## HPLC Separation of CBD, CBN, delta-9 THC, delta-8 THC on Cannsep C Column

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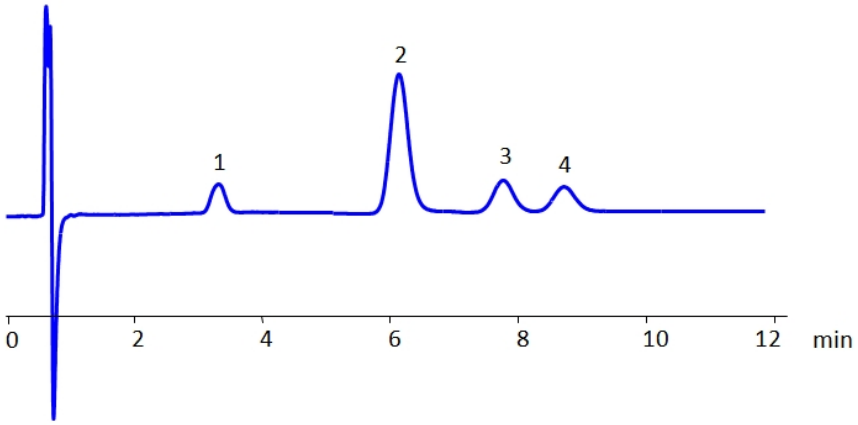
| Column: | Cannsep C |
| Column size: | 2.1 x 100 mm, 5 µm |
| Mobile phase: | MeOH/H2O - 82/18% |
| Buffer: | No |
| Flow rate: | 0.5 mL/min |
| Detection: | UV 275 nm |

1. Cannabidiol (CBD)
2. Cannabinol (CBN)
3. Delta-9-Tetrahydrocannabinol (THC)
4. Delta -8-Tetrahydrocannabinol (8-THC)




High Performance Liquid Chromatography (HPLC) Method for Analysis of CBD, CBN, delta-9 THC, delta-8 THC

Delta-8-Tetrahydrocannabinol , also known as delta-8-THC and Δ 8 -THC, is a sychoactive cannabinoid with the chemical formula C21H30O2 . It is less potent than delta-9-THC, it works in a similar way by binding to cannabinoid receptors in the brain. It's legality is dependent on the state.
Delta-9-Tetrahydrocannabinol , also known as delta-9-THC and Δ 9 -THC, or simply THC , is the principal psychoactive constituent of Cannabis with the chemical formula C21H30O2 . In pharmaceutical contexts, it is referred to as dronabinol and is used un nabiximols, which helps alleviate neuropathic pain, spasticity, overactive bladder, and more. Medical use of THC is allowed in the majority of the states in the United States of America, with less than half having it be legal for recreational use.

Cannabidiol ( CBD ) is a phytocannabinoid with the chemical formula C21H30O2 . It is used in a variety of ways. It's only confirmed medical use is as epilepsy medication. It may help with pain, sleep, and addiction as an alternative to opioids, but due to limited clinical evidence, it's regulations are dependent on the state. It is advised against using it during pregnancy due to unknown effects on fetal and infant development.

Cannabinol ( CBN ) is a mildly psychoactive phytocannabinoid with the chemical formula C21H26O2 . It was the first cannabinoid to be isolated from cannabis in the late 1800s. It is legal in the United States as long as the THC concentration is 0.3% or less. Little research has been done into it's potential health benefits.

These cannabinoids can be detected in the low UV regime. Using a Cannsep C reverse-phase column and a mobile phase consisting of water and methanol (MeOH) with no buffer, CBD, CBN, delta-9 THC, and delta-8 THC can be separated, measured, and analyzed. This analysis method can be UV detected at 275

nm with high resolution.

## Method Parameters

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|---|---|
| **Mobile Phase** | MeOH/H2O – 82/18% |
| **Buffer** | No |
| **Flow Rate** | 0.5 mL/min |
| **Detection** | UV, 275 nm |

Quelle: https://sielc.com/hplc-separation-of-cbd-cbn-delta-9-thc-delta-8-thc