HPLC Application

ID No.: **20925**

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

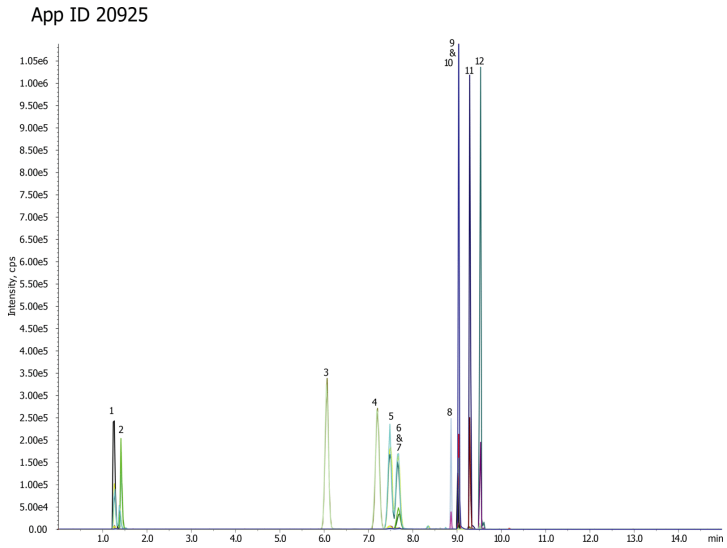
Gradient Profile:

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: <a target="_blank" href="https://sciex.com/products/mass-spectrometers?utm_campaign=2019%20application%20search&utm_source=phenomenex&utm_medium=referral">SCIEX<,

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



Products used in this application:

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

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
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) PRODCEDURE:

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 uL -D-Glucoronidase (Patella Vulgata from Sigma, 100KU).
Vortex 10-15 secs, followed by incubation for 2 hours in a shaker at 55o 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)

Inject: 10 µL on HPLC Mass Spectrometer (MS) @ amu (ambient)

	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	AM2201-4Hydroxypentyl 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.*