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CERTIFICATE OF ANALYSIS

Prepared for:

NULEAF NATURALS

1550 LARIMER ST. #964
DENVER, CO USA 80202

R30-BBD

Batch ID or Lot Number:	Test:	Reported:	USDA License:
D231S	**Potency**	**09Aug2022**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Solution	T000217083	09Aug2022	N/A
	Method(s):	Received:	Status:
	TM14 (HPLC-DAD)	05Aug2022	N/A

Cannabinoids

	LOD (mg/mL)	**LOQ** (mg/mL)	**Result** (mg/mL)	**Result** (mg/g)	**Notes**
Cannabichromene (CBC)	0.167	0.565	2.390	2.60	Density = 0.92g/mL
Cannabichromenic Acid (CBCA)	0.153	0.517	ND	ND	
Cannabidiol (CBD)	0.499	1.478	31.800	34.60	
Cannabidiolic Acid (CBDA)	0.512	1.516	ND	ND	
Cannabidivarin (CBDV)	0.118	0.350	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.214	0.632	ND	ND	
Cannabigerol (CBG)	0.095	0.321	2.070	2.30	
Cannabigerolic Acid (CBGA)	0.397	1.341	ND	ND	
Cannabinol (CBN)	0.124	0.418	1.350	1.50	
Cannabinolic Acid (CBNA)	0.271	0.915	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.473	1.597	0.910	1.00	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.429	1.451	1.050	1.10	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.380	1.285	ND	ND	
Tetrahydrocannabivarin (THCV)	0.086	0.292	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.335	1.134	ND	ND	
Total Cannabinoids			**39.570**	**43.01**	
Total Potential THC			1.050	1.14	
Total Potential CBD			31.800	34.57	

Final Approval

Sam Smith
09Aug2022
02:18:00 PM MDT

PREPARED BY / DATE

Daniel Weidensaul
09Aug2022
02:20:00 PM MDT

APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/7b270f20-c83d-43a9-8e7c-3dac262b76d8

Definitions
% = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method).
Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa *(0.877)) and Total CBD = CBD + (CBDa *(0.877)).

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1550 LARIMER ST. #964
DENVER, CO USA 80202

R30-BBD

Batch ID or Lot Number:	Test:	Reported:	USDA License:
D231S	**Heavy Metals**	**11Aug2022**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Unit	T000217087	10Aug2022	NA
	Method(s):	Received:	Status:
	TM19 (ICP-MS): Heavy Metals	05Aug2022	NA

Heavy Metals

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Arsenic	0.05 - 4.61	ND	
Cadmium	0.05 - 4.71	ND	
Mercury	0.04 - 4.47	ND	
Lead	0.05 - 4.52	ND	

Final Approval

Samantha Smith

Sam Smith
11Aug2022
04:59:00 PM MDT

PREPARED BY / DATE

Daniel Weidensaul

Daniel Weidensaul
11Aug2022
05:07:00 PM MDT

APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/0b18d277-0333-4e0a-811d-f2c9a961a3e7

Definitions
ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

SC Labs®
Formerly Botanacor Labs

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NULEAF NATURALS
1550 LARIMER ST. #964
DENVER, CO USA 80202

R30-BBD

Batch ID or Lot Number:	Test:	Reported:	USDA License:
D231S	**Microbial Contaminants**	**15Aug2022**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Finished Product	T000217086	08Aug2022	NA
	Method(s): TM25 (PCR) TM24, TM26, TM27 (Culture Plating)	Received: 05Aug2022	Status: NA

Microbial Contaminants

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10^0 CFU/g	NA	Absent	Free from visual mold, mildew, and foreign matter
Salmonella	TM25: PCR	10^0 CFU/g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10^1 CFU/g	$1.0x10^2$ - $1.5x10^4$	None Detected	
Total Aerobic Count*	TM26: Culture Plating	10^2 CFU/g	$1.0x10^3$ - $1.5x10^5$	None Detected	
Total Coliforms*	TM27: Culture Plating	10^1 CFU/g	$1.0x10^2$ - $1.5x10^4$	None Detected	

Final Approval

Brett Hudson
14Aug2022
01:41:00 PM MDT
PREPARED BY / DATE

Brianne Maillot
15Aug2022
02:26:00 PM MDT
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/ff0d09a6-dd19-4371-a243-296f3d47f6dd

Definitions
* Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples: 10^2 = 100 CFU, 10^3 = 1,000 CFU, 10^4 = 10,000 CFU, 10^5 = 100,000 CFU
CFU/g = Colony Forming Units per Gram, LOD = Limit of Detection
ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation
STEC = Shiga Toxin-Producing E. coli

Cert #4329.02
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1550 LARIMER ST. #964
DENVER, CO USA 80202

R30-BBD

Batch ID or Lot Number:	Test:	Reported:	USDA License:
D231S	**Pesticides**	**12Aug2022**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000217085	11Aug2022	NA
	Method(s):	Received:	Status:
	TM17 (LC-QQ LC MS/MS)	05Aug2022	NA

Pesticides

	Dynamic Range (ppb)	**Result** (ppb)
Abamectin	340 - 2772	ND
Acephate	41 - 2750	ND
Acetamiprid	40 - 2738	ND
Azoxystrobin	44 - 2694	ND
Bifenazate	44 - 2697	ND
Boscalid	35 - 2722	ND
Carbaryl	38 - 2722	ND
Carbofuran	41 - 2709	ND
Chlorantraniliprole	43 - 2747	ND
Chlorpyrifos	41 - 2765	ND
Clofentezine	284 - 2736	ND
Diazinon	281 - 2743	ND
Dichlorvos	265 - 2744	ND
Dimethoate	44 - 2694	ND
E-Fenpyroximate	281 - 2770	ND
Etofenprox	39 - 2756	ND
Etoxazole	297 - 2740	ND
Fenoxycarb	41 - 2724	ND
Fipronil	21 - 2806	ND
Flonicamid	54 - 2768	ND
Fludioxonil	278 - 2696	ND
Hexythiazox	40 - 2766	ND
Imazalil	273 - 2762	ND
Imidacloprid	38 - 2727	ND
Kresoxim-methyl	47 - 2768	ND

	Dynamic Range (ppb)	**Result** (ppb)
Malathion	296 - 2738	ND
Metalaxyl	43 - 2712	ND
Methiocarb	39 - 2718	ND
Methomyl	42 - 2753	ND
MGK 264 1	167 - 1622	ND
MGK 264 2	109 - 1129	ND
Myclobutanil	41 - 2708	ND
Naled	45 - 2757	ND
Oxamyl	42 - 2789	ND
Paclobutrazol	41 - 2708	ND
Permethrin	291 - 2805	ND
Phosmet	42 - 2713	ND
Prophos	284 - 2702	ND
Propoxur	43 - 2708	ND
Pyridaben	295 - 2754	ND
Spinosad A	35 - 2242	ND
Spinosad D	48 - 482	ND
Spiromesifen	294 - 2778	ND
Spirotetramat	288 - 2753	ND
Spiroxamine 1	17 - 1161	ND
Spiroxamine 2	25 - 1554	ND
Tebuconazole	286 - 2734	ND
Thiacloprid	41 - 2747	ND
Thiamethoxam	45 - 2731	ND
Trifloxystrobin	44 - 2756	ND

Final Approval

Daniel Weidensaul
12Aug2022
12:02:00 PM MDT
PREPARED BY / DATE

Sam Smith
12Aug2022
12:05:00 PM MDT
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/047dcfa2-b124-4cf0-9271-71f1d7f8d94a

Definitions
ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range
ppb = Parts Per Billion

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NULEAF NATURALS

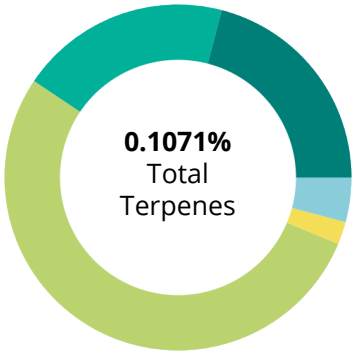
1550 LARIMER ST. #964
DENVER, CO USA 80202

R30-BBD

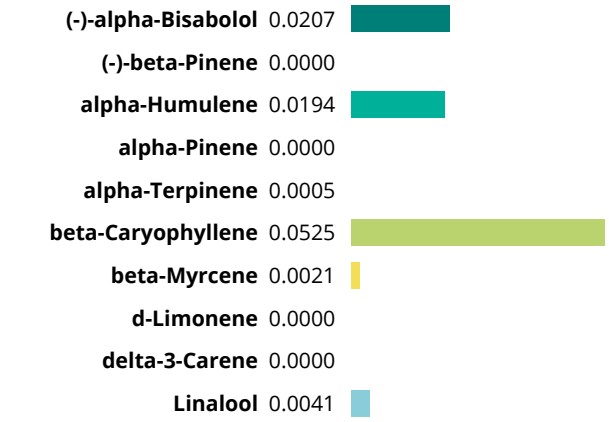
Batch ID or Lot Number:	Test:	Reported:	USDA License:
D231S	**Terpenes**	**12Aug2022**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000217084	11Aug2022	NA
	Method(s):	Received:	Status:
	TM22 (GC-MS)	05Aug2022	NA

Terpenes

	%(w/w)	(mg/g)
(-)-alpha-Bisabolol	0.0207	0.207
(-)-beta-Pinene	0.0000	0.0000
(-)-Caryophyllene Oxide	0.0040	0.040
(-)-Isopulegol	0.0000	0.0000
alpha-Humulene	0.0194	0.194
alpha-Pinene	0.0000	0.0000
alpha-Terpinene	0.0005	0.005
beta-Caryophyllene	0.0525	0.525
beta-Myrcene	0.0021	0.021
beta-Ocimene	0.0000	0.0000
Camphene	0.0000	0.0000
cis-Nerolidol	0.0000	0.0000
d-Limonene	0.0000	0.0000
delta-3-Carene	0.0000	0.0000
Eucalyptol	0.0000	0.0000
gamma-Terpinene	0.0000	0.0000
Geraniol	0.0000	0.0000
Linalool	0.0041	0.041
Ocimene	0.0000	0.0000
p-Cymene	0.0000	0.0000
Terpinolene	0.0000	0.0000
trans-Nerolidol	0.0038	0.038
	0.1071	**1.0710**



PREDOMINANT TERPENES



Notes

Final Approval

Daniel Weidensaul
12Aug2022
11:37:00 AM MDT

PREPARED BY / DATE

Tami Buchner
12Aug2022
05:47:00 PM MDT

APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/51887627-a60c-4e64-b6cb-74418b78b574

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NULEAF NATURALS

1550 LARIMER ST. #964
DENVER, CO USA 80202

R30-BBD

Batch ID or Lot Number:	Test:	Reported:	USDA License:
D231S	**Residual Solvents**	**10Aug2022**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000217088	10Aug2022	N/A
	Method(s):	Received:	Status:
	TM04 (GC-MS): Residual Solvents	05Aug2022	Active

Residual Solvents

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Propane	70 - 1397	ND	
Butanes (Isobutane, n-Butane)	149 - 2975	ND	
Methanol	53 - 1056	ND	
Pentane	81 - 1613	ND	
Ethanol	79 - 1587	ND	
Acetone	84 - 1674	ND	
Isopropyl Alcohol	85 - 1697	ND	
Hexane	5 - 103	ND	
Ethyl Acetate	86 - 1710	ND	
Benzene	0.2 - 3.5	ND	
Heptanes	88 - 1759	ND	
Toluene	15 - 306	ND	
Xylenes (m,p,o-Xylenes)	110 - 2199	ND	

Final Approval

Samantha Smith

Sam Smith
10Aug2022
02:33:00 PM MDT

PREPARED BY / DATE

K Winternheimer

Karen Winternheimer
10Aug2022
02:35:00 PM MDT

APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/586c83fa-06a8-4099-b0ac-26560b84d9dc

Definitions
ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

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