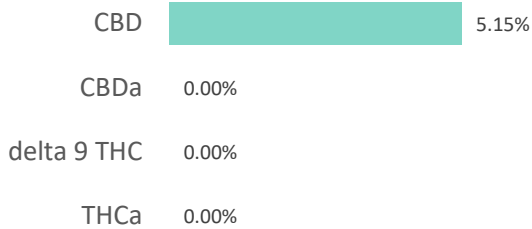
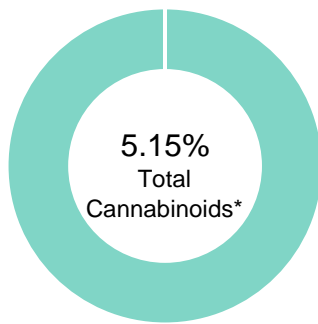


DS ADVANCED

Batch ID:	1111	Test ID:	4112257.0023
Reported:	23-Oct-2019	Method:	TM14
Type:	Concentrate		
Test:	Potency		

CANNABINOID PROFILE


Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.02	0.00	0.0
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.01	0.00	0.0
Cannabidiolic acid (CBDA)	0.02	0.00	0.0
Cannabidiol (CBD)	0.01	5.15	51.5
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.01	0.00	0.0
Cannabinolic Acid (CBNA)	0.02	0.00	0.0
Cannabinol (CBN)	0.01	0.00	0.0
Cannabigerolic acid (CBGA)	0.01	0.00	0.0
Cannabigerol (CBG)	0.01	0.00	0.0
Tetrahydrocannabivarinic Acid (THCVA)	0.01	0.00	0.0
Tetrahydrocannabivarin (THCV)	0.01	0.00	0.0
Cannabidivarinic Acid (CBDVA)	0.02	0.00	0.0
Cannabidivarin (CBDV)	0.01	0.00	0.0
Cannabichromenic Acid (CBCA)	0.01	0.00	0.0
Cannabichromene (CBC)	0.01	0.00	0.0
Total Cannabinoids		5.15	51.50
Total Potential THC**		0.00	0.00
Total Potential CBD**		5.15	51.50


NOTES:

N/A

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)


* Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

** Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step.

$$\text{Total THC} = \text{THC} + (\text{THCa} * (0.877)) \text{ and } \text{Total CBD} = \text{CBD} + (\text{CBDa} * (0.877))$$
FINAL APPROVAL


Tyler Wiese
23-Oct-2019
6:29 PM

PREPARED BY / DATE



David Green
23-Oct-2019
6:45 PM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2005 Accredited A2LA Certificate Number 4329.02



DS ADVANCED

Batch ID:	1111	Test ID:	3049467.011
Reported:	21-Oct-2019	Method:	Topical - Test Methods: TM05, TM06
Type:	Topical		
Test:	Microbial Contaminants		

MICROBIAL CONTAMINANTS

Contaminant	Result (CFU/g)*
Total Aerobic Count**	None Detected
Total Coliforms**	None Detected
Total Yeast and Molds**	None Detected
<i>E. coli</i>	None Detected
<i>Salmonella</i>	None Detected

* CFU/g = Colony Forming Unit per Gram

** Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form.

Examples: $10^2 = 100$ CFU
 $10^3 = 1,000$ CFU
 $10^4 = 10,000$ CFU
 $10^5 = 100,000$ CFU

NOTES:

Free from visual mold, mildew, and foreign matter

TYM: None Detected

Total Aerobic: None Detected

Coliforms: None Detected

FINAL APPROVAL



Mara Miller
21-Oct-2019
3:49 PM



David Green
21-Oct-2019
3:55 PM

PREPARED BY / DATE

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Services, LLC, in the condition it was received. Botanacor Services, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Services, LLC.

Certificate of Analysis

Final Product: Cannabidiol Isolate
Date of Manufacture: 07/2019

Lot Number: IL1906I-037

Test	Methodology	Specification	Test Results (Average) ¹	Pass/Fail	
Color and Appearance	TM-004 (Visual)	White, crystalline powder free of particulates	Conforms	Pass	
CBD 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)	TM-001 (HPLC-DAD)	≥ 98%	99.6	Pass	
THC Content (% w/w)	THC	TM-001 (HPLC-DAD)	≤ LOQ ²	≤ LOQ	Pass
	THCA	TM-001 (HPLC-DAD)	≤ LOQ ²	ND	Pass
Related Cannabinoid Content (%w/w)	CBDA	TM-001 (HPLC-DAD)	Report	ND	NA
	CBN	TM-001 (HPLC-DAD)	Report	ND	NA
	CBDV	TM-001 (HPLC-DAD)	Report	0.17	NA
	CBG	TM-001 (HPLC-DAD)	Report	ND	NA
	Other (Highest)	TM-001 (HPLC-DAD)	Report	0.23	NA
	Total	TM-001 (HPLC-DAD)	Report	0.47	NA
Total Cannabinoids (CBD plus total RCs, % w/w)	TM-001 (HPLC-DAD)	Report	100.03	NA	
Residual Solvents (ppm)	Pentane	TM-005 (HS-GC-FID)	≤ 500 ppm	194	Pass
	Acetone	TM-005 (HS-GC-FID)	≤ 500 ppm	ND	Pass
	Isopropyl Alcohol	TM-005 (HS-GC-FID)	≤ 500 ppm	< LOQ	Pass
	Hexane	TM-005 (HS-GC-FID)	≤ 25 ppm	< LOQ	Pass
Pesticides (Highest, ppm)	Individual Pesticide Content Test List ³	LC-MS ⁴	≤ LOQ ³	< LOQ	Pass
Elemental Impurities (ppm)	Arsenic	ICP-MS ⁴	< 1.5 ppm	< LOQ	Pass
	Cadmium	ICP-MS ⁴	< 0.5 ppm	< LOQ	Pass
	Lead	ICP-MS ⁴	< 0.5 ppm	< LOQ	Pass
	Mercury	ICP-MS ⁴	< 1.5 ppm	< LOQ	Pass

¹Number of replicates: 22

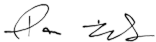
²TM-001 LOQ of 0.05% w/w for related cannabinoids.

³Full list of individual pesticide residues on file, Eurofins LOQ of 0.05 ppm for individual residues.

⁴Contract Testing performed by Eurofins BioDiagnostics.

Prepared by

DocuSigned by:



Signer Name: Danae Burgess
Signing Reason: I am the author of this document
Signing Time: 7/26/2019 3:22:07 PM PDT

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Quality Approval

DocuSigned by:



Signer Name: Beth Grant
Signing Reason: I approve this document
Signing Time: 7/26/2019 3:39:14 PM PDT

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