

Certificate of Analysis


Product Name: LivLabs Full Spectrum 2500 mg	Product No.: LIV-6-012-2-30
	Country of Origin: USA
Lot No.: 20311K11	Serving Size: 1 mL
	Manufacture Date: 09/02/2020
Product Packaging: 30 mL bottle/dropper	Report Date: 10/28/2020

Analyte	Test Method	Acceptable Limit	Test Results
Physical			
Appearance	Visual	Clear liquid	Conforms
Color	Visual	Light brownish	Conforms
Odor	Organoleptic	Slight hemp with citrus mint	Conforms
Potency			
Total Cannabinoids	MSP-7.3.1.5	NLT 83 mg/mL	89 mg/mL
Total THC (delta 9 THC and THC-A)	MSP-7.3.1.5	0.1% w/w	None detected
Impurities			
Pesticides	MSP-7.5.1.6	Below action level limits	Conforms
Solvents	MSP-7.5.1.6	Below action level limits	Conforms
Microbiological Pathogens			
Aflatoxins	MSP-7.5.1.1	20 ppb	0 ppb
Escherichia coli	MSP-7.5.1.1	Absent/10 g	None detected
Salmonella	MSP-7.5.1.1	Absent /10 g	None detected
Yeasts & Molds	MSP-7.5.1.1	NMT 100 cfu/g	0 cfu/g
Ochratoxin A	MSP-7.5.1.1	20 ppb	0 ppb
Heavy Metals			
Arsenic	MSP-7.5.1.1	NMT 1.5 ppm	Conforms
Cadmium	MSP-7.5.1.1	NMT 0.3 ppm	Conforms
Lead	MSP-7.5.1.1	NMT 1.0 ppm	Conforms
Mercury	MSP-7.5.1.1	NMT 0.5 ppm	Conforms

NLT= No Less Than; NMT= No More Than; Cannabinoids LOQ= 1 ppb; Pesticides LOQ= 0.05 mcg/g

Quality Control: 

Date: 10/28/2020

Quality Assurance: 

Date: 10/28/2020

0KE75
certificate ID

LivLabs FullSpec2500

Lot #20311K11

prod. date 8/24/2020

LaCore Nutraceuticals

7USC1639 Certificate of Analysis



total
cannabinoids
2678.8mg per
30mL

THC‡ 60.4mg
CBD‡ 2405.7mg

This Product Has
Been Tested and
Complies with
7USC1639o(1)

Stillwater
Laboratories



Potency	MSP-7.5.1.4	per 30mL	LOD	LOQ	error (95%CI k=2)
total cannabinoids		2678.8mg	0.76	2.28	±68.00mg
total THC		60.4mg	0.76	2.28	±3.76mg
total CBD		2405.7mg	0.76	2.28	±61.30mg
tetrahydrocannabinolic acid (THCa)	ND		0.77	2.32	±2.32mg
Δ9-tetrahydrocannabinol (Δ9 THC)	60.4mg		0.72	2.17	±3.65mg
Δ8-tetrahydrocannabinol (Δ8 THC)	ND		0.97	2.92	±2.92mg
tetrahydrocannabivarin (THCv)	ND		0.81	2.42	±2.42mg
cannabidiolic acid (CBDA)	16.9mg		0.67	2.00	±2.42mg
cannabidiol (CBD)	2390.8mg		0.76	2.29	±60.95mg
cannabidivarin (CBDv)	10.9mg		0.76	2.29	±2.55mg
cannabigerolic acid (CBGA)	ND		0.68	2.05	±2.05mg
cannabigerol (CBG)	14.0mg		0.83	2.49	±2.83mg
cannabinol (CBN)	ND		0.42	1.25	±1.25mg
cannabichromene (CBC)	185.8mg		0.76	2.28	±6.84mg

Terpenes	MSP-7.5.1.6	result
total terpenes		0.633%
caryophyllene		0.019%
humulene		0.020%
terpinolene		0.573%
ocimene		0.009%
beta pinene		ND
alpha pinene		0.009%
limonene		ND
myrcene		0.009%
linalool		ND
linalool		0.019%
β-myrcene		0.020%
D-limonene		0.573%
α-pinene		0.009%
β-pinene		ND
ocimene		0.009%
terpinolene		ND
α-humulene		ND
β-caryophyllene		ND
α-bisabolol		ND
camphene		ND
Δ3-carene		ND
caryophyllene oxide		ND
para-cymene		ND
eucalyptol		0.007%
geraniol		ND
guaiol		ND

Solvents	MSP-7.5.1.7	result	limit	LOD	LOQ	error	pass/fail
Dichloroethane	ND	0 ppm		0.5	1.6	±1.6 ppm	PASS
Acetone	ND	5000 ppm		0.7	2.1	±2.1 ppm	PASS
Acetonitrile	ND	410 ppm		0.6	1.9	±1.9 ppm	PASS
Benzene	ND	0 ppm		0.0	1.1	±0.1 ppm	PASS
Butane	ND	5000 ppm		1.4	4.2	±4.2 ppm	PASS
Chloroform	ND	0 ppm		0.1	0.2	±0.2 ppm	PASS
Cyclohexane	ND	0 ppm		0.5	1.6	±1.6 ppm	PASS
Ethanol	ND	5000 ppm		0.7	2.1	±2.1 ppm	PASS
Heptane	ND	5000 ppm		0.4	1.2	±1.2 ppm	PASS
Hexane	ND	290 ppm		0.5	1.6	±1.6 ppm	PASS
Isopropyl alcohol	ND	5000 ppm		0.6	1.9	±1.9 ppm	PASS
Methanol	ND	3000 ppm		0.5	1.6	±1.6 ppm	PASS
Pentane	ND	5000 ppm		0.2	0.6	±0.6 ppm	PASS
Propane	ND	5000 ppm		0.5	1.6	±1.6 ppm	PASS
Toluene	ND	890 ppm		0.3	0.9	±0.9 ppm	PASS
Xylenes	ND	2170 ppm		0.3	1.0	±1.0 ppm	PASS

Pesticides	MSP-7.5.1.8	result	limit	LOD	LOQ	error	pass/fail
Chlorpyrifos	ND	0.0 ppm		0.032	0.095	±0.095 ppm	PASS
Clofentezine	ND	0.5 ppm		0.006	0.017	±0.017 ppm	PASS
Coumaphos	ND	0.0 ppm		0.004	0.012	±0.012 ppm	PASS
Cyfluthrin	ND	1.0 ppm		0.006	0.017	±0.017 ppm	PASS
Cypermethrin	ND	1.0 ppm		0.004	0.012	±0.012 ppm	PASS
Daminozide	ND	0.0 ppm		0.022	0.065	±0.065 ppm	PASS
Dichlorvos	ND	0.0 ppm		0.011	0.033	±0.033 ppm	PASS
Diazinon	ND	0.2 ppm		0.001	0.003	±0.003 ppm	PASS
Dimethoate	ND	0.0 ppm		0.002	0.005	±0.005 ppm	PASS
Etoxazole	ND	1.5 ppm		0.003	0.009	±0.009 ppm	PASS
Fenoxycarb	ND	0.0 ppm		0.003	0.008	±0.008 ppm	PASS
Fenpyroximate	ND	2.0 ppm		0.001	0.003	±0.003 ppm	PASS
Fipronil	ND	0.0 ppm		0.006	0.017	±0.017 ppm	PASS
Fonicamid	ND	2.0 ppm		0.076	0.229	±0.229 ppm	PASS
Fludioxonil	ND	30.0 ppm		0.005	0.015	±0.015 ppm	PASS
Hexythiazox	ND	2.0 ppm		0.007	0.022	±0.022 ppm	PASS
Imazalil	ND	0.0 ppm		0.005	0.015	±0.015 ppm	PASS
Imidacloprid	ND	3.0 ppm		0.001	0.003	±0.003 ppm	PASS
Malathion	ND	5.0 ppm		0.004	0.012	±0.012 ppm	PASS
Metaxyl	ND	15.0 ppm		0.006	0.018	±0.018 ppm	PASS
Methiocarb	ND	0.0 ppm		0.003	0.008	±0.008 ppm	PASS
Methomyl	ND	0.1 ppm		0.005	0.014	±0.014 ppm	PASS
Methyl parathion	ND	0.0 ppm		0.001	0.002	±0.002 ppm	PASS
Mevinphos	ND	0.0 ppm		0.004	0.012	±0.012 ppm	PASS
Myclobutanil	ND	9.0 ppm		0.001	0.002	±0.002 ppm	PASS
Naled	ND	0.5 ppm		0.004	0.012	±0.012 ppm	PASS
Oxamyl	ND	0.2 ppm		0.002	0.005	±0.005 ppm	PASS
Paclobutrazol	ND	0.0 ppm		0.002	0.006	±0.006 ppm	PASS
Permethrin	ND	20.0 ppm		0.008	0.023	±0.023 ppm	PASS
Phosmet	ND	0.2 ppm		0.002	0.007	±0.007 ppm	PASS
Piperonylbutoxide	ND	8.0 ppm		0.008	0.024	±0.024 ppm	PASS
Prallethrin	ND	0.4 ppm		0.003	0.009	±0.009 ppm	PASS
Propiconazole	ND	20.0 ppm		0.003	0.009	±0.009 ppm	PASS
Propoxur	ND	0.0 ppm		0.004	0.013	±0.013 ppm	PASS
Pyrethrin	ND	1.0 ppm		0.002	0.006	±0.006 ppm	PASS
Pyridaben	ND	3.0 ppm		0.001	0.002	±0.002 ppm	PASS
Spinetoram	ND	3.0 ppm		0.003	0.008	±0.008 ppm	PASS
Spinosad	ND	3.0 ppm		0.005	0.015	±0.015 ppm	PASS
Spiromesifen	ND	12.0 ppm		0.002	0.007	±0.007 ppm	PASS
Spirotetramat	ND	13.0 ppm		0.002	0.005	±0.005 ppm	PASS
Spiroxamine	ND	0.0 ppm		0.001	0.002	±0.002 ppm	PASS
Tebuconazole	ND	2.0 ppm		0.004	0.012	±0.012 ppm	PASS
Thiacloprid	ND	0.1 ppm		0.001	0.002	±0.002 ppm	PASS
Thiamethoxam	ND	4.5 ppm		0.002	0.007	±0.007 ppm	PASS
Trifloxystrobin	ND	30.0 ppm		0.002	0.005	±0.005 ppm	PASS

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

Microbial	MSP-7.5.1.10	result	limit	LOD	LOQ	error	pass/fail
Ochratoxin A	ND	20 ppb		0.3	1.0	±1.0 ppb	PASS
Aflatoxin B1B2G1G2	ND	20 ppb		0.3	1.0	±1.0 ppb	PASS
E coli	ND	0CFU		0.0	0.1	±0.1 CFU	PASS
Salmonella sp. molds	ND	0CFU		0.0	0.1	±0.1 CFU	PASS
molds	ND	10000CFU		1.7	5.2	±5.2CFU	PASS

Metals	MSP-7.5.1.11	result	limit	LOD	LOQ	error	pass/fail
Arsenic	ND	1500 ppb		7.8	23.4	±23.4 ppb	PASS
Cadmium	ND	500 ppb		8.4	25.1	±25.1 ppb	PASS
Lead	ND	500 ppb		13.1	39.2	±39.2 ppb	PASS
Mercury	ND	300 ppb		6.6	19.7	±19.7 ppb	PASS

Pesticides	MSP-7.5.1.8	result	limit	LOD	LOQ	error	pass/fail
Abamectin	ND	0.3 ppm		0.006	0.017	±0.017	PASS
Acephate	ND	5.0 ppm		0.006	0.017	±0.017	PASS
Acequinocyl	ND	4.0 ppm		0.005	0.015	±0.015	PASS
Acetamiprid	ND	5.0 ppm		0.004	0.012	±0.012	PASS
Aldicarb	ND	0.0 ppm		0.002	0.005	±0.005	PASS
Azoxystrobin	ND	40.0 ppm		0.002	0.005	±0.005	PASS
Bifenazate	ND	5.0 ppm		0.001	0.004	±0.004	PASS
Bifenthrin	ND	0.5 ppm		0.001	0.002	±0.002	PASS
Boscalid	ND	10.0 ppm		0.016	0.048	±0.048	PASS
Carbaryl	ND	0.5 ppm		0.006	0.019	±0.019	PASS
Carbofuran	ND	0.0 ppm		0.001	0.004	±0.004	PASS
Chloanthraniliprole	ND	40.0 ppm		0.015	0.045	±0.045	PASS
Chlorfenapyr	ND	0.0 ppm		0.004	0.012	±0.012	PASS

Certified by:

Kyle Larson, MSc (Biology)
Deputy Director

Stillwater Laboratories Inc.
MT License L0001, L00007
6073 US93N Suite 5
Olney MT 59927
406-881-2019



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https://portal.a2la.org/scopepdf/4961-01.pdf

* All testing was completed onsite at 6073 US93N, Olney MT ** Potency (cannabinoid concentration) is calculated as: [cannabinoid] = [cannabinoid]_{HPLC} x volume_{dilution} / m_{dry}. Terpene concentration is calculated: [terpene] = (terpene mass)_{GCMS} / m_{dry}. *** Decarboxylated cannabinoid concentration is calculated XXX_{total} = 0.877 x XXX_A + XXX_{...}. Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection (3.3s), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula s_e² = Σ (δi/βi)² s_i² where i is the contributor to error. The 95% confidence range is calculated from: (concentration) ± t_{CL90} x s_e. Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable. ‡ = decarbed