

# Certificate of Analysis

Final Product: **Cannabidiol Isolate**  
 Date of Manufacture: **February 2020**

Lot Number: **IL20011-002B**

763850

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MILE HIGH LABS

| Test                        | Methodology                | Specification               | Test Results (Average)*  | Pass/Fail |      |
|-----------------------------|----------------------------|-----------------------------|--|-----------|------|
| Visual                      | Color and Appearance       | TM-004 (Visual)             | White, crystalline powder free of particulates   | Conforms  | Pass |
| Cannabidiol Identification  |                            | TM-001 (DAD Retention Time) | Retention time of the primary peak in sample chromatogram matches that in the analytical reference standard. | Conforms  | Pass |
|                             |                            | TM-001 (DAD UV Spectrum)    | UV Spectrum of the primary peak in sample chromatogram matches that in the analytical reference standard.    | Conforms  | Pass |
| CBD Purity                  | CBD(%w/w)                  | TM-001 (HPLC - DAD)         | ≥98 %w/w   | 98.7      | Pass |
| THC Content                 | THC(%w/w)                  | TM-001 (HPLC - DAD)         | ≤0.05 %w/w <sup>1</sup>  | ND        | Pass |
|                             | THCA(%w/w)                 | TM-001 (HPLC - DAD)         | ≤0.05 %w/w <sup>1</sup>  | ND        | Pass |
| Related Cannabinoid Content | CBDA(%w/w)                 | TM-001 (HPLC - DAD)         | Report   | ND        | NA   |
|                             | CBN(%w/w)                  | TM-001 (HPLC - DAD)         | Report   | ND        | NA   |
|                             | CBDV(%w/w)                 | TM-001 (HPLC - DAD)         | Report   | 0.234     | NA   |
|                             | CBG(%w/w)                  | TM-001 (HPLC - DAD)         | Report   | ND        | NA   |
|                             | Other (Highest RC)(%w/w)   | TM-001 (HPLC - DAD)         | Report   | 0.200     | NA   |
|                             | Total (RC)(%w/w)           | TM-001 (HPLC - DAD)         | Report   | 0.461     | NA   |
| Total Cannabinoids          | (CBD plus total RCs)(%w/w) | TM-001 (HPLC - DAD)         | Report   | 99.461    | NA   |
| Residual Solvents           | Pentane(ppm)               | TM-005 (HS-GC - FID)        | ≤500 ppm   | 162       | Pass |
|                             | Acetone(ppm)               | TM-005 (HS-GC - FID)        | ≤500 ppm   | <LOQ      | Pass |
|                             | Isopropyl Alcohol(ppm)     | TM-005 (HS-GC - FID)        | ≤500 ppm   | <LOQ      | Pass |
|                             | Hexane(ppm)                | TM-005 (HS-GC - FID)        | ≤25 ppm  | <LOQ      | Pass |

\*Number of replicates: 16

<sup>1</sup>TM-001 LOQ of 0.05% w/w for related cannabinoids.

<sup>2</sup>Full list of individual pesticide residues on file, Eurofins LOQ of 0.1 ppm for individual residues.

<sup>3</sup>Contract Testing performed by Eurofins BioDiagnostics.



Data Reviewed and Approved by: **Beth Grant**  
 2/19/2020 4:22:38 PM

# Certificate of Analysis

Final Product: **Cannabidiol Isolate**  
 Date of Manufacture: **June 2020**

Lot Number: **IL20061-008**

763850  
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MPLE HIGH LABS

| Test   | Methodology  | Specification  | Test Results (Average)* | Pass/Fail |
|--|--|--|-------------------------|-----------|
| Color and Appearance   | TM-004 (Visual)  | White, crystalline powder free of particulates   | Conforms                | Pass      |
| Cannabidiol Identification   | TM-001 (DAD Retention Time)  | Retention time of the primary peak in sample chromatogram matches that in the analytical reference standard. | Conforms                | Pass      |
|  | TM-001 (DAD UV Spectrum)   | UV Spectrum of the primary peak in sample chromatogram matches that in the analytical reference standard.    | Conforms                | Pass      |
| CBD Potency  | CBD(%w/w) TM-001 (HPLC - DAD)  | >=98 %w/w  | 98.9                    | Pass      |
| THC Content  | THC(%w/w) TM-001 (HPLC - DAD)  | ≤ LOQ <sup>1</sup>   | ≤ LOQ                   | Pass      |
|  | THCA(%w/w) TM-001 (HPLC - DAD)   | Report <sup>2</sup>  | ND                      | Pass      |
|  | Total THC(%w/w) TM-001 (HPLC - DAD)  | ≤LOQ <sup>1</sup>  | ≤ LOQ                   | Pass      |
| Related Cannabinoid Content  | CBN(%w/w) TM-001 (HPLC - DAD)  | Report <sup>2</sup>  | ND                      | Pass      |
|  | cis-THC(%w/w) TM-001 (HPLC - DAD)  | Report <sup>2</sup>  | 0.058                   | Pass      |
|  | delta 8-THC(%w/w) TM-001 (HPLC - DAD)  | Report <sup>2</sup>  | ND                      | Pass      |
|  | THCV(%w/w) TM-001 (HPLC - DAD)   | Report <sup>2</sup>  | <LOQ                    | Pass      |
|  | THCVA(%w/w) TM-001 (HPLC - DAD)  | Report <sup>2</sup>  | ND                      | Pass      |
|  | CBC(%w/w) TM-001 (HPLC - DAD)  | Report   | <LOQ                    | NA        |
|  | CBCA(%w/w) TM-001 (HPLC - DAD)   | Report   | ND                      | NA        |
|  | CBDVA(%w/w) TM-001 (HPLC - DAD)  | Report   | ND                      | NA        |
|  | CBDV(%w/w) TM-001 (HPLC - DAD)   | Report   | 0.375                   | NA        |
|  | CBE(%w/w) TM-001 (HPLC - DAD)  | Report   | ND                      | NA        |
|  | CBGA(%w/w) TM-001 (HPLC - DAD)   | Report   | ND                      | NA        |
|  | CBG(%w/w) TM-001 (HPLC - DAD)  | Report   | ND                      | NA        |
|  | CBL(%w/w) TM-001 (HPLC - DAD)  | Report   | ND                      | NA        |
|  | CBLA(%w/w) TM-001 (HPLC - DAD)   | Report   | <LOQ                    | NA        |
|  | CBT(%w/w) TM-001 (HPLC - DAD)  | Report   | ND                      | NA        |
|  | Total Unknowns(%w/w) TM-001 (HPLC - DAD)                                     | Report   | 0.209                   | NA        |
|  | Total (Sum of all observed RCs known and unknown) (%w/w) TM-001 (HPLC - DAD) | Report   | 0.585                   | NA        |
| Total Cannabinoids (CBD plus total RCs)(% w/w) TM-001 (HPLC - DAD) | Report   | 99.490   | NA                      |           |
| Residual Solvents  | Pentane(ppm) TM-005 (HS-GC - FID)  | ≤500 ppm   | 147                     | Pass      |
|  | Acetone(ppm) TM-005 (HS-GC - FID)  | ≤500 ppm   | <LOQ                    | Pass      |
|  | Isopropyl Alcohol(ppm) TM-005 (HS-GC - FID)                                  | ≤500 ppm   | <LOQ                    | Pass      |
|  | Hexane(ppm) TM-005 (HS-GC - FID)   | ≤25 ppm  | <LOQ                    | Pass      |
|  | Ethanol(ppm) TM-005 (HS-GC - FID)  | ≤500 ppm   | <LOQ                    | Pass      |
|  | Methanol(ppm) TM-005 (HS-GC - FID)   | ≤300 ppm   | <LOQ                    | Pass      |

\*Number of replicates: 21  
<sup>1</sup>TM-001 LOQ of 0.05% w/w for related cannabinoids.  
<sup>2</sup>Full table of individual pesticides and associated limits on file.  
<sup>3</sup>Contract Testing performed by Eurofins BioDiagnostics.

