SC Labs®
Formerly Botanacor Labs

CERTIFICATE OF ANALYSIS

Prepared for:
Vlasic Labs
1699 Traditional
Commerce, MI USA 48390

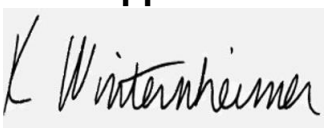
40mg/ml CBN Isolate Tincture

Batch ID or Lot Number:	Test:	Reported:	USDA License:
Lot: 231116011 Item: 221.001.0129	**Potency**	**29Nov2023**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Solution	T000263012	29Nov2023	N/A
	Method(s):	Received:	Status:
	TM14 (HPLC-DAD)	24Nov2023	N/A

Cannabinoids

	LOD (mg/mL)	**LOQ** (mg/mL)	**Result** (mg/mL)	**Result** (mg/g)	**Notes**
Cannabichromene (CBC)	0.191	0.681	ND	ND	Density = 0.947g/mL
Cannabichromenic Acid (CBCA)	0.175	0.623	ND	ND	
Cannabidiol (CBD)	0.578	1.570	ND	ND	
Cannabidiolic Acid (CBDA)	0.593	1.611	ND	ND	
Cannabidivarin (CBDV)	0.137	0.371	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.248	0.672	ND	ND	
Cannabigerol (CBG)	0.108	0.387	ND	ND	
Cannabigerolic Acid (CBGA)	0.453	1.617	ND	ND	
Cannabinol (CBN)	0.141	0.504	41.060	43.40	
Cannabinolic Acid (CBNA)	0.309	1.103	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.540	1.926	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.490	1.749	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.434	1.550	ND	ND	
Tetrahydrocannabivarin (THCV)	0.099	0.352	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.383	1.367	ND	ND	
Total Cannabinoids			**41.060**	**43.40**	
Total Potential THC			ND	ND	
Total Potential CBD			ND	ND	

Final Approval



Karen Winternheimer
29Nov2023
01:53:00 PM MST
PREPARED BY / DATE

Sam Smith
29Nov2023
01:56:00 PM MST
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/f09f847d-c5f4-4032-bcd5-4e30b86946fa

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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Batch ID or Lot Number:	Test:	Reported:	USDA License:
Lot: 231116011 Item: 221.001.0129	**Residual Solvents**	**30Nov2023**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000263015	29Nov2023	N/A
	Method(s):	Received:	Status:
	TM04 (GC-MS): Residual Solvents	24Nov2023	Active

Residual Solvents

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Propane	80 - 1601	ND	
Butanes (Isobutane, n-Butane)	157 - 3143	ND	
Methanol	58 - 1167	ND	
Pentane	86 - 1719	ND	
Ethanol	92 - 1843	ND	
Acetone	90 - 1805	ND	
Isopropyl Alcohol	97 - 1941	ND	
Hexane	6 - 111	ND	
Ethyl Acetate	94 - 1870	ND	
Benzene	0.2 - 3.6	ND	
Heptanes	89 - 1786	ND	
Toluene	17 - 337	ND	
Xylenes (m,p,o-Xylenes)	123 - 2458	ND	

Final Approval

Karen Winternheimer
30Nov2023
12:48:00 PM MST
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Sam Smith
30Nov2023
12:50:00 PM MST
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https://results.botanacor.com/api/v1/coas/uuid/7ba3802e-d9f7-4d35-a3d2-c428bc94433f

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

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Vlasic Labs
1699 Traditional
Commerce, MI USA 48390

40mg/ml CBN Isolate Tincture

Batch ID or Lot Number:	Test:	Reported:	USDA License:
Lot: 231116011 Item: 221.001.0129	**Mycotoxins**	**29Nov2023**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000263016	28Nov2023	N/A
	Method(s):	Received:	Status:
	TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	24Nov2023	Active

Mycotoxins

	Dynamic Range (ppb)	**Result** (ppb)	**Notes**
Ochratoxin A	2.27 - 132.55	ND	N/A
Aflatoxin B1	0.93 - 32.11	ND	
Aflatoxin B2	0.93 - 32.39	ND	
Aflatoxin G1	0.99 - 32.59	ND	
Aflatoxin G2	1.09 - 32.75	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval

Samantha Smith
Sam Smith
29Nov2023
02:03:00 PM MST
PREPARED BY / DATE

K Winternheimer
Karen Winternheimer
29Nov2023
02:08:00 PM MST
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https://results.botanacor.com/api/v1/coas/uuid/4a3bb8a2-e664-427e-af21-f94c83e30292

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

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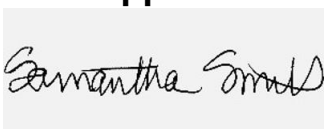
40mg/ml CBN Isolate Tincture

Batch ID or Lot Number:	Test:	Reported:	USDA License:
Lot: 231116011 Item: 221.001.0129	**Heavy Metals**	**30Nov2023**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Finished Product	T000263014	29Nov2023	NA
	Method(s):	Received:	Status:
	TM19 (ICP-MS): Heavy Metals	24Nov2023	NA

Heavy Metals

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Arsenic	0.04 - 4.32	ND	
Cadmium	0.04 - 4.28	ND	
Mercury	0.04 - 4.24	ND	
Lead	0.04 - 4.34	ND	

Final Approval



Sam Smith
30Nov2023
07:58:00 AM MST

PREPARED BY / DATE

Karen Winternheimer
30Nov2023
08:00:00 AM MST

APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/8e7faf6e-2e53-4141-9f19-5ed85f5b7e2f

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

Cert #4329.02
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CERTIFICATE OF ANALYSIS

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Vlasic Labs
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Commerce, MI USA 48390

40mg/ml CBN Isolate Tincture

Batch ID or Lot Number:	Test:	Reported:	USDA License:
Lot: 231116011 Item: 221.001.0129	**Pesticides**	**01Dec2023**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000263013	30Nov2023	NA
	Method(s):	Received:	Status:
	TM17 (LC-QQ LC MS/MS)	24Nov2023	NA

Pesticides

	Dynamic Range (ppb)	**Result** (ppb)
Abamectin	385 - 3277	ND
Acephate	43 - 2767	ND
Acetamiprid	42 - 2720	ND
Azoxystrobin	44 - 2764	ND
Bifenazate	44 - 2711	ND
Boscalid	41 - 2623	ND
Carbaryl	43 - 2708	ND
Carbofuran	44 - 2682	ND
Chlorantraniliprole	50 - 2579	ND
Chlorpyrifos	50 - 2781	ND
Clofentezine	283 - 2691	ND
Diazinon	289 - 2727	ND
Dichlorvos	283 - 2752	ND
Dimethoate	43 - 2726	ND
E-Fenpyroximate	286 - 2761	ND
Etofenprox	43 - 2781	ND
Etoxazole	287 - 2702	ND
Fenoxycarb	30 - 2714	ND
Fipronil	49 - 2636	ND
Flonicamid	43 - 2740	ND
Fludioxonil	315 - 2625	ND
Hexythiazox	42 - 2753	ND
Imazalil	263 - 2804	ND
Imidacloprid	43 - 2776	ND
Kresoxim-methyl	45 - 2761	ND

	Dynamic Range (ppb)	**Result** (ppb)
Malathion	280 - 2762	ND
Metalaxyl	46 - 2743	ND
Methiocarb	47 - 2707	ND
Methomyl	44 - 2802	ND
MGK 264 1	164 - 1610	ND
MGK 264 2	113 - 1089	ND
Myclobutanil	17 - 2632	ND
Naled	46 - 2642	ND
Oxamyl	43 - 2793	ND
Paclobutrazol	48 - 2595	ND
Permethrin	260 - 2759	ND
Phosmet	43 - 2585	ND
Prophos	303 - 2679	ND
Propoxur	45 - 2707	ND
Pyridaben	298 - 2830	ND
Spinosad A	32 - 2128	ND
Spinosad D	65 - 685	ND
Spiromesifen	273 - 2747	ND
Spirotetramat	267 - 2754	ND
Spiroxamine 1	16 - 1027	ND
Spiroxamine 2	28 - 1553	ND
Tebuconazole	286 - 2594	ND
Thiacloprid	43 - 2746	ND
Thiamethoxam	40 - 2752	ND
Trifloxystrobin	46 - 2738	ND

Final Approval

Karen Winternheimer
01Dec2023
09:36:00 AM MST
PREPARED BY / DATE

Sam Smith
01Dec2023
09:42:00 AM MST
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/a9f13326-b818-458d-b707-37d9745d179f

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

Cert #4329.02
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Columbia LABORATORIES
A Tentamus Company

12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

Report Number:	23-013898/D004.R000
Report Date:	12/04/2023
ORELAP#:	OR100028
Purchase Order:	
Received:	11/28/23 10:24

Customer:	Vlasic Labs
Product identity:	40mg/ml CBN Isolate Tincture
Client/Metrc ID:	LOT 231116011
Laboratory ID:	23-013898-0004

Summary

Microbiology:

Less than LOQ for all analytes.

Columbia LABORATORIES
A Tentamus Company

12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

Report Number: 23-013898/D004.R000
Report Date: 12/04/2023
ORELAP#: OR100028
Purchase Order:
Received: 11/28/23 10:24

Customer: Vlasic Labs

Product identity: 40mg/ml CBN Isolate Tincture
Client/Metrc ID: LOT 231116011
Sample Date:
Laboratory ID: 23-013898-0004
Evidence of Cooling: No
Temp: 17.4 °C
Relinquished by: shipping

Sample Results

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed	Method	Status	Notes
Aerobic Plate Count	< LOQ		cfu/g	10	2313136	12/01/23	AOAC 990.12 (Petrifilm)þ		
E.coli	< LOQ		cfu/g	10	2313133	12/01/23	AOAC 991.14 (Petrifilm)þ		
Total Coliforms	< LOQ		cfu/g	10	2313133	12/01/23	AOAC 991.14 (Petrifilm)þ		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2313135	12/02/23	AOAC 2014.05 (RAPID)þ		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2313135	12/02/23	AOAC 2014.05 (RAPID)þ		

Columbia LABORATORIES
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ORELAP#:	OR100028
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Received:	11/28/23 10:24

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

þ = ISO/IEC 17025:2017 accredited method.

Units of Measure

cfu/g = Colony forming units per gram

% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner
General Manager

Columbia LABORATORIES
A Tentamus Company

12423 NE Whitaker Way
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503-254-1794

Report Number: 23-013898/D004.R000
Report Date: 12/04/2023
ORELAP#: OR100028
Purchase Order:
Received: 11/28/23 10:24

Explanation of QC Flag Comments:

Code	Explanation
Q	Matrix interferences affecting spike or surrogate recoveries.
Q1	Quality control result biased high. Only non-detect samples reported.
Q2	Quality control outside QC limits. Data considered estimate.
Q3	Sample concentration greater than four times the amount spiked.
Q4	Non-homogenous sample matrix, affecting RPD result and/or % recoveries.
Q5	Spike results above calibration curve.
Q6	Quality control outside QC limits. Data acceptable based on remaining QC.
R	Relative percent difference (RPD) outside control limit.
R1	RPD non-calculable, as sample or duplicate results are less than five times the LOQ.
R2	Sample replicates RPD non-calculable, as only one replicate is within the analytical range.
LOQ1	Quantitation level raised due to low sample volume and/or dilution.
LOQ2	Quantitaion level raised due to matrix interference.
B	Analyte detected in method blank, but not in associated samples.
B1	The sample concentration is greater than 5 times the blank concentration.
B2	The sample concentration is less than 5 times the blank concentration.