

CERTIFICATE OF ANALYSIS

Prepared for:

DEFY

4109 E 10th Ave.

Denver, CO United States 80220

DEFY Muscle Balm 2.5oz 1000mg

Batch ID or Lot Number: 256-001	Test: Potency	Reported: 09Mar2022	USDA License: N/A
Matrix: Unit	Test ID: T000195927	Started: 08Mar2022	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency - Broad Spectrum Analysis, 0.01% THC	Received: 03Mar2022	Status: N/A

Cannabinoids

	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	4.555	13.819	9.299*	0.13*	
Cannabichromenic Acid (CBCA)	4.167	12.640	ND	ND	
Cannabidiol (CBD)	11.436	36.452	1059.769	15.14	
Cannabidiolic Acid (CBDA)	11.729	37.387	ND	ND	
Cannabidivarin (CBDV)	2.705	8.621	7.256*	0.1*	
Cannabidivarinic Acid (CBDVA)	4.893	15.596	ND	ND	
Cannabigerol (CBG)	2.586	7.846	ND	ND	
Cannabigerolic Acid (CBGA)	10.812	32.800	ND	ND	
Cannabinol (CBN)	3.374	10.236	5.398*	0.08*	
Cannabinolic Acid (CBNA)	7.377	22.379	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	12.881	39.077	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	1.950	5.915	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	1.727	5.241	ND	ND	
Tetrahydrocannabivarin (THCV)	2.353	7.137	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	9.142	27.734	ND	ND	
Total Cannabinoids			1081.722	15.45	
Total Potential THC**			ND	ND	
Total Potential CBD**			1059.769	15.14	

Final Approval



Jacob Miller
09Mar2022
02:12:00 PM MST

PREPARED BY / DATE



Ryan Weems
09Mar2022
02:16:00 PM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/3abcb188-f6b4-44ad-8f87-edb8671f466c>

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
3abcb188f6b444ad8f87edb8671f466c.1

CERTIFICATE OF ANALYSIS

Prepared for:

DEFY

4109 E 10th Ave.


Denver, CO United States 80220

DEFY Muscle Balm 2.5oz 1000mg

Batch ID or Lot Number: 256-001	Test: Microbial Contaminants	Reported: 08Mar2022	USDA License: N/A
Matrix: Finished Product	Test ID: T000195930	Started: 04Mar2022	Sampler ID: N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 03Mar2022	Status: N/A

Microbial
Contaminants

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
<i>Salmonella</i>	TM25: PCR	10 ⁰ CFU/25g	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


Eden Thompson-Wright

07Mar2022

04:10:00 PM MST

PREPARED BY / DATE



Jackson Osaghae-Nosa

07Mar2022

04:32:00 PM MST

APPROVED BY / DATE


<https://results.botanacor.com/api/v1/coas/uuid/3ef46c71-58ef-44a0-9b5d-28240d9755f9>
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: 10² = 100 CFU, 10³ = 1,000 CFU, 10⁴ = 10,000 CFU, 10⁵ = 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

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

3ef46c7158ef44a09b5d28240d9755f9.1

Prepared for:

DEFY

4109 E 10th Ave.

Denver, CO United States 80220


DEFY Muscle Balm 2.5oz 1000mg

Batch ID or Lot Number: 256-001	Test: Pesticides	Reported: 10Mar2022	USDA License: NA
Matrix: Concentrate	Test ID: T000195929	Started: 09Mar2022	Sampler ID: NA
	Method(s): TM17 (LC-QQ LC MS/MS)	Received: 03Mar2022	Status: NA

Pesticides

Pesticides	Dynamic Range (ppb)	Result (ppb)	Pesticides	Dynamic Range (ppb)	Result (ppb)
Abamectin	272 - 2555	ND	Malathion	294 - 2701	ND
Acephate	38 - 2647	ND	Metalaxyl	42 - 2777	ND
Acetamiprid	37 - 2674	ND	Methiocarb	41 - 2778	ND
Azoxystrobin	43 - 2680	ND	Methomyl	38 - 2653	ND
Bifenazate	40 - 2702	ND	MGK 264 1	169 - 1632	ND
Boscalid	54 - 2802	ND	MGK 264 2	114 - 1110	ND
Carbaryl	40 - 2714	ND	Myclobutanil	38 - 2749	ND
Carbofuran	45 - 2773	ND	Naled	49 - 2759	ND
Chlorantraniliprole	64 - 2669	ND	Oxamyl	37 - 2664	ND
Chlorpyrifos	38 - 2684	ND	Pacllobutrazol	40 - 2682	ND
Clofentezine	271 - 2731	ND	Permethrin	290 - 2726	ND
Diazinon	278 - 2719	ND	Phosmet	35 - 2691	ND
Dichlorvos	278 - 2710	ND	Prophos	276 - 2729	ND
Dimethoate	40 - 2725	ND	Propoxur	39 - 2737	ND
E-Fenpyroximate	289 - 2690	ND	Pyridaben	288 - 2670	ND
Etofenprox	42 - 2695	ND	Spinosad A	33 - 2243	ND
Etoxazole	293 - 2711	ND	Spinosad D	45 - 495	ND
Fenoxycarb	41 - 2695	ND	Spiromesifen	266 - 2680	ND
Fipronil	44 - 2702	ND	Spirotetramat	269 - 2686	ND
Flonicamid	49 - 2627	ND	Spiroxamine 1	11 - 1171	ND
Fludioxonil	285 - 2786	ND	Spiroxamine 2	22 - 1530	ND
Hexythiazox	40 - 2692	ND	Tebuconazole	279 - 2698	ND
Imazalil	254 - 2718	ND	Thiacloprid	41 - 2692	ND
Imidacloprid	44 - 2757	ND	Thiamethoxam	44 - 2756	ND
Kresoxim-methyl	52 - 2704	ND	Trifloxystrobin	42 - 2740	ND

Final Approval



Sam Smith
10Mar2022
09:06:00 AM MST

PREPARED BY / DATE



Karen Winternheimer
10Mar2022
09:09:00 AM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/4260d931-0b5a-472e-a0a0-083d9021debc>

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

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

4260d9310b5a472ea0a0083d9021debc.1

CERTIFICATE OF ANALYSIS

Prepared for:

DEFY

4109 E 10th Ave.

Denver, CO United States 80220

DEFY Muscle Balm 2.5oz 1000mg

Batch ID or Lot Number: 256-001	Test: Heavy Metals	Reported: 09Mar2022	USDA License: NA
Matrix: Unit Co	Test ID: T000195931	Started: 08Mar2022	Sampler ID: NA
	Method(s): TM19 (ICP-MS): Heavy Metals	Received: 03Mar2022	Status: NA

Heavy Metals

	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 4.21	ND	
Cadmium	0.04 - 4.31	ND	
Mercury	0.04 - 4.17	ND	
Lead	0.04 - 4.19	ND	

Final Approval



Daniel Weidensaul
09Mar2022
12:29:00 PM MST

PREPARED BY / DATE



Ryan Weems
09Mar2022
12:33:00 PM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/edb10e7b-1d3c-447e-a1c1-0dddabaea76d>

Definitions

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

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



edb10e7b1d3c447ea1c10dddabaea76d.1

CERTIFICATE OF ANALYSIS

Prepared for:

DEFY

4109 E 10th Ave.

Denver, CO United States 80220

DEFY Muscle Balm 2.5oz 1000mg

Batch ID or Lot Number: 256-001	Test: Residual Solvents	Reported: 07Mar2022	USDA License: N/A
Matrix: Topical	Test ID: T000195932	Started: 07Mar2022	Sampler ID: N/A
	Method(s): TM04 (GC-MS): Residual Solvents	Received: 03Mar2022	Status: N/A

Residual Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	77 - 1536	ND	
Butanes (Isobutane, n-Butane)	155 - 3103	ND	
Methanol	58 - 1169	ND	
Pentane	83 - 1651	ND	
Ethanol	82 - 1647	ND	
Acetone	88 - 1763	ND	
Isopropyl Alcohol	100 - 2006	ND	
Hexane	6 - 120	ND	
Ethyl Acetate	105 - 2110	ND	
Benzene	0.2 - 3.8	ND	
Heptanes	85 - 1707	ND	
Toluene	17 - 334	ND	
Xylenes (m,p,o-Xylenes)	114 - 2286	ND	

Final Approval



Hannah Wright
07Mar2022
03:44:00 PM MST

PREPARED BY / DATE



Sam Smith
07Mar2022
03:50:00 PM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/c679840d-98e1-4aff-83d5-2895a793950a>

Definitions

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

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

c679840d98e14aff83d52895a793950a.1

CERTIFICATE OF ANALYSIS

Prepared for:

DEFY

4109 E 10th Ave.


Denver, CO United States 80220

DEFY Muscle Balm 2.5oz 1000mg

Batch ID or Lot Number: 256-001	Test: Mycotoxins	Reported: 09Mar2022	USDA License: N/A
Matrix: Concentrate	Test ID: T000195933	Started: 08Mar2022	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 03Mar2022	Status: N/A

Mycotoxins	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	1.68 - 138.35	ND	N/A
Aflatoxin B1	1.02 - 35.36	ND	
Aflatoxin B2	1.09 - 34.99	ND	
Aflatoxin G1	1.06 - 34.83	ND	
Aflatoxin G2	1.29 - 34.40	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval



 Sam Smith
 09Mar2022
 11:25:00 AM MST

PREPARED BY / DATE



 Ryan Weems
 09Mar2022
 11:28:00 AM MST

APPROVED BY / DATE


<https://results.botanacor.com/api/v1/coas/uuid/07e079de-15ae-46ca-84b2-619d6ea45ff1>

Definitions

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

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

[07e079de15ae46ca84b2619d6ea45ff1.1](https://results.botanacor.com/api/v1/coas/uuid/07e079de-15ae-46ca-84b2-619d6ea45ff1)