ANTIDEPRESSANTS IN BLOOD, SERUM/PLASMA, AND URINE USING: 200 mg CLEAN SCREEN® EXTRACTION COLUMN

PART #: CSDAU020

LC/MS/MS

1. **PREPARE SAMPLE:**
   To 1 mL of 100 mM prosphate buffer (pH= 6) add internal standard.
   Add 1 mL of blood or urine. Add 2 mL of 100 phosphate buffer (pH= 6). Mix/vortex.

   Sample pH should be 6.0 ± 0.5.

   Adjust pH accordingly with 100 mM monobasic or dibasic sodium phosphate.

   Mix/vortex.

   Centrifuge as appropriate.

2. **CONDITION CLEAN SCREEN® EXTRACTION COLUMN**
   1 x 3 mL CH_3OH
   1 x 3 mL DI H_2O
   1 x 1 mL 100 mM phosphate buffer (pH= 6)
   Note: aspirate at < 3 inches Hg to prevent sorbent drying out.

3. **APPLY SAMPLE:**
   Load sample at 1-2 mL / minute.

4. **WASH COLUMN:**
   1 x 3 mL DI H_2O
   1 x 3 mL 100 mM acetic acid.
   1 x 3 mL CH_3OH.
   Dry column (5 minutes at > 10 inches Hg).

5. **ELUTE ANTIDEPRESSANTS**
   1 x 3 mL ethyl acetate; acetonitrile: ammonium hydroxide (78: 20: 2 v/v).

   OR

   1 x 3 mL dichloromethane: isopropanol/ ammonium hydroxide (78:20:2 v/v)

   Collect eluate at 1-2 mL /minute.

6. **EVAPORATION:**
   Evaporate eluate under a gentle stream of nitrogen < 40ºC.

7. **RECONSTITUTE** sample in 100 µL of methanol**.**
   Inject 5 µL.

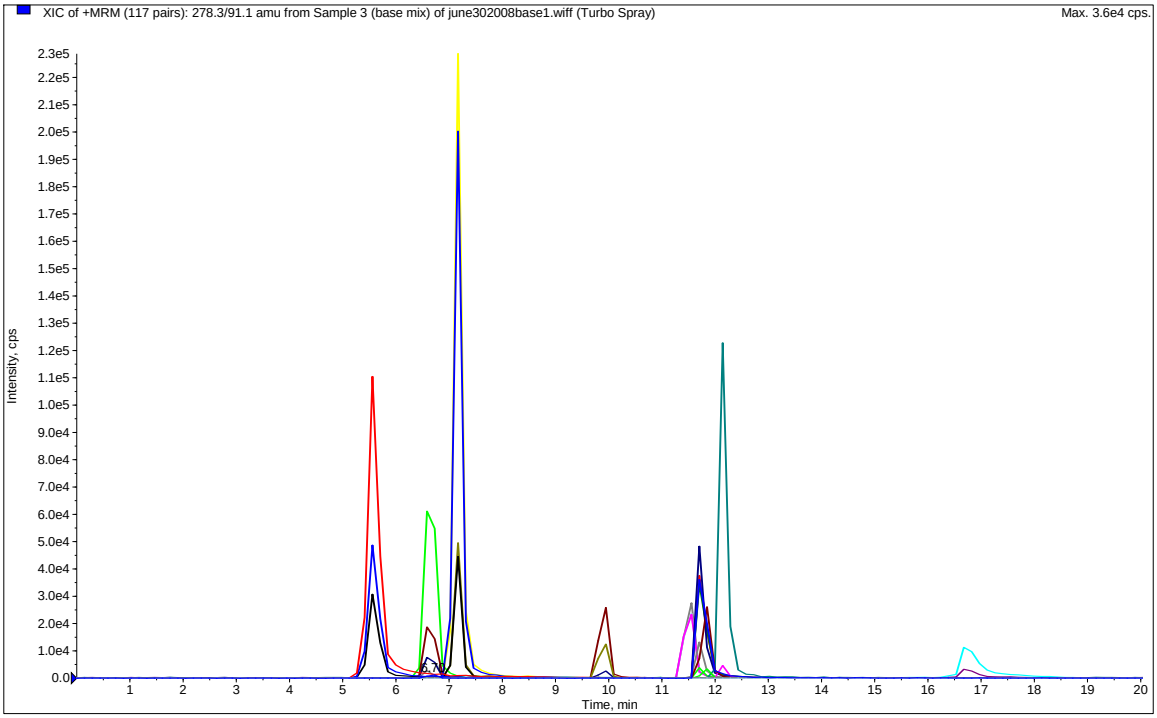
INSTRUMENT CONDITIONS:

Column: 50 x 2.1 mm (3µm) SELECTRA® Phenyl UCT, LLC.,
Mobile phase:

Time/ min	% Acetonitrile	% 0.1 % Formic Acid
0	10	90
15	50	50
16	10	90
20	10	90

Flowrate: 0.35 mL/minute
Column Temperature: ambient.
Detector: API 2000 MS/MS.

Chromatogram of drugs extracted from whole blood (1 mL)



COMPOUND	MRM TRANSITIONS	CERILLIANT#
Amitriptyline	278.2/233.1	A-923
Buproprion	240.1/184.1	B-034
Citalopram	325.2/109.0	C-057
Fluoxetine	310.1/44.0	F-918
Norfluoxetine	296.2/134.2	N-923
Nortriptyline	264.2/233.1	N-907
Venlafaxine	278.2/58.0	V-004
Zolpidem	308.2/235.0	Z-901

Recovery: > 90%

LOD : 10 ng/ mL (n=10)

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