

Sulfonamides in Milk on Pinnacle® DB Biphenyl (LC-TOFMS)



Sample: milk spiked at 200ppb with sulfonamides, extracted with Q-sep™ Q110 QuEChERS extraction tube (cat.# 26213), and cleaned up with Q-sep™ Q211 QuEChERS dSPE clean-up tube (cat.# 26216), then concentrated.

Inj.: 10µL
Conc.: 4µg/mL
Sample diluent: 0.2% formic acid

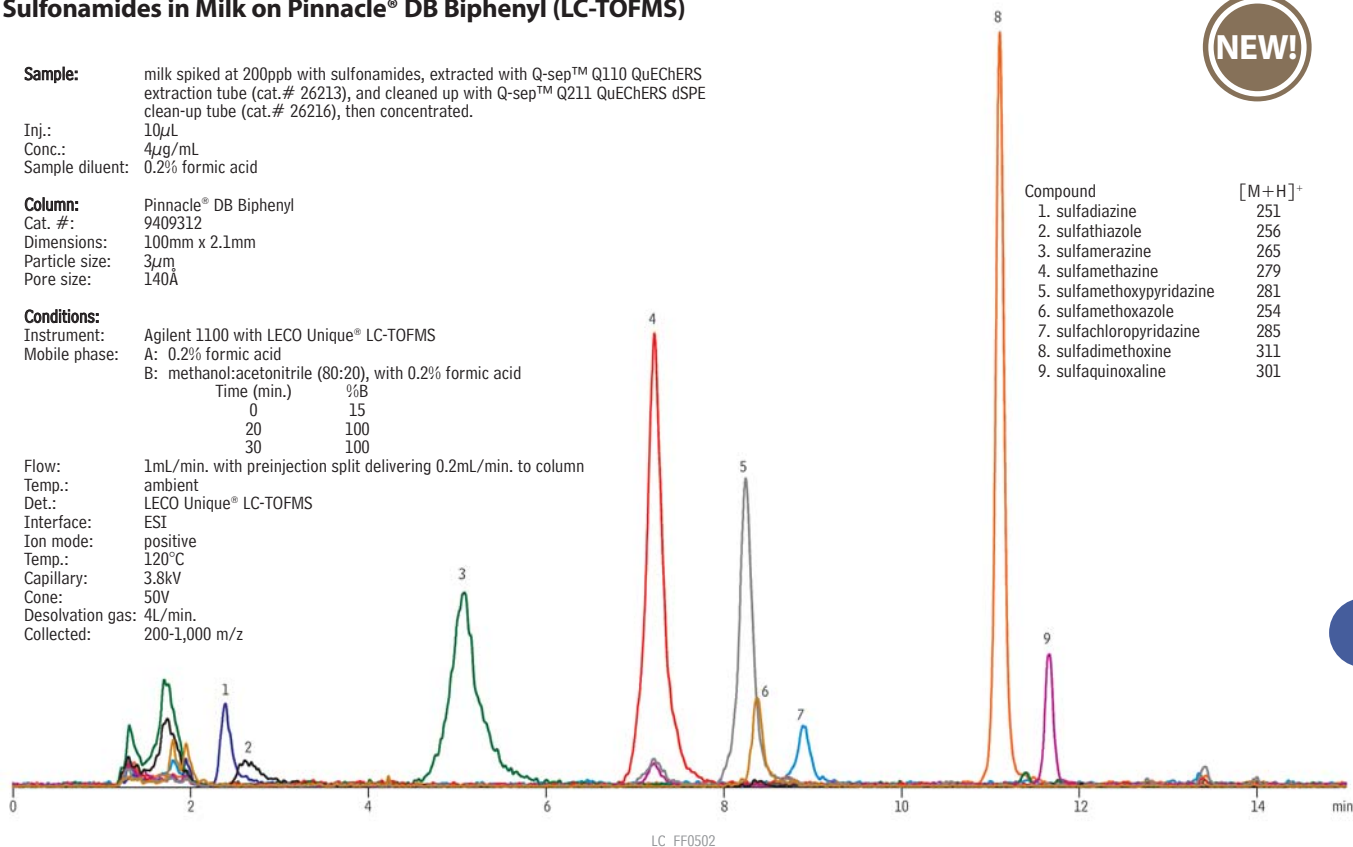
Column: Pinnacle® DB Biphenyl
Cat. #: 9409312
Dimensions: 100mm x 2.1mm
Particle size: 3µm
Pore size: 140Å

Conditions:
Instrument: Agilent 1100 with LECO Unique® LC-TOFMS
Mobile phase: A: 0.2% formic acid
B: methanol:acetonitrile (80:20), with 0.2% formic acid

Time (min.)	%B
0	15
20	100
30	100

Flow: 1mL/min. with preinjection split delivering 0.2mL/min. to column
Temp.: ambient
Det.: LECO Unique® LC-TOFMS
Interface: ESI
Ion mode: positive
Temp.: 120°C
Capillary: 3.8kV
Cone: 50V
Desolvation gas: 4L/min.
Collected: 200-1,000 m/z

Compound	[M+H] ⁺
1. sulfadiazine	251
2. sulfathiazole	256
3. sulfamerazine	265
4. sulfamethazine	279
5. sulfamethoxypridazine	281
6. sulfamethoxazole	254
7. sulfachloropyridazine	285
8. sulfadimethoxine	311
9. sulfaquinoxaline	301



Sulfa Drugs
Ultra II® Biphenyl



Sample:
Inj.: 3µL
Conc.: 25µg/mL each component
Sample diluent: methanol

Column: Ultra II® Biphenyl
Cat. #: 9609853
Dimensions: 50mm x 3.0mm
Particle size: 2.2µm
Pore size: 100Å

Conditions:
Instrument: Shimadzu Prominence UFLC_R
Mobile phase: 0.1% formic acid
in water:methanol (75:25)

Time (min.)	%B
0	25
3.5	65

Flow: 1.0mL/min.
Temp.: 30°C
Det.: UV @ 254nm

Peak List	Ret. Time (min.)
1. sulfadiazine	1.496
2. sulfathiazole	1.663
3. sulfamerazine	1.997
4. sulfamethoxazole	2.381
5. sulfamethazine	2.523
6. sulfachloropyridazine	2.651
7. sulfamethoxine	3.228

