

763850

Certificate of Analysis

Final Product: Cannabidiol Isolate
 Date of Manufacture: October 2020

Lot Number: IL2010I-030

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MILE HIGH LABS™



Test	Methodology	Specification	Test Results (Average)*	Pass/Fail
Color and Appearance	TM-004 (Visual)	White, crystalline powder free of particulates	Conforms	Pass
Cannabinoid 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	98.1	Pass
THC Content	THC(%w/w) TM-001 (HPLC - DAD)	≤0.054 %w/w ¹	ND	Pass
	THCA(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass
	Total THC(%w/w) TM-001 (HPLC - DAD)	≤0.054 %w/w ¹	ND	Pass
Related Cannabinoid Content	CBN(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass
	cis-THC(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass
	delta 8-THC(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass
	THCV(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass
	THCVA(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass
	CBC(%w/w) TM-001 (HPLC - DAD)	Report	ND	NA
	CBCA(%w/w) TM-001 (HPLC - DAD)	Report	ND	NA
	CBDA(%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	0.302	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	<LOQ	NA
	CBL(%w/w) TM-001 (HPLC - DAD)	Report	ND	NA
	CBLA(%w/w) TM-001 (HPLC - DAD)	Report	ND	NA
	CBT(%w/w) TM-001 (HPLC - DAD)	Report	ND	NA
	Total Unknowns(%w/w) TM-001 (HPLC - DAD)	Report	0.183	NA
	Total (Sum of all observed RCs known and unknown) (%w/w) TM-001 (HPLC - DAD)	Report	0.485	NA
Total Cannabinoids (CBD plus total RCs)(%w/w) TM-001 (HPLC - DAD)	Report	99.558	NA	
Residual Solvents	Pentane(ppm) TM-005 (HS-GC - FID)	≤500 ppm	125	Pass
	Acetone(ppm) TM-005 (HS-GC - FID)	≤500 ppm	<LOQ	Pass
	Isopropyl Alcohol(ppm) TM-005 (HS-GC - FID)	≤500 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
	Hexane(ppm) TM-005 (HS-GC - FID)	≤25 ppm	<LOQ	Pass

*Number of replicates: 19
¹TM-001 LOQ of 0.05% w/w for related cannabinoids.

Specification: FP001
 Lot: IL2010I-030

2555 W. Midway Blvd Broomfield, CO 80020

AA64ECE0-53DD-4BCE-B35D-A00FC58DDD4F v1 Authorized on: 11/4/2020 11:56:44 AM



*Full table of Individual pesticides and associated limits on file.

*Contract Testing performed by Eurofins BioDiagnostics.

Data Reviewed and Approved by: Tim Ghelli
11/4/2020 11:56:44 AM

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2555 W. Midway Blvd Broomfield, CO 80020

Page 2/2

AA64ECE0-53DD-4BCE-B35D-A00FC58DDD4F v1 Authorized on: 11/4/2020 11:56:44 AM

Certificate of Analysis

Final Product: Cannabidiol Isolate
 Date of Manufacture: June 2021

763850
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Lot Number:

L21061022R1

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BY:



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 (% w/w)	(%w/w) TM-001 (HPLC - DAD)	>=98 %w/w	99.7	Pass	
THC Content (% w/w)	THC(%w/w) TM-001 (HPLC - DAD)	≤0.05 %w/w'	ND	Pass	
THC Content (% w/w)	THCA(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification'	ND	Pass	
	Total THC (THC + THCA*0.877)(%w/w)	TM-001 (HPLC - DAD)	≤0.05 %w/w'	ND	Pass
Related Cannabinoid Content (% w/w)	CBN(%w/w)	TM-001 (HPLC - DAD)	≤ Limit of Quantification'	ND	Pass
	dis-THC(%w/w)	TM-001 (HPLC - DAD)	≤ Limit of Quantification'	ND	Pass
	d8-THC(%w/w)	TM-001 (HPLC - DAD)	≤ Limit of Quantification'	ND	Pass
	THCV(%w/w)	TM-001 (HPLC - DAD)	≤ Limit of Quantification'	ND	Pass
	THCVA(%w/w)	TM-001 (HPLC - DAD)	≤ Limit of Quantification'	ND	Pass
	CBC(%w/w)	TM-001 (HPLC - DAD)	Report	ND	NA
	CBCA(%w/w)	TM-001 (HPLC - DAD)	Report	ND	NA
	CBDA(%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	0.154	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	ND	NA
	CBT(%w/w)	TM-001 (HPLC - DAD)	Report	ND	NA
	Total Unknowns(%w/w)	TM-001 (HPLC - DAD)	Report	0.172	NA
Total (Sum of all observed RCs known and unknown) (%w/w)	TM-001 (HPLC - DAD)	Report	0.327	NA	
Total Cannabinoids (CBD plus total RCs) (%w/w)	(%w/w) TM-001 (HPLC - DAD)	Report	100.077	NA	
Residual Solvents	Pentane(ppm)	TM-005 (HS-GC - FID)	≤500 ppm	<LOQ	Pass
	Acetone(ppm)	TM-005 (HS-GC - FID)	≤500 ppm	<LOQ	Pass
	Isopropyl Alcohol(ppm)	TM-005 (HS-GC - FID)	≤500 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
	Hexane(ppm)	TM-005 (HS-GC - FID)	≤25 ppm	<LOQ	Pass
Pesticides	Individual Pesticide Content (ppm) ²	TM-011 (LC-MS)	Individual Pesticide Limit ²	CONFORMS	Pass

Specification: FP001
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2555 W. Midway Blvd Broomfield, CO 80020

Page 1/2

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Elemental Impurities	Arsenic(ppm)	ICP-MS ³	<1.0 ppm	<LOQ	Pass
	Cadmium(ppm)	ICP-MS ³	<0.4 ppm	<LOQ	Pass
	Lead(ppm)	ICP-MS ³	<0.5 ppm	<LOQ	Pass
	Mercury (Total)(ppm)	ICP-MS ³	<0.2 ppm	<LOQ	Pass
Mycotoxins	B ₁ (AFB ₁)(ppb)	USP<561> ³	≤2 ppb	<0.500	Pass
	B ₂ (AFB ₂)(ppb)	USP<561> ³	≤0.5 ppb	<0.500	Pass
	G ₁ (AFG ₁)(ppb)	USP<561> ³	≤0.5 ppb	<0.500	Pass
	G ₂ (AFG ₂)(ppb)	USP<561> ³	≤0.5 ppb	<0.500	Pass
	Total(ppb)	USP<561> ³	≤4 ppb	<2.00	Pass

¹Number of replicates: 4

²TM-001 LOQ of 0.05% w/w for related cannabinoids.

³Full table of individual pesticides and associated limits on file.

⁴Contract Testing performed by Eurofins BioDiagnostics.

Data Reviewed and Approved by: Tim Ghelli
7/13/2021 3:58:30 PM