Lysergic Acid Diethylamide (LSD) In Urine For GC or GC/MS Confirmations 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

a) To 2 mL 100 mM phosphate buffer (pH= 6.0) add internal standard. Add 5 mL of urine.
b) Mix/vortex.
c) Sample pH should be 6.0 ± 0.5.
d) Adjust pH accordingly with 100 mM monobasic or dibasic sodium phosphate.
e) Centrifuge as appropriate.

2. Condition Clean Screen® Extraction Column

a) 1 x 3 mL CH_3OH.
b) 1 x 3 mL D.I. 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 mL/minute.

4. Wash Column

a) 1 x 3 mL D.I. H_2O.
b) 1 x 1 mL 100 mM acetic acid.
c) 1 x 3 mL CH_3OH.
d) Dry column (5 minutes at > 10 inches Hg).

5. Elute LSD

a) 1 x 3 mL CH_2Cl_2/IPA/NH_4OH (78:20:2);
b) Collect eluate at 1 to 2 mL/minute.

Note: Prepare elution solvent daily. Add IPA/NH_4OH, mix, then add CH_2Cl_2 (pH 11-12).

6. Dry Eluate

a) Evaporate to dryness at < 40°C.

7. Derivatize

a) Add 20 µL ethyl acetate and 20 µL BSTFA (with 1% TMCS)***.
b) Overlay with N_2 and cap. Mix/vortex.
c) React 20 minutes at 70°C.
Remove from heat source to cool.

Note: Do not evaporate BSTFA solution.

8. Quantitate

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

Analyte	Primary Ion***	Secondary	Tertiary	Cerilliant #
LSD-D_3-TMS*	298	296	271	L-006
LSD-TMS	395	293	268	L-005

* Suggested internal standard for GC/MS: D_3-LSD
*** Part # SBSTFA-1-1,10,25,100
**** Quantitation ion

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UCT, LLC • 2731 Bartram Road • Bristol, PA 19007 800.385.3153 • 215.781.9255
www.unitedchem.com Email: methods@unitedchem.com

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