



FENTANYL / NORFENTANYL IN WHOLE BLOOD, SERUM / PLASMA AND URINE USING: 200 mg CLEAN SCREEN[®]

EXTRACTION COLUMN

PART #: ZSDAU020

LC-MSMS

1. PREPARE SAMPLE

To 1 mL of 100 mM phosphate buffer (pH= 6) add internal standard.*

Add 1 mL whole blood, plasma/ serum or urine. Add 2 mL of 100 mM phosphate buffer (pH =6).

Mix/vortex.

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)

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 D.I. H₂O

1 x 3 mL 100 mM acetic acid

1 x 3 mL CH₃OH

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

5. ELUTE FENTANYL / NORFENTANYL:

1 x 3 mL ethyl acetate; acetonitrile: ammonia (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. RECONSTITUTE SAMPLE IN 100 µL OF METHANOL.

Inject 5 µL.

INSTRUMENT CONDITIONS:

Column: 150 x 2.1 mm (3 µm) PFP Gold Thermofisher

Mobile phase: Acetonitrile: 0.1 % Formic acid (50: 50)

Flowrate: 035 mL/ minute

Column Temperature: ambient

Detector: API 2000 MS/MS

<u>Compound</u>	<u>MRM Transition</u>	<u>Cerilliant #</u>
Fentanyl	333.2/188.3	F-002
*Fentanyl-D5	342.3/188.2	F-001
Norfentanyl	233.2/84.1	N-031
*Norfentanyl-D5	238.3/84.1	N-030

