Waters™

Application Note

Camphorsulfonic Acid in Rat Plasma on Oasis WAX

Waters Corporation

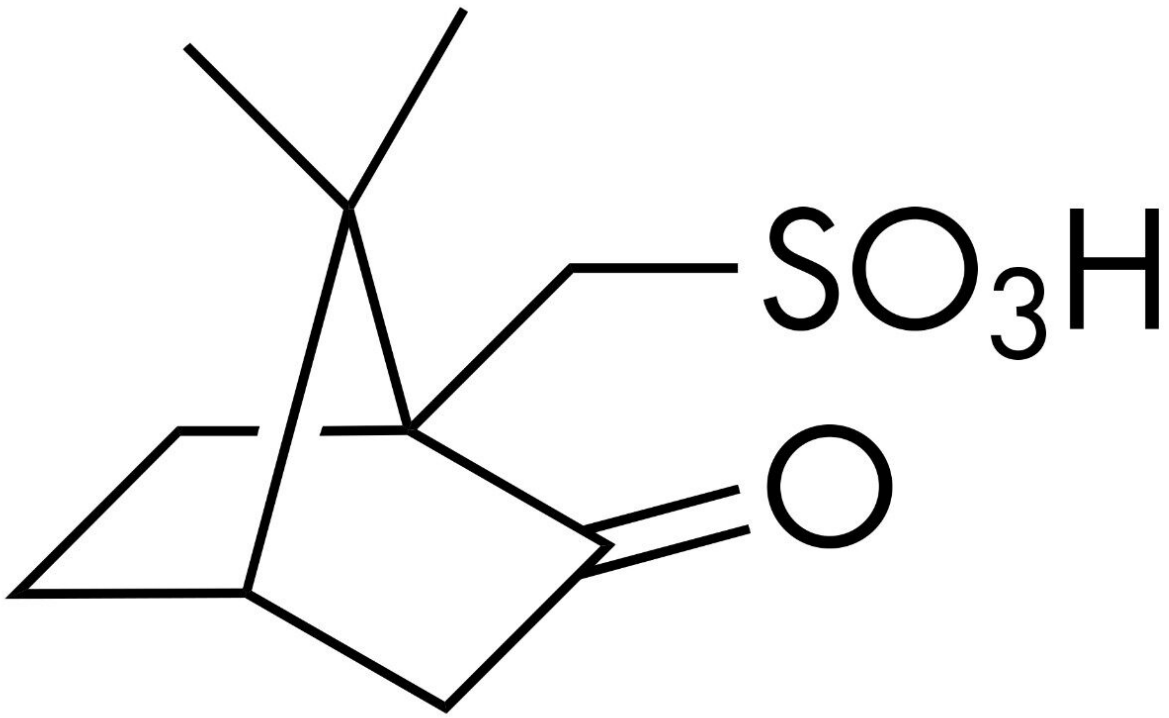
This is an Application Brief and does not contain a detailed Experimental section.

Abstract

This application brief demonstrates analysis of camphorsulfonic acid in rat plasma on Oasis Wax.

Introduction

Camphorsulfonic acid is a strong acid with a pKa of approximately 1.5. The best SPE recoveries for this type of acid are on Oasis WAX products.



Experimental

Test Conditions

Oasis WAX 10 mg 96-Well Plate

Condition:	500 µL MeOH
Equilibrate:	500 µL H_2O
Load:	500 µL (250 µL rat plasma, diluted 1:1 with 4% H_3PO_4)
Wash 1:	500 µL 2% FA, pH 2.7
Wash 2:	500 µL MeOH
Elute:	250 µL (125 µL x 2) 5% NH_4OH in MeOH
Options:	1. Dilute 250 µL H_2O with 2% FA 2. Evaporate/ Reconstitute 3. Direct inject
Inject:	10 µL

Oasis WAX 96-Well Plate µ Elution Plate

Condition:	200 µL MeOH
Equilibrate:	200 µL H_2O
Load:	100 µL (50 µL rat plasma diluted 1:1 with 4% H_3PO_4)
Wash 1:	200 µL 2% FA, pH 2.7
Wash 2:	200 µL MeOH

Elute:	50 µL (25 µL x 2) 5% NH_4OH in MeOH
Options:	1. Direct injection 2. Dilute with 50 µL H_2O with 2% FA 3. Evaporate/ Reconstitute
Inject:	10 µL
Column:	SunFire C_{18} 2.1 x 20 mm IS, 3.5 µm
Mobile phase A:	10 mM $CH_3COO\text{-}NH_4$+, pH 5.5
Mobile phase B:	MeOH with 10 mM $CH_3COO\text{-}NH_4$+, pH 5.5
Flow rate:	0.4 mL /min
Injection volume:	10 µL
Column temp:	Ambient
Instrument:	2777 Sample Manager, 1525µ Binary HPLC Pump and Quattro Premier

Gradient

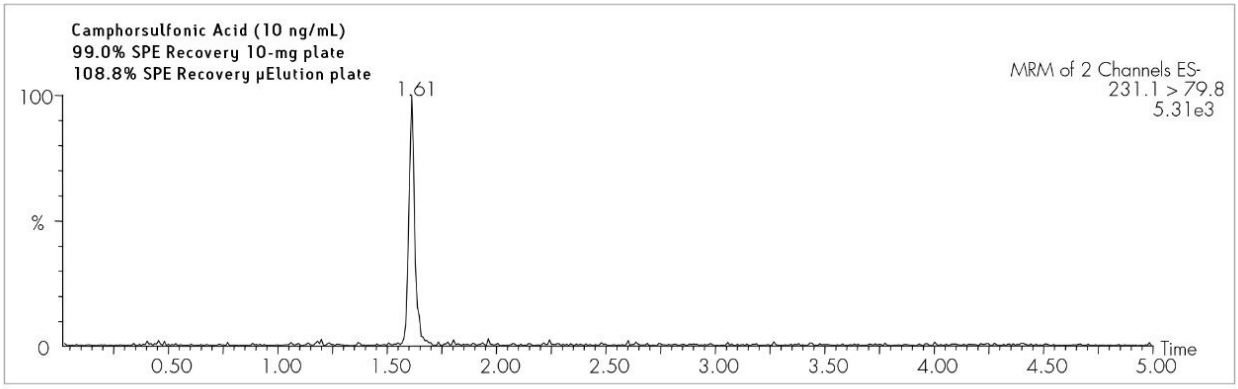
Time (min)	Profile	
	%A	%B
0.0	95	5
3.0	5	95
4.0	5	95
4.1	95	5
5.0	95	5

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)

	MRM transition	Cone (V)	CID (eV)
Camphorsulfonic acid	*m/z* 231.1 ⟶ 79.8	60	30

Results and Discussion



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