

CERTIFICATE OF ANALYSIS

Prepared for:

Pet Releaf

8100 Southpark Way #A3 Littleton, CO USA 80120

300 mg - Hip & joint

Batch ID or Lot Number: 220119A	Test: Potency	Reported: 21Feb2022	USDA License: N/A
Matrix:	Test ID:	Started:	Sampler ID:
Solution	T000194129	21Feb2022	N/A
	Method(s):	Received:	Status:
	TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis (Colorado Panel)	18Feb2022	N/A

Cannabichromene (CBC) 0.059 0.202 0.631 0.67 Cannabichromenic Acid (CBCA) 0.054 0.185 ND ND Cannabidiol (CBD) 0.184 0.538 10.522 11.19 Cannabidiolic Acid (CBDA) 0.189 0.551 0.236* 0.25* Cannabidivarin (CBDV) 0.044 0.127 0.084* 0.09* Cannabidivarinic Acid (CBDVA) 0.079 0.230 ND ND Cannabigerol (CBG) 0.033 0.115 0.180 0.19 Cannabigerolic Acid (CBGA) 0.140 0.479 ND ND Cannabigerolic Acid (CBGA) 0.044 0.150 ND ND Cannabinol (CBN) 0.095 0.327 ND ND Cannabinolic Acid (CBNA) 0.095 0.327 ND ND Cannabinolic Acid (CBNA) 0.095 0.327 ND ND Cannabinolic Acid (CBNA) 0.0166 0.571 ND ND Calla 9-Tetrahydrocannabinol (Delta 9-THC) 0.151 0.519 0.301 0.32 Calla 9-Tetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Catrahydrocannabivarin (THCV) 0.030 0.104 ND ND Catrahydrocannabivarin (CHCVA) 0.118 0.405 ND ND Catrahydrocannabinoids Cannabinoids 11.954 12.72 Catal Potential THC** 0.301 0.32				Result	
Cannabichromenic Acid (CBCA) 0.054 0.185 ND ND Cannabidiol (CBD) 0.184 0.538 10.522 11.19 Cannabidiolic Acid (CBDA) 0.189 0.551 0.236* 0.25* Cannabidivarin (CBDV) 0.044 0.127 0.084* 0.09* Cannabidivarinic Acid (CBDVA) 0.079 0.230 ND ND Cannabigerol (CBG) 0.033 0.115 0.180 0.19 Cannabigerolic Acid (CBGA) 0.140 0.479 ND ND Cannabinol (CBN) 0.044 0.150 ND ND Cannabinolic Acid (CBNA) 0.095 0.327 ND ND Celta 8-Tetrahydrocannabinol (Delta 8-THC) 0.166 0.571 ND ND Delta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.151 0.519 0.301 0.32 Delta 9-Tetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Delta 9-Tetrahydrocannabivarin (THCVA) 0.118 0.405 ND ND Delta 9-Tetrahydrocannabivar	Cannabinoids	LOD (mg/mL)	LOQ (mg/mL)	(mg/mL)	Result (mg/g)
Idannabidiol (CBD) 0.184 0.538 10.522 11.19 Idannabidiolic Acid (CBDA) 0.189 0.551 0.236* 0.25* Idannabidivarin (CBDV) 0.044 0.127 0.084* 0.09* Idannabidivarinic Acid (CBDVA) 0.079 0.230 ND ND Idannabigerol (CBG) 0.033 0.115 0.180 0.19 Idannabigerolic Acid (CBGA) 0.140 0.479 ND ND Idannabinol (CBN) 0.044 0.150 ND ND Idannabinolic Acid (CBNA) 0.095 0.327 ND ND Idannabinolic Acid (CBNA) 0.095 0.327 ND ND Idannabinolic Acid (CBNA) 0.166 0.571 ND ND Idannabinolic Acid (THCA-A) 0.151 0.519 0.301 0.32 Idannabinolic Acid (THCVA) 0.030 0.104 ND ND Idannabinolids 0.118 0.405 ND ND Idannabinolids 0.118 0.405 ND	Cannabichromene (CBC)	0.059	0.202	0.631	0.67
Cannabidiolic Acid (CBDA) 0.189 0.551 0.236* 0.25* Cannabidivarin (CBDV) 0.044 0.127 0.084* 0.09* Cannabidivarinic Acid (CBDVA) 0.079 0.230 ND ND Cannabigerol (CBG) 0.033 0.115 0.180 0.19 Cannabigerolic Acid (CBGA) 0.140 0.479 ND ND Cannabinol (CBN) 0.044 0.150 ND ND Cannabinolic Acid (CBNA) 0.095 0.327 ND ND Celta 8-Tetrahydrocannabinol (Delta 8-THC) 0.166 0.571 ND ND Delta 9-Tetrahydrocannabinol (Delta 9-THC) 0.151 0.519 0.301 0.32 Delta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.134 0.459 ND ND Delta 9-Tetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Delta 9-Tetrahydrocannabivarinic Acid (THCVA) 0.118 0.405 ND ND Delta 1 Cannabinoids 11.954 12.72 12.72 12.72 12.72	Cannabichromenic Acid (CBCA)	0.054	0.185	ND	ND
Cannabidivarin (CBDV) 0.044 0.127 0.084* 0.09* Cannabidivarinic Acid (CBDVA) 0.079 0.230 ND ND Cannabigerol (CBG) 0.033 0.115 0.180 0.19 Cannabigerolic Acid (CBGA) 0.140 0.479 ND ND Cannabinol (CBN) 0.044 0.150 ND ND Cannabinolic Acid (CBNA) 0.095 0.327 ND ND Celta 8-Tetrahydrocannabinol (Delta 8-THC) 0.166 0.571 ND ND Celta 9-Tetrahydrocannabinol (Delta 9-THC) 0.151 0.519 0.301 0.32 Celta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.134 0.459 ND ND Cetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Cetrahydrocannabivarinic Acid (THCVA) 0.118 0.405 ND ND Cotal Potential THC** 0.301 0.322 0.301 0.322	Cannabidiol (CBD)	0.184	0.538	10.522	11.19
Cannabidivarinic Acid (CBDVA) 0.079 0.230 ND ND Cannabigerol (CBG) 0.033 0.115 0.180 0.19 Cannabigerolic Acid (CBGA) 0.140 0.479 ND ND Cannabinol (CBN) 0.044 0.150 ND ND Cannabinolic Acid (CBNA) 0.095 0.327 ND ND Delta 8-Tetrahydrocannabinol (Delta 8-THC) 0.166 0.571 ND ND Delta 9-Tetrahydrocannabinol (Delta 9-THC) 0.151 0.519 0.301 0.32 Delta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.134 0.459 ND ND Delta 9-Tetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Delta 9-Tetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Delta Potential THC** 0.118 0.405 ND ND	Cannabidiolic Acid (CBDA)	0.189	0.551	0.236*	0.25*
Cannabigerol (CBG) 0.033 0.115 0.180 0.19 Cannabigerolic Acid (CBGA) 0.140 0.479 ND ND Cannabinol (CBN) 0.044 0.150 ND ND Cannabinolic Acid (CBNA) 0.095 0.327 ND ND Cannabinolic Acid (CBNA) 0.166 0.571 ND ND Celta 9-Tetrahydrocannabinol (Delta 8-THC) 0.151 0.519 0.301 0.32 Celta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.134 0.459 ND ND Cetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Cetrahydrocannabivarinic Acid (THCVA) 0.118 0.405 ND ND Cotal Cannabinoids 11.954 12.72 Cotal Potential THC** 0.301 0.332	Cannabidivarin (CBDV)	0.044	0.127	0.084*	0.09*
Cannabigerolic Acid (CBGA) 0.140 0.479 ND ND Cannabigerolic Acid (CBN) 0.044 0.150 ND ND Cannabinolic Acid (CBNA) 0.095 0.327 ND ND Celta 8-Tetrahydrocannabinol (Delta 8-THC) 0.166 0.571 ND ND Celta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.151 0.519 0.301 0.32 Celta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.134 0.459 ND ND Cetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Cetrahydrocannabivarinic Acid (THCVA) 0.118 0.405 ND ND Cotal Cannabinoids 11.954 12.72 Cotal Potential THC** 0.301 0.32	Cannabidivarinic Acid (CBDVA)	0.079	0.230	ND	ND
Cannabinol (CBN) 0.044 0.150 ND ND Cannabinolic Acid (CBNA) 0.095 0.327 ND ND Delta 8-Tetrahydrocannabinol (Delta 8-THC) 0.166 0.571 ND ND Delta 9-Tetrahydrocannabinol (Delta 9-THC) 0.151 0.519 0.301 0.32 Delta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.134 0.459 ND ND Delta 9-Tetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Delta 9-Tetrahydrocannabivarinic Acid (THCVA) 0.118 0.405 ND ND Delta 9-Tetrahydrocannabivarinic Acid (THCVA) 0.301 0.321 0.331 0.332	Cannabigerol (CBG)	0.033	0.115	0.180	0.19
Cannabinolic Acid (CBNA) 0.095 0.327 ND ND Delta 8-Tetrahydrocannabinol (Delta 8-THC) 0.166 0.571 ND ND Delta 9-Tetrahydrocannabinol (Delta 9-THC) 0.151 0.519 0.301 0.32 Delta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.134 0.459 ND ND Delta 9-Tetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Detrahydrocannabivarinic Acid (THCVA) 0.118 0.405 ND ND Total Cannabinoids 11.954 12.72 Total Potential THC** 0.301 0.32	Cannabigerolic Acid (CBGA)	0.140	0.479	ND	ND
Delta 8-Tetrahydrocannabinol (Delta 8-THC) 0.166 0.571 ND ND Delta 9-Tetrahydrocannabinol (Delta 9-THC) 0.151 0.519 0.301 0.32 Delta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.134 0.459 ND ND Delta 9-Tetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Delta 9-Tetrahydrocannabivarin (THCV) 0.118 0.405 ND ND Delta 9-Tetrahydrocannabivarinic Acid (THCVA) 0.118 0.405 ND ND Total Cannabinoids 11.954 12.72 12.72 Total Potential THC** 0.301 0.32 0.32	Cannabinol (CBN)	0.044	0.150	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9-THC) 0.151 0.519 0.301 0.32 Delta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.134 0.459 ND ND Delta 9-Tetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Delta 9-Tetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Delta 9-Tetrahydrocannabivarin (THCV) 0.118 0.405 ND ND Delta 9-Tetrahydrocannabivarin (THCV) 0.118 0.405 ND ND Total Cannabinoids 11.954 12.72 Total Potential THC** 0.301 0.32	Cannabinolic Acid (CBNA)	0.095	0.327	ND	ND
Delta 9-Tetrahydrocannabinolic Acid (THCA-A) 0.134 0.459 ND ND etrahydrocannabivarin (THCV) 0.030 0.104 ND ND etrahydrocannabivarinic Acid (THCVA) 0.118 0.405 ND ND ND otal Cannabinoids 11.954 12.72 otal Potential THC** 0.301 0.32	Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.166	0.571	ND	ND
Tetrahydrocannabivarin (THCV) 0.030 0.104 ND ND Setrahydrocannabivarinic Acid (THCVA) 0.118 0.405 ND ND Sotal Cannabinoids 11.954 12.72 Sotal Potential THC** 0.301 0.32	Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.151	0.519	0.301	0.32
Tetrahydrocannabivarinic Acid (THCVA) 0.118 0.405 ND ND Total Cannabinoids 11.954 12.72 Total Potential THC** 0.301 0.32	Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.134	0.459	ND	ND
Interest of tal Cannabinoids 11.954 12.72 Total Potential THC** 0.301 0.32	Tetrahydrocannabivarin (THCV)	0.030	0.104	ND	ND
fotal Potential THC** 0.301 0.32	Tetrahydrocannabivarinic Acid (THCVA)	0.118	0.405	ND	ND
	Total Cannabinoids			11.954	12.72
otal Potential CBD** 10.729 11.41	Total Potential THC**			0.301	0.32
	Total Potential CBD**			10.729	11.41

Final Approval

PREPARED BY / DATE

Jacob Miller 22Feb2002 06:57:00 PM MST Daniel Westersaul

Daniel Weidensaul 22Feb2022 07:02:00 PM MST



APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/d1f1eeea-117e-40ef-9870-696a888cee01

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)).

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. ISO/ IEC 17025:2005 Accredited A2LA.











Cert #4329.02

CDPHE Certified d1f1eeea117e40ef9870696a888cee01.1



Official Compliance: Colorado

CERTIFICATE OF ANALYSIS

Prepared for:

300 mg - Hip and Joint

Pet Releaf

Batch ID or Lot Number: 220119A	Test: Mycotoxins	Reported: 2/16/22	Location: 8100 Southpark Way #A3 Littleton, CO 80120
Matrix: Concentrate	Test ID: T000192509	Started: 2/15/22	USDA License: N/A
Status: N/A	Method: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins (Colorado Panel)	Received: 02/10/2022 @ 02:14 PM	Sampler ID: N/A

MYCOTOXIN DETERMINATION

Compound	Dynamic Range (ppb)	Result (ppb)	Notes	
Ochratoxin A	3.6 - 128.7	ND	N/A	
Aflatoxin B1	1.2 - 32.4	ND		
Aflatoxin B2	1.3 - 32.4	ND		
Aflatoxin G1	1.3 - 32.2	ND		
Aflatoxin G2	1 - 32.8	ND		
Total Aflatoxins (B1, B2, G1, and G2)		ND		

Myon News

Ryan Weems 16-Feb-22 1:06 PM

Samantha Smill

Sam Smith 16-Feb-22 1:15 PM

PREPARED BY / DATE

APPROVED BY / DATE

Definitions

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

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CDPHE Certified





Certificate #4329.02



Official Compliance: Colorado

CERTIFICATE OF ANALYSIS

Prepared for:

300 mg - Hip and Joint

Pet Releaf

Batch ID or Lot Number: 220119A	Test: Microbial Contaminants	Reported: 2/14/22	Location: 8100 Southpark Way #A3 Littleton, CO 80120
Matrix: Finished Product	Test ID: T000192506	Started: 2/11/22	USDA License: N/A
Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating):	Received: 02/10/2022 @ 02:14 PM	Sampler ID: N/A

Microbial (Colorado Panel)

MICROBIAL CONTAMINANTS DETERMINATION

Contaminant	Method	LOD	LLOQ	ULOQ	Result
Total Aerobic Count*	TM-26, Culture Plating	10^2 CFU/g	10^3 CFU/g	1.5x10^5 CFU/g	None Detected
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	10^0 CFU/25 g	NA	NA	Absent
Salmonella	TM-25, PCR	10^0 CFU/25 g	NA	NA	Absent

Notes

Free from visual mold, mildew, and foreign matter

Branne Maillot

Brianne Maillot 2/14/2022 3:50:00 PM

Brett Hudson 2/14/2022 4:41:00 PM

PREPARED BY / DATE

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.

10^2 = 100 CFU Examples:

10^3 = 1.000 CFU 10^4 = 10,000 CFU 10^5 = 100,000 CFU

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CERTIFICATE OF ANALYSIS

Prepared for:

300 mg - Hip and Joint

Pet Releaf

Batch ID or Lot Number: 220119A	Test: Pesticides	Reported: 2/15/22	Location: 8100 Southpark Way #A3 Littleton, CO 80120
Matrix: Concentrate	Test ID: T000192505	Started: 2/14/22	USDA License: N/A
Status:	Method:	Received:	Sampler ID:
N/A	TM17(LC-QQQ LC MS/MS):	02/10/2022 @ 02:14 PM	N/A

PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	65	ND	Fenoxycarb	64	ND	Paclobutrazol	65	ND
Acetamiprid	67	ND	Fipronil	76	ND	Permethrin	293	ND
Avermectin	320	ND	Flonicamid	76	ND	Phosmet	60	ND
Azoxystrobin	65	ND	Fludioxonil	284	ND	Prophos	299	ND
Bifenazate	54	ND	Hexythiazox	66	ND	Propoxur	62	ND
Boscalid	65	ND	Imazalil	280	ND	Pyridaben	295	ND
Carbaryl	63	ND	Imidacloprid	75	ND	Spinosad A	51	ND
Carbofuran	65	ND	Kresoxim-methyl	150	ND	Spinosad D	51	ND
Chlorantraniliprole	62	ND	Malathion	301	ND	Spiromesifen	288	ND
Chlorpyrifos	500	ND	Metalaxyl	62	ND	Spirotetramat	277	ND
Clofentezine	290	ND	Methiocarb	65	ND	Spiroxamine 1	27	ND
Diazinon	288	ND	Methomyl	67	ND	Spiroxamine 2	37	ND
Dichlorvos	296	ND	MGK 264 1	161	ND	Tebuconazole	295	ND
Dimethoate	65	ND	MGK 264 2	116	ND	Thiacloprid	69	ND
E-Fenpyroximate	289	ND	Myclobutanil	59	ND	Thiamethoxam	71	ND
Etofenprox	66	ND	Naled	59	ND	Trifloxystrobin	64	ND
Etoxazole	296	ND	Oxamyl	1500	ND			

Samantha Small

Sam Smith 2/15/2022 10:37:00 AM

Daniel Westersand

Daniel Weidensaul 2/15/2022 10:45:00 AM

PREPARED BY / DATE

APPROVED BY / DATE

Definitions

LOQ = Limit of Quantification ppb = Parts per Billion

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Certificate #4329.02



Official Compliance: Colorado

Notes

CERTIFICATE OF ANALYSIS

Prepared for:

300 mg - Hip and Joint

Pet Releaf

Batch ID or Lot Number: 220119A	Test: Metals	Reported: 2/15/22	Location: 8100 Southpark Way #A3 Littleton, CO 80120
Matrix:	Test ID:	Started:	USDA License:
Unit Co	T000192507	2/15/22	N/A
Status:	Method:	Received:	Sampler ID:
N/A	TM19 (ICP-MS): Heavy Metals (Colorado Panel)	02/10/2022 @ 02:14 PM	N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)
Arsenic	0.045 - 4.47	ND
Cadmium	0.043 - 4.29	ND
Mercury	0.045 - 4.47	ND
Lead	0.045 - 4.45	ND

APPROVED

Justin Thomson 03/08/2022 NPD & Quality Manager

Ryan Weems

15-Feb-22

6:55 PM

Daniel Wordoward

PREPARED BY / DATE

Daniel Weidensaul 15-Feb-22

APPROVED BY / DATE

6:52 PM

Definitions

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



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