



THC FROM ORAL FLUIDS FOR GC/MS ANALYSIS USING: 200 mg CLEAN SCREEN® DAU EXTRACTION COLUMN

Part #: ZSDAU020

1. PREPARE SAMPLE

To 1 mL of oral fluid specimen add 50 ng/mL internal standard (THCA D-9) and let sit for 10 minutes at room temperature.

Vortex for 10 seconds.

Add .5 mL of glacial acetic acid and vortex for 10 seconds.

2. CONDITION CLEAN UP® EXTRACTION COLUMN

Wash with 3 mL MeOH.

Wash with 3 mL DI H₂O.

Wash with 1 mL of 0.1 N HCl.

3. APPLY SAMPLE

Pour sample into extraction column and pull through.

Do not exceed 1 mL/min.

4. WASH COLUMN

Wash with 2 mL DI H₂O.

Wash with 2 mL of 70/30 (0.1 N HCl/Acetonitrile)

Dry with vacuum for 5 minutes or until dry.

Add 200 µL of Hexane.

5. ELUTION

2 mL of Hexane/Ethyl Acetate (50:50) Do not exceed 1 mL/min.

6. DRY ELUATE

Dry under a stream of nitrogen at < 40°C.

7. DERIVATIZE

Add 50 µL MSTFA.

Vortex for 10 seconds.

Heat for 20 minutes at 60°C.

Vortex for 10 seconds while hot.

Reconstitute in 50 µL of Ethyl Acetate.

8. QUANTITATE

Inject 2 µL onto gas chromatograph.

The Oral Fluid THC ions monitored are the following on Agilent 5973

<u>ANALYTE</u>	<u>Primary Ion</u>	<u>Secondary</u>	<u>Tertiary</u>	<u>Cerilliant #</u>
THCA-TMS	371(Q),	386	387	T-005
THCA D9-TMS (Internal Standard)-	380(Q),	479		T-019

Contributed by:

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**THC IN ORAL FLUID FOR GC/MS ANALYSIS USING:
50 mg CLEAN SCREEN[®] DAU EXTRACTION COLUMN**
Part #: ZSDAU005

- 1. PREPARE SAMPLE***
Add 100 - 500 µL of neat oral fluid sample to a clean tube.
Add internal standard. Vortex and let sit for 10 minutes at room temperature.
Add 500 µL of glacial acetic acid.
Mix/vortex for 10 seconds.
- 2. CONDITION CLEAN SCREEN[®] EXTRACTION COLUMN**
1 x 200 µL CH₃OH.
1 x 200 µL D.I. H₂O.
1 x 200 µL 100 mM HCl.
- 3. APPLY SAMPLE**
Do not exceed 1 mL/minute.
- 4. WASH COLUMN**
1 x 500 µL D.I. H₂O.
1 x 500 µL 0.2 N HCl.
1 x 500 µL 100 mM HCl/Acetonitrile (70:30).
Dry column (1 minute at > 10 inches Hg).
- 5. ELUTION**
1 x 800 µL Ethyl Acetate/Hexane (25:75).
Do not exceed 1 mL/minute.
- 6. DRY ELUATE**
Evaporate at < 40°C under a stream of N₂.
- 7. DERIVATIZE****
Add 25 µL BSTFA (with 1% TMCS), and 25 µL ethyl acetate.
Overlay with N₂ and cap.
Vortex.
React 30 minutes at 70°C.
Remove from heat and allow to cool
Note: Do not evaporate BSTFA solution
- 8. QUANTITATE**
Inject 2 µL onto gas chromatograph.

Monitor the following ions:

	<u>Primary ion</u>	<u>Secondary</u>	<u>Tertiary</u>	<u>Cerilliant #</u>
THC-TMS	371	386	303	T-005
THC-D3-TMS	374	389	318	T-003

* Sample is from either a neat sample capillary tube collection, or eluted off the cotton pad of a swab collection device with Oral Fluid THC buffer.

**Alternate derivatizations may be used.