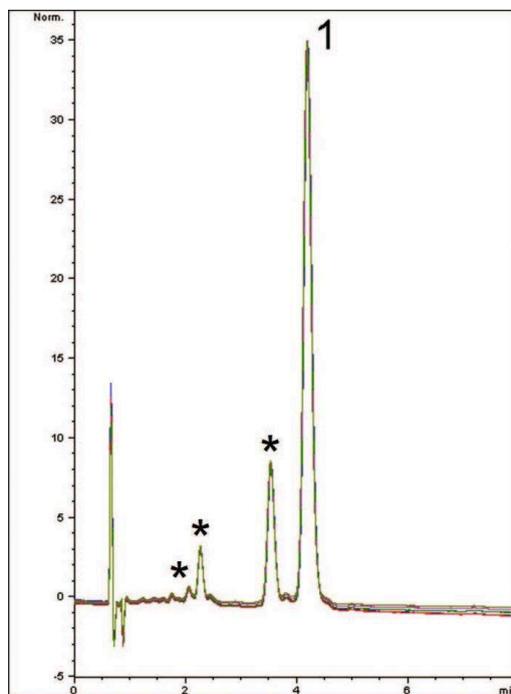


## Tetrahydrocannabinol THC Analyzed by HPLC - AppNote

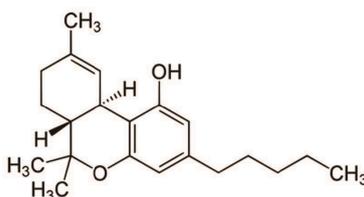
### The Psychoactive Component THC in Cannabis

Tetrahydrocannabinol (*THC*) which is derived from *Cannabis*, has several isomeric forms, which may account for the extra Peaks observed in the Chromatogram below. Although their identities could not be confirmed, these Peaks can be Separated from the main Peak using this Method. The compound is quite hydrophobic and therefore a relatively high organic content is used in the Mobile Phase to ensure the retention is not excessive.

Run-to-run precision is very reliable using this Method as the overlay of Five Chromatograms demonstrate.



Overlay of 5 runs



### Peaks:

1. (-)-trans- $\Delta^9$ -Tetrahydrocannabinol

\* Unknown Compounds (*Suspected Isomeric Forms*)

### Method Conditions

Column: Cogent Bidentate C18™, 4  $\mu\text{m}$ , 100  $\text{\AA}$

**Catalog No.:** 40018-75P  
**Dimensions:** 4.6 x 75 mm

**Mobile Phase:** 30:70 DI Water with 0.1% Formic Acid (v/v) / Acetonitrile

**Injection vol.:** 20 µL  
**Flow rate:** 1 mL / minute  
**Detection:** UV @ 288 nm

**Sample Preparation:** Δ9-Tetrahydrocannabinol analytical standard solution (1 mg / mL in Methanol, Sigma-Aldrich cat# T4764) was diluted 1:10 with Diluent of 80:20 Acetonitrile / DI Water.

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*Note: THC is the psychoactive component found naturally in the Cannabis plant. Although still classified as a Schedule I controlled substance at the Federal Level, many US states now have laws allowing its use for recreational purposes.*

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**Attachment No 357 Tetrahydrocannabinol Analyzed by HPLC pdf 0.4 Mb** [Download File](#)

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