SC Labs®
Formerly Botanacor Labs

CERTIFICATE OF ANALYSIS

Prepared for:
BLUEBIRD BOTANICALS
PO BOX 271724
Louisville, CO USA 80027

GUM

Batch ID or Lot Number:	Test, Test ID and Methods:	Matrix:	Page 1 of 7
240530	Various	Unit	
Reported:	Started:	Received:	
19Jun2024	19Jun2024	18Jun2024	

Cannabinoids - Colorado Compliance

Test ID: T000284424
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	**LOD** (mg)	**LOQ** (mg)	**Result** (mg)	**Result** (mg/g)	**Notes**
Cannabichromene (CBC)	0.245	0.936	<LOQ	<LOQ	# of Servings = 1
Cannabichromenic Acid (CBCA)	0.224	0.856	ND	ND	Sample Weight=4g
Cannabidiol (CBD)	0.865	2.568	14.857	3.71	
Cannabidiolic Acid (CBDA)	0.887	2.633	ND	ND	
Cannabidivarin (CBDV)	0.205	0.607	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.370	1.099	ND	ND	
Cannabigerol (CBG)	0.139	0.531	<LOQ	<LOQ	
Cannabigerolic Acid (CBGA)	0.581	2.220	ND	ND	
Cannabinol (CBN)	0.181	0.693	ND	ND	
Cannabinolic Acid (CBNA)	0.396	1.515	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.692	2.645	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.628	2.402	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.557	2.129	ND	ND	
Tetrahydrocannabivarin (THCV)	0.126	0.483	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.491	1.878	ND	ND	
Total Cannabinoids			**14.857**	**3.71**	
Total Potential THC			ND	ND	
Total Potential CBD			14.857	3.71	

Final Approval

Karen Winternheimer
19Jun2024
03:04:00 PM MDT
PREPARED BY / DATE

Sam Smith
19Jun2024
03:05:00 PM MDT
APPROVED BY / DATE

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Cannabinoids - Colorado Compliance

Test ID: T000284425
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	**LOD** (mg)	**LOQ** (mg)	**Result** (mg)	**Result** (mg/g)	**Notes**
Cannabichromene (CBC)	0.234	0.895	<LOQ	<LOQ	# of Servings = 1
Cannabichromenic Acid (CBCA)	0.214	0.818	ND	ND	Sample Weight=4g
Cannabidiol (CBD)	0.827	2.456	14.848	3.71	
Cannabidiolic Acid (CBDA)	0.848	2.519	ND	ND	
Cannabidivarin (CBDV)	0.196	0.581	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.354	1.051	ND	ND	
Cannabigerol (CBG)	0.133	0.508	<LOQ	<LOQ	
Cannabigerolic Acid (CBGA)	0.556	2.124	ND	ND	
Cannabinol (CBN)	0.173	0.663	ND	ND	
Cannabinolic Acid (CBNA)	0.379	1.449	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.662	2.530	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.601	2.298	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.533	2.036	ND	ND	
Tetrahydrocannabivarin (THCV)	0.121	0.462	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.470	1.796	ND	ND	
Total Cannabinoids			**14.848**	**3.71**	
Total Potential THC			ND	ND	
Total Potential CBD			14.848	3.71	

Final Approval


Karen Winternheimer
19Jun2024
03:04:00 PM MDT
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Sam Smith
19Jun2024
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Heavy Metals - Colorado Compliance

Test ID: T000284428
Methods: TM19 (ICP-MS): Heavy

Metals	**Dynamic Range** (ppm)	**Result** (ppm)	**Notes**
Arsenic	0.04 - 4.42	ND	
Cadmium	0.05 - 4.50	ND	
Mercury	0.05 - 4.65	ND	
Lead	0.05 - 4.68	ND	

Final Approval


Karen Winternheimer
20Jun2024
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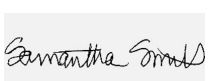
Sam Smith
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Mycotoxins - Colorado Compliance

Test ID: T000284430
Methods: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins

	Dynamic Range (ppb)	**Result** (ppb)	**Notes**
Ochratoxin A	2.20 - 128.31	ND	N/A
Aflatoxin B1	0.94 - 32.36	ND	
Aflatoxin B2	1.04 - 32.01	ND	
Aflatoxin G1	0.97 - 32.08	ND	
Aflatoxin G2	1.13 - 32.39	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval

Sam Smith
20Jun2024
09:39:00 AM MDT
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Karen Winternheimer
20Jun2024
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Pesticides

Test ID: T000284426
Methods: TM17

(LC-QQ LC MS/MS)	**Dynamic Range** (ppb)	**Result** (ppb)		**Dynamic Range** (ppb)	**Result** (ppb)
Abamectin	327 - 2698	ND	Malathion	286 - 2682	ND
Acephate	40 - 2752	ND	Metalaxyl	41 - 2645	ND
Acetamiprid	42 - 2726	ND	Methiocarb	41 - 2707	ND
Azoxystrobin	44 - 2656	ND	Methomyl	39 - 2793	ND
Bifenazate	44 - 2645	ND	MGK 264 1	162 - 1562	ND
Boscalid	45 - 2686	ND	MGK 264 2	114 - 1086	ND
Carbaryl	39 - 2720	ND	Myclobutanil	46 - 2676	ND
Carbofuran	44 - 2670	ND	Naled	45 - 2675	ND
Chlorantraniliprole	41 - 2711	ND	Oxamyl	42 - 2791	ND
Chlorpyrifos	40 - 2734	ND	Paclobutrazol	43 - 2662	ND
Clofentezine	277 - 2704	ND	Permethrin	289 - 2716	ND
Diazinon	286 - 2682	ND	Phosmet	42 - 2544	ND
Dichlorvos	276 - 2767	ND	Prophos	287 - 2712	ND
Dimethoate	41 - 2727	ND	Propoxur	44 - 2692	ND
E-Fenpyroximate	278 - 2695	ND	Pyridaben	285 - 2692	ND
Etofenprox	42 - 2670	ND	Spinosad A	33 - 2056	ND
Etoxazole	278 - 2600	ND	Spinosad D	64 - 647	ND
Fenoxycarb	45 - 2682	ND	Spiromesifen	276 - 2658	ND
Fipronil	42 - 2714	ND	Spirotetramat	304 - 2724	ND
Flonicamid	41 - 2792	ND	Spiroxamine 1	16 - 1012	ND
Fludioxonil	276 - 2702	ND	Spiroxamine 2	24 - 1590	ND
Hexythiazox	40 - 2718	ND	Tebuconazole	300 - 2651	ND
Imazalil	284 - 2702	ND	Thiacloprid	42 - 2769	ND
Imidacloprid	42 - 2746	ND	Thiamethoxam	42 - 2752	ND
Kresoxim-methyl	43 - 2697	ND	Trifloxystrobin	44 - 2697	ND

Final Approval

Samantha Smith
Sam Smith
21Jun2024
08:31:00 AM MDT
PREPARED BY / DATE

K Winternheimer
Karen Winternheimer
21Jun2024
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Microbial Contaminants - Colorado Compliance

Test ID: T000284427
Methods: TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)

	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

Brett Hudson
21Jun2024
03:00:00 PM MDT
PREPARED BY / DATE

Brianne Maillot
21Jun2024
03:08:00 PM MDT
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Residual Solvents - Colorado Compliance

Test ID: T000284429
Methods: TM04 (GC-MS): Residual Solvents

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Propane	76 - 1525	ND	
Butanes (Isobutane, n-Butane)	151 - 3026	ND	
Methanol	53 - 1069	ND	
Pentane	77 - 1545	ND	
Ethanol	82 - 1641	ND	
Acetone	87 - 1747	ND	
Isopropyl Alcohol	92 - 1849	ND	
Hexane	5 - 109	ND	
Ethyl Acetate	90 - 1792	ND	
Benzene	0.2 - 3.6	ND	
Heptanes	84 - 1675	ND	
Toluene	16 - 324	ND	
Xylenes (m,p,o-Xylenes)	116 - 2314	ND	

Final Approval

Samantha Smith
Sam Smith
20Jun2024
01:31:00 PM MDT
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K Winternheimer
Karen Winternheimer
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https://results.botanacor.com/api/v1/coas/uuid/315696a9-00b0-4645-8bef-dbf025b6e7a6

Definitions
LOD = Limit of Detection, ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation, PPB = Parts per Billion, % = % (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)). Fail equates to a concentration level of Delta 9-THC, on a dry weight basis, higher than 0.3 percent + or – the measurement uncertainty. Total Potential THC 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)). ALOQ = Above Limit Of Quantitation (defined by dynamic range of the method), CFU/g = Colony Forming Units per Gram. 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.

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