

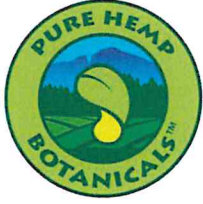
## Certificate of Analysis

**Product:** P249 PHB 3,000 mg Softgel - LA Compliant

**Batch Number:** 11994

**Best-By Date:** 04/23/2022

Characteristic	Instrument	Specification	Result	Pass/ Fail/ N/A
<b>Identity</b>				
Color & Appearance	Visual	Oval softgel with golden tinted oily liquid	Complies	Pass
Odor	Organoleptic	Characteristic of standard	Complies	Pass
Taste	Organoleptic	Neutral	Complies	Pass
<b>Composition</b>				
Fill Density	Density Meter	0.930 – 0.977 g/mL	Complies	Pass
Softgel Fill Weight	Gravimetric	0.67 – 0.76 g/softgel	Complies	Pass
Softgel Total Weight	Gravimetric	0.97 – 1.12 g/softgel	Complies	Pass
<b>Strength - Cannabinoids</b>				
Total CBD <sup>1</sup>	HPLC	3,000.0 - 4,080.0 mg/bottle	3,251.8 mg/bottle <sup>4</sup>	Pass
Total THC <sup>1</sup>	HPLC	≤ 0.30%; Detected	0.16% <sup>4</sup>	Pass
CBDa	HPLC	Report Result	Not Detected <sup>4</sup>	N/A
CBG	HPLC	Report Result	0.18% <sup>4</sup>	N/A
CBD	HPLC	Report Result	15.60% <sup>4</sup>	N/A
CBN	HPLC	Report Result	Not Detected <sup>4</sup>	N/A
THC	HPLC	Report Result	0.16% <sup>4</sup>	N/A
CBC	HPLC	Report Result	Not Detected <sup>4</sup>	N/A
THCa	HPLC	Report Result	Not Detected <sup>4</sup>	N/A
<b>Contaminants - Residual Solvents</b>				
Acetone	GC-FID	< 1,000 ppm	Complies <sup>4</sup>	Pass
Butanes	GC-FID	< 1,000 ppm	Complies <sup>4</sup>	Pass
Ethanol	GC-FID	< 1,000 ppm	Complies <sup>4</sup>	Pass
Heptanes	GC-FID	< 1,000 ppm	Complies <sup>4</sup>	Pass
Isopropyl Alcohol	GC-FID	< 1,000 ppm	Complies <sup>4</sup>	Pass
Propane	GC-FID	< 1,000 ppm	Complies <sup>4</sup>	Pass
Benzene	GC-FID	< 2 ppm	Complies <sup>4</sup>	Pass
Toluene	GC-FID	< 180 ppm	Complies <sup>4</sup>	Pass
Pentane	GC-FID	< 1,000 ppm	Complies <sup>4</sup>	Pass
Hexane	GC-FID	< 60 ppm	Complies <sup>4</sup>	Pass
Total Xylenes (m,p,o-xylenes)	GC-FID	< 430 ppm	Complies <sup>4</sup>	Pass
Methanol	GC-FID	< 600 ppm	Complies <sup>4</sup>	Pass
Ethyl Acetate	GC-FID	< 1,000 ppm	Complies <sup>4</sup>	Pass



## Certificate of Analysis

**Product:** P249 PHB 3,000 mg Softgel - LA Compliant

**Batch Number:** 11994

**Best-By Date:** 04/23/2022

Characteristic	Instrument	Specification	Result	Pass/ Fail/ N/A
<b>Contaminants - Pesticides</b>				
Abamectin (avermectins: B1a & B1b)	GC-MS / LC-MS	< 0.07 ppm	Complies <sup>4</sup>	Pass
Azoxystrobin	GC-MS / LC-MS	< 0.02 ppm	Complies <sup>4</sup>	Pass
Bifenazate	GC-MS / LC-MS	< 0.02 ppm	Complies <sup>4</sup>	Pass
Etoazole	GC-MS / LC-MS	< 0.01 ppm	Complies <sup>4</sup>	Pass
Imazalil	GC-MS / LC-MS	< 0.04 ppm	Complies <sup>4</sup>	Pass
Imidacloprid	GC-MS / LC-MS	< 0.02 ppm	Complies <sup>4</sup>	Pass
Malathion	GC-MS / LC-MS	< 0.05 ppm	Complies <sup>4</sup>	Pass
Myclobutanil	GC-MS / LC-MS	< 0.04 ppm	Complies <sup>4</sup>	Pass
Permethrin (mix of isomers)	GC-MS / LC-MS	< 0.04 ppm	Complies <sup>4</sup>	Pass
Spinosad (mixture of A and D)	GC-MS / LC-MS	< 0.06 ppm	Complies <sup>4</sup>	Pass
Spiromesifen	GC-MS / LC-MS	< 0.03 ppm	Complies <sup>4</sup>	Pass
Spirotetramat	GC-MS / LC-MS	< 0.02 ppm	Complies <sup>4</sup>	Pass
Tebuconazole	GC-MS / LC-MS	< 0.01 ppm	Complies <sup>4</sup>	Pass
<b>Contaminants - Heavy Metals</b>				
Arsenic	ICP-MS USP <730>	< 1.68 µg/softgel	Complies <sup>4</sup>	Pass
Cadmium	ICP-MS USP <730>	< 0.56 µg/softgel	Complies <sup>4</sup>	Pass
Lead	ICP-MS USP <730>	< 0.50 µg/softgel	Complies <sup>4</sup>	Pass
Mercury	ICP-MS USP <730>	< 0.30 µg/softgel	Complies <sup>4</sup>	Pass
<b>Microbial Purity</b>				
Total Plate Count	USP <2021>	< 10,000 CFU/g	Complies <sup>4</sup>	Pass
Yeast & Mold	USP <2021>	≤ 1,000 CFU/g	Complies <sup>4</sup>	Pass
<i>E. coli</i>	FDA BAM	< 3 MPN/g	Complies <sup>4</sup>	Pass
Shiga-Toxin Producing <i>Escherichia coli</i> (STEC)	qPCR	< 1 CFU/g	S.L. <sup>2</sup>	N/A
<i>Salmonella spp.</i>	USP <2022>	Absent/10 g	Complies <sup>4</sup>	Pass

<sup>1</sup> All cannabinoids in their acid forms (ending in "a") are convertible to their non-acid forms via a decarboxylation process (heating). The THC and CBD maximum values reported are the maximum theoretical amounts of THC and CBD the tested product would have if it were fully decarboxylated.

<sup>2</sup> S.L. means "Skip Lot". Parameters are being monitored through product qualification testing and are currently in skip lot protocol.

<sup>3</sup> Cannabinoid detected below Limit of Quantitation (LOQ).

<sup>4</sup> Result was acquired by 3<sup>rd</sup> party laboratory.

Reviewed By: 

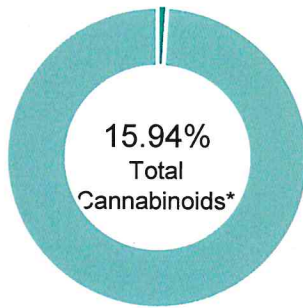
Date: 05.14.20

Approved By: 

Date: 05.14.20

**B033 3,000 mg Softgels - LA Compliant**

<b>Batch ID:</b>	11994	<b>Test ID:</b>	1838911.0011
<b>Reported:</b>	14-May-2020	<b>Method:</b>	TM14
<b>Type:</b>	Concentrate		
<b>Test:</b>	Potency		

**CANNABINOID PROFILE**


CBD 15.60%

CBDa 0.00%

delta 9 THC 0.16%

THCa 0.00%

Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.10	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.05	0.16	1.6
Cannabidiolic acid (CBDA)	0.23	ND	ND
Cannabidiol (CBD)	0.13	15.60	156.0
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.05	ND	ND
Cannabinolic Acid (CBNA)	0.14	ND	ND
Cannabinol (CBN)	0.06	ND	ND
Cannabigerolic acid (CBGA)	0.09	ND	ND
Cannabigerol (CBG)	0.05	0.18	1.8
Tetrahydrocannabivarinic Acid (THCVA)	0.08	ND	ND
Tetrahydrocannabivarin (THCV)	0.04	ND	ND
Cannabidivarinic Acid (CBDVA)	0.21	ND	ND
Cannabidivarin (CBDV)	0.12	ND	ND
Cannabichromenic Acid (CBCA)	0.07	ND	ND
Cannabichromene (CBC)	0.09	ND	ND
<b>Total Cannabinoids</b>		<b>15.94</b>	<b>159.40</b>
<b>Total Potential THC**</b>		<b>0.16</b>	<b>1.60</b>
<b>Total Potential CBD**</b>		<b>15.60</b>	<b>156.00</b>

**NOTES:**

N/A

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

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

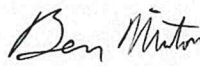
\*\* Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step.

Total THC = THC + (THCa \* (0.877)) and Total CBD = CBD + (CBDa \* (0.877))

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

**FINAL APPROVAL**


 Ryan Weems  
14-May-2020  
12:50 PM



 Ben Minton  
14-May-2020  
2:12 PM

PREPARED BY / DATE

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



Certificate #4329.02

**B033 3,000mg Softgels - LA Compliant**

<b>Batch ID:</b>	11994	<b>Test ID:</b>	T000073805
<b>Reported:</b>	6-May-2020	<b>Method:</b>	TM04
<b>Type:</b>	Concentrate		
<b>Test:</b>	Residual Solvents		

**RESIDUAL SOLVENTS**

Solvent	Dynamic Range (ppm)	Result (ppm)
Propane	84 - 1687	*ND
Butanes (Isobutane, n-Butane)	167 - 3334	*ND
Methanol	58 - 1165	*ND
Pentane	89 - 1789	*ND
Ethanol	85 - 1699	*ND
Acetone	95 - 1893	*ND
Isopropyl Alcohol	98 - 1965	*ND
Hexane	6 - 116	*ND
Ethyl Acetate	96 - 1916	*ND
Benzene	0.2 - 3.8	*ND
Heptanes	90 - 1807	*ND
Toluene	17 - 344	*ND
Xylenes (m,p,o-Xylenes)	125 - 2504	*ND

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

NOTES:  
N/A

**FINAL APPROVAL**


Daniel Weidensaul  
6-May-2020  
3:17 PM



Greg Zimpfer  
6-May-2020  
4:48 PM

PREPARED BY / DATE

APPROVED BY / DATE

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Certificate #4329.02

**B033 3,000mg Softgels - LA Compliant**

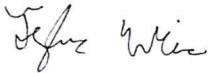
<b>Batch ID:</b>	11994	<b>Test ID:</b>	2702024.0024
<b>Reported:</b>	1-May-2020	<b>Method:</b>	TM17
<b>Type:</b>	Concentrate		
<b>Test:</b>	Pesticides		

**PESTICIDE RESIDUE**

Compound	Dynamic Range (ppb)	Result (ppb)	Compound	Dynamic Range (ppb)	Result (ppb)
Acephate	55 - 2544	ND*	Malathion	330 - 2544	ND*
Acetamiprid	55 - 2544	ND*	Metalaxyl	55 - 2544	ND*
Abamectin	>330	ND*	Methiocarb	55 - 2544	ND*
Azoxystrobin	55 - 2544	ND*	Methomyl	55 - 2544	ND*
Bifenazate	55 - 2544	ND*	MGK 264 1	330 - 2544	ND*
Boscalid	55 - 2544	ND*	MGK 264 2	330 - 2544	ND*
Carbaryl	55 - 2544	ND*	Myclobutanil	55 - 2544	ND*
Carbofuran	55 - 2544	ND*	Naled	55 - 2544	ND*
Chlorantraniliprole	55 - 2544	ND*	Oxamyl	55 - 2544	ND*
Chlorpyrifos	55 - 2544	ND*	Paclobutrazol	55 - 2544	ND*
Clofentezine	330 - 2544	ND*	Permethrin	330 - 2544	ND*
Diazinon	330 - 2544	ND*	Phosmet	55 - 2544	ND*
Dichlorvos	>330	ND*	Propos	330 - 2544	ND*
Dimethoate	55 - 2544	ND*	Propoxur	55 - 2544	ND*
E-Fenpyroximate	55 - 2544	ND*	Pyridaben	55 - 2544	ND*
Etofenprox	55 - 2544	ND*	Spinosad A	55 - 2544	ND*
Etoxazole	330 - 2544	ND*	Spinosad D	330 - 2544	ND*
Fenoxycarb	>55	ND*	Spiromesifen	>330	ND*
Fipronil	55 - 2544	ND*	Spirotetramat	>330	ND*
Fonicamid	55 - 2544	ND*	Spiroxamine 1	55 - 2544	ND*
Fludioxonil	>330	ND*	Spiroxamine 2	55 - 2544	ND*
Hexythiazox	55 - 2544	ND*	Tebuconazole	330 - 2544	ND*
Imazalil	330 - 2544	ND*	Thiacloprid	55 - 2544	ND*
Imidacloprid	55 - 2544	ND*	Thiamethoxam	55 - 2544	ND*
Kresoxim-methyl	55 - 2544	ND*	Trifloxystrobin	55 - 2544	ND*

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

N/A

**FINAL APPROVAL**


Tyler Wiese  
 1-May-2020  
 2:36 PM



Ben Minton  
 1-May-2020  
 3:55 PM

PREPARED BY / DATE

APPROVED BY / DATE

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 FDA Registration #14353128308

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## Test Certificate

Description: 3,000 mg Softgels  
 Sample ID: 11994  
 Lot No:  
 Location:  
 Received: 5/1/2020  
 Completed: 5/8/2020

Client: Dylan Neal  
 Anthology Brands  
 1026 S Williams Street  
 Denver, CO 90209  
 United States

Lab No: 195033-01

Analysis	Result	Per Unit	Specifications	Method
Mercury	0.017	mcg/softgel	< 0.3 mcg/softgel	ICP-MS USP <730>
Lead	0.014	mcg/softgel	< 0.5 mcg/softgel	ICP-MS USP <730>
Arsenic	< 0.001	mcg/softgel	< 10 mcg/softgel	ICP-MS USP <730>
Cadmium	< 0.001	mcg/softgel	< 4.1 mcg/softgel	ICP-MS USP <730>

**THESE RESULTS APPLY ONLY TO THE SAMPLE SUBMITTED AND NOT TO THE PRODUCT FROM WHICH IT WAS TAKEN. THESE RESULTS ARE PROVIDED ONLY FOR THE BENEFIT OF CLIENT, WITHOUT REPRESENTATION OR WARRANTY OF ANY KIND, EXCEPT FOR THE EXPRESS LIMITED WARRANTY PROVIDED SOLELY TO CLIENT IN ADVANCED LABORATORIES' TERMS OF SERVICE.**

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Results Approved By:

  
 Kristina Nollf-Quality Technician

Dated:

5/8/2020

Printed: 5/8/2020 6:43:04 PM



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## Test Certificate

 Description: 3,000 mg Softgels  
 Sample ID: 11994  
 Lot No:  
 Location:  
 Received: 5/1/2020  
 Completed: 5/7/2020

 Client: Dylan Neal  
 Anthology Brands  
 1026 S Williams Street  
 Denver, CO 90209  
 United States

Lab No: 195031-01

Analysis	Result	Per Unit	Specifications	Method
Total Aerobic Microbial Count	<10	CFU/g	< 10,000 CFU/g	USP <2021>
E. Coli Count	<3	MPN/g	< 3 MPN/g	FDA BAM
Salmonella	Absent	per 10 grams	Absent	USP <2022>
Total Yeast & Mold	<10	CFU/g	< 1,000 CFU/g	USP <2021>
Yeast *	<10	CFU/g	< 1,000 CFU/g	
Mold *	<10	CFU/g	< 1,000 CFU/g	

\* For informational purposes only.

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Results Approved By:

  
 Kristina Nolf-Quality Technician

Dated: 5/7/2020

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