

Botany Evolution LLC
 2510 Kirby Circle NE
 Palm Bay, FL 32945
 321-802-4583

Certificate Of Analysis

Sample Identification Information

<u>Date of Analysis</u> 6/24/2019	<u>Country of Origin</u> CHINA
<u>Sample:</u> S0691	<u>Country of Processing</u> CHINA
<u>Product Name</u> 30% KAVA EXTRACT	<u>Manufacture Date</u> 04/18/19
<u>Lot#</u> CHKB190418KE30	<u>Best By Date</u> 04/18/22

General Product Specifications

<u>Product Species</u> Piper Methysticum	<u>Common Names</u> Kava kava, Awa, Yagona
<u>Part Used</u> Root	<u>Appearance</u> Yellow powder

Analyzed Characteristics

Specification

Result

Test Method

<u>Standardization</u>	20-90% Kavalactones	31.49%	HPLC
<u>Identification</u>	Complies by HPLC	Conform	HPLC
<u>Kavalactone Profile</u>	Noble	PASS	HPLC
<u>Mesh Size</u>	60-30	30	Sieve
<u>Color</u>	Beige to Yellow	Pass	Visual
<u>Odor</u>		Pass	Organoleptic
<u>Taste</u>		Pass	Organoleptic
<u>Chemotype</u>		243561	HPLC
<u>K/DHM</u>		1.86	Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2349.48			
Methysticin	M	1	2.21	2391.929	9.57%	3.07%	6
Dihydromethysticin	DHM	2	3.38	2053.733	8.21%	3.89%	5
Kavain	K	3	1	12313.147	49.25%	7.23%	4
Dihydrokavain	DHK	4	3.08	4011.646	16.04%	9.91%	2
Desmethoxyyangonin	DMY	5	2.52	1884.995	7.54%	3.03%	1
Yangonin	Y	6	3.12	2347.603	9.39%	4.35%	3
Kavalactones			Total:	25003.053	100.00%	31.49%	243561

*See data in attachment HPLC1100 Agilent Certificate with Chromatogram graph.

This result are in house tested and the best of our knowledge and experience. Using calibrated equipment.
 We are dedicated to offer the best Quality of Botanical products on the market. We test and stand behind our products.
 Disclaimer* the test results are accurate to the best of our knowledge and are based upon reputable laboratory and industry standard testing methods.
 These results should not be used as a final determination for use in a finished product. It is recommended that you verify these test results with an
 in house quality control department or obtain an additional independent third party lab to verify that this material meets specifications
 Botany Evolution, its board of directors, contract laboratories, employees, and affiliates are held harmless from any loss or damages resulting from the
 use or misuse of this document. The appropriate use of this product is the sole responsibility of the user of the purchasing party.

Chemist Muste Youngs Date 6/27/19

SAMPLE S0691
 Vial 21

0.36114g/25mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_6_24_2019_15MINSTDTESTMETHOD 2019-06-24 16-31-18\021->

SEQUENCE C:\CHEM32\1\DATA\KAVA_6_24_2019_ ->

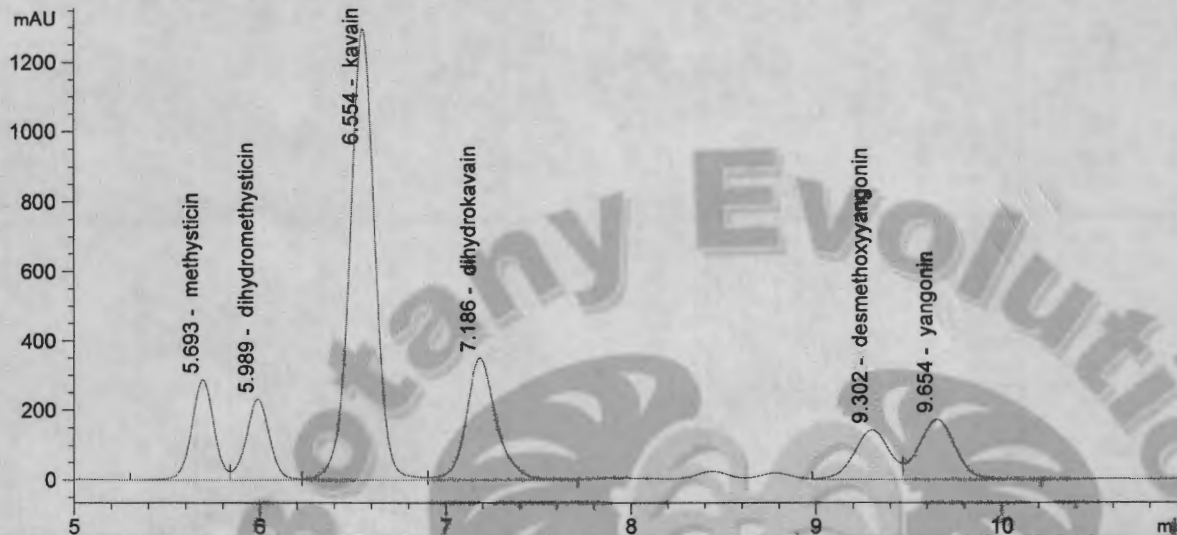
Injection date 6/24/2019

Injection time 10:59:46 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_6_24_201->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_6_24_2019_15MINSTDTESTMETHOD 2019-06-24 16-31-18\021-2101.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.693	2391.929	9.57	0.000
2	dihydromethysticin	5.989	2053.733	8.21	0.001
3	kavain	6.554	12313.147	49.25	0.001
4	dihydrokavain	7.186	4011.646	16.04	0.001
5	desmethoxyyangonin	9.302	1884.995	7.54	0.000
6	yangonin	9.654	2347.603	9.39	0.001

Handwritten signature: 6/27/19
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