for injection.

Peak: 1. Tramadol

t_0: 0.9 min

Discussion

In this HPLC gradient method for analysis of tramadol tablets, a high efficiency peak is obtained for the API. The peak is also highly symmetrical, which is often difficult to obtain for tertiary amines.

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