



QUETIAPINE IN BLOOD, PLASMA/SERUM, URINE AND TISSUE

USING: 200 mg CLEAN SCREEN[®] EXTRACTION COLUMN

PART #:

ZSDAU020 – CLEAN SCREEN[®] DAU 200 mg, 10mL Tube

1. PREPARE SAMPLE:

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

Add 2 mL of 100 mM phosphate buffer (pH 6.0).

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 3 mL 100 mM phosphate buffer (pH 6.0).

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

3. APPLY SAMPLE:

Load sample at 1-2 mL / minute.

4. WASH COLUMN:

1 x 3 mL 100 mM phosphate buffer (pH 6).

1 x 3 mL 1.0 M acetic acid.

1 x 3 mL CH₃OH.

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

1 x 3 mL of Hexane.

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

5. ELUTE QUETIAPINE:

1 x 3 mL Ethyl Acetate/ Acetonitrile/ NH₄OH (78:20: 2 v/v).

Collect eluate at 1-2 mL /minute.

NOTE: Prepare elution solvent daily

6. EVAPORATION:

Evaporate eluates under a gentle stream of nitrogen < 40 °C.

7. Reconstitue sample in 100 µL 0.1% trifluoroacetic acid (aq).

Inject 50 µL.

INSTRUMENT CONDITIONS:

Column: C₁₈ 150 x 4.6 mm (3 μm) Zorbax (Agilent Technologies).

Mobile phase: Acetonitrile: 0.1% Trifluoroacetic acid (25: 75).

Flowrate: 1 mL / min.

Column Temperature: 35 °C.

Detector: Diode Array (250 nm).

Chromatogram:

Quetiapine

Quinidine (internal standard)

