

# Seshat's Oil: A Supercritical CO<sub>2</sub> Full-Spectrum Cannabis Extract Enriched with THCP and CBDP

Marie Seshat Landry\*

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## Abstract

**Background:** Seshat's Oil is a supercritical CO<sub>2</sub>-extracted, full-spectrum cannabis oil enriched with approximately 1% tetrahydrocannabiphorol (THCP) and 1% cannabidiphorol (CBDP). This formulation aims to leverage the entourage effect by combining major and minor cannabinoids with terpenes and flavonoids, building upon the growing understanding of the therapeutic potential of cannabis compounds.

**Objective:** To detail the composition, extraction methodology, and potential applications of Seshat's Oil, emphasizing its investigational status and the need for further research into its pharmacological properties and therapeutic potential.

**Conclusion:** While the inclusion of THCP and CBDP in a full-spectrum extract may offer enhanced receptor activity and potentially broaden the therapeutic potential of cannabis extracts, comprehensive clinical studies are necessary to establish efficacy, optimal dosing, and safety profiles in humans.

## 1 Introduction

*Cannabis sativa* contains a diverse array of phytochemicals, including over 100 cannabinoids. Among these, tetrahydrocannabiphorol (THCP) and cannabidiphorol (CBDP) have been identified as potent analogs of THC and CBD, respectively. THCP exhibits a binding affinity to CB1 receptors approximately 33 times higher than that of THC [1], while CBDP shares structural similarities with CBD but with a heptyl side chain [2]. Building upon the extensive research exploring the therapeutic potential of cannabis extracts, particularly regarding the synergistic interactions between its various components (the "entourage effect"), this work introduces a novel formulation designed to explore the contributions of enriched levels of THCP and CBDP.

## 2 Extraction and Composition

### 2.1 Extraction Method

Seshat's Oil is produced using supercritical CO<sub>2</sub> extraction, a solvent-free method that preserves the integrity of cannabinoids, terpenes, and flavonoids. Supercritical CO<sub>2</sub> extraction was selected for its ability to selectively extract cannabinoids while aiming to preserve a broader spectrum of the plant's natural compounds, including volatile terpenes, offering control over the extraction process and resulting in a clean final product compared to some other methods. Post-extraction, the oil undergoes controlled decarboxylation to activate acidic cannabinoids into their neutral, non-acidic forms.

### 2.2 Cannabinoid Profile

The typical cannabinoid composition includes:

- ~90%  $\Delta^9$ -THC
- ~1% CBD

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\*Global Organic Solutions, SearchForOrganics.com, Moncton, NB, Canada

- ~1% THCP
- ~1% CBDP
- Trace amounts of other cannabinoids (e.g., CBG, CBC)

### 2.3 Terpenes and Flavonoids

The extract retains a spectrum of terpenes such as myrcene, limonene, and  $\beta$ -caryophyllene, as well as flavonoids, contributing to the potential for an enhanced entourage effect.

## 3 Pharmacological Considerations

### 3.1 THCP

THCP's extended heptyl side chain enhances its affinity for CB1 receptors, potentially increasing its psychoactive potency and therapeutic effects compared to THC [1]. However, its full pharmacological profile and clinical effects in humans are still under investigation.

### 3.2 CBDP

CBDP, the heptyl homolog of CBD, has been identified in trace amounts in *Cannabis sativa*. Its pharmacological profile is less understood compared to CBD, necessitating further research into its receptor interactions and potential therapeutic properties [2].

#### Caution

**Investigational Status:** The pharmacodynamics, metabolism, safety profiles, and long-term effects of THCP and CBDP in humans are not fully established. Clinical data regarding optimal dosing, potential side effects, and interactions with other substances are currently lacking. Their inclusion in therapeutic formulations should be approached with significant caution, and use should be limited to controlled investigational settings under expert supervision.

## 4 Potential Applications

Seshat's Oil is proposed for investigational use in conditions where modulation of the endocannabinoid system may be beneficial. Examples of areas currently being explored in cannabis research include chronic pain, neurological disorders (such as epilepsy or multiple sclerosis), inflammatory conditions, and appetite modulation. However, rigorous clinical trials are essential to validate the efficacy, safety, and optimal use of this specific formulation for any potential therapeutic application.

## 5 Conclusion

Seshat's Oil represents a novel cannabis extract formulation enriched with the minor cannabinoids THCP and CBDP within a full-spectrum profile. While preliminary data regarding the enhanced receptor activity of THCP and the structural novelty of CBDP suggest a potential for unique or enhanced therapeutic effects through the entourage effect, comprehensive preclinical and clinical studies are critically required to fully understand its pharmacological properties, therapeutic potential, optimal delivery methods, dosing, and safety profile in humans. This formulation highlights the ongoing exploration of novel cannabinoids and their combinations in the pursuit of advanced cannabis-based therapeutics.

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## Conflicts of Interest

The author declares no conflicts of interest.

## 6 References

### References

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