FOOD &
ENVIRONMENT
SAFETY
ANALYTICAL LAB

Sample ID: 2201027-5
Date Issued: 11/2/2020
Batch Result: **PASS**

Certificate of Analysis

4500 mg CBD Orange Tincture

Manufacturer: The Trusted Lab

Summary

Total THC ND
Total CBD 15.85%
Total Cannabinoids 16.12%

Sample Name: 4500 mg CBD Orange Tincture
Matrix: Ingestible
Description: Tincture
Lot Number: O20_494
Manufacture Date: N/A
Unit Mass: 30 g per unit

Sample ID: 2201027-5
Testing ID: 2201027-5
Date Received: 10/27/2020
Receipt Condition: Ambient Temperature

Reviewed By: Arjay Evangelista, Analyst
Date: 11/2/2020

Approved By: Marie True, M.S., Laboratory Manager
Date: 11/2/2020

Received By:
Quality Engineer
Date:

Cannabinoid Analysis

Complete

Analyte	LOQ (%)	Mass (%)	Mass (mg/g)	Mass (mg/unit)
CBDV	**0.00025**	**0.136**	**1.36**	**40.68**
CBD	**0.00025**	**15.849**	**158.49**	**4754.80**
CBG	**0.00025**	**0.140**	**1.40**	**41.99**
CBDA	0.00025	ND	ND	ND
CBN	0.00025	ND	ND	ND
Delta 9-THC	0.00025	ND	ND	ND
Delta 8-THC	0.00025	ND	ND	ND
CBC	0.00025	ND	ND	ND
THCA	0.00025	ND	ND	ND
Total THC		ND	ND	ND
Total CBD		**15.849**	**158.49**	**4754.80**
Total Cannabinoids		**16.125**	**161.25**	**4837.48**

Date Tested: 10/27/2020

Total THC = THCa * 0.877 + d9-THC + d8-THC

Total CBD = CBDa * 0.877 + CBD

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Pesticide Analysis

Pass

Analyte	LOQ (ppm)	Limit (ppm)	Mass (ppm)	Status
Abamectin	0.050	0.100	ND	Pass
Bifenazate	0.050	0.100	ND	Pass
Bifenthrin	0.050	3.000	ND	Pass
Boscalid	0.050	0.100	ND	Pass
Ethoprophos	0.050	0.020	ND	Pass
Etoxazole	0.050	0.100	ND	Pass
Imidacloprid	0.050	5.000	ND	Pass
Myclobutanil	0.050	0.100	ND	Pass
Piperonyl Butoxide	0.050	3.000	ND	Pass
Pyrethrins	0.050	0.500	ND	Pass
Spinosad	0.050	0.100	ND	Pass
Spiromesifen	0.050	0.100	ND	Pass
Spirotetramat	0.050	0.100	ND	Pass

Date Tested: 10/28/2020

Residual Solvents Analysis

Pass

Analyte	LOQ (µg/g)	Limit (µg/g)	Mass (µg/g)	Status
Acetone	100	5000	ND	Pass
Acetonitrile	100	410	ND	Pass
Benzene	1	1	ND	Pass
Butane	100	5000	ND	Pass
Chloroform	1	1	ND	Pass
1,2-Dichloroethane	1	1	ND	Pass
Ethanol	100	5000	ND	Pass
Ethyl Acetate	100	5000	ND	Pass
Ethyl Ether	100	5000	ND	Pass
Ethylene Oxide	1	1	ND	Pass
Heptane	100	5000	ND	Pass
n-Hexane	100	290	ND	Pass
Isopropanol	100	5000	ND	Pass
Methanol	100	3000	ND	Pass
Methylene Chloride	1	1	ND	Pass
Pentane	100	5000	ND	Pass
Propane	100	5000	ND	Pass
Toluene	100	890	ND	Pass
Trichloroethylene	1	1	ND	Pass
Xylenes	100	2170	ND	Pass

Date Tested: 10/27/2020

Mycotoxins

Pass

Analyte	LOQ (µg/g)	Limit (µg/g)	Mass (µg/g)	Status
Aflatoxin B1	0.020	0.020	ND	Pass
Aflatoxin B2	0.020	0.020	ND	Pass
Aflatoxin G1	0.020	0.020	ND	Pass
Aflatoxin G2	0.020	0.020	ND	Pass
Ochratoxin A	0.020	0.020	ND	Pass

Date Tested: 10/28/2020

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Sample ID: 2201027-5
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Certificate of Analysis

Heavy Metals Analysis

Pass

Analyte	LOQ (µg/g)	Limit (µg/g)	Mass (µg/g)	Status
Arsenic	0.050	0.200	ND	Pass
Cadmium	0.050	0.200	ND	Pass
Lead	0.125	0.500	ND	Pass
Mercury	0.025	0.100	ND	Pass

Date Tested: 10/30/2020

Microbial Analysis

Pass

Test	Result (CFU/g)	Status
Aerobic Plate Count	Absent / 1g	Pass
Escherichia coli and Coliforms	Absent / 1g	Pass
Salmonella	Absent / 1g	Pass
Yeast and Mold Count	Absent / 1g	Pass

Date Tested: 11/2/2020

CFU = Colony Forming Units

Water Activity

Pass

Test	Limit (Aw)	Result (Aw)	Status
Water Activity	0.65	0.50	Pass

Date Tested: 11/2/2020

Terpenoid Analysis

Complete

Analyte	Result (%)
Camphene	ND
3-Carene	**0.00037**
ß-Caryophyllene	**0.0054**
p-Cymene	ND
Eucalyptol	**0.0012**
Fenchol	**0.0022**
α-Humulene	**0.012**
δ-Limonene	**0.22**
Linalool	**0.0016**
ß-Myrcene	**0.0032**
Nerolidol	**0.025**
α-Pinene	**0.0011**
Terpinolene	ND

Date Tested: 10/28/2020

Headspace Gas Chromatography (HS-GC-FID) was used to semiquantitatively analyze terpene contents. LOQs are available upon request.

Certificate of Analysis

Method References:	**Testing Location**

Cannabinoid Profile (UNODC) — **FESA Labs - Santa Ana, CA**

Official Methods of Analysis, Method 2018.11.AOAC INTERNATIONAL (modified), Lukas Vaclavik, Frantisek Benes, Alex Krmela, Veronika Svobodova, Jana Hajsolva, and Katerina Mastovska, "Quantification of Cannabinoids in Cannabis Dried Plant Materials, Concentrates, and Oils Liquid Chromatography-Diode Array Detection Technique with Optional Mass Spectrometric Detection," First Action Method, Journal of AOAC International, Future Issue

United Nations Office on Drugs and Crime - Recommended methods for identification and analysis of cannabis and cannabis products

Multi-Residue Pesticide Analysis - (AOAC_200701) — **FESA Labs - Santa Ana, CA**

Official Methods of Analysis, AOAC Official Method 2007.01, Pesticide Residues in Foods by Acetonitrile Extraction and Partitioning with Magnesium Sulfate, AOAC INTERNATIONAL (modified).
CEN Standard Method EN 15662: Food of plant origin - Detemination of pesticide residues using GC-MS and/or LC-MS/MS following acetonitrile extraction/ partiftioning and clean-up by dispersive SPE - QuEChERS method.

Heavy Metals Analysis - 4 elements (EPA_200.8) — **FESA Labs - Santa Ana, CA**

Methods for the Determination of Metals in Environmental Standards - Supplement 1, EPA-600/R-94-111, May 1994.
"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry", USEPA Method 200.8, Revision 5.1, EMMC Version (modified).

Residual Solvents Analysis - 20 compounds (USP_467) — **FESA Labs - Santa Ana, CA**

USP current revision, Chapter 62.
United States Pharmacopeia, 38nd Rev. - National Formulary 33th Ed., Method <467>, USP Convention, Inc., Rockville, MD (2015) (modified).

Mycotoxins Analysis - 5 compounds (FDA_MYC) — **FESA Labs - Santa Ana, CA**

Determination of Mycotoxins in Corn, Peanut Butter and Wheat Flour Using Stable Isotope Dilution Assay (SIDA) and Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS) (modified).

Microbial Analysis - (FDABAM_4A_5_18) — **FESA Labs - Santa Ana, CA**

U.S. Food and Drug Administration, Bacteriological Analytical Manual, Chapter 4A, Diarrheagenic Escherichia coli; Chapter 5, Salmonella; Chapter 18, Yeasts, Molds and Myctoxins (modified).

Water Activity Analysis - (AOAC_978_18) — **FESA Labs - Santa Ana, CA**

Official Methods of Analysis, Method 978.18.AOAC INTERNATIONAL, Water Activity of Canned Vegetables (modified).

Testing Location:

FESA Labs
2002 S. Grand Ave., Suite A
Santa Ana, CA 92705
714-549-5050
fesalabs.com

ND = not detected or less than limit of quantitation (LOQ).