Antidepressants & Painkillers In Blood and Urine Using: 200 mg Clean Screen® Extraction Column

UCT Part Numbers

ZSDAU020
Clean Screen® DAU
10 mL, 200 mg sorbent
Without Tips

Procedure:

1. Prepare Sample

a) To 1 mL of 100 mM prosphate buffer (pH= 6) add internal standard.*
b) Add 1 mL of blood or urine. Add 2 mL of 100 phosphate buffer (pH= 6). Mix/vortex.
c) Sample pH should be 6.0 ± 0.5.
d) Adjust pH accordingly with 100 mM monobasic or dibasic sodium phosphate.
e) Mix/vortex.
f) Centrifuge as appropriate.

2. Condition Clean Screen® Extraction Column

a) 1 x 3 mL MeOH.
b) 1 x 3 mL H_2O.
c) 1 x 1 mL 100 mM phosphate buffer (pH= 6.0).

Note: Aspirate at < 3 inches Hg to prevent sorbent drying.

3. Apply Sample

a) Load at 1-2 mL/minute.

4. Wash Column

a) 1 x 3 mL D.I. H_2O.
b) 1 x 3 mL 1% acetic acid.
c) 1 x 3 mL Methanol.
d) Dry column (5 minutes at >10 inches Hg).

5. Elute Antidepressants/Painkillers

a) 1 x 3 mL ethyl acetate; acetonitrile: ammonia (78: 20: 2 v/v)
b) Collect eluate at 1-2 mL /minute.

6. Evaporation

a) Evaporate eluate under a gentle stream of nitrogen < 40 °C.

7. Reconstitute

a) Reconstitute sample in 100 µL of Methanol.
b) Inject 5 µL.

Instrument Conditions	
Column	150 x 2.1 mm (3.5 µm) Zorbax: Agilent Technologies
Mobile Phase	Acetonitrile: 0.1% Formic acid (33:67)
Column Temperature	ambient
Flow Rate	0.35 mL/minite
Detector	API 2000 MS/MS

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Compound	MRM Transition	Cerilliant #
Amitriptyline	278.8/91.1	A-923
*Amitriptyline-D3	281.2/91.2	B-130284 N-10
Diphenhydramine	256.2/167.1	D-015
*Diphenhydramine-D3	259.2/167.1	D-017
Doxepin	280.2/107.1	D-005
EDDP	278.2/234.2	E-022
*EDDP-D3	281.4/234.3	E-021
Methadone	310.2/105.1	M-007
*Methadone-D9	319.2/268.3	M-088
Nortriptyline	264.2/91.1	N-907
Norpropoxyphene	326.2/44.1	N-913
*Norpropoxyphene-D5	331.1/267.1	N-904
Propoxyphene	340.2/58.1	P-011
*Propoxyphene-D11	351.3/64.0	P-013
Sertraline	308.1/161.0	S-006
Tramadol	264.2/58.1	T-027
*Tramadol-D3	268.2/58.0	T-029
Venlafaxine	278.2/58.2	V-004
Zolpidem	308.2/235	Z-901

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