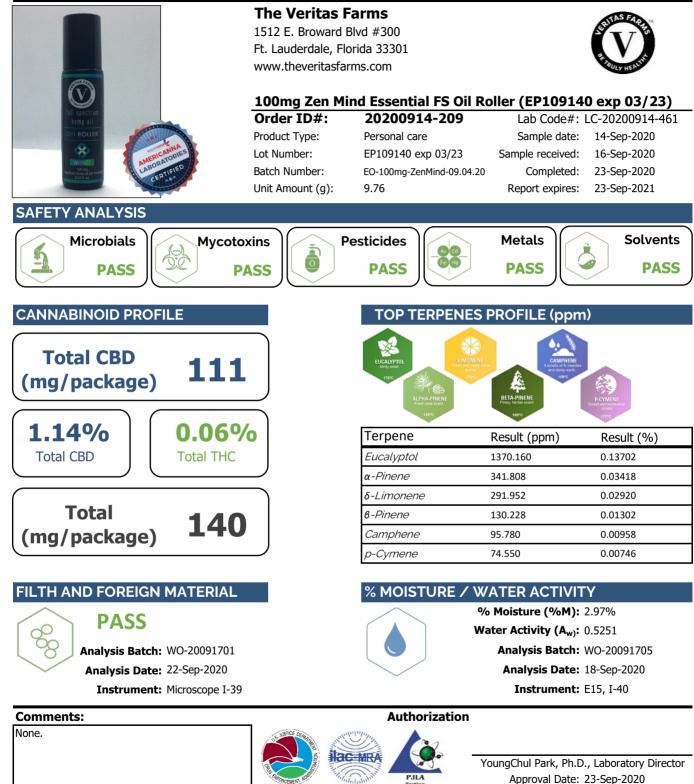


Certificate of Analysis

LC-20200914-461



Test results are based solely upon the test article sumitted to Americanna Laboratories, LLC in the condition it was received. Americanna Laboratories, LLC warrants that all analytical work was conducted in a professional manner in accordance with the requirements of ISO/IEC 17025:2017 (#102139), such as comparison to Certified Reference Materials and NIST traceable Reference Standards. This report shall not be reproduced, except in its entirety, without the written approval of Americanna Laboratories, LLC. Test results are confidential unless explicitly waived. Void after 1 year from test end date.

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Certificate of Analysis LC-20200914-461

CANNABINOIDS

Analyte	%	mg/g	mg/unit	LOD (%)
THCA-A	0.0181	0.1812	1.768	0.0008
Δ9-THC	0.0449	0.4492	4.384	0.0008
CBDA	ND	ND	ND	0.0008
CBD	1.14	11.39	111.2	0.0008
CBN	ND	ND	ND	0.0008
CBDV	0.00825	0.08245	0.8047	0.0008
Δ8-THC	0.00409	0.04095	0.3996	0.0008
THCV	0.119	1.186	11.576	0.0008
CBG	0.0585	0.5847	5.706	0.0008
CBGA	0.00449	0.04488	0.4380	0.0008
CBC	0.0385	0.3850	3.757	0.0008
Analysis Bat	ch: WO-200917	^a Total THC is calcu	lated as THC + (THC	

Total THC ^a	0.45 mg/g
0.06%	PASS
Total CBD ^b	11.4 mg/g
1.14%	111 mg
total ^c	14.3 mg/g
1.43%	140 mg

Analysis Batch: WO-20091704 Analysis Date: 18-Sept-2020 Test Method: SOP 6.6 (HPLC)

Instrument: Agilent HPLC Instrument 33

^b Total CBD is calculated as CBD + (CBDA × 0.877).

^c Total cannabinoids is the absolute sum of all cannabinoids above the level of detection.

TERPENES

Analyte	Result (µg/g)	Result (%)	
a-Bisabolol	2.786	0.00028	
a-Humulene	6.860	0.00069	
a-Pinene	341.8	0.03418	
a-Terpinene	23.53	0.00235	
β-Caryophyllene	49.02	0.00490	
β-Myrcene	68.22	0.00682	
β-Ocimene 1	ND	ND	
β-Ocimene 2	ND	ND	
β-Pinene	130.2	0.01302	
Camphene	95.78	0.00958	
Caryophyllene-oxide	2.202	0.00022	
δ-3-Carene	8.906	0.00089	

Analyte	Result (µg/g)	Result (%)	
δ-Limonene	292.0	0.02920	
Eucalyptol	1370	0.13702	
γ-Terpinene	ND	ND	
Geraniol	ND	ND	
Guaiol	3.658	0.00037	
Isopulegol	ND	ND	
Linalool	36.35	0.00364	
Nerolidol 1	ND	ND	
Nerolidol 2	ND	ND	
p-Cymene	74.55	0.00746	
Terpinolene	13.44	0.00134	
Total Terpenes:	2519	0.25195	
Total (µg/unit):	24588.0		

LOD = 0.0002%

Analysis Batch:

Analysis Date:

WO-20091033 Friday, September 18, 2020 Test Method: SOP 6.9 Instrument: Agilent GC-FID/MS, Instrument 36

Comments:

None.



YoungChul Park, Ph.D., Laboratory Director Approval Date: 23-Sep-2020

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Result (µg/g) ND ND

PESTICIDES

Analyte	Action Level	Result (µg/g)
Abamectin	0.30	ND
Acephate	3.00	ND
Acequinocyl	2.00	ND
Acetamiprid	3.00	ND
Aldicarb	0.10	ND
Azoxystrobin	3.00	ND
Bifenazate	3.00	ND
Carbaryl	0.50	ND
Carbofuran	0.10	ND
Chlorantraniliprole	3.00	ND
Chlorfenapyr	0.05	ND
Chlorpyrifos	0.10	ND
Coumaphos	0.10	ND
Daminozide	0.10	ND
Diazinon	0.20	ND
Dichlorvos	0.10	ND
Dimethoate	0.10	ND
Dimethomorph (I/II)	3.00	ND
Ethoprophos	0.10	ND
Etofenprox	0.10	ND
Etoxazole	1.50	ND
Fenhexamid	3.00	ND
Fenoxycarb	0.10	ND
Fenpyroximate	2.00	ND
Fipronil	0.10	ND
Flonicamid	2.00	ND
Fludioxonil	3.00	ND

ND Trifloxystrobin ND 3.00 Test Method: SOP 6.7 Instrument: Agilent LC-MS/MS, Instrument 32

MYCOTOXINS

Analysis Batch:

Analysis Date:

Analyte	Report	Result	Action Limit	LOD	Unit
Aflatoxin, Total	Pass	ND	0.020	0.005	µg/g
Ochratoxin A	Pass	ND	0.020	0.005	µg/g

* Total Aflatoxin includes B1, B2, G1 and G2.

Analysis	Batch:
Analysis	Date:

Batch:	WO-20091703
Date:	Saturday, September 19, 2020

WO-20091703

Saturday, September 19, 2020

Test Method: SOP 6.7 Instrument: Agilent LC-MS/MS, Instrument 33

Comments:

None.



Authorization

YoungChul Park, Ph.D., Laboratory Director Approval Date: 23-Sep-2020

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Certificate of Analysis LC-20200914-461

RESIDUAL SOLVENTS

Analyte	Action Level	Result (µg/g)	
1,2-Dichloroethane	5	ND	
Acetone	5000	ND	
Acetonitrile	410	ND	
Benzene	2	ND	
Butane	2000	ND	
Chloroform	60	ND	
Ethanol	5000	ND	
Ethyl Acetate	5000	ND	
Ethyl Ether	5000	ND	
Ethylene Oxide	5	ND	

Analyte	Action Level	Result (µg/g)
Heptane	5000	ND
Hexane	290	ND
Isopropyl Alchol	500	ND
Methanol	3000	ND
Methylene Chloride	600	ND
Pentane	5000	ND
Propane	2100	ND
Toluene	890	ND
Trichloroethylene	80	ND
Xylenes, Total	2170	ND

Analysis Batch: Analysis Date:

WO-20091602 Friday, September 18, 2020 Test Method: SOP 6.8 Instrument: Agilent GC-FID/MS, Instrument 36

MICROBIAL CONTAMINANTS

Test	Report	Result	Specification
Shiga toxin-producing E.coli (STEC)	Pass	Absent	Presence/Absent in 1 g
Escherichia coli (E. coli)	Pass	Absent	Presence/Absent in 1 g
Salmonella	Pass	Absent	Presence/Absent in 1 g
Listeria	Pass	Absent	Presence/Absent in 1 g

Analysis Batch: Analysis Date:

WO-20091604 Thursday, September 17, 2020 Test Method: SOP 6.11 (qPCR) Instrument: Agilent AriaMX, Instrument 38

HEAVY METALS

Element	Report	Result	Action Limit	LOD	Unit
Lead	Pass	ND	0.50	0.050	µg/g
Arsenic	Pass	ND	1.5	0.050	µg/g
Mercury	Pass	ND	3.0	0.005	µg/g
Cadmium	Pass	ND	0.50	0.050	µg/g

Analysis Batch: Analysis Date:

WO-20091702 Friday, September 18, 2020

Test Method: SOP 6.10 Instrument: Agilent ICP/MS, Instrument 37

Comments:



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