

Tramadol Tablet Analyzed with HPLC – AppNote

An API with a Tertiary Amine - Easy & Efficient Method for Analysis

This Method for the Analysis of Tramadol Tablets, produces an Efficient Peak Shape for the API. The Peak is highly Symmetrical, which is often difficult to obtain for compounds with a tertiary amine. *Tramadol has chiral centers but this Method does not address that challenge*.



Peak:

Tramadol

Method Conditions

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



Catalog No.: 40008-75P

Dimensions: 4.6 x 75mm

Mobile Phase:

A: DI Water with 0.1% (v/v) Trifluoroacetic Acid (TFA) v/v

B: Acetonitrile with 0.1% (v/v) Trifluoroacetic Acid (TFA) v/v

Gradient:

Time (minutes)	%B
0	10
2	10
6	50
7	10

Post Time: 3 minutes

Injection vol.: 1µL

Flow rate: 1.0mL / minute

Detection: UV @ 228nm

Sample Preparation: 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 minutes. Then a portion was filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.). It was then diluted 1:5 for injection.

to: 0.9 minutes

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®.



Attachment

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