



**COCAINE AND BENZOYLECGONINE
IN BLOOD, PLASMA/ SERUM , URINE AND TISSUE FOR GC OR
GC/MS CONFIRMATIONS USING: 200 mg
CLEAN SCREEN® EXTRACTION COLUMN**
Part #: ZSDAU020 without Tips or ZCDAU020 with CLEAN-THRU® Tips

1. PREPARE SAMPLE

To 1 mL of 100 mM phosphate buffer (pH =6.0) add internal standards*. Add 2 mL of blood, plasma/ serum, urine or 1 g (1:4) tissue homogenate . Mix/vortex. Add 2 mL of 100 mM 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.

Centrifuge as appropriate.

2. CONDITION CLEAN SCREEN® EXTRACTION COLUMN

1 x 3 mL CH₃OH.

1 x 3 mL D.I. H₂O.

1 x 1 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.

4. WASH COLUMN

1 x 3 mL D.I. H₂O.

1 x 2 mL 100 mM HCl.

1 x 3 mL CH₃OH.

Dry column (5 minutes at > 10 inches Hg).

5. ELUTE COCAINE AND BENZOYLECGONINE

1 x 3 mL Methylene Chloride/Isopropanol/

Ammonium Hydroxide (78:20:2).

Collect eluate at 1 to 2 mL/minute.

NOTE: Prepare elution solvent daily. Add IPA/NH₄OH, mix, then add CH₂Cl₂ (pH 11-12).

6. DRY ELUATE

Evaporate to dryness at < 40°C.

7. DERIVATIZE

Add 50 µL ethyl acetate and 50 µL BSTFA (with 1% TMCS)***.

Overlay with N₂ 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:

D₃-Cocaine, D₃-Benzoyllecgonine

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

**** Quantitation Ion