

Regulatory Compliance Testing

CERTIFICATE OF ANALYSIS

DATE ISSUED 05/30/2020 | OVERALL BATCH RESULT: PASS

SAMPLE NAME: Tropical Cookies

Concentrate, Product Inhalable

CULTIVATOR / MANUFACTURER

Business Name: lob manufacturing

inc.

License Number: CDPH-10002733 Address: 3440 AIRWAY DR STE D, SANTA ROSA, CA 95403-2065

SAMPLE DETAIL

Batch Number: CS-05262020-TRC-0.

5g

Sample ID: 200528R001 Source Metrc UID:

1A406030000232E000000646

DISTRIBUTOR

Business Name: ADIRA

Distribution, Inc.

License Number: C11-0000739-LIC Address: 3440 AIRWAY DR, SUITE c, SANTA ROSA, CA 95403-2065

Date Collected: 05/28/2020 Date Received: 05/28/2020 Batch Size: 1777 Unit(s) Sample Size: 36 Unit(s) Unit Mass: 0.5 Grams per Unit

Serving Size:





Scan QR code to verify authenticity of results.

Sampling Method: QSP - (1265) Sampling of Cannabis and Product Batches

CANNABINOID ANALYSIS - SUMMARY

Total Cannabinoids: 78.555%

Total THC: 72,42%

Total CBD: 0.358%

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step:

Total THC = Δ 9THC + (THCa (0.877)) Total CBD = CBD + (CBDa (0.877))

Total Cannabinoids = (Δ9THC+0.877*THCa) + (CBD+0.877*CBDa) + (CBG+0.877*CBGa) + (THCV+0.877*THCVa) + (CBC+0.877*CBCa) +

(CBDV+0.877*CBDVa) + Δ8THC + CBL + CBN

Moisture: NT

Density: NT

Viscosity: NT

SAFETY ANALYSIS - SUMMARY

Pesticides: PASS

Mycotoxins: PASS

Residual Solvents: PASS

Heavy Metals: PASS

Microbial Impurities: PASS

Foreign Material: OPASS

TERPENOID ANALYSIS - SUMMARY

35 TESTED, TOP 3 HIGHLIGHTED

β Caryophyllene 16.28 mg/g

α Humulene 4.97 mg/g

Limonene 3.93 mg/g

These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory

Sample Certification: California Code of Regulations Title 16 Effect Date January 16, 2019. Authority: Section 26013, Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

Decision Rule: Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

References: limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT)

LQC verified by: Michael Pham Date: 05/30/2020

pproved by: Josh Wurzer, President ate: 05/30/2020





TROPICAL COOKIES | DATE ISSUED 05/30/2020 | OVERALL BATCH RESULT: OPASS



Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP - (1157) Analysis of Cannabinoids by HPLC-DAD

TOTAL CANNABINOIDS: 78.555%

 $\begin{array}{l} Total \ Cannabinoids \ (Total \ THC) + (Total \ CBD) + \\ (Total \ CBG) + (Total \ THCV) + (Total \ CBC) + \\ (Total \ CBDV) + \Delta 8THC + CBL + CBN \end{array}$

TOTAL THC: 72.42% Total THC (Δ9THC+0.877*THCa)

TOTAL CBD: 0.358%
Total CBD (CBD+0.877*CBDa)

TOTAL CBG: 3.379%
Total CBG (CBG+0.877*CBGa)

TOTAL THCV: 0.57%

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: 1.298%
Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: ND

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 05/30/2020

	COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Ī	Δ9ΤΗС	0.06 / 0.18	±20.420	593.60	59.360
	THCa	0.05 / 0.14	±3.827	148.92	14.892
	CBG	0.06 / 0.19	±0.868	22.04	2.204
	CBGa	0.1/0.2	±0.70	13.4	1.34
	CBCa	0.07/0.21	±0.540	11.04	1.104
	THCV	0.1/0.2	±0.28	5.7	0.57
Ī	CBN	0.1/0.3	±0.35	5.3	0.53
Ī	СВС	0.2 / 0.5	±0.10	3.3	0.33
	CBDa	0.02 / 0.07	±0.071	2.42	0.242
Ī	CBD	0.07 / 0.20	±0.068	1.46	0.146
	Δ8ΤΗC	0.1/0.4	N/A	ND	ND
	THCVa	0.07 / 0.20	N/A	ND	ND
	CBDV	0.04 / 0.14	N/A	ND	ND
	CBDVa	0.03 / 0.10	N/A	ND	ND
	CBL	0.06 / 0.18	N/A	ND	ND
	SUM OF CANNAE	BINOIDS	807.18 mg/g	80.718%	

MOISTURE TEST RESULT	DENSITY TEST RESULT	VISCOSITY TEST RESULT
Not Tested	Not Tested	Not Tested

Unit Mass: 0.5 Grams per Unit / Serving Size:

	Δ9THC per Unit	1000.0 per-package limit	296.80 mg/unit	PASS
	Δ9THC per Serving			
Ī	CBD per Unit		0.73 mg/unit	
Ī	CBD per Serving			









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Terpenoid Analysis

Terpene analysis utilizing gas chromatographyflame ionization detection (GC-FID). Terpenes are the aromatic compounds that endow cannabis with their unique scent and effect. Following are the primary terpenes detected.

Method: QSP - (1192) Analysis of Terpenoids by GC-FID



β Caryophyllene

A sesquiterpene with a fragrance that can be described as spicy, woody, dry, dusty and mildly sweet. It was one of the first organic compounds to fully synthesized in a laboratory and plays a role in the endocannabinoid system as it is a functional CB₂ receptor agonist. Found in black pepper, clove, hops, rosemary, black-jack, perilla, spicebush, Indian pennywort, celery, frankincense, vitex, parsley, marigold, tamarind...etc.



α Humulene

Also known as α -caryophyllene, it is an isomer of the sesquiterpene β -Caryophyllene which frequently occurs in nature with many aromatic plants across the globe. It has a fragrance that can be described as earthy or musky with spicy undertones. Found in hops, forskohlii, skullcaps, basil, nutmeg, cloves, sage, cotton, tamarind, black pepper, guava, Scotch pine...etc.



Limonene

A monoterpene with a fragrance that can be described as orangey, citrusy, sweet and tart. It is most commonly found in nature as D-Limonene and is a primary contributor to the distinct scent of orange peels, from which it is commonly derived. Found in numerous pines, red maple, silver maple, aspens, cottonwoods, hemlocks, sumac, cedar, junipers...etc.

TERPENOID TEST RESULTS - 05/30/2020

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
β Caryophyllene	0.04 / 0.11	±0.772	16.28	1.628
lpha Humulene	0.03 / 0.08	±0.161	4.97	0.497
Limonene	0.04 / 0.12	±0.144	3.93	0.393
Myrcene	0.1 / 0.2	±0.21	2.6	0.26
Linalool	0.04 / 0.1	±0.08	1.5	0.15
α Bisabolol	0.1 / 0.2	±0.07	1.5	0.15
Caryophyllene Oxide	0.1 / 0.2	±0.08	1.1	0.11
β Pinene	0.1 / 0.2	±0.05	0.6	0.06
α Pinene	0.04 / 0.13	±0.036	0.55	0.055
Terpineol	0.03 / 0.1	±0.04	0.4	0.04
α Cedrene	0.03 / 0.10	±0.015	0.36	0.036
Valencene	0.02 / 0.06	±0.007	0.33	0.033
Nerolidol	0.03 / 0.09	±0.022	0.33	0.033
Fenchol	0.1 / 0.2	±0.02	0.3	0.03
Ocimene	0.05 / 0.1	±0.01	0.1	0.01
Camphene	0.1 / 0.2	N/A	<loq< th=""><th><loq< th=""></loq<></th></loq<>	<loq< th=""></loq<>
Terpinolene	0.04 / 0.1	N/A	<loq< th=""><th><loq< th=""></loq<></th></loq<>	<loq< th=""></loq<>
Geraniol	0.04 / 0.11	N/A	<loq< th=""><th><loq< th=""></loq<></th></loq<>	<loq< th=""></loq<>
Guaiol	0.04 / 0.13	N/A	<loq< th=""><th><loq< th=""></loq<></th></loq<>	<loq< th=""></loq<>
Sabinene	0.1 / 0.2	N/A	ND	ND
α Phellandrene	0.1 / 0.2	N/A	ND	ND
3 Carene	0.1/0.2	N/A	ND	ND
α Terpinene	0.1 / 0.2	N/A	ND	ND
Eucalyptol	0.1 / 0.2	N/A	ND	ND
γTerpinene	0.1 / 0.2	N/A	ND	ND
Sabinene Hydrate	0.1 / 0.2	N/A	ND	ND
Fenchone	0.1 / 0.2	N/A	ND	ND
(-)-Isopulegol	0.03 / 0.08	N/A	ND	ND
Camphor	0.1 / 0.3	N/A	ND	ND
Isoborneol	0.1 / 0.2	N/A	ND	ND
Borneol	0.1 / 0.3	N/A	ND	ND
Menthol	0.04 / 0.1	N/A	ND	ND
Nerol	0.05 / 0.1	N/A	ND	ND
R-(+)-Pulegone	0.04 / 0.1	N/A	ND	ND
Geranyl Acetate	0.03 / 0.10	N/A	ND	ND
Cedrol	0.1 / 0.2	N/A	ND	ND
TOTAL TERPENOIDS			34.85 mg/g	3.485%









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Pesticide Analysis

CATEGORY 1 AND 2 PESTICIDES

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS). *GC-MS utilized where indicated.

Method: QSP - (1212) Analysis of Pesticides and Mycotoxins by LC-MS or QSP - (1213) Analysis of Pesticides by GC-MS

CATEGORY 1 PESTICIDE TEST RESULTS - 05/30/2020 PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Aldicarb	0.03 / 0.09	≥LOD	N/A	ND	PASS
Carbofuran	0.01/0.04	≥LOD	N/A	ND	PASS
Chlordane*	0.03 / 0.08	≥LOD	N/A	ND	PASS
Chlorfenapyr*	0.03 / 0.10	≥LOD	N/A	ND	PASS
Chlorpyrifos	0.02 / 0.06	≥LOD	N/A	ND	PASS
Coumaphos	0.02 / 0.06	≥LOD	N/A	ND	PASS
Daminozide	0.03 / 0.10	≥LOD	N/A	ND	PASS
DDVP (Dichlorvos)	0.02 / 0.07	≥LOD	N/A	ND	PASS
Dimethoate	0.02 / 0.07	≥LOD	N/A	ND	PASS
Ethoprop(hos)	0.03 / 0.08	≥LOD	N/A	ND	PASS
Etofenprox	0.02 / 0.05	≥LOD	N/A	ND	PASS
Fenoxycarb	0.02 / 0.06	≥LOD	N/A	ND	PASS
Fipronil	0.02 / 0.06	≥LOD	N/A	ND	PASS
Imazalil	0.02 / 0.06	≥LOD	N/A	ND	PASS
Methiocarb	0.02 / 0.06	≥LOD	N/A	ND	PASS
Methyl parathion	0.03 / 0.10	≥LOD	N/A	ND	PASS
Mevinphos	0.03 / 0.09	≥LOD	N/A	ND	PASS
Paclobutrazol	0.02 / 0.05	≥LOD	N/A	ND	PASS
Propoxur	0.02 / 0.06	≥LOD	N/A	ND	PASS
Spiroxamine	0.02 / 0.05	≥LOD	N/A	ND	PASS
Thiacloprid	0.03/0.07	≥LOD	N/A	ND	PASS

CATEGORY 2 PESTICIDE TEST RESULTS - 05/30/2020 PASS

Abamectin	0.03 / 0.10	0.1	N/A	ND	PASS
Acephate	0.01 / 0.04	0.1	N/A	ND	PASS
Acequinocyl	0.02 / 0.05	0.1	N/A	ND	PASS
Acetamiprid	0.02 / 0.05	0.1	N/A	ND	PASS
Azoxystrobin	0.01 / 0.04	0.1	N/A	ND	PASS
Bifenazate	0.01 / 0.02	0.1	N/A	ND	PASS
Bifenthrin	0.01 / 0.02	3	N/A	ND	PASS
Boscalid	0.02 / 0.06	0.1	N/A	ND	PASS
Captan	0.2 / 0.5	0.7	N/A	ND	PASS
Carbaryl	0.01 / 0.02	0.5	N/A	ND	PASS
Chlorantraniliprole	0.01 / 0.03	10	N/A	ND	PASS

Continued on next page







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Pesticide Analysis Continued

CATEGORY 1 AND 2 PESTICIDES

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS). *GC-MS utilized where indicated.

Method: QSP - (1212) Analysis of Pesticides and Mycotoxins by LC-MS or QSP - (1213) Analysis of Pesticides by GC-MS

CATEGORY 2 PESTICIDE TEST RESULTS - 05/30/2020 continued PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Clofentezine	0.02 / 0.06	0.1	N/A	ND	PASS
Cyfluthrin	0.1 / 0.4	2	N/A	ND	PASS
Cypermethrin	0.1 / 0.3	1	N/A	ND	PASS
Diazinon	0.01 / 0.04	0.1	N/A	ND	PASS
Dimethomorph	0.01 / 0.03	2	N/A	ND	PASS
Etoxazole	0.010 / 0.028	0.1	N/A	ND	PASS
Fenhexamid	0.02 / 0.1	0.1	N/A	ND	PASS
Fenpyroximate	0.03 / 0.08	0.1	N/A	ND	PASS
Flonicamid	0.01 / 0.04	0.1	N/A	ND	PASS
Fludioxonil	0.03 / 0.08	0.1	N/A	ND	PASS
Hexythiazox	0.01 / 0.04	0.1	N/A	ND	PASS
Imidacloprid	0.01 / 0.04	5	N/A	ND	PASS
Kresoxim-methyl	0.02 / 0.07	0.1	N/A	ND	PASS
Malathion	0.02 / 0.05	0.5	N/A	ND	PASS
Metalaxyl	0.02 / 0.06	2	N/A	ND	PASS
Methomyl	0.03 / 0.1	1	N/A	ND	PASS
Myclobutanil	0.03 / 0.1	0.1	N/A	ND	PASS
Naled	0.03 / 0.1	0.1	N/A	ND	PASS
Oxamyl	0.02 / 0.06	0.5	N/A	ND	PASS
Pentachloronitrobenzene*	0.03 / 0.09	0.1	N/A	ND	PASS
Permethrin	0.03 / 0.09	0.5	N/A	ND	PASS
Phosmet	0.03 / 0.10	0.1	N/A	ND	PASS
Piperonylbutoxide	0.003 / 0.009	3	±0.0004	0.010	PASS
Prallethrin	0.03 / 0.08	0.1	N/A	ND	PASS
Propiconazole	0.01 / 0.03	0.1	N/A	ND	PASS
Pyrethrins	0.03 / 0.08	0.5	N/A	ND	PASS
Pyridaben	0.006 / 0.019	0.1	N/A	ND	PASS
Spinetoram	0.02 / 0.07	0.1	N/A	ND	PASS
Spinosad	0.02 / 0.06	0.1	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	0.1	N/A	ND	PASS
Spirotetramat	0.01 / 0.02	0.1	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	0.1	N/A	ND	PASS
Thiamethoxam	0.03 / 0.08	5	N/A	ND	PASS
Trifloxystrobin	0.01 / 0.03	0.1	N/A	ND	PASS







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Mycotoxin Analysis

Mycotoxin analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS).

Method: QSP - (1212) Analysis of Pesticides and Mycotoxins by LC-MS

MYCOTOXIN TEST RESULTS - 05/30/2020 PASS

COMPOUND	LOD/LOQ (µg/kg)	ACTION LIMIT (µg/kg)	MEASUREMENT UNCERTAINTY (μg/kg)	RESULT (µg/kg)	RESULT
Aflatoxin B1	2.0 / 6.0	20	N/A	ND	PASS
Aflatoxin B2	1.8 / 5.6	20	N/A	ND	PASS
Aflatoxin G1	1.0 / 3.1	20	N/A	ND	PASS
Aflatoxin G2	1.2 / 3.5	20	N/A	ND	PASS
Total Aflatoxin		20		ND	PASS
Ochratoxin A	6.3 / 19.2	20	N/A	ND	PASS



Residual Solvents Analysis

CATEGORY 1 AND 2 RESIDUAL SOLVENTS

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).

Method: QSP - (1204) Analysis of Residual Solvents by GC-MS

CATEGORY 1 RESIDUAL SOLVENTS TEST RESULTS - 05/30/2020 PASS

COMPOUND	LOD/LOQ (μg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (μg/g)	RESULT
1,2-Dichloroethane	0.05 / 0.1	1	N/A	ND	PASS
Benzene	0.03 / 0.09	1	N/A	ND	PASS
Chloroform	0.1 / 0.2	1	N/A	ND	PASS
Ethylene Oxide	0.1 / 0.4	1	N/A	<loq< th=""><th>PASS</th></loq<>	PASS
Methylene chloride	0.3 / 0.9	1	N/A	ND	PASS
Trichloroethylene	0.1 / 0.3	1	N/A	ND	PASS

CATEGORY 2 RESIDUAL SOLVENTS TEST RESULTS - 05/30/2020 OPASS

Acetone	20/50	5000	N/A	<loq< th=""><th>PASS</th></loq<>	PASS
Acetonitrile	2/7	410	N/A	ND	PASS
Butane	10/50	5000	±38.3	622	PASS
Ethanol	20/50	5000	±1.6	51	PASS
Ethyl acetate	20/60	5000	N/A	ND	PASS
Ethyl ether	20/50	5000	N/A	ND	PASS
Heptane	20/60	5000	N/A	ND	PASS
Hexane	2/5	290	N/A	ND	PASS
Isopropyl Alcohol	10 / 40	5000	N/A	<loq< th=""><th>PASS</th></loq<>	PASS
Methanol	50 / 200	3000	N/A	ND	PASS
Pentane	20/50	5000	N/A	<loq< th=""><th>PASS</th></loq<>	PASS
Propane	10/20	5000	±5.3	73	PASS
Toluene	7/21	890	N/A	ND	PASS
Total Xylenes	50 / 160	2170	N/A	ND	PASS







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Heavy Metals Analysis

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

Method: QSP - (1160) Analysis of Heavy Metals by ICP-MS

HEAVY METALS TEST RESULTS - 05/29/2020 **⊘ PASS**

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Cadmium	0.02 / 0.05	0.2	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Arsenic	0.02 / 0.1	0.2	N/A	ND	PASS
Mercury	0.002 / 0.01	0.1	N/A	ND	PASS



Microbial Impurities Analysis

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbial impurities.

Method: QSP - (1221) Analysis of Microbial Impurities

MICROBIAL IMPURITIES TEST RESULTS - 05/30/2020 PASS

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing Escherichia coli	Detect	ND	PASS
Salmonella spp.	Detect	ND	PASS
Aspergillus fumigatus	Detect	ND	PASS
Aspergillus flavus	Detect	ND	PASS
Aspergillus niger	Detect	ND	PASS
Aspergillus terreus	Detect	ND	PASS



Foreign Material Analysis

Visual analysis includes, but is not limited to, sand, soil, cinders, dirt, mold, hair, insect fragments, and mammalian extrecta.

Method: QSP - (1227) Analysis of Foreign Material in Cannabis and Cannabis Products

FOREIGN MATERIAL TEST RESULTS - 05/29/2020 OPASS

COMPOUND	ACTION LIMIT	RESULT
Total Sample Area Covered by Sand, Soil, Cinders, or Dirt	>25%	PASS
Total Sample Area Covered by Mold	>25%	PASS
Total Sample Area Covered by an Imbedded Foreign Material	>25%	PASS
Insect Fragment Count	> 1 per 3 grams	PASS
Hair Count	> 1 per 3 grams	PASS
Mammalian Excreta Count	> 1 per 3 grams	PASS

