



Meperidine and Normeperidine in Blood, Plasma/Serum, and Urine Using: 200 mg CLEAN SCREEN[®] DAU

Part #: CSDAU020

LC/MS/MS:

1. PREPARE SAMPLE:

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

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

Vortex and centrifuge as appropriate.

2. CONDITION 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 DI H₂O

1 x 3 mL 100 mM acetic acid

1 x 3 mL CH₃OH

Dry column (5 minutes at > 10 inches Hg)

5. ELUTE MEPERIDINE/ NORMEPPERDINE:

1 x 3 mL ethyl acetate; acetonitrile: ammonia (78: 20: 2 v/v)

Or

1 x 3 mL CH₂Cl₂/ IPA/ ammonia (78:20:2 v/v)

Collect eluate at 1-2 mL /minute

6. EVAPORATION:

Evaporate eluates to dryness under a gentle stream of nitrogen

7. RECONSTITUTE sample in 50 µL of CH₃OH.

Inject 5 µL.

INSTRUMENT CONDITIONS:**Column:** Silica Hydride (150 x2.0 4µm) MicroSolv Corp.**Mobile phase:**

<u>Time</u>	<u>% Acetonitrile</u>	<u>%0.1% Formic acid</u>
0	90	10
5	30	70
6	90	10
10	90	10

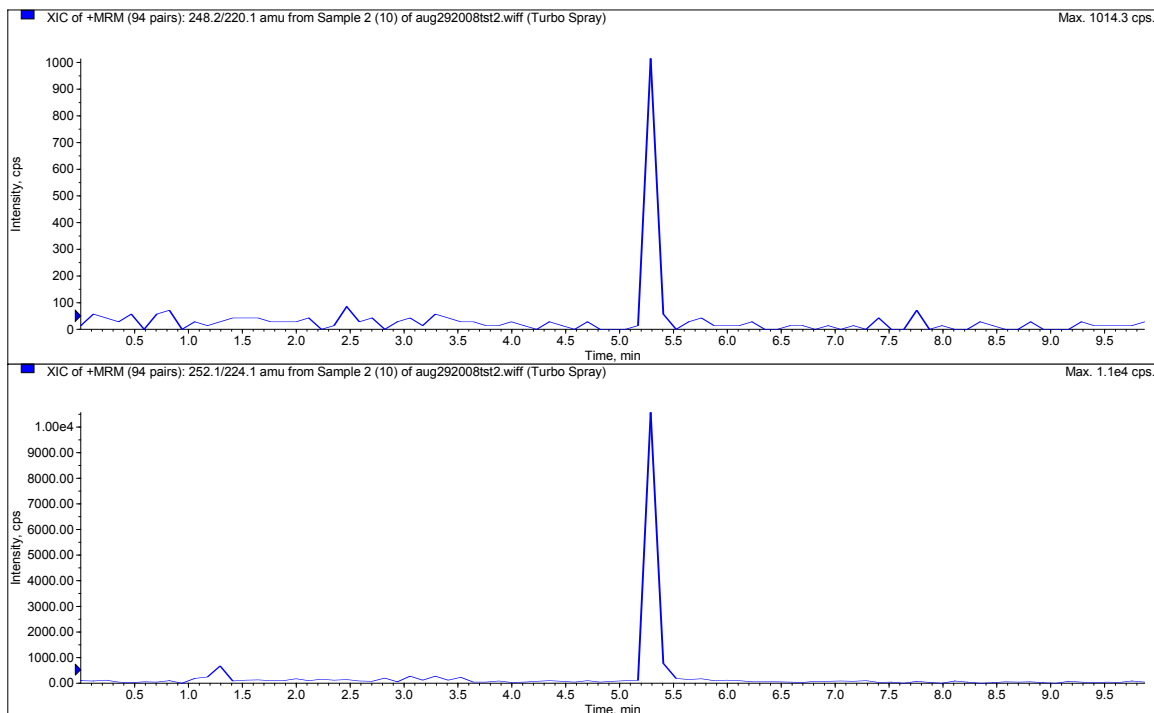
Flowrate: 0.35 mL/ minute**Column Temperature:** ambient**Detector:** API 2000 MS/MS

<u>Compound</u>	<u>MRM Transition</u>	<u>Cerilliant #</u>
Meperidine	248.2/ 220.0	M-035
*Meperidine-D4	252.2/224.1	M-036
Normeperidine	234.1/160.0	N-017
*Normeperidine-D4	238.1/164.0	N-021

CHROMATOGRAM SHOWING:

Meperidine

Meperidine-D4



Recovery: > 90% (n=10)

LOD: 10 ng/ mL

DCN-905060-161