CARBOXY-THC IN HAIR BY LC-MS/MS OR GC-MS USING CLEAN SCREEN® THC EXTRACTION COLUMN

Part #

CSTHC206 – CLEAN SCREEN® THC 200 mg, 6 mL Tube

SMSTFA-1-1 – SELECTRA-SIL® MSTFA w/ 1% TMCS

SLDA50ID21-5UM – Selectra® DA HPLC Column, 50 x 2.1 mm, 5 µm

1. **PREPARE SAMPLE:**
   Into a clean glass tube add approx 100 mg of decontaminated hair
   Add 1 mL of D.I. H_2O, add internal standard* and 100 µL of 10 M NaOH
   Digest at 70^0C for 12 hours
   Cool and adjust to pH 3

2. **CONDITION CLEAN SCREEN® EXTRACTION COLUMN:**
   1 x 3 mL CH_3OH.
   1 x 3 mL D.I. H_2O.
   1 x 1 mL 100 mm HCl
   NOTE: Aspirate at full vacuum or pressure

3. **APPLY SAMPLE:**
   Load at 1 to 2 mL/minute.

4. **WASH COLUMN:**
   1 x 3 mL D.I. H_2O
   1 x 3 mL CH_3CN /HCl (30:70)
   Dry column (10 minutes at full vacuum or pressure)

5. **ELUTE THC-COOH:**
   1 x 3 mL Hexanes/ Ethyl Acetate/ Acetic Acid (49:49:2)
   Collect eluate at 1 to 2 mL/minute

   NOTE: Before proceeding, insure there are no water droplets at the bottom of the collection tube. This may increase drying time and decrease BSTFA derivatizing efficiency

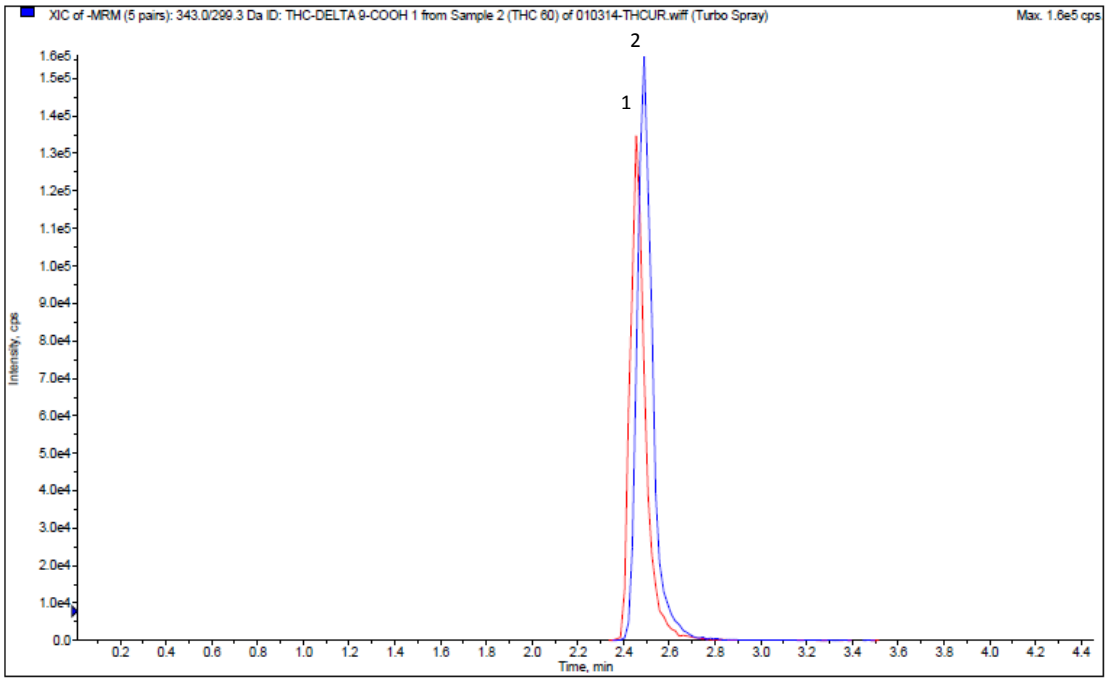
6. **DRY ELUATE:**
   Evaporate to dryness at < 40 °C.

7. **RECONSTITUTE:**

   Reconstitute sample in 100 µL of mobile phase
   Inject 20 µL.

INSTRUMENT CONDITIONS (LC-MS/MS):

CHROMATOGRAM



Analyte	MRM Transitions		Relative Retention Time (min)
	Q1	Q3	
1. THC-DELTA 9-COOH D_9	352	308	2.44
2.THC-DELTA 9-COOH	343	299	2.49

PARAMETERS

Mobile Phase A: 0.1% Formic Acid in D.I. H_2O

Mobile Phase B: 0.1% Formic Acid in Methanol

Flow Rate: 0.5 mL/minute

Polarity: Negative

Reconstitute: 100 µL

Injection Volume: 20 µL

LC Column: Selectra® DA HPLC Column 50 x 2.1 mm 5 µm

Instrument: API 3200 Qtrap MS/MS with Shimadzu Prominence UFLC

Gradient:

Time	%A	%B
0.00	60	40
2.00	30	70
2.50	10	90
2.51	60	40
4.00	STOP	