

Fentanyl-Norfentanyl In Whole Blood, Serum/Plasma, and Urine Using: 200 mg Clean Screen® Extraction Column



UCT Part Numbers

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

Procedure:

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.

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.

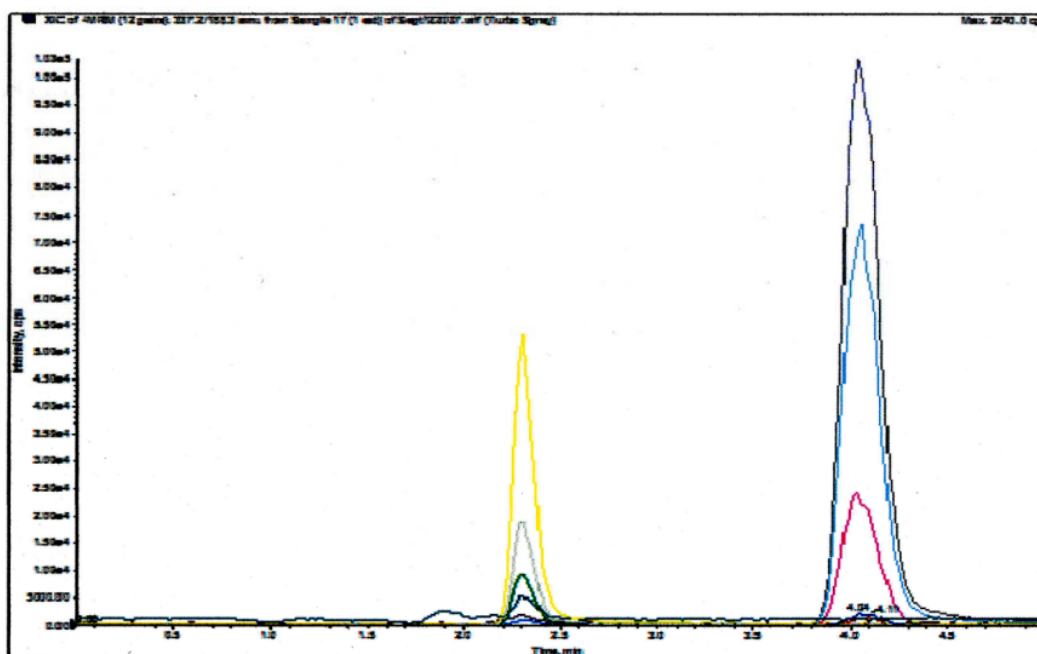
- Inject 5 µL.



Instrument Conditions

Column	150 x 2.1 mm (3 µm) PFP Gold Thermofisher
Mobile Phase	Acetonitrile: 0.1 % Formic acid (50: 50)
Flowrate	0.35 mL/minute
Column Temperature	ambient
Detector	API 2000 MS/MS

Compound	MRM Transition	Cerilliant #
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



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