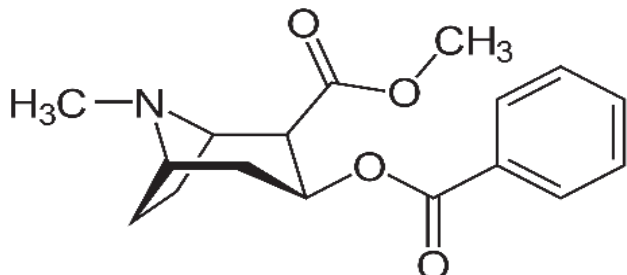


# Cocaine and its Metabolites From Meconium For GC Or GC/MS Analysis Using: 200 mg Clean Screen® Extraction Column



## UCT Part Numbers

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

Or

**ZCDAU020**  
Clean Screen® DAU  
10 mL, 200 mg sorbent  
With CLEAN-THRU® Tips

## Procedure:

### 1. Prepare Sample

- Vortex 0.5 -1 g meconium with 2 mL of CH<sub>3</sub>OH.
- Centrifuge and transfer the supernatant to a clean tube.
- To each tube add 3 mL 100 mM phosphate buffer (pH 6.0), internal standard and vortex.
- Matrix must be more aqueous than organic for good extraction to occur.

### 2. Condition Clean Screen® Extraction Column

- 1 x 3 mL CH<sub>3</sub>OH.
  - 1 x 3 mL D.I. H<sub>2</sub>O.
  - 1 x 3 mL 100 mM phosphate buffer (pH= 6.0).
- Note:** Aspirate at < 3 inches Hg to prevent sorbent drying.

### 3. Apply Sample

- Load at 1 to 2 mL/minute. Allow to dry.

### 4. Wash Column

- 1 x 3 mL D.I. H<sub>2</sub>O.
- 1 x 1 mL 100 mM HCl.
- 1 x 3 mL CH<sub>3</sub>OH.
- Dry column (5 minutes at > 10 inches Hg).

### 5. Elute Cocaine, Benzoyllecgonine, Cocathylene

- 1 x 3 mL CH<sub>2</sub>Cl<sub>2</sub>/IPA/NH<sub>4</sub>OH (78:20:2); Collect eluate at 1 to 2 mL/minute.
- Note:** Prepare elution solvent daily. Add IPA/NH<sub>4</sub>OH, mix, then add CH<sub>2</sub>Cl<sub>2</sub> (pH 11-12).

### 6. Evaporation

- Evaporate the elution solvent to dryness without heating.

### 7. Derivatize

- Add 50 µL ethyl acetate and 50 µL BSTFA (with 1% TMCS)\*\*\*.
- Overlay with N<sub>2</sub> and cap. Mix/vortex.
- React 20 minutes at 70 °C. Remove from heat source to cool.

**Note:** Do not evaporate BSTFA solution.

### 8. Quantitate

- Inject 1 to 2 µL onto gas chromatograph.
- For MSD monitor the following ions:



Compound	Primary Ion****	Secondary	Tertiary	Cerilliant #
Cocaine-D3*	185	201	306	C-004
Cocaine	182	198	303	C-008
Benzoyllecgonine-D3-TMS*	243	259	364	B-008
Benzoyllecgonine-TMS	240	256	361	B-007

\* Suggested internal standards for GC/MS

\*\*\* Part # SBSTFA-1-1, 10, 25, 100

\*\*\*\* Quantitation ion

UCT, LLC • 2731 Bartram Road • Bristol, PA 19007 800.385.3153 • 215.781.9255

[www.unitedchem.com](http://www.unitedchem.com) Email: [methods@unitedchem.com](mailto:methods@unitedchem.com)

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