

CERTIFICATE OF ANALYSIS

Prepared for:
Pet Relief

8100 Southpark Way #A3
Littleton, CO USA 80120

600 mg - Hip and Joint

Batch ID or Lot Number: 220119B	Test: Potency	Reported: 16Feb2022	USDA License: N/A
Matrix: Solution	Test ID: T000193542	Started: 16Feb2022	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis (Colorado Panel)	Received: 16Feb2022	Status: N/A

Cannabinoids	LOD (mg/mL)	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.060	0.187	1.207	1.28	
Cannabichromenic Acid (CBCA)	0.055	0.171	ND	ND	
Cannabidiol (CBD)	0.136	0.497	20.369	21.67	
Cannabidiolic Acid (CBDA)	0.140	0.510	0.443*	0.47*	
Cannabidivarin (CBDV)	0.032	0.117	0.152	0.16	
Cannabidivarinic Acid (CBDVA)	0.058	0.213	ND	ND	
Cannabigerol (CBG)	0.034	0.106	0.349	0.37	
Cannabigerolic Acid (CBGA)	0.142	0.443	ND	ND	
Cannabinol (CBN)	0.044	0.138	ND	ND	
Cannabinolic Acid (CBNA)	0.097	0.302	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.169	0.528	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.153	0.479	0.536	0.57	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.136	0.425	ND	ND	
Tetrahydrocannabivarin (THCV)	0.031	0.096	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.120	0.374	ND	ND	
Total Cannabinoids			23.056	24.53	
Total Potential THC**			0.536	0.57	
Total Potential CBD**			20.758	22.08	

Final Approval



Jacob Miller
16Feb2022
05:00:00 PM MST

PREPARED BY / DATE



Sam Smith
16Feb2022
02:57:00 PM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/417efb53-c143-4a86-b30e-6fe41064538a>

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

417efb53c1434a86b30e6fe41064538a.1


Prepared for:


600 mg - Hip and Joint
Pet Relief

Batch ID or Lot Number: 220119B	Test: Metals	Reported: 2/15/22	Location: 8100 Southpark Way #A3 Littleton, CO 80120
Matrix: Unit Co	Test ID: T000192514	Started: 2/15/22	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS); Heavy Metals (Colorado Panel)	Received: 02/10/2022 @ 02:14 PM	Sampler ID: N/A

HEAVY METALS DETERMINATION

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


 Daniel Weidensaul
 15-Feb-22
 6:52 PM


 Ryan Weems
 15-Feb-22
 6:55 PM

PREPARED BY / DATE

APPROVED BY / DATE

Definitions

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

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Batch ID or Lot Number: 220119B	Test: Microbial Contaminants	Reported: 2/14/22	Location: 8100 Southpark Way #A3 Littleton, CO 80120
Matrix: Finished Product	Test ID: T000192513	Started: 2/11/22	USDA License: N/A
Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 02/10/2022 @ 02:14 PM	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	<LLOQ	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	10 ⁰ CFU/25 g	NA	NA	Absent	
Salmonella	TM-25, PCR	10 ⁰ CFU/25 g	NA	NA	Absent	


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

PREPARED BY / DATE


 Brett Hudson
 2/14/2022
 4:41:00 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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Batch ID or Lot Number: 220119B	Test: Mycotoxins	Reported: 2/16/22	Location: 8100 Southpark Way #A3 Littleton, CO 80120
Matrix: Concentrate	Test ID: T000192516	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	3.7 - 134.5	ND	N/A
Aflatoxin B1	1.2 - 33.9	ND	
Aflatoxin B2	1.3 - 33.8	ND	
Aflatoxin G1	1.3 - 33.6	ND	
Aflatoxin G2	1 - 34.2	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	


 Ryan Weems
 16-Feb-22
 1:06 PM

PREPARED BY / DATE


 Sam Smith
 16-Feb-22
 1:15 PM

APPROVED BY / DATE

Definitions

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Batch ID or Lot Number: 220119B	Test: Residual Solvents	Reported: 2/15/22	Location: 8100 Southpark Way #A3 Littleton, CO 80120
Matrix: N/A	Test ID: T000192515	Started: 2/15/22	USDA License: N/A
Status: N/A	Methods: TM04 (GC-MS): Residual Solvents (Colorado Panel)	Received: 02/10/2022 @ 02:14 PM	Sampler ID: N/A

RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	77 - 1542	*ND	
Butanes (Isobutane, n-Butane)	157 - 3131	*ND	
Methanol	52 - 1031	*ND	
Pentane	81 - 1614	*ND	
Ethanol	82 - 1648	*ND	
Acetone	86 - 1711	*ND	
Isopropyl Alcohol	87 - 1748	*ND	
Hexane	5 - 104	*ND	
Ethyl Acetate	86 - 1714	*ND	
Benzene	0.2 - 3.4	*ND	
Heptanes	83 - 1662	*ND	
Toluene	15 - 306	*ND	
Xylenes (m,p,o-Xylenes)	99 - 1983	*ND	

 Hannah Wright
15-Feb-22
2:20 PM

 Sam Smith
15-Feb-22
2:22 PM

PREPARED BY / DATE

APPROVED BY / DATE

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Batch ID or Lot Number: 220119B	Test: Pesticides	Reported: 2/15/22	Location: 8100 Southpark Way #A3 Littleton, CO 80120
Matrix: Concentrate	Test ID: T000192512	Started: 2/14/22	USDA License: N/A
Status: N/A	Method: TM17(LC-QQQ LC MS/MS):	Received: 02/10/2022 @ 02:14 PM	Sampler ID: 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			

APPROVED

 Justin Thomson 02/20/2022
 NPD & Quality Manager


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


 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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