



## EXTRACTION OF THC-COOH IN HAIR

PART #: CSTHC206

LC-MSMS

April 13, 2011

### 1. PREPARE SAMPLE:

Into a clean glass tube add approx 100 mg of decontaminated hair

Add 1 mL of DI H<sub>2</sub>O, add internal standard\* and 100 µL of 10 M NaOH

Digest at 70°C for 12 hours

Cool and adjust to pH 3

### 2. CONDITION CLEAN SCREEN<sup>®</sup> EXTRACTION COLUMN:

1 x 3 mL CH<sub>3</sub>OH

1 x 3 mL H<sub>2</sub>O

1 x 1 mL 100 mm HCl

**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 H<sub>2</sub>O

1 x 3 mL CH<sub>3</sub>CN /HCl (30:70)

Dry column (5 minutes at > 10 inches Hg)

### 5. ELUTE THC-COOH:

1 x 3 mL Hexanes/Ethyl acetate/Acetic Acid (49:49: 2)

Collect eluate at 1-2 mL /minute

### 6. EVAPORATION:

Evaporate eluate under a gentle stream of nitrogen < 40°C

7. Dissolve the residue in 100 µL of mobile phase. Inject 10 µL

## INSTRUMENT CONDITIONS:

Column: 50 x 2.1 (3µL) SELECTRA® Phenyl

Mobile phase:

<u>Time/ min</u>	<u>% Acetonitrile</u>	<u>% 0.1 % Formic Acid</u>
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0	60	40
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10	60	40
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Flowrate: 0.3 mL/ minute

Column Temperature: 40°C

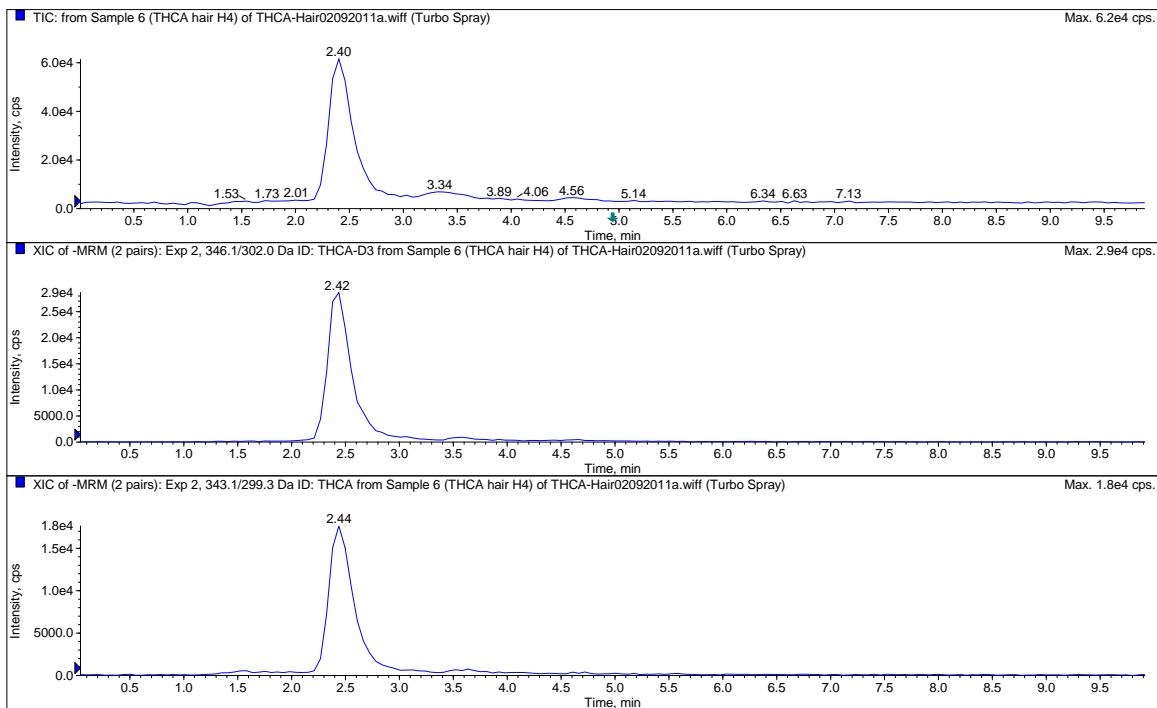
Detector: API 4000 QTRAP MS/MS

<u>Compound</u>	<u>(-) MRM Transition</u>
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THC-COOH	343.1/299.3
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*THC-COOH-d3	346.1/302.1
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### Chromatogram of THC-COOH extracted from decontaminated hair



Recovery: > 95% (N=20)

DCN-113140-216