Beta Agonists In Urine For GC/MS Confirmations Using: 200 mg Clean Screen® Extraction Column

UCT Part Numbers

ZSDAU020

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

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

Procedure:

1. Prepare Sample

- a) To 1 mL of 100 mM Acetate Buffer (pH 4.5) add 1 mL of Urine. Add 2 mL of of 100 mM Acetate Buffer (pH 4.5).
- b) Mix/vortex.
- c) 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 x 3 mL 100 mM Acetate Buffer (pH 4.7).

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

3. Apply Sample

a) Load at 1 to 2 mL/minute.

4. Wash Column

a) Load at 1 to 2 mL / minute.

5. Elute Beta Agonists

- a) 1 x 1 mL Dichloromethane/ Isopropanol and Ammonium Hydroxide (78:20:2).
- b) Collect the eluate at 1-2 mL/ minute (or gravity). **Note:** Prepare elution solvent fresh daily. Add IPA/NH $_4$ OH, mix, then add CH $_2$ Cl $_2$ (pH 11-12).

6. Dry Eluate

a) Evaporate to dryness at < 40 °C.

7. Derivatize

- a) Derivatization Solution: Methaneboronic acid at 5 mg/mL prepared in dry ethyl acetate (use molecular sieve).
- b) Store this solution at –20°C (freezer conditions) until use.

8. Reaction Mixture

- a) Add 100 μ L of the Methaneboronic acid solution (see above).
- b) Mix/vortex.
- React 15 minutes at 70°C. Remove from heat source to cool.

Note: Do not evaporate this solution.

9. Analysis

a) Inject 1 to 2 µL sample (derivatized solution).





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