

Certificate of Analysis

Final Product: Cannabidiol Isolate

Lot Number: L2104I013

Date of Manufacture: April 2021



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	99.1	Pass
THC Content (% w/w)	THC(%w/w) TM-001 (HPLC - DAD)	≤0.05 %w/w ¹	<LOQ	Pass
	THCA(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass
	Total THC (THC + THCA*0.877)(%w/w) TM-001 (HPLC - DAD)	≤0.05 %w/w ¹	ND	Pass
Related Cannabinoid Content (% w/w)	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	<LOQ	Pass
	d8-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	0.050	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	0.275	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	0.193	NA
	Total (Sum of all observed RCs known and unknown) (%w/w) TM-001 (HPLC - DAD)	Report	0.468	NA
	Total Cannabinoids (CBD plus total RCs, % w/w) (%w/w) TM-001 (HPLC - DAD)	Report	99.540	NA
Residual Solvents	Pentane(ppm) TM-005 (HS-GC - FID)	≤500 ppm	145	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

2555 W. Midway Blvd Broomfield, CO 80020

Page 1/2

Lot: L2104I013

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	<LOQ	Pass
	B ₂ (AFB ₂)(ppb)	USP<561> ³	≤0.5 ppb	<LOQ	Pass
	G ₁ (AFG ₁)(ppb)	USP<561> ³	≤0.5 ppb	<LOQ	Pass
	G ₂ (AFG ₂)(ppb)	USP<561> ³	≤0.5 ppb	<LOQ	Pass
	Total(ppb)	USP<561> ³	≤4 ppb	<LOQ	Pass

*Number of replicates: 25

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
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