

Alcohol Metabolites on
Ultra II® Biphenyl (LC/MS)



Peak List	m/z	k'	Intensity
1. matrix	125	—	—
2. ethyl glucuronide	221	2.75	220,408
3. ethyl sulfate	125	4.02	236,693

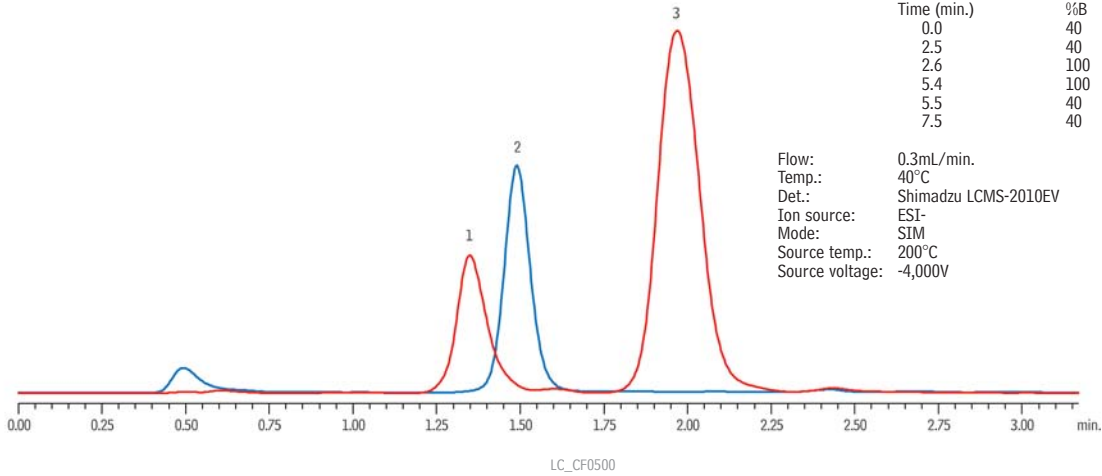
Sample:
Inj.: 5µL
Conc.: 5µg/mL each component
Sample diluent: urine diluted 1:10 with mobile phase

Column: Ultra II® Biphenyl
Cat.#: 9609552
Dimensions: 50mm x 2.1mm
Particle size: 5µm
Pore size: 100Å

Conditions:
Instrument: Shimadzu Prominence UFLCXR
Mobile phase:
A: 5mM dihexylammonium acetate in water
B: 5mM dihexylammonium acetate in methanol

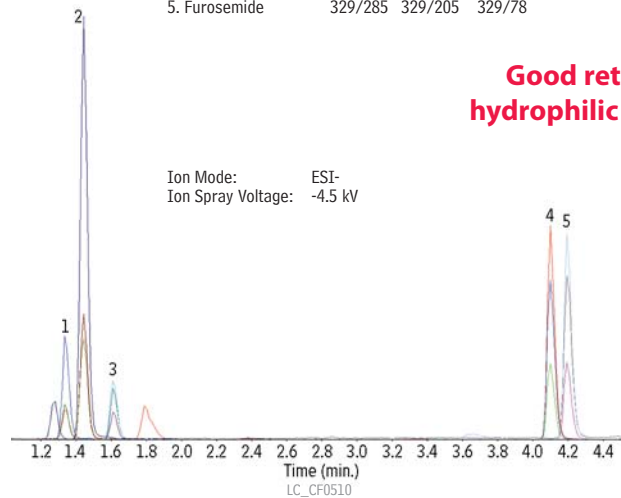
Time (min.)	%B
0.0	40
2.5	40
2.6	100
5.4	100
5.5	40
7.5	40

Flow: 0.3mL/min.
Temp.: 40°C
Det.: Shimadzu LCMS-2010EV
Ion source: ESI-
Mode: SIM
Source temp.: 200°C
Source voltage: -4,000V



Diuretics on Ultra II® Biphenyl
(LC/MS/MS, Negative Run)

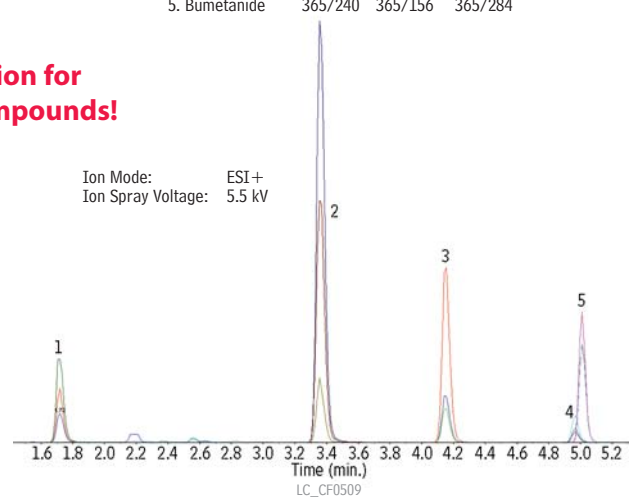
	MRM1 (Q1/Q3)	MRM2 (Q1/Q3)	MRM3 (Q1/Q3)
1. Acetazolamide	221/83	221/80	221/58
2. Chlorothiazide	294/214	294/179	294/215
3. Hydrochlorothiazide	296/78	296/269	296/205
4. Bendroflumethiazide	420/289	420/328	420/197
5. Furosemide	329/285	329/205	329/78



Ion Mode: ESI-
Ion Spray Voltage: -4.5 kV

Diuretics in Urine on Ultra II® Biphenyl
(LC/MS/MS, Positive Run)

	MRM1 (Q1/Q3)	MRM2 (Q1/Q3)	MRM3 (Q1/Q3)
1. Amiloride	230/171	230/116	230/60
2. Triamterene	254/237	254/104	254/141
3. Indapamine	366/132	366/91	366/117
4. Ethacrynic acid	303/179	303/194	303/257
5. Bumetanide	365/240	365/156	365/284



Ion Mode: ESI+
Ion Spray Voltage: 5.5 kV

Good retention for
hydrophilic compounds!

Column: Ultra II® Biphenyl (cat.# 9609352)
Dimensions: 50 mm x 2.1 mm ID
Particle Size: 3 µm
Pore Size: 100 Å
Temp.: 40°C

Sample
Conc.: 500 ng/mL diuretics in urine, diluted 10x in
mobile phase
Inj. Vol.: 5 µL

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

Time (min.)	Flow (mL/min.)	%A	%B
0	0.5	90	10
6.00	0.5	0	100
6.1	0.5	90	10
8.00	0.5	90	10

Detector: Applied Biosystems/MDS Sciex LC/MS/MS
Model #: API 5000
Ion Source: TurboIonSpray®
Curtain Gas: 25 psi (172.4 kPa)
Gas 1: 60 psi (413.7 kPa)
Gas 2: 40 psi (275.8 kPa)
Source Temp.: 550°C
Mode: MRM
Dwell Time: 50 ms

