Benzodiazepines In Serum Or Plasma For HPLC Analysis Using: 200 mg Clean Screen® DAU Extraction Column



UCT Part Numbers

ZSDAU020

Clean Screen® DAU 200 mg, 10 mL Without Tips ZCDAU020

Clean Screen® DAU 200 mg, 10 mL With CLEAN-THRU® Tips

Procedure:

1. Prepare Sample

- a) To 1.0 mL of 100 mM phosphate buffer (pH 6.0) add internal standard(s).
- b) Add 1 mL of serum or plasma
- c) Mix/vortex.
- d) Sample pH should be 6.0 ± 0.5 .
- e) Adjust pH accordingly with 100 mM monobasic or dibasic sodium phosphate.
- f) Centrifuge as appropriate.

2. Condition Clean Screen® Extraction Column

- a) 1 x 3 mL CH₃OH.
- b) 1 x 3 mL D.I. H₂O.
- c) $1 \times 1 \text{ mL } 100 \text{ mM } \text{ phosphate buffer (pH= 6.0)}.$

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

3. Apply Sample

a) Load at 1 mL/minute.

4. Wash Sample

- a) 1 x 2 mL D.I. H₂O.
- b) 1 x 2 mL 20% acetonitrile in 100 mM phosphate buffer (pH= 6.0).
- c) Dry column (10 minutes at > 10 inches Hg).
- d) 1 x 2 mL hexane.

5. Elute Benzodiazepines

- a) 1 x 5 mL ethyl acetate containing 2% ammonium hydroxide
- b) Collect eluate at 1 to 2 mL/minute.

6. Dry Eluate

a) Evaporate to dryness at < 40°C.

7. Reconstitute

a) Reconstitute in mobile phase.

8. Quantitate

a) Inject sample onto HPLC.





References:

[1] UCT Internal Publication

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