Certificate of Analysis

Product : **Softgels containing hemp oil distillate**
Target 25.0 mg CBD

Batch : **06H1901**

Timeframe : **Initial batch release**

Test	Analyte	Acceptance Criteria	Results	Pass	Fail
Cannabinoids	CBD	22.5 to 30.0 mg	27.097 mg (108% of target)	✓	
	THC	<0.3% w/w	<0.3% w/w	✓	
	THC-A	<0.3% w/w	<0.3% w/w	✓	
Microbiology	Total Aerobic Count	Not detected	Not detected	✓	
	Total Coliforms	Not detected	Not detected	✓	
	Total Yeast & Mold	Not detected	Not detected	✓	
	E. Coli (STEC)	Absent in 25 g	Absent	✓	
	Salmonella	Absent in 25 g	Absent	✓	
Pesticides	Targeted list	Not detected	Not detected	✓	
Heavy metals	Arsenic As	<0.4 ppm	<0.4 ppm	✓	
	Cadmium Cd	<0.4 ppm	<0.4 ppm	✓	
	Lead Pb	<0.5 ppm	<0.5 ppm	✓	
	Mercury Hg	<0.2 ppm	<0.2 ppm	✓	
Residual solvents	Benzene	<2 ppm	<2 ppm	✓	
	Heptane	<500 ppm	<500 ppm	✓	
	Hexane	<10 ppm	<10 ppm	✓	
	Ethanol	<1000 ppm	<1000 ppm	✓	
	Toluene	<20 ppm	<20 ppm	✓	
	Total Xylenes	<100 ppm	<100 ppm	✓	

**Product not tested for these analytes, but major component(s) in formulation demonstrated to be free of contamination*

✓ Batch is acceptable and released

☐ Batch is not acceptable and will not be released

Prepared by : _____ Date : 17JUN22

Approved by : _____ Date : 17 JUN 22

botanacor

Official Compliance: Colorado

CERTIFICATE OF ANALYSIS

Prepared for:

PANACEA LIFE SCIENCES

16194 W 45th Drive
Golden, CO USA 80403

Daily 25mg CBD

Batch ID or Lot Number:	Test:	Reported:	USDA License:
06H1901	**Potency**	**14Jun2022**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Unit	T000210097	13Jun2022	N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 13Jun2022	Status: Active

Cannabinoids

	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.051	0.167	0.710	1.09	# of Servings = 1
Cannabichromenic Acid (CBCA)	0.047	0.152	ND	ND	Sample
Cannabidiol (CBD)	0.145	0.431	27.097	41.67	Weight=0.65g
Cannabidiolic Acid (CBDA)	0.148	0.442	ND	ND	
Cannabidivarin (CBDV)	0.034	0.102	<LOQ	0.12	
Cannabidivarinic Acid (CBDVA)	0.062	0.185	ND	ND	
Cannabigerol (CBG)	0.029	0.095	0.216	0.33	
Cannabigerolic Acid (CBGA)	0.122	0.395	ND	ND	
Cannabinol (CBN)	0.038	0.123	<LOQ	0.11	
Cannabinolic Acid (CBNA)	0.083	0.270	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.145	0.471	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.131	0.428	0.418	0.64	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.117	0.379	ND	ND	
Tetrahydrocannabivarin (THCV)	0.026	0.086	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.103	0.334	ND	ND	
Total Cannabinoids			**28.588**	**43.97**	
Total Potential THC			0.418	0.64	
Total Potential CBD			27.097	41.67	

Final Approval

Ryan Weems
14Jun2022
12:07:00 PM MDT
PREPARED BY / DATE

Karen Winternheimer
14Jun2022
12:11:00 PM MDT
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/b2414769-22f2-47bc-a6f9-07fe1455a19a

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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Official Compliance: Colorado

CERTIFICATE OF ANALYSIS

Prepared for:

PANACEA LIFE SCIENCES

16194 W 45th Drive
Golden, CO USA 80403

Daily 25mg CBD

Batch ID or Lot Number:	Test:	Reported:	USDA License:
06H1901	**Microbial Contaminants**	**16Jun2022**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Finished Product	T000210098	13Jun2022	N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 13Jun2022	Status: Active

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
Salmonella	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

Brianne Maillot
16Jun2022
10:34:00 AM MDT

PREPARED BY / DATE

Eden Thompson-Wright
16Jun2022
11:17:00 AM MDT

APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/a7911e6a-6da4-4569-8a87-6f18f9bc4b4a

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

Altitude

Customer: Panacea Life Sciences
Customer Sample ID: SG06H1901 OS A C
Laboratory Number: 19I0045-01

Pesticide Profile

Extraction Technician: MTO
Analytical Chemist: rdh

Extraction Date(s)	Analysis Date(s)
9/5/2019	9/5/2019

Pesticides	Results	Pos/Neg	LOD(ug/g)
	ug/g		
Abamectin	ND	NEG	0.0111
Acephate	ND	NEG	0.00632
Acequinocyl	ND	NEG	0.0316
Acetamiprid	ND	NEG	0.00316
Aldicarb	ND	NEG	0.00632
Azoxystrobin	ND	NEG	0.00316
Bifenazate	ND	NEG	0.00316
Bifenthrin	ND	NEG	0.00316
Boscalid	ND	NEG	0.00632
Carbaryl	ND	NEG	0.00316
Carbofuran	ND	NEG	0.00316
Chlorantraniliprole	ND	NEG	0.00316
Chlorfenapyr	ND	NEG	0.0158
Chlorpyrifos	ND	NEG	0.00316
Clofentezine	ND	NEG	0.00316
Cyfluthrin	ND	NEG	0.0158
Cypermethrin	ND	NEG	0.0158
Daminozide	ND	NEG	0.0158
DDVP (Dichlorvos)	ND	NEG	0.00158
Diazinon	ND	NEG	0.00316
Dimethoate	ND	NEG	0.00316
Ethoprophos	ND	NEG	0.00316
Etofenprox	ND	NEG	0.00632
Etoxazole	ND	NEG	0.00158
Fenoxycarb	ND	NEG	0.00316
Fenpyroximate	ND	NEG	0.00632
Fipronil	ND	NEG	0.00632
Flonicamid	ND	NEG	0.0158
Fludioxonil	ND	NEG	0.00632
Hexythiazox	ND	NEG	0.0158
Imazalil	ND	NEG	0.00632

Altitude

Customer: Panacea Life Sciences
Customer Sample ID: SG06H1901
Laboratory Number: 19I0045-01

Pesticide Profile

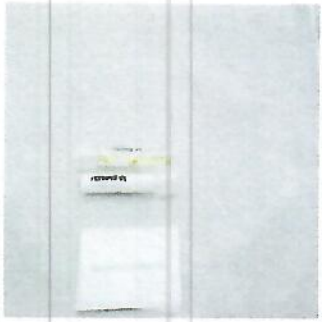
Extraction Technician: MTO
Analytical Chemist: rdh

Extraction Date(s)	Analysis Date(s)
9/5/2019	9/5/2019

Pesticides	Results	Pos/Neg	LOD(ug/g)
	ug/g		
Imidacloprid	ND	NEG	0.00316
Kresoxim-methyl	ND	NEG	0.00632
Malathion	ND	NEG	0.00790
Metalaxyl	ND	NEG	0.00316
Methiocarb	ND	NEG	0.00316
Methomyl	ND	NEG	0.00632
Methyl parathion	ND	NEG	0.0158
MGK-264	ND	NEG	0.00316
Myclobutanil	ND	NEG	0.00632
Naled	ND	NEG	0.00790
Oxamyl	ND	NEG	0.0158
Paclobutrazol	ND	NEG	0.00632
Permethrins	ND	NEG	0.00632
Phosmet	ND	NEG	0.00316
Piperonyl Butoxide	ND	NEG	0.0316
Prallethrin	ND	NEG	0.00316
Propiconazole	ND	NEG	0.00632
Propoxure	ND	NEG	0.00316
Pyrethrins	ND	NEG	0.0790
Pyridaben	ND	NEG	0.00316
Spinosad	ND	NEG	0.00948
Spiromesifen	ND	NEG	0.00474
Spirotetramat	ND	NEG	0.00316
Spiroxamine	ND	NEG	0.00632
Tebuconazole	ND	NEG	0.00158
Thiacloprid	ND	NEG	0.00316
Thiamethoxam	ND	NEG	0.00316
Trifloxystrobin	ND	NEG	0.00316

Altitude

Customer: Panacea Life Sciences
Customer Sample ID: SG06H1901
Laboratory Number: 19I0045-01



Metals Profile

Extraction Technician: MF
Analytical Chemist: MF

Extraction Date(s)	Analysis Date(s)
9/5/2019	9/11/2019

Metals (ICP/MS)	Method Code	Results	Units
Arsenic	ICPMS.1	<20.0	ppb
Cadmium	ICPMS.1	<10.0	ppb
Lead	ICPMS.1	<5.00	ppb
Mercury	ICPMS.1	<5.00	ppb

Limits for metals vary greatly depending on usage of the sample. Altitude Consulting recommends researching federal and state regulatory limits.

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CERTIFICATE OF ANALYSIS

prepared for: PANACEA LIFE SCIENCES
16194 W 45th Drive
Golden, CO 80403

5 AC
SG0ØH1901

Batch ID:	N/A	**Test ID:**	4256590.012
Reported:	10-Sep-2019	**Method:**	TM04
Type:	Edible		
Test:	Residual Solvents		

RESIDUAL SOLVENTS

Solvent	Reportable Range (ppm)	Result (ppm)
Propane	100 - 2000	0
Butanes (Isobutane, n-Butane)	100 - 2000	0
Pentane	100 - 2000	0
Ethanol	100 - 2000	0
Acetone	100 - 2000	0
Isopropyl Alcohol	100 - 2000	0
Hexane	6 - 120	0
Benzene	0.2 - 4	0.0
Heptanes	100 - 2000	0
Toluene	18 - 360	0
Xylenes (m,p,o-Xylenes)	43 - 860	0

NOTES:
Free from visual mold, mildew, and foreign matter.

FINAL APPROVAL

Alex Smith
10-Sep-2019
1:43 PM

PREPARED BY / DATE

David Green
10-Sep-2019
2:27 PM

APPROVED BY / DATE

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 Certificate Number 4329.02

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