

Certificate of Analysis

Final Product: Cannabidiol Isolate

Lot Number: IL191570I-048A

Date of Manufacture: 01/2020

Test	Methodology	Specification	Test Results (Average) ¹	Pass/Fail	
Color and Appearance	TM-004 (Visual)	Ebony 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)	≥ 94%	98	Pass	
THC Content (% w/w)	THC	TM-001 (HPLC-DAD)	≤ LOQ ²	ND	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	0.29	NA
	CBG	TM-001 (HPLC-DAD)	Report	ND	NA
	Other (Highest)	TM-001 (HPLC-DAD)	Report	0.26	NA
	Total	TM-001 (HPLC-DAD)	Report	0.55	NA
Total Cannabinoids (CBD plus total RCs, % w/w)	TM-001 (HPLC-DAD)	Report	97	NA	
Residual Solvents (ppm)	Pentane	TM-005 (HS-GC-FID)	≤ 500 ppm	117	Pass
	Acetone	TM-005 (HS-GC-FID)	≤ 500 ppm	< LOQ	Pass
	Isopropyl Alcohol	TM-005 (HS-GC-FID)	≤ 500 ppm	< LOQ	Pass
	Hexane	TM-005 (HS-GC-FID)	≤ 25 ppm	ND	Pass
Pesticides (Highest, ppm)	Individual Pesticide Content Test List ³	LC-MS ⁴	See FP-001 ³	< LOQ	Pass
Elemental Impurities (ppm)	Arsenic	ICP-MS ⁴	< 1.0 ppm	< LOQ	Pass
	Cadmium	ICP-MS ⁴	< 0.4 ppm	< LOQ	Pass
	Lead	ICP-MS ⁴	< 0.5 ppm	< LOQ	Pass
	Mercury	ICP-MS ⁴	< 0.2 ppm	< LOQ	Pass
Mycotoxins (ppb)	B ₁ (AFB ₁)	USP <561> ⁴	≤ 2 ppb	< LOQ	Pass
	B ₂ (AFB ₂)	USP <561> ⁴	≤ 0.5 ppb	< LOQ	Pass
	G ₁ (AFG ₁)	USP <561> ⁴	≤ 0.5 ppb	< LOQ	Pass
	G ₂ (AFG ₂)	USP <561> ⁴	≤ 0.5 ppb	< LOQ	Pass
	Total	USP <561> ⁴	≤ 4 ppb	< LOQ	Pass

¹Number of replicates: 3

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

³See FP-001 for full list of individual pesticide residues and associated limits.

⁴Contract Testing performed by Eurofins BioDiagnostics.