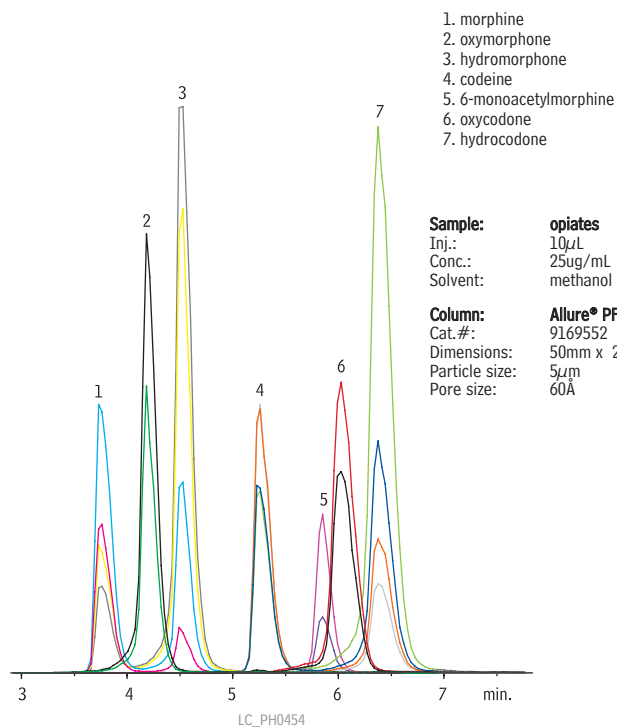


Opiates on Allure® PFP Propyl (LC/MS/MS)



- 1. morphine
- 2. oxymorphone
- 3. hydromorphone
- 4. codeine
- 5. 6-monoacetylmorphine
- 6. oxycodone
- 7. hydrocodone

Sample: opiates
Inj.: 10µL
Conc.: 25ug/mL
Solvent: methanol

Column: Allure® PFP Propyl
Cat.#: 9169552
Dimensions: 50mm x 2.1mm
Particle size: 5µm
Pore size: 60Å

Conditions:
Instrument: Shimadzu Prominence HPLC
Mobile phase: A: 0.1% formic acid in water
 B: 0.1% formic acid in 80:20, methanol:acetonitrile

Time	%B
0.0	10
3.00	50
6.00	50
6.10	10
8.10	Stop pumps

Flow: 0.40mL/min.
Temp.: 30°C

Det.: Applied Biosystems/MDS Sciex API 3200™ MS/MS system
Ion source: Electrospray, positive
IonSpray voltage: 5,500
Gas 1: 65psi (448kPa)
Gas 2: 45psi (310kPa)
Source temp.: 600°C

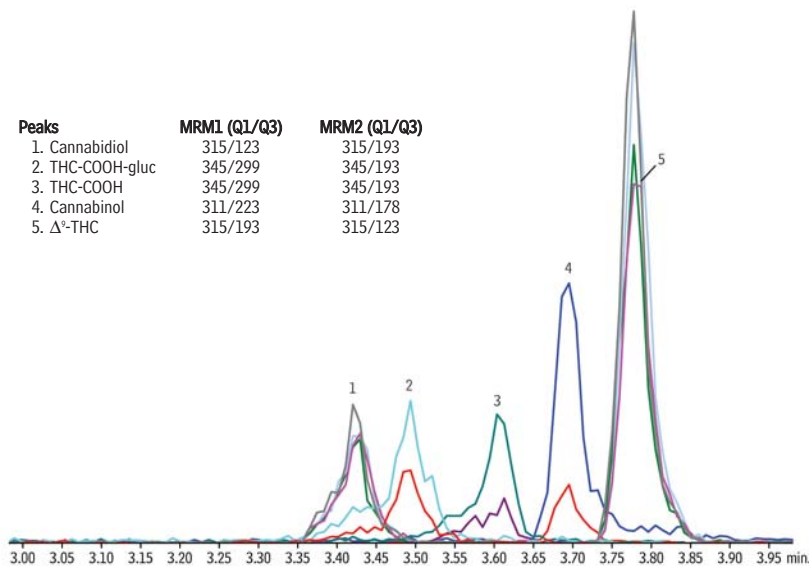
Mass Spectrometer Experiments:

Compound	Q1	Q3	Declustering Potential (V)	Collision Energy (V)
morphine	286	152	46	79
morphine	286	165	46	51
hydromorphone	286	185	46	41
hydromorphone	286	157	46	55
oxymorphone	302	227	36	37
oxymorphone	302	198	36	55
codeine	300	152	46	85
codeine	300	115	46	89
hydrocodone	300	199	46	39
hydrocodone	300	128	46	69
oxycodone	316	240	31	39
oxycodone	316	256	31	33
6-monoacetylmorphine	328	211	51	55
6-monoacetylmorphine	328	193	51	35

THC and Metabolites on Ultra II® Biphenyl (LC/MS/MS)



Peaks	MRM1 (Q1/Q3)	MRM2 (Q1/Q3)
1. Cannabidiol	315/123	315/193
2. THC-COOH-gluc	345/299	345/193
3. THC-COOH	345/299	345/193
4. Cannabinol	311/223	311/178
5. Δ ⁹ -THC	315/193	315/123



Column: Ultra II® Biphenyl (cat.# 9609853)
Dimensions: 50 mm x 3.0 mm ID
Particle Size: 2.2 µm
Pore Size: 100 Å
Temp.: 35 °C

Sample:
Diluent: Acetonitrile
Conc.: 50 ng/mL
Inj. Vol.: 20 µL
Mobile Phase:

A: 0.1% formic acid in water
 B: 0.1% formic acid in methanol

Time (min.)	%B
0	50
0.50	50
3.50	100
4.50	100
4.60	50
6.00	50

Flow: 0.7 mL/min.

Detector: Applied Biosystems/MDS Sciex LC/MS/MS
Model #: 3200 Q-Trap
Ion Source: TurboIonSpray®
Ion Mode: ESI+
Ion Spray Voltage: 5 kV
Curtain Gas: 25 psi (172.4 kPa)
Gas 1: 50 psi (344.7 kPa)
Gas 2: 60 psi (413.7 kPa)
Source Temp.: 550 °C
Mode: MRM
Dwell Time: 50 ms
Instrument: Applied Biosystems/MDS Sciex LC/MS/MS System