

# Certificate of Analysis

Final Product: Cannabidiol Isolate  
Date of Manufacture: November 2020

Lot Number: IL20111-033

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 Purity	CBD(%w/w)	TM-001 (HPLC - DAD)	>=98 %w/w	98.3	Pass
THC Content	THC(%w/w)	TM-001 (HPLC - DAD)	≤0.05 %w/w	ND	Pass
	THCA(%w/w)	TM-001 (HPLC - DAD)	≤ Limit of Quantification <sup>1</sup>	ND	Pass
	Total THC(%w/w)	TM-001 (HPLC - DAD)	≤0.05 %w/w	ND	Pass
Related Cannabinoid Content	CBN(%w/w)	TM-001 (HPLC - DAD)	≤ Limit of Quantification <sup>1</sup>	ND	Pass
	Δ <sup>9</sup> -THC(%w/w)	TM-001 (HPLC - DAD)	≤ Limit of Quantification <sup>1</sup>	<LOQ	Pass
	Δ <sup>8</sup> -THC(%w/w)	TM-001 (HPLC - DAD)	≤ Limit of Quantification <sup>1</sup>	ND	Pass
	THCV(%w/w)	TM-001 (HPLC - DAD)	≤ Limit of Quantification <sup>1</sup>	ND	Pass
	THCVA(%w/w)	TM-001 (HPLC - DAD)	≤ Limit of Quantification <sup>1</sup>	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	0.263	NA
	CBE(%w/w)	TM-001 (HPLC - DAD)	Report	ND	NA
	CBGA(%w/w)	TM-001 (HPLC - DAD)	Report	ND	NA
	CBQ(%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	0.185	NA
	Total (Sum of all observed RCs known and unknown) (%w/w)	TM-001 (HPLC - DAD)	Report	0.447	NA
	Total Cannabinoids (CBD plus total RCs)(%w/w)	TM-001 (HPLC - DAD)	Report	98.765	NA
	Residual Solvents	Pentane(ppm)	TM-005 (HS-GC - FID)	≤500 ppm	178
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: 17

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

Specification: FP001  
Lot: IL20111-033

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