

Naptalam in Cucumber Using LC-MS

Waters Corporation



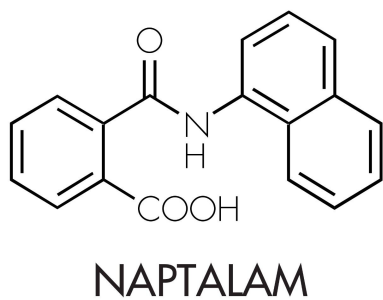
This is an Application Brief and does not contain a detailed Experimental section.

Abstract

This application brief highlights the analysis of naptalam in cucumber using Oasis SPE products.

Introduction

Naptalam has been studied in this application brief.



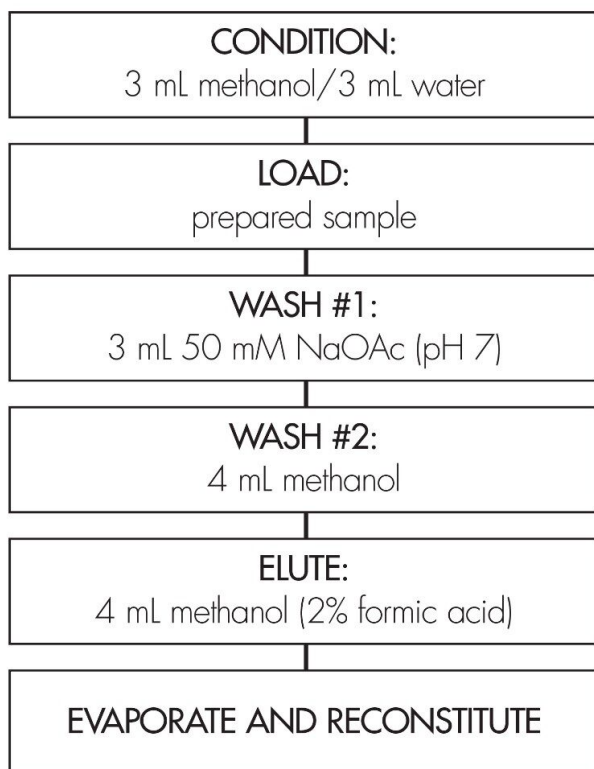
Experimental

LC-MS Conditions

Column:	XTerra MS C ₁₈ , 2.1 x 100 mm
Mobile phase:	25% acetonitrile/75% 10mM ammonium acetate (pH 5.5) to 90% acetonitrile in 6 minutes.
Flow rate:	200 µL/min
Injection volume:	20 µL
LC system:	Waters Alliance Separations Module
MS system:	Waters/Micromass ZMD
Interface:	Positive Electrospray (ESI+) Multiple Selected-Ion Recording (SIR)

OASIS® MAX EXTRACTION METHOD

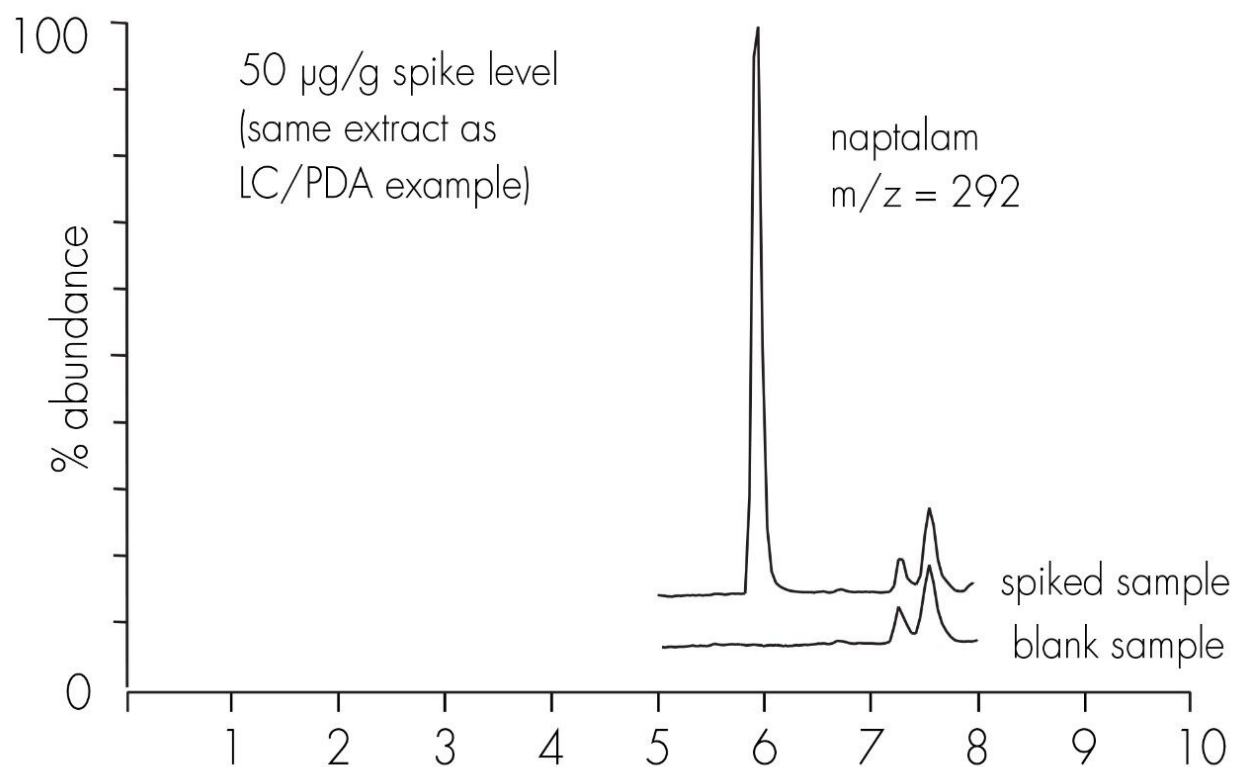
Conditions for Oasis® MAX Cartridge, 6 cc/500 mg
Part Number 186000865



Sample Preparation

- Prepare 8 gm sample (homogenize)
- Extract with 30 mL acetonitrile (shake 30 min)
- Centrifuge (10 min @ 8000 x g)
- Transfer supernatant to reservoir
- Wash pellet with 20 mL water
- Transfer wash to reservoir (combine with supernatant)
- Perform SPE

Results and Discussion



Results* (% recovery ± % RSD, n=4)	
10 ppb	50 ppb
73 (6)	76 (8)

SIR group	Time (mins)	Compound	Mass	Cone voltage	Dwell time
1	5-8	Naptalam	144,292,293	17 V	0.08 secs.

* recovery measured against standards prepared in cucumber matrix

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