

Analysis of Morphine and Its Polar Metabolites Using Atlantis T3 Columns

Waters Corporation



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

Abstract

This application brief demonstrates analysis of morphine and its polar metabolites using Atlantis T3 Columns.

Introduction

The compounds used in this study are -

1. 10-Hydroxymorphine
2. Morphine-3 β -D-glucuronide
3. Morphine-6 β -D-glucuronide
4. Morphine
5. Morphine N-oxide
6. 6-Acetylmorphine

Experimental

Test Conditions

| | |
|---------------------|--|
| Column: | Atlantis T3, 2.1 x 50 mm, 3 μ m |
| Part number: | 186003717 |
| Mobile phase A: | 0.1% FA in water |
| Mobile phase B: | ACN |
| Flow rate: | 0.5 mL/min |
| Injection volume: | 15 μ L |
| Column temperature: | 45 $^{\circ}$ C |
| MRM: | morphine 286 > 201 morphine-3 β -D-glucuronide 462 > 286 morphine-6 β -D-glucuronide 462 > 286 |

morphine N-oxide 302 > 162

6-acetylmorphine 328 > 165

10-hydroxymorphine 302 > 58

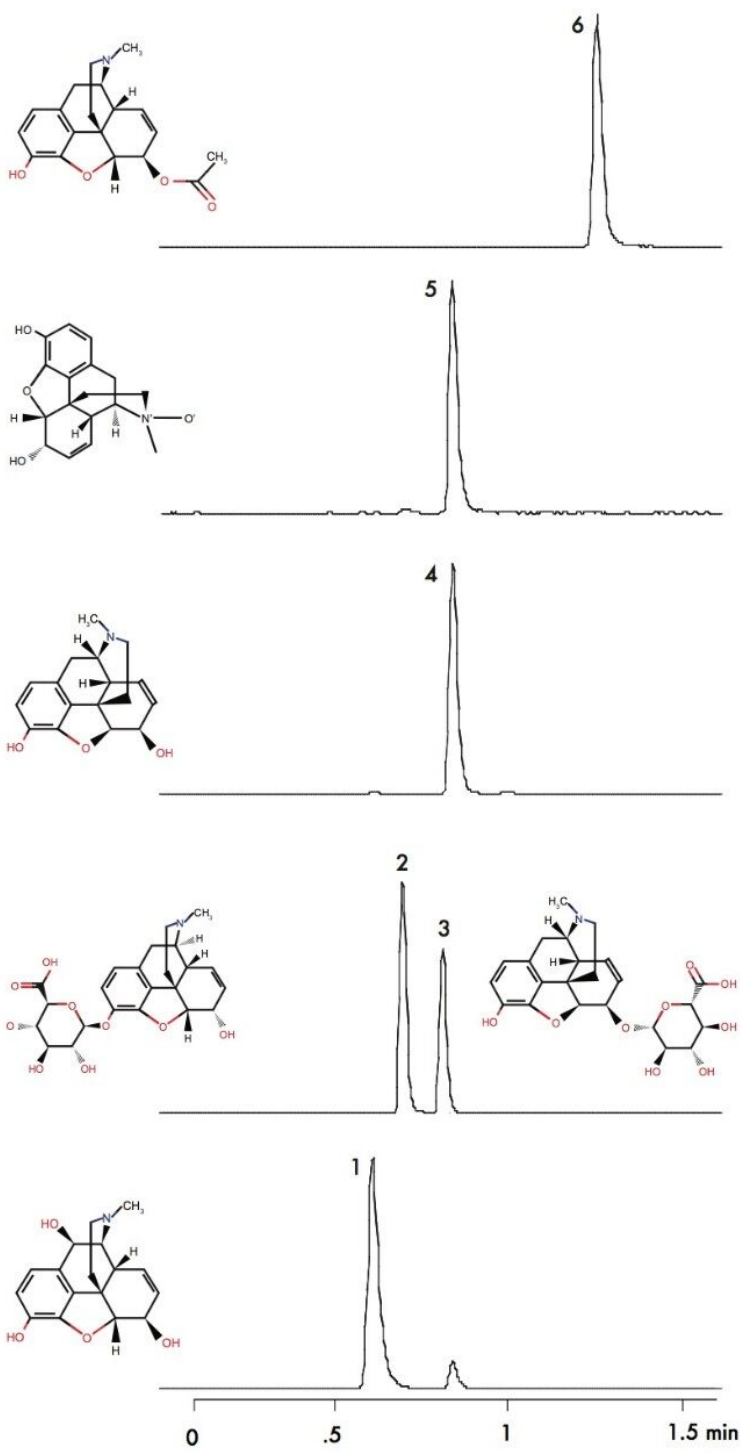
Instrument:

Waters ACQUITY UPLC System

Gradient

| Time (min) | Profile | |
|---------------|---------|----|
| | %A | %B |
| 0.00 | 98 | 2 |
| 5.00 | 2 | 98 |

Results and Discussion



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ACQUITY UPLC System <<https://www.waters.com/514207>>

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