

12025 NE Marx St. Portland, OR 97220
503-253-3511 / www.greenleaflab.org

Green Leaf Lab proudly follows
ISO/IEC 17025:2005(E) Quality Standards

Blackberry Kush Subcritical CO² Hash

Cannabis Angels

Sample ID S130460 Matrix: Concentrate

Date Accepted: 2/12/16 Date Analyzed: 2/17/16

Sampling Method Laboratory Sampled Batch

Testing in compliance with Oregon State Law and OAR 333-0081190

Analysis Methods

Potency via HPLC

Pesticide via GC-MS / ELISA

Mold & Mildew via Plate Culture

Batch Seals: 36802-36878

Instruments

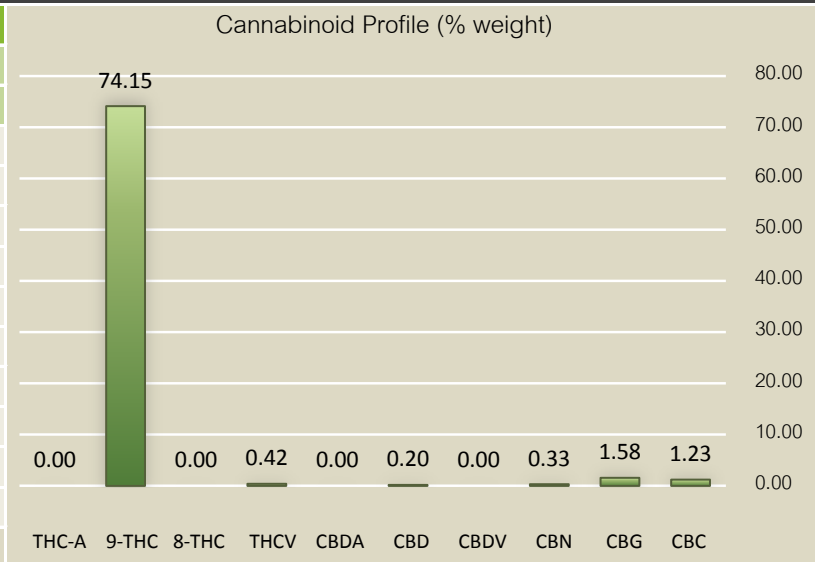
HP Agilent 1100 Series

Analysts

PMH/AKH/EEW

Potency Analysis

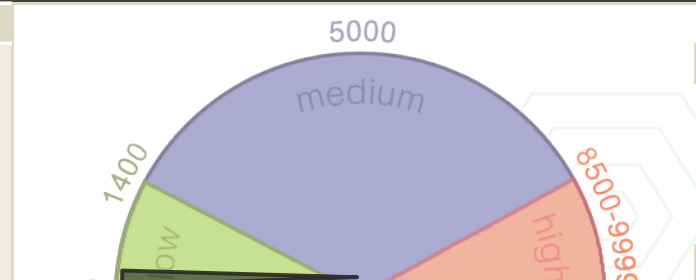
Cannabinoids (% weight)	Decarboxylated* %
Total THC* (THCA*0.877+D9)	74.15
Total CBD ((CBDA*0.877)+CBD)	0.20
THC-A	0.02
Δ9-THC	74.13
Δ8-THC	ND @ 0.01
THCV	0.42
CBD-A	0.15
CBD	0.07
CBDV	ND @ 0.01
CBN	0.33
CBG	1.58
CBC	1.23
Total Cannabinoids	77.92



*The HPLC measures cannabinoids in both their acidic and activated form; these values represent the potential total activated cannabinoids.

Mold and Mildew Screen

Total Colonies	<10	CFU/g
<p>This color coded gauge represents the sample's colony forming units per gram (CFU/g) and how it compares to flowers tested at Green Leaf Lab. This is not a doctor's recommendation and is only a tool for helping compare your sample to CFU/g values observed in the lab. The larger size of the medium range indicates that the majority of samples fall within the 1400-8500 range. A CFU/g of 10,000 or above does not comply with Oregon State law.</p>		



Pesticide Analysis		
Pyrethroids	Below LOQ of 0.1	ppm
Organophosphates	Below LOQ of 0.1	ppm
Carbamates	Below LOQ of 0.1	ppm
Chlorinated Hydrocarbons	Below LOQ of 0.1	ppm
Total Pesticide Content	Below LOQ of 0.1	ppm

Quality Control Results			
Method Blank:	Passed	No Analytes Detected	
Quality Control Sample:	Passed	90-110% of expected	
Sample Duplicate Requirement:	Passed	<10% difference	

Definitions

ND: not detected
ppm: parts per million,
CFU/g: colony forming units per gram

Kevin Hounshell, Laboratory Director



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Analysis Methods
Terpenes via GC-MS

Instruments
HP 5890 / HP 5972
Analysts
PMH/AKH/EEW

Terpene Analysis			
Monoterpenes	Results in Percent	Results in mg/g	
Camphene	0.001%	ND @ 0.01	mg/g
δ 3-Carene	0.003%	0.03	mg/g
p-Cymene	0.000%	ND @ 0.01	mg/g
Eucalyptol	0.013%	0.13	mg/g
Fenchone	0.010%	0.10	mg/g
Geraniol	0.001%	0.01	mg/g
Isopulegol	0.025%	0.25	mg/g
Limonene	0.109%	1.09	mg/g
Linalool	0.152%	1.52	mg/g
β-Myrcene	0.088%	0.88	mg/g
Nerol	0.007%	0.07	mg/g
β-Ocimene	0.010%	0.10	mg/g
α-Pinene	0.007%	0.07	mg/g
β-Pinene	0.002%	0.02	mg/g
Pulegone	0.000%	ND @ 0.01	mg/g
α-Terpinene	0.001%	ND @ 0.01	mg/g
γ-Terpinene	0.003%	0.03	mg/g
Terpinolene	0.088%	0.88	mg/g
Sesquiterpenes			
α-Bisabolol	0.170%	1.70	mg/g
β-Caryophyllene	0.059%	0.59	mg/g
Caryophyllene Oxide	0.621%	6.21	mg/g
Guaiol	0.151%	1.51	mg/g
α-Humulene	0.205%	2.05	mg/g
Nerolidol	0.172%	1.72	mg/g
Valencene	0.098%	0.98	mg/g
Total Terpenes:	1.996%	19.96	mg/g

About your terpene profile

Terpenes are aromatic molecules found in plant resins. They are not only responsible for the many unique smells of Cannabis, but they accentuate the holistic effect of cannabinoids as well. Terpene profiles can be utilized to quantify strong flavor, identify different strains and achieve therapeutic benefits.

Green Leaf Lab's terpene analysis quantifies the 25 most common terpenes found in Cannabis sativa. Terpenes are generally divided into two chemical classifications: Monoterpenes and sesquiterpenes.

Monoterpenes:

All of the monoterpenes are very similar in chemical structure, containing 10 carbons and 6 hydrogens. Although, they are similar, the varying arrangements produce distinct aromas. Changes such as oxidation and rearrangement produce monoterpenoids which will have a different chemical formula.

Monoterpenes are more volatile than sesquiterpenes; the aromas tend to be stronger and they are more prone to being lost by heating and oxidation.

Myrcene and Limonene are examples of an acyclic and cyclic monoterpene, respectively. They both share a basic structure containing a backbone of 10 carbon atoms, however arranged uniquely.

Sesquiterpenes:

The sesquiterpenes are a more complex class of terpenes. They are also generally aromatic, but are also heavier and less volatile. Thus, they often remain after some of the more volatile monoterpenes have broken down under heat or oxidation.

These two common terpenes have quite varied structure and different therapeutic properties. For more on the individual terpenes we test for, see our "Interpreting Test Results" document.

