

Certificate of Analysis

Final Product: Cannabidiol Isolate
Date of Manufacture: October 2020

Lot Number: IL2010I-028



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	98.6	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	<LOQ	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	0.255	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	0.201	NA	
	Total (Sum of all observed RCs known and unknown) (%w/w)	TM-001 (HPLC - DAD) Report	0.457	NA	
	Total Cannabinoids	(CBD plus total RCs)(%w/w)	TM-001 (HPLC - DAD) Report	99.030	NA
	Residual Solvents	Pentane(ppm)	TM-005 (HS-GC - FID) ≤500 ppm	135	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	

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2555 W. Midway Blvd Broomfield, CO 80020

Page 1/2

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	B1 (AFB1)(ppb)	USP<561> ³	≤2 ppb	<LOQ	Pass
	B2 (AFB2)(ppb)	USP<561> ³	≤0.5 ppb	<LOQ	Pass
	G1 (AFG1)(ppb)	USP<561> ³	≤0.5 ppb	<LOQ	Pass
	G2 (AFG2)(ppb)	USP<561> ³	≤0.5 ppb	<LOQ	Pass
	Total(ppb)	USP<561> ³	≤4 ppb	<LOQ	Pass

*Number of replicates: 18

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

²Full table of individual pesticides and associated limits on file.

³Contract Testing performed by Eurofins BioDiagnostics.

Data Reviewed and Approved by: Tim Ghelli
11/17/2020 3:05:29 PM