

Extraction of Synthetic Cannabinoids in Human Urine Using Strata-X-Drug B

Column: Kinetex® 2.6 µm C18 100 Å, LC Column 150 x 3 mm, Ea

Dimensions: 150 x 3 mm ID

Order No: 00F-4462-Y0

Elution Type: Gradient

Eluent A: 10mM ammonium formate

Eluent B: Acetonitrile

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	55	45
	2	7	50	50
	3	7,01	5	95
	4	10	5	95

Flow Rate: 0,6 mL/min

Col. Temp.: ambient

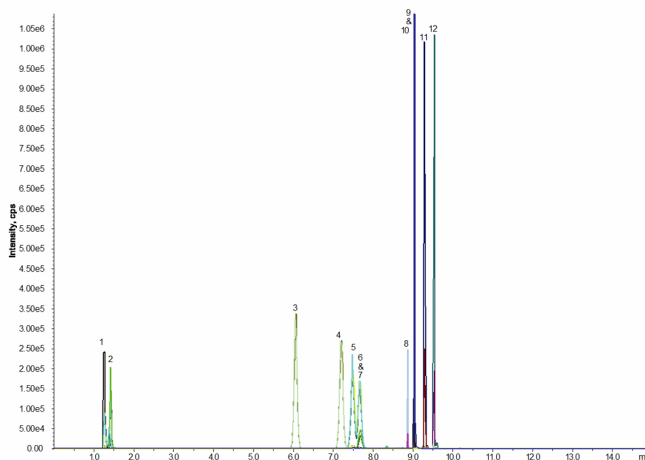
Detection: Mass Spectrometer (MS) @ amu (ambient)

Detector Info: AB Sciex AB Sciex API 4000™

Analyst Note: Polarity: Positive
CAD: 7.00
CUR: 20.00
GS1: 50.00
GS2: 50.00
IS: 5500.00
TEM: 550.00
ihe: ON
EP 10.00
App ID 20925



Products used in this application:



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ANALYTES:

- 1 JWH-073-Butanoic acid metabolite
- 2 JWH-018-Pentanoic acid metabolite
- 3 JWH-073-4-Hydroxybutyl metabolite
- 4 JWH-073-3-Hydroxybutyl metabolite
- 5 JWH-018-5-Hydroxypentyl metabolite
- 6 JWH-018-4-Hydroxypentyl metabolite
- 7 AM2201-4Hydroxypentyl metabolite
- 8 AM694
- 9 AM2201-d5 (internal standard)
- 10 AM2201
- 11 JWH-018-Pentanoic acid metabolite
- 12 JWH018



Sample Preparation Details

for HPLC Application ID No.: 20925

Extraction of Synthetic Cannabinoids in Human Urine Using Strata-X-Drug B

PRODUCT DESCRIPTION:

Strata™-X-Drug B 33 µm Polymeric Strong Cation, 60 mg / 3 mL, Tubes , 50/Pk

Order No.: 8B-S128-UBJ

SOLID PHASE EXTRACTION (SPE) PROCEDURE:

Note: The solvent volumes shown below are for a 60 mg bed mass.

The solvent volumes will need to be adjusted for a smaller or larger bed mass.

Condition:

Load:

Sample Hydrolysis: Combine 1 mL Human Urine sample (spiked with analytes at 50 ng/mL), 2 mL of 100 mM sodium acetate buffer, pH 5.0, 25 µL

-D-Glucuronidase (Patella Vulgata from Sigma, 100KU).

Vortex 10-15 secs, followed by incubation for 2 hours in a shaker at 55°C to complete hydrolysis of the glucuronides.

Wash:

Dry:

15 mins under 10-15" of Hg

Elute:

Final Prep and Analysis:

Extraction Protocol

(No need for conditioning or equilibration of the cartridge)

Load: Pre-treated samples from hydrolysis (as below)

Inject: 10 µL on HPLC Mass Spectrometer (MS) @ 100°C (ambient)

Sample Hydrolysis: Combine 1 mL Human Urine sample (spiked with analytes at 50 ng/mL), 2 mL

ANALYTES:	Spiked Conc. (ng / mL)	Log P	pKa	% Rec	% RSC (n = 0)
1 JWH-073-Butanoic acid metabolite	50			60	
2 JWH-018-Pentanoic acid metabolite	50			68	
3 JWH-073-4-Hydroxybutyl metabolite	50			90	
4 JWH-073-3-Hydroxybutyl metabolite	50			90	
5 JWH-018-5-Hydroxypentyl metabolite	50			80	
6 JWH-018-4-Hydroxypentyl metabolite	50			83	
7 AM2201-4-Hydroxypentyl metabolite	50			80	
8 AM694	50			101	
9 AM2201-d5	100				
10 AM2201	50			104	
11 JWH-018-Pentanoic acid metabolite	50			89	
12 JWH018	50			71	

Note: This method is designed as a convenient starting point for further investigation and can be tailored to meet your extraction goals.
Call your local Phenomenex Representative for assistance in method development and optimization techniques.

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