Fentanyl-Norfentanyl On Oral Swabs 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

Preparation of Standards:

a) To separate tube add 0, 1, 5, 10 ng of Fentanyl / Norfentanyl in methanol.
b) Evaporate off the solvent. Add 100 µL of drug free oral fluid. Vortex mix and allow to stand for 30 minutes.
c) Take clean, dry (drug free) swab and swab up the oral fluid and allow standing for 15 minutes. Remove oral swab.

Sample Pretreatment:

a) To 200 µL of methanol (pH 6) add internal standard.*
b) Insert oral swab into methanol and mix for 1 minute, add a further 100 µL of methanol, allow to stand for 10 minutes.
c) Remove swab and 3 mL of 100 mM phosphate buffer (pH 6). Vortex and centrifuge as appropriate.

2. Condition Column

a) 1 x 3 mL MeOH.
b) 1 x 3 mL H_2O.
c) 1 x 1 mL 100 mM phosphate buffer (pH= 6).

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

3. Apply Sample

a) Load at 1-2 mL/minute.

4. Wash Column

a) 1 x 3 mL D.I. H_2O.
b) 1 x 3 mL 1% actate acid.
c) 1 x 3 mL Methanol.
d) Dry column (5 minutes at > 10 inches Hg).

5. Elute Fentanyl/Norfentanyl

a) 1 x 3 mL ethyl acetate; acetonitrile: ammonia (78: 20: 2 v/v)
b) Collect eluate at 1-2 mL /minute.

6. Evaporation

a) Evaporate to dryness at < 40 °C.

7. Reconstitute sample in 20 µL of methanol.

a) Inject 5 µL.

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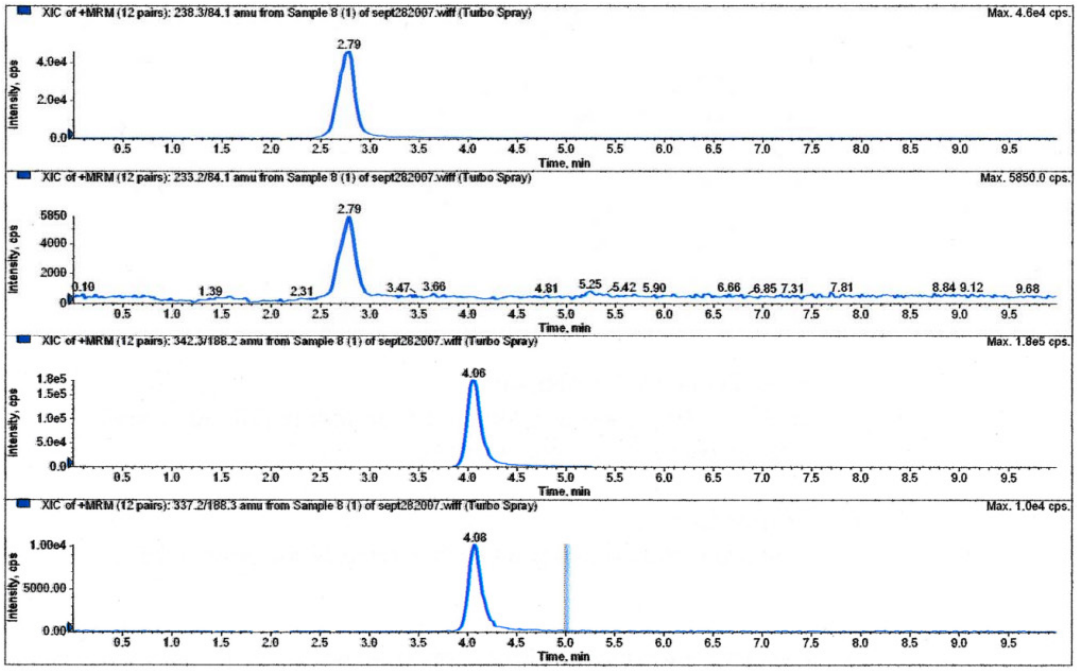
Instrument Conditions	
Column	150 x 2.1 mm (3 µm) PFP Thermofisher
Mobile Phase	Acetonitrile: 0.1% Formic acid (60:40)
Flowrate	0.35 mL/minite
Column Temperature	ambient
Detector	API 2000 MS/MS

Compound	MRM Transition	Cerilliant #
Fentanyl	333.2/188.3	F-002
*Fentanyl-D5	342.2/188.2	F-001
Norfentanyl	233.2/84.1	N-031
*Norfentanyl-D5	238.3/84.1	N-030



Recovery: > 90% (N=100)
LOD: 1 ng/m

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