



AMPHETAMINE IN ORAL FLUID USING AN ORAL FLUID SAMPLING DEVICE

PART #: CSDAU206

LC-MSMS

APRIL 12, 2011

1. PREPARE SAMPLE

EMPLOY ORAL FLUID SAMPLING DEVICE ACCORDING TO MAKERS INSTRUCTIONS

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

Add 1 mL of ORAL FLUID EXTRACT. Add 2 mL of 100 phosphate buffer (pH= 6). Mix/vortex.

Sample pH should be 6.0 ± 0.5 .

Adjust pH accordingly with 100 mM monobasic or dibasic sodium phosphate.

Mix/vortex.

Centrifuge as appropriate.

2. CONDITION CLEAN SCREEN[®] EXTRACTION COLUMN

1 x 3 mL CH₃OH.

1 x 3 mL 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 AMPHETAMINE:

1 x 3 mL CH₂Cl₂/IPA/NH₄OH (78:20:2)

Collect eluate at 1-2 mL /minute.

ADD 100 μ L OF MOBILE PHASE AND MIX

6. EVAPORATION:

Evaporate eluate under a gentle stream of nitrogen < 40°C. Inject 10 μ L

INSTRUMENT CONDITIONS:

Column: 50 x 2.0 mm (5 µm) C18

Mobile phase:

<u>Time/ min</u>	<u>% Acetonitrile</u>	<u>% 0.1 % Formic Acid</u>
0.5		95
4.0	90	10
4.15		95
5.0	5	95

Flowrate: 0.5 mL/minute.

Column Temperature: 40°C.

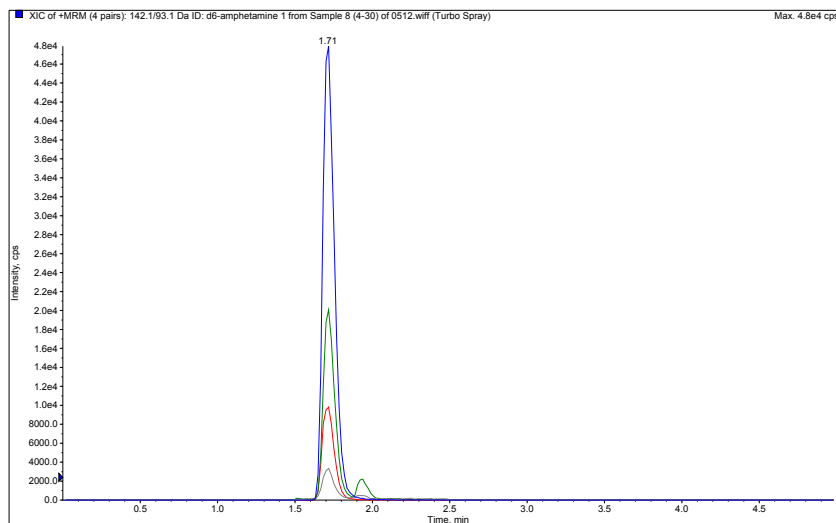
Detector: API 3200 QTRAP MS/MS.

Compound MRM Transition

Amphetamine 136..1/91.0

*Amphetamine-d6 142.0/94.1

CHROMATOGRAM of AMPHETAMINE EXTRACTED FROM ORAL FLUID SAMPLING DEVICE



Recovery: > 95% (N=20)

LOD: 1 ng/mL

Presented at AAFS2011

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