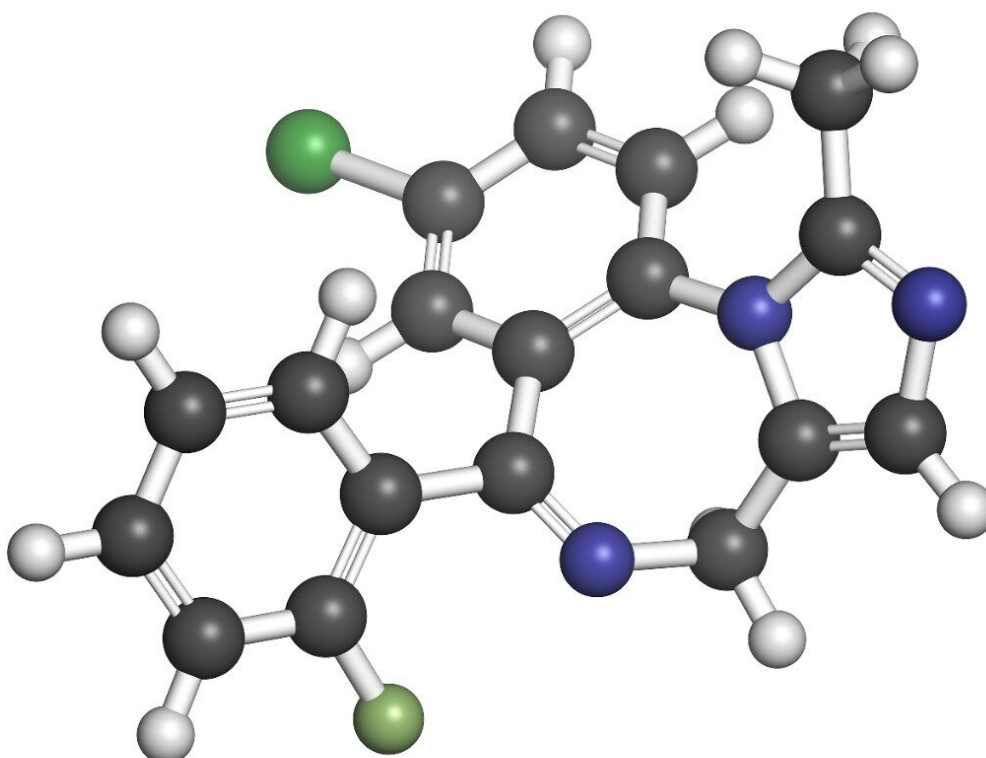


Note d'application

Midazolam on Oasis MCX

Waters Corporation



This is an Application Brief and does not contain a detailed Experimental section.

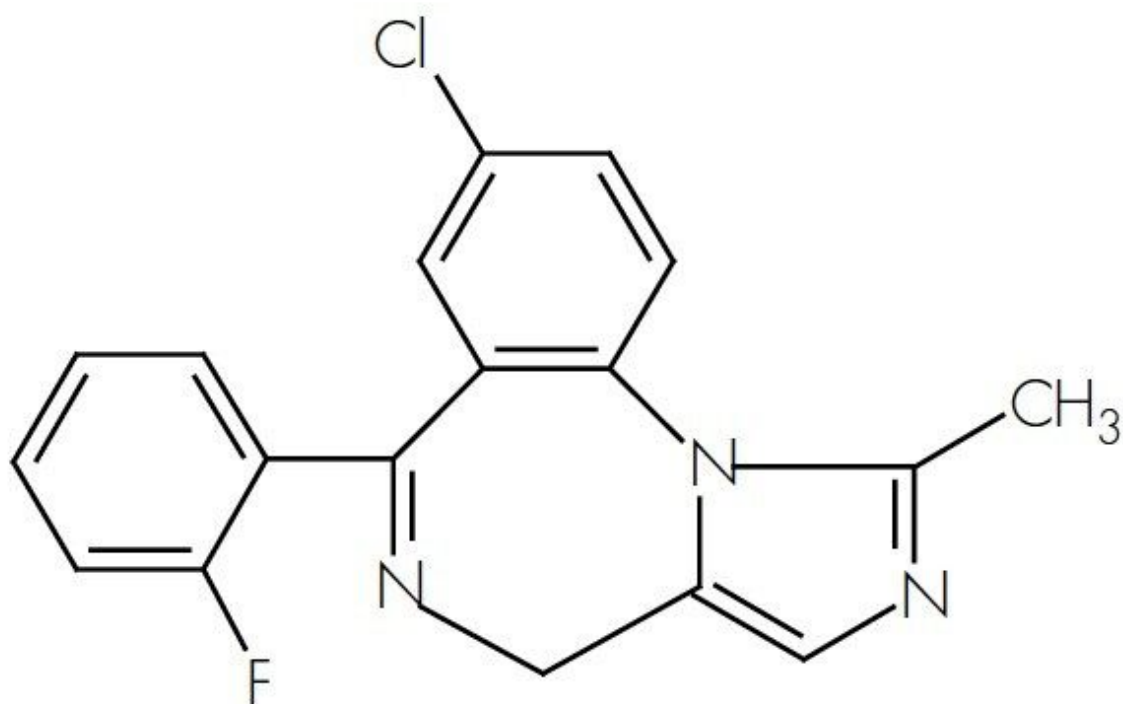
Abstract

This application brief demonstrates the analysis of midazolam on Oasis MCX.

Introduction

Midazolam is used to produce sleepiness or drowsiness and to relieve anxiety before surgery or certain procedures. In this example, the sample size was limited (less than 100 μ L of plasma) and therefore the Oasis μ Elution plate was used.

Weak Base: pKa \sim 6.15 and therefore Oasis MCX was used.



Midazolam
MW 325.8

Experimental

Test Conditions

Oasis MCX 96-Well μ Elution Plate

| | |
|-----------------|--|
| Condition: | 200 μ L MeOH |
| Equilibrate: | 200 μ L H ₂ O |
| Load: | 100 μ L sample (50 μ L plasma diluted 1:1 with 4% H ₃ PO ₄) |
| Wash 1: | 200 μ L 2% HCOOH |
| Wash 2: | 200 μ L MeOH |
| Elute: | 50 μ L (25 μ L x 2) 5% NH ₄ OH in MeOH |
| Dilute: | 100 μ L H ₂ O or 100 μ L 2% FA in H ₂ O to neutralize |
| Inject: | 10 μ L |
| Column: | SunFire C ₁₈ 2.1 x 20 mm IS, 3.5 μ m |
| Mobile phase A: | 10 mM CH ₃ COO-NH ₄ ⁺ , pH 5.5 |
| Mobile phase B: | MeOH with 10 mM CH ₃ COO-NH ₄ ⁺ , pH 5.5 |
| Flow rate: | 0.4 mL /min |
| Instrument: | 2777 Sample Manager and 1525 μ Binary HPLC Pump |

Gradient

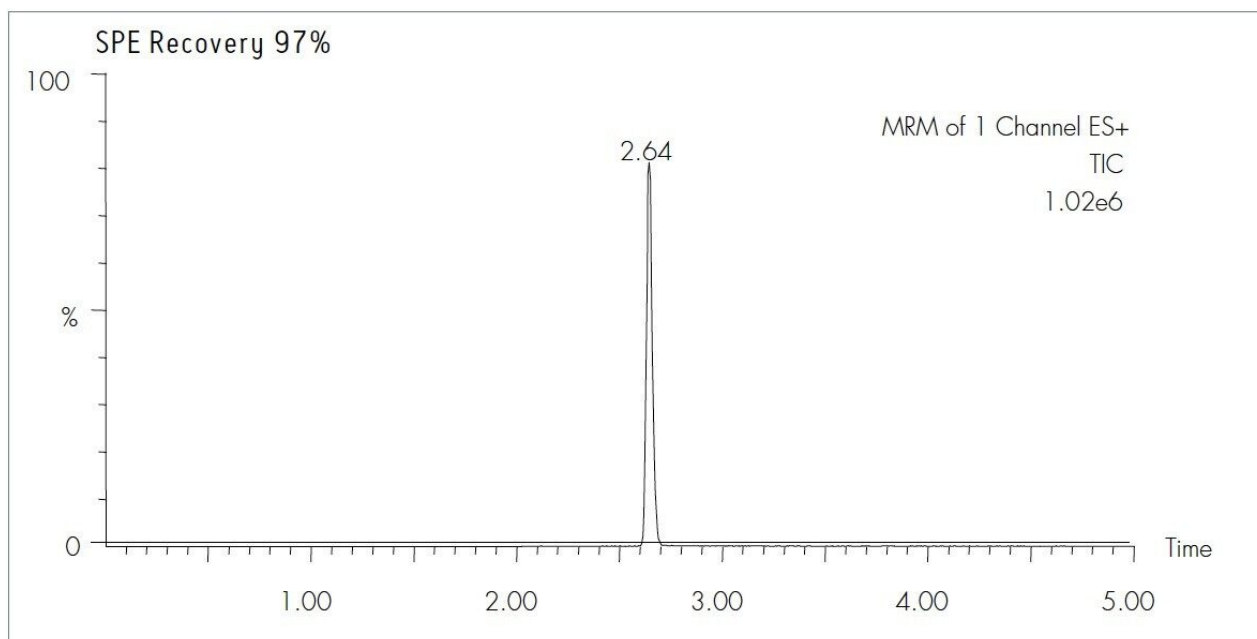
Time(min) Profile

| | %A | %B |
|-----|----|----|
| 0.0 | 95 | 5 |
| 3.0 | 5 | 95 |
| 4.0 | 5 | 95 |
| 4.1 | 95 | 5 |
| 5.0 | 95 | 5 |

Quattro Premier

| | |
|-----------------------|---------------------------------|
| ESI- source temp: | 150 °C |
| Desolvation temp: | 350 °C |
| Cone gas flow: | 50 L /Hr |
| Desolvation gas flow: | 600 L /Hr |
| Collision cell: | 2.2e ⁻³ bar (Ar gas) |
| Midazolam | MRM Transition |
| | <i>m/z</i> 326.2 → 291.2 |

Results and Discussion



WA60087, June 2007