



License No. 800025015
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

ROYALTY MEDICINALS LLC
Atlanta, GA 30318

Batch # 101021
Batch Date: 2021-06-30
Extracted From: Hemp

Sampling Method: MSP 7.3.1
Test Reg State: Florida

Order # ROY210630-020036
Order Date: 2021-06-30
Sample # AABO498

Sampling Date: 2021-07-20
Lab Batch Date: 2021-07-20
Completion Date: 2021-08-02

Initial Gross Weight: 69.457 g

Number of Units: 1
Net Weight per Unit: 28758.323 mg



Product Image

Potency Tested	Terpenes Tested	Heavy Metals Passed	Mycotoxins Passed	Pesticides Passed
Residual Solvents Passed	Pathogenic Microbiology Passed	Listeria Monocytogenes Passed		

Potency - 11

Specimen Weight: 92.320 mg

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (mg/g)	(%)
CBD	10.000	0.000054	0.001	7.770	0.777
Delta-9 THC	10.000	0.000013	0.001	0.228	0.023
CBC	10.000	0.000018	0.001	<LOQ	<LOQ
THCV	10.000	0.000007	0.001	<LOQ	<LOQ
Delta-8 THC	10.000	0.000026	0.001	<LOQ	<LOQ
CBN	10.000	0.000014	0.001	<LOQ	<LOQ
CBGA	10.000	0.00008	0.001	<LOQ	<LOQ
CBG	10.000	0.000248	0.001	<LOQ	<LOQ
CBDV	10.000	0.000065	0.001	<LOQ	<LOQ
CBDA	10.000	0.00001	0.001	<LOQ	<LOQ
THCA-A	10.000	0.000032	0.001	<LOQ	<LOQ

Tested (HPLC/LCMS)

Potency Summary

Total THC 0.023%	6.614mg	Total CBD 0.777%	223.452mg
Total CBG None Detected		Total CBN None Detected	
Other Cannabinoids None Detected		Total Cannabinoids 0.800%	230.067mg

Terpenes Summary

Analyte	Result (mg/g)	(%)
Hexahydrothymol	39.586	3.959%
Camphors	7.64	0.764%
Eucalyptol	3.207	0.321%
trans-Caryophyllene	2.741	0.274%
(R)-(+)-Limonene	1.865	0.186%
alpha-Pinene	0.711	0.071%
beta-Pinene	0.631	0.063%
alpha-Humulene	0.474	0.047%
Pulegone	0.455	0.045%
Sabinene	0.342	0.034%

Total Terpenes: 5.764%

Detailed Terpenes Analysis is on the following page

Xueli Gao
Xueli Gao
Ph.D., DABT
Lab Toxicologist

Aixia Sun
Aixia Sun
D.H.Sc., M.Sc., B.Sc., MT (AAB)
Lab Director/Principal Scientist



Definitions and Abbreviations used in this report: *Total CBD = CBD + (CBD-A * 0.877), *Total THC = THCA-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, , LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 5%

This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Accredited by a third-party accrediting body as a competent testing laboratory pursuant to ISO/IEC 17025 of the International Organization for Standardization.





License No. 800025015
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

ROYALTY MEDICINALS LLC
Atlanta, GA 30318

Batch # 101021
Batch Date: 2021-06-30
Extracted From: Hemp

Sampling Method: MSP 7.3.1
Test Reg State: Florida

Order # ROY210630-020036
Order Date: 2021-06-30
Sample # AABO498

Sampling Date: 2021-07-20
Lab Batch Date: 2021-07-20
Completion Date: 2021-08-02

Initial Gross Weight: 69.457 g

Number of Units: 1
Net Weight per Unit: 28758.323 mg



Terpenes - FL

Specimen Weight: 101.160 mg

Tested
(GC/GCMS)

Dilution Factor: 20.000

Analyte	LOQ (%)	Result (mg/g)	(%)	Analyte	LOQ (%)	Result (mg/g)	(%)
Hexahydrothymol	0.02	39.586	3.959	Camphors	0.04	7.640	0.764
Eucalyptol	0.02	3.207	0.321	trans-Caryophyllene	0.02	2.741	0.274
(R)-(+)-Limonene	0.02	1.865	0.186	alpha-Pinene	0.02	0.711	0.071
beta-Pinene	0.02	0.631	0.063	alpha-Humulene	0.02	0.474	0.047
Pulegone	0.02	0.455	0.045	Sabinene	0.02	0.342	0.034
Isoborneol	0.02	<LOQ		Isopulegol	0.02	<LOQ	
Linalool	0.02	<LOQ		(+)-Cedrol	0.02	<LOQ	
Nerol	0.02	<LOQ		Ocimene	0.014	<LOQ	
Geranyl acetate	0.02	<LOQ		Sabinene Hydrate	0.02	<LOQ	
Terpineol	0.02	<LOQ		Terpinolene	0.02	<LOQ	
trans-Nerolidol	0.02	<LOQ		Guaiol	0.02	<LOQ	
Fenchone	0.02	<LOQ		Geraniol	0.02	<LOQ	
3-Carene	0.02	<LOQ		alpha-Bisabolol	0.02	<LOQ	
alpha-Cedrene	0.02	<LOQ		alpha-Phellandrene	0.02	<LOQ	
alpha-Terpinene	0.02	<LOQ		beta-Myrcene	0.02	<LOQ	
Gamma-Terpinene	0.02	<LOQ		Borneol	0.04	<LOQ	
Camphene	0.02	<LOQ		Caryophyllene oxide	0.02	<LOQ	
cis-Nerolidol	0.02	<LOQ		Farnesene	0.02	<LOQ	
Fenchyl Alcohol	0.02	<LOQ		Valencene	0.02	<LOQ	

Total Terpenes: 5.764%

Xueli Gao
Xueli Gao Lab Toxicologist
Ph.D., DABT

Aixia Sun
Aixia Sun Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)



Definitions and Abbreviations used in this report: *Total CBD = CBD + (CBD-A * 0.877), *Total THC = THCA-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 5%



This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Accredited by a third-party accrediting body as a competent testing laboratory pursuant to ISO/IEC 17025 of the International Organization for Standardization.



License No. 800025015
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

ROYALTY MEDICINALS LLC
Atlanta, GA 30318

Batch # 101021
Batch Date: 2021-06-30
Extracted From: Hemp

Sampling Method: MSP 7.3.1
Test Reg State: Florida

Order # ROY210630-020036
Order Date: 2021-06-30
Sample # AABO498

Sampling Date: 2021-07-20
Lab Batch Date: 2021-07-20
Completion Date: 2021-08-02

Initial Gross Weight: 69.457 g

Number of Units: 1
Net Weight per Unit: 28758.323 mg

Heavy Metals Passed (ICP-MS)

Specimen Weight: 251.400 mg

Dilution Factor: 2.000

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Arsenic (As)	100	1500	<LOQ	Cadmium (Cd)	100	500	<LOQ
Lead (Pb)	100	500	<LOQ	Mercury (Hg)	100	3000	<LOQ

Mycotoxins Passed (LCMS)

Specimen Weight: 150.810 mg

Dilution Factor: 9.946

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Aflatoxin B1	6	20	<LOQ	Aflatoxin B2	6	20	<LOQ
Aflatoxin G1	6	20	<LOQ	Aflatoxin G2	6	20	<LOQ
Ochratoxin A	12	20	<LOQ				

Xueli Gao
Xueli Gao Lab Toxicologist
Ph.D., DABT

Aixia Sun
Aixia Sun Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)



Definitions and Abbreviations used in this report: *Total CBD = CBD + (CBD-A * 0.877), *Total THC = THCA-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, , LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 5%



This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Accredited by a third-party accrediting body as a competent testing laboratory pursuant to ISO/IEC 17025 of the International Organization for Standardization.



License No. 800025015
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

ROYALTY MEDICINALS LLC
Atlanta, GA 30318

Batch # 101021
Batch Date: 2021-06-30
Extracted From: Hemp

Sampling Method: MSP 7.3.1
Test Reg State: Florida

Order # ROY210630-020036
Order Date: 2021-06-30
Sample # AABO498

Sampling Date: 2021-07-20
Lab Batch Date: 2021-07-20
Completion Date: 2021-08-02

Initial Gross Weight: 69.457 g

Number of Units: 1
Net Weight per Unit: 28758.323 mg

Pesticides FL V4 **Passed**
(LCMS/GCMS)

Specimen Weight: 150.810 mg

Dilution Factor: 9.946

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Abamectin	28.23	300	<LOQ	Acephate	30	3000	<LOQ
Acequinocyl	48	2000	<LOQ	Acetamiprid	30	3000	<LOQ
Aldicarb	30	100	<LOQ	Azoxystrobin	10	3000	<LOQ
Bifenazate	30	3000	<LOQ	Bifenthrin	30	500	<LOQ
Boscalid	10	3000	<LOQ	Captan	30	3000	<LOQ
Carbaryl	10	500	<LOQ	Carbofuran	10	100	<LOQ
Chlorantraniliprole	10	3000	<LOQ	Chlordane	10	100	<LOQ
Chlorfenapyr	30	100	<LOQ	Chloromequat Chloride	10	3000	<LOQ
Chlorpyrifos	30	100	<LOQ	Clofentezine	30	500	<LOQ
Coumaphos	48	100	<LOQ	Cyfluthrin	30	1000	<LOQ
Cypermethrin	30	1000	<LOQ	Daminozide	30	100	<LOQ
Diazinon	30	200	<LOQ	Dichlorvos	30	100	<LOQ
Dimethoate	30	100	<LOQ	Dimethomorph	48	3000	<LOQ
Ethoprophos	30	100	<LOQ	Etofenprox	30	100	<LOQ
Etoxazole	30	1500	<LOQ	Fenhexamid	10	3000	<LOQ
Fenoxycarb	30	100	<LOQ	Fenpyroximate	30	2000	<LOQ
Fipronil	30	100	<LOQ	Flonicamid	30	2000	<LOQ
Fludioxonil	48	3000	<LOQ	Hexythiazox	30	2000	<LOQ
Imazalil	30	100	<LOQ	Imidacloprid	30	3000	<LOQ
Kresoxim Methyl	30	1000	<LOQ	Malathion	30	2000	<LOQ
Metalaxyl	10	3000	<LOQ	Methiocarb	30	100	<LOQ
Methomyl	30	100	<LOQ	methyl-Parathion	10	100	<LOQ
Mevinphos	10	100	<LOQ	Myclobutanil	30	3000	<LOQ
Naled	30	500	<LOQ	Oxamyl	30	500	<LOQ
Pacllobutrazol	30	100	<LOQ	Pentachloronitrobenzene	10	200	<LOQ
Permethrin	30	1000	<LOQ	Phosmet	30	200	<LOQ
Piperonylbutoxide	30	3000	<LOQ	Prallethrin	30	400	<LOQ
Propiconazole	30	1000	<LOQ	Propoxur	30	100	<LOQ
Pyrethrins	30	1000	<LOQ	Pyridaben	30	3000	<LOQ
Spinetoram	10	3000	<LOQ	Spinosad	30	3000	<LOQ
Spiromesifen	30	3000	<LOQ	Spirotetramat	30	3000	<LOQ
Spiroxamine	30	100	<LOQ	Tebuconazole	30	1000	<LOQ
Thiacloprid	30	100	<LOQ	Thiamethoxam	30	1000	<LOQ
Trifloxystrobin	30	3000	<LOQ				

Xueli Gao
Xueli Gao Lab Toxicologist
Ph.D., DABT

Aixia Sun
Aixia Sun Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)



Definitions and Abbreviations used in this report: *Total CBD = CBD + (CBD-A * 0.877), *Total THC = THCA-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, , LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 5%



This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Accredited by a third-party accrediting body as a competent testing laboratory pursuant to ISO/IEC 17025 of the International Organization for Standardization.



License No. 800025015
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

ROYALTY MEDICINALS LLC
Atlanta, GA 30318

Batch # 101021
Batch Date: 2021-06-30
Extracted From: Hemp

Sampling Method: MSP 7.3.1
Test Reg State: Florida

Order # ROY210630-020036
Order Date: 2021-06-30
Sample # AABO498

Sampling Date: 2021-07-20
Lab Batch Date: 2021-07-20
Completion Date: 2021-08-02

Initial Gross Weight: 69.457 g

Number of Units: 1
Net Weight per Unit: 28758.323 mg

Residual Solvents - FL (CBD) Passed (GCMS)

Specimen Weight: 8.300 mg

Dilution Factor: 1.000

Analyte	LOQ (ppm)	Action Level (ppm)	Result (ppm)	Analyte	LOQ (ppm)	Action Level (ppm)	Result (ppm)
Acetone	2.08	5000	<LOQ	Benzene	0.02	2	<LOQ
Butanes	2.5	2000	<LOQ	Ethanol	2.78	5000	<LOQ
Ethyl Acetate	1.11	5000	<LOQ	Heptane	1.39	5000	<LOQ
Hexane	1.17	290	<LOQ	Isopropyl alcohol	1.39	500	<LOQ
Methanol	0.69	3000	<LOQ	Pentane	2.08	5000	<LOQ
Propane	5.83	2100	<LOQ	Toluene	2.92	890	<LOQ
Total Xylenes	2.92	2170	<LOQ				

Pathogenic Microbiology SAE (MicroArray) Passed (Micro Array)

Specimen Weight: 1023.050 mg

Dilution Factor: 1.000

Analyte	Result (cfu/g)	Analyte	Result (cfu/g)
Aspergillus flavus	Absence in 1g	Aspergillus fumigatus	Absence in 1g
Aspergillus niger	Absence in 1g	Aspergillus terreus	Absence in 1g
Salmonella	Absence in 1g	STEC E. Coli	Absence in 1g

Xueli Gao
Xueli Gao Lab Toxicologist
Ph.D., DABT

Aixia Sun
Aixia Sun Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)



Definitions and Abbreviations used in this report: *Total CBD = CBD + (CBD-A * 0.877), *Total THC = THCA-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, , LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 5%



This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Accredited by a third-party accrediting body as a competent testing laboratory pursuant to ISO/IEC 17025 of the International Organization for Standardization.



License No. 800025015
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

ROYALTY MEDICINALS LLC
Atlanta, GA 30318

Batch # 101021
Batch Date: 2021-06-30
Extracted From: Hemp

Sampling Method: MSP 7.3.1
Test Reg State: Florida

Order # ROY210630-020036
Order Date: 2021-06-30
Sample # AABO498

Sampling Date: 2021-07-20
Lab Batch Date: 2021-07-20
Completion Date: 2021-08-02

Initial Gross Weight: 69.457 g

Number of Units: 1
Net Weight per Unit: 28758.323 mg



Listeria Monocytogenes

Specimen Weight: 989.300 mg

Passed
(qPCR)

Dilution Factor: 1.000

Analyte	Action Level (cfu/g)	Result
Listeria Monocytogenes	1	Absence in 1g

Xueli Gao
Xueli Gao
Ph.D., DABT
Lab Toxicologist

Aixia Sun
Aixia Sun
D.H.Sc., M.Sc., B.Sc., MT (AAB)
Lab Director/Principal Scientist



Definitions and Abbreviations used in this report: *Total CBD = CBD + (CBD-A * 0.877), *Total THC = THCA-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, , LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 5%



This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Accredited by a third-party accrediting body as a competent testing laboratory pursuant to ISO/IEC 17025 of the International Organization for Standardization.