



Certificate of Analysis

R&D

HAU PROCESSING
2200 E 76TH AVE
DENVER, CO 80229-6631

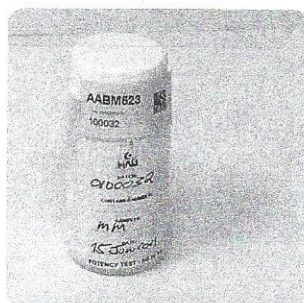
Batch # 0100032
Batch Date: 2021-06-15
Extracted From: Hemp

Test Reg State: Oregon

Order # HAU210615-150032
Order Date: 2021-06-15
Sample # AABM523

Sampling Date: 2021-06-16
Lab Batch Date: 2021-06-16
Completion Date: 2021-06-25

Initial Gross Weight: 44.538 g



Product Image



Potency
Tested



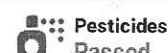
Terpenes
Tested



Heavy Metals
Passed



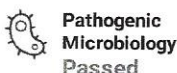
Mycotoxins
Passed



Pesticides
Passed



Residual
Solvents
Passed



Pathogenic
Microbiology
Passed



Listeria
Monocytogenes
Passed

Potency - 11

Specimen Weight: 34.230 mg

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (mg/g)	(%)
CBD	10.000	0.000054	0.001	995.300	99.530
CBDV	10.000	0.000065	0.001	3.090	0.309
CBC	10.000	0.000018	0.001		<LOQ
THCV	10.000	0.000007	0.001		<LOQ
Delta-9 THC	10.000	0.000013	0.001		<LOQ
Delta-8 THC	10.000	0.000026	0.001		<LOQ
CBN	10.000	0.000014	0.001		<LOQ
CBGA	10.000	0.000008	0.001		<LOQ
CBG	10.000	0.000248	0.001		<LOQ
CBDA	10.000	0.000001	0.001		<LOQ
THCA-A	10.000	0.000032	0.001		<LOQ

Tested
(HPLC/LCMS)

Potency Summary

Total THC None Detected	Total CBD 99.530%
Total CBG None Detected	Total CBN None Detected
Other Cannabinoids 0.309%	Total Cannabinoids 99.839%

Terpenes Summary

Analyte	Result (mg/g) (%)
Total Terpenes: 0.000%	

Detailed Terpenes Analysis is on the following page

Xueli Gao
Ph.D., DABT
Lab Toxicologist

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



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Terpenes - FL

Specimen Weight: 1949.870 mg

Tested
(GC/GCMS)

Dilution Factor: 5000.000

Analyte	LOQ (%)	Result (mg/g)	(%)	Analyte	LOQ (%)	Result (mg/g)	(%)
(+)-Cedrol	0.02	<LOQ		Nerol	0.02	<LOQ	
Geraniol	0.02	<LOQ		Geranyl acetate	0.02	<LOQ	
Guaiol	0.02	<LOQ		Hexahydrothymol	0.02	<LOQ	
Isoborneol	0.02	<LOQ		Isopulegol	0.02	<LOQ	
Linalool	0.02	<LOQ		Ocimene	0.014	<LOQ	
Fenchyl Alcohol	0.02	<LOQ		Pulegone	0.02	<LOQ	
Sabinene	0.02	<LOQ		Sabinene Hydrate	0.02	<LOQ	
Terpineol	0.02	<LOQ		Terpinolene	0.02	<LOQ	
trans-Caryophyllene	0.02	<LOQ		trans-Nerolidol	0.02	<LOQ	
Gamma-Terpinene	0.02	<LOQ		Fenchone	0.02	<LOQ	
(R)-(+)-Limonene	0.02	<LOQ		alpha-Terpinene	0.02	<LOQ	
3-Carene	0.02	<LOQ		alpha-Bisabolol	0.02	<LOQ	
alpha-Cedrene	0.02	<LOQ		alpha-Humulene	0.02	<LOQ	
alpha-Phellandrene	0.02	<LOQ		alpha-Pinene	0.02	<LOQ	
Farnesene	0.02	<LOQ		beta-Myrcene	0.02	<LOQ	
beta-Pinene	0.02	<LOQ		Borneol	0.04	<LOQ	
Camphene	0.02	<LOQ		Camphors	0.04	<LOQ	
Caryophyllene oxide	0.02	<LOQ		cis-Nerolidol	0.02	<LOQ	
Eucalyptol	0.02	<LOQ		Valencene	0.02	<LOQ	

Total Terpenes: 0.000%

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Heavy Metals

Specimen Weight: 246.700 mg

Passed
(ICP-MS)

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

Specimen Weight: 193.600 mg

Passed
(LCMS)

Dilution Factor: 7.748

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				

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Pesticides

Specimen Weight: 193.600 mg

Passed
(LCMS/GCMS)

Dilution Factor: 7.748

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
Carbaryl	10	500	<LOQ	Chlorfenapyr	48	100	<LOQ
Chlorpyrifos	30	100	<LOQ	Clofentezine	30	500	<LOQ
Coumaphos	30	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	30	3000	<LOQ
Ethoprophos	30	100	<LOQ	Etofenprox	30	100	<LOQ
Etoxazole	30	1500	<LOQ	Fenhexamid	30	3000	<LOQ
Fenoxycarb	30	100	<LOQ	Fenpyroximate	30	2000	<LOQ
Fipronil	30	100	<LOQ	Flonicamid	30	2000	<LOQ
Fludioxonil	30	3000	<LOQ	Hexythiazox	30	2000	<LOQ
Imazalil	30	100	<LOQ	Imidacloprid	30	3000	<LOQ
Kresoxim Methyl	30	1000	<LOQ	Malathion	30	2000	<LOQ
Metolaxyl	10	3000	<LOQ	Methiocarb	30	100	<LOQ
Methomyl	30	100	<LOQ	Mevinphos	30	100	<LOQ
Myclobutanil	30	3000	<LOQ	Naled	30	500	<LOQ
Oxamyl	30	500	<LOQ	Paclobutrazol	30	100	<LOQ
Parathion-methyl	48	100	<LOQ	Pentachloronitrobenzene	30	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	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

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Residual Solvents - FL (CBD)

Specimen Weight: 116.800 mg

Passed
(GCMS)

Dilution Factor: 50.000

Analyte	LOQ (ppm)	Action Level (ppm)	Result (ppm)	Analyte	LOQ (ppm)	Action Level (ppm)	Result (ppm)
1,1-Dichloroethene	0.16	8	<LOQ	1,2-Dichloroethane	0.04	5	<LOQ
Acetone	2.08	5000	<LOQ	Acetonitrile	1.17	410	<LOQ
Benzene	0.02	2	<LOQ	Butanes	2.5	2000	<LOQ
Chloroform	0.04	60	<LOQ	Ethanol	2.78	5000	<LOQ
Ethyl Acetate	1.11	5000	<LOQ	Ethyl Ether	1.39	5000	<LOQ
Ethylene Oxide	0.1	5	<LOQ	Heptane	1.39	5000	<LOQ
Hexane	1.17	290	<LOQ	Isopropyl alcohol	1.39	500	<LOQ
Methanol	0.69	3000	<LOQ	Methylene chloride	2.43	600	<LOQ
Pentane	2.08	5000	264.445	Propane	5.83	2100	<LOQ
Toluene	2.92	890	<LOQ	Total Xylenes	2.92	2170	<LOQ
Trichloroethylene	0.49	80	<LOQ				

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Pathogenic Microbiology SAE (MicroArray)

Specimen Weight: 1049.180 mg

Passed
(Micro Array)

Dilution Factor: 1.000

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



Listeria Monocytogenes

Specimen Weight: 1020.400 mg

Passed
(qPCR)

Dilution Factor: 1.000

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

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