

Prepared for:

NULE-128-GK-3
Nuleaf


Batch ID or Lot Number: D149	Test: Potency	Reported: 12/16/21	Location: 3400 S. Federal Blvd Building B Englewood, CO 80110
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Matrix: Solution	Test ID: T000182074	Started: 12/15/21	USDA License: N/A
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Status: N/A	Method: TM14 (HPLC-DAD): Potency - Full Spectrum Analysis, 0.3% THC (Colorado Panel)	Received: 12/14/2021 @ 09:42 AM	Sampler ID: N/A
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CANNABINOID PROFILE

Compound	LOD (mg/mL)	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)	Notes
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.157	0.493	ND	ND	Density = 0.91g/mL
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.177	0.556	0.728	0.80	
Cannabidiolic acid (CBDA)	0.192	0.571	0.305*	0.34*	
Cannabidiol (CBD)	0.187	0.557	65.659	72.15	
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.195	0.613	ND	ND	
Cannabinolic Acid (CBNA)	0.112	0.351	ND	ND	
Cannabinol (CBN)	0.051	0.160	0.425	0.47	
Cannabigerolic acid (CBGA)	0.164	0.514	ND	ND	
Cannabigerol (CBG)	0.039	0.123	0.933	1.03	
Tetrahydrocannabivarinic Acid (THCVA)	0.138	0.435	ND	ND	
Tetrahydrocannabivarin (THCV)	0.036	0.112	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.080	0.238	ND	ND	
Cannabidivarin (CBDV)	0.044	0.132	1.065	1.17	
Cannabichromenic Acid (CBCA)	0.063	0.198	ND	ND	
Cannabichromene (CBC)	0.069	0.217	2.267	2.49	
Total Cannabinoids			71.382	78.44	
Total Potential THC**			0.728	0.80	
Total Potential CBD**			65.926	72.45	


 Hannah Wright
 16-Dec-2021
 12:54 PM


 Ryan Weems
 16-Dec-21
 12:58 PM

PREPARED BY / DATE

APPROVED BY / DATE

Definitions

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)

* Indicates a value below the Limit of Quantitation (LOQ) and above the Limit of Detection (LOD).

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

$$\text{Total THC} = \text{THC} + (\text{THCa} * (0.877)) \text{ and}$$

$$\text{Total CBD} = \text{CBD} + (\text{CBDa} * (0.877))$$

Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

ND = None Detected (Defined by Dynamic Range of the method)

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC.



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Prepared for:


Nuleaf

NULE-128-GK-3


Batch ID or Lot Number: D149	Test: Metals	Reported: 12/20/21	Location: 3400 S. Federal Blvd Building B Englewood, CO 80110
Matrix: Unit Co	Test ID: T000182076	Started: 12/17/21	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS): Heavy Metals (Colorado Panel)	Received: 12/14/2021 @ 09:42 AM	Sampler ID: N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.048 - 4.76	ND	
Cadmium	0.049 - 4.86	ND	
Mercury	0.047 - 4.74	ND	
Lead	0.048 - 4.84	ND	

 Sam Smith
20-Dec-21
11:14 AM

PREPARED BY / DATE

 Ryan Weems
20-Dec-21
11:16 AM

APPROVED BY / DATE

Definitions

ND = None Detected (Defined by Dynamic Range of the method)

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Prepared for:

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Nuleaf


Batch ID or Lot Number: D149	Test: Microbial Contaminants	Reported: 12/17/21	Location: 3400 S. Federal Blvd Building B Englewood, CO 80110
Matrix: Finished Product	Test ID: T000182075	Started: 12/14/21	USDA License: N/A
Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 12/14/2021 @ 09:42 AM	Sampler ID: N/A

MICROBIAL CONTAMINANTS DETERMINATION

Contaminant	Method	LOD	LLOQ	ULOQ	Result	Notes
Total Aerobic Count*	TM-26, Culture Plating	10 ² CFU/g	10 ³ CFU/g	1.5x10 ⁵ CFU/g	None Detected	Free from visual mold, mildew, and foreign matter
Total Coliforms*	TM-27, Culture Plating	10 ¹ CFU/g	10 ² CFU/g	1.5x10 ⁴ CFU/g	None Detected	
Total Yeast and Mold*	TM-24, Culture Plating	10 ¹ CFU/g	10 ² CFU/g	1.5x10 ⁴ CFU/g	None Detected	
E. coli (STEC)	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	
Salmonella	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	


 Brianne Maillot
 12/17/2021
 10:47:00 AM

PREPARED BY / DATE


 Carly Bader
 12/17/2021
 12:42:00 PM

APPROVED BY / DATE

Definitions

LOD = Limit of Detection | LLOQ = Lower Limit of Quantitation | ULOQ = Upper Limit of Quantitation

 CFU/g = Colony Forming Units per Gram | STEC = Shiga Toxin-Producing *E. coli*

* Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form.

Examples: 10² = 100 CFU
 10³ = 1,000 CFU
 10⁴ = 10,000 CFU
 10⁵ = 100,000 CFU

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Nuleaf

Batch ID or Lot Number: D149	Test: Pesticides	Reported: 12/17/21	Location: 3400 S. Federal Blvd Building B Englewood, CO 80110
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Matrix: Concentrate	Test ID: T000182496	Started: 12/15/21	USDA License: N/A
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Status: N/A	Method: TM17(LC-QQQ LC MS/MS):	Received: 12/14/2021 @ 09:42 AM	Sampler ID: N/A
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PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	42	ND	Fenoxycarb	46	ND	Paclobutrazol	45	ND
Acetamiprid	42	ND	Fipronil	26	ND	Permethrin	343	ND
Avermectin	323	ND	Flonicamid	42	ND	Phosmet	45	ND
Azoxystrobin	43	ND	Fludioxonil	321	ND	Prophos	289	ND
Bifenazate	41	ND	Hexythiazox	40	ND	Propoxur	46	ND
Boscalid	55	ND	Imazalil	277	ND	Pyridaben	308	ND
Carbaryl	40	ND	Imidacloprid	46	ND	Spinosad A	37	ND
Carbofuran	43	ND	Kresoxim-methyl	150	ND	Spinosad D	52	ND
Chlorantraniliprole	51	ND	Malathion	287	ND	Spiromesifen	271	ND
Chlorpyrifos	500	ND	Metalaxyl	44	ND	Spirotetramat	297	ND
Clofentezine	290	ND	Methiocarb	45	ND	Spiroxamine 1	19	ND
Diazinon	278	ND	Methomyl	44	ND	Spiroxamine 2	25	ND
Dichlorvos	278	ND	MGK 264 1	175	ND	Tebuconazole	291	ND
Dimethoate	43	ND	MGK 264 2	121	ND	Thiacloprid	43	ND
E-Fenpyroximate	293	ND	Myclobutanil	49	ND	Thiamethoxam	45	ND
Etofenprox	42	ND	Naled	48	ND	Trifloxystrobin	44	ND
Etoxazole	312	ND	Oxamyl	1500	ND			


 Daniel Weidensaul
 12/17/2021
 1:38:00 PM


 Sam Smith
 12/17/2021
 1:46:00 PM

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Definitions

LOQ = Limit of Quantification
 ppb = Parts per Billion

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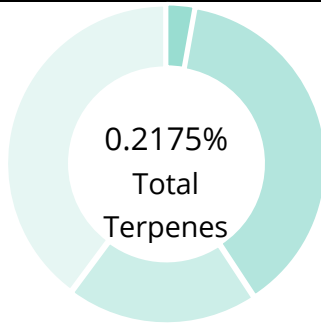


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NULE-128-GK-3

Batch ID:	D149	Test ID:	T000182512
Type:	Concentrate	Submitted:	12/14/2021 @ 09:42 AM
Test:	Terpenes	Started:	12/20/2021
Method:	TM22 (GC-MS)	Reported:	12/21/2021

TERPENE PROFILE



Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.0608	0.608
Camphene	0.0000	0.000
delta-3-Carene	0.0000	0.000
beta-Caryophyllene	0.0579	0.579
(-)-Caryophyllene Oxide	0.0615	0.615
p-Cymene	0.0000	0.000
Eucalyptol	0.0000	0.000
Geraniol	0.0000	0.000
alpha-Humulene	0.0296	0.296
(-)-Isopulegol	0.0000	0.000
d-Limonene	0.0000	0.000
Linalool	0.0043	0.043
beta-Myrcene	0.0000	0.000
cis-Nerolidol	0.0006	0.006
trans-Nerolidol	0.0028	0.028
Ocimene	0.0000	0.000
beta-Ocimene	0.0000	0.000
alpha-Pinene	0.0000	0.000
(-)-beta-Pinene	0.0000	0.000
alpha-Terpinene	0.0000	0.000
gamma-Terpinene	0.0000	0.000
Terpinolene	0.0000	0.000
	0.2175	2.175


PREDOMINANT TERPENES


alpha-Pinene	0.0000
(-)-beta-Pinene	0.0000
beta-Myrcene	0.0000
delta-3-Carene	0.0000
alpha-Terpinene	0.0000
d-Limonene	0.0000
Linalool	0.0043
beta-Caryophyllene	0.0579
alpha-Humulene	0.0296
(-)-alpha-Bisabolol	0.0608

NOTES:

N/A

FINAL APPROVAL


 Jacob Miller
 21-Dec-2021
 1:47 PM


 Ryan Weems
 21-Dec-2021
 1:51 PM

PREPARED BY / DATE

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2005 Accredited

A2LA Certificate Number 4329.02



Certificate #4329.02

Prepared for:

NULE-128-GK-3
Nuleaf

Batch ID or Lot Number: D149	Test: Residual Solvents	Reported: 12/16/21	Location: 3400 S. Federal Blvd Building B Englewood, CO 80110
Matrix: N/A	Test ID: T000182500	Started: 12/16/21	USDA License: N/A
Status: N/A	Methods: TM04 (GC-MS): Residual Solvents (Colorado Panel)	Received: 12/14/2021 @ 09:42 AM	Sampler ID: N/A

RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	68 - 1360	*ND	
Butanes (Isobutane, n-Butane)	135 - 2704	*ND	
Methanol	51 - 1028	*ND	
Pentane	74 - 1479	*ND	
Ethanol	80 - 1609	*ND	
Acetone	85 - 1694	*ND	
Isopropyl Alcohol	89 - 1774	*ND	
Hexane	5 - 100	*ND	
Ethyl Acetate	86 - 1715	*ND	
Benzene	0.2 - 3.6	*ND	
Heptanes	81 - 1613	*ND	
Toluene	16 - 321	*ND	
Xylenes (m,p,o-Xylenes)	118 - 2362	*ND	


 Hannah Wright
 16-Dec-21
 2:41 PM

PREPARED BY / DATE


 Ryan Weems
 16-Dec-21
 2:43 PM

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Definitions

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