

**Botany Evolution LLC**

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

**Certificate Of Analysis**

**Sample Identification Information**

Date of Analysis 12/6/2017  
Sample: S0271  
Product Name 40% KAVA EXTRACT  
Lot# CHKB171020KE40

Country of Origin CHINA  
Country of Processing CHINA  
Manufacture Date 10/20/17  
Expiration Date 10/20/20

**General Product Specifications**

Product Species Piper Methysticum  
Part Used Root

Common Names Kava kava, Awa, Yagona  
Appearance Beige powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	20-90% Kavalactones	37.65%	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>		245361	HPLC
<u>K/DHM</u>		1.42	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2943.925			
Methysticin	M	1	2.19	3865.137	12.30%	4.59%	6
Dihydromethysticin	DHM	2	3.23	3105.115	9.88%	5.44%	5
Kavain	K	3	1	14263.335	45.38%	7.73%	4
Dihydrokavain	DHK	4	4.21	5103.906	16.24%	11.65%	2
Desmethoxyyangonin	DMY	5	2.74	2134.132	6.79%	3.17%	1
Yangonin	Y	6	3.16	2958.751	9.41%	5.07%	3
<b>Kavalactones</b>			<b>Total:</b>	<b>31430.376</b>	<b>100.00%</b>	<b>37.65%</b>	<b>245361</b>

\*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.

*Hustle Youngs 12/18/17*

SAMPLE S0271  
Vial 11

0.33518g/25ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_12\_6\_2017\_15MINSTDTESTMETHOD 2017-12-06 13-52-13\011->

SEQUENCE C:\CHEM32\1\DATA\KAVA\_12\_6\_2017\_ ->

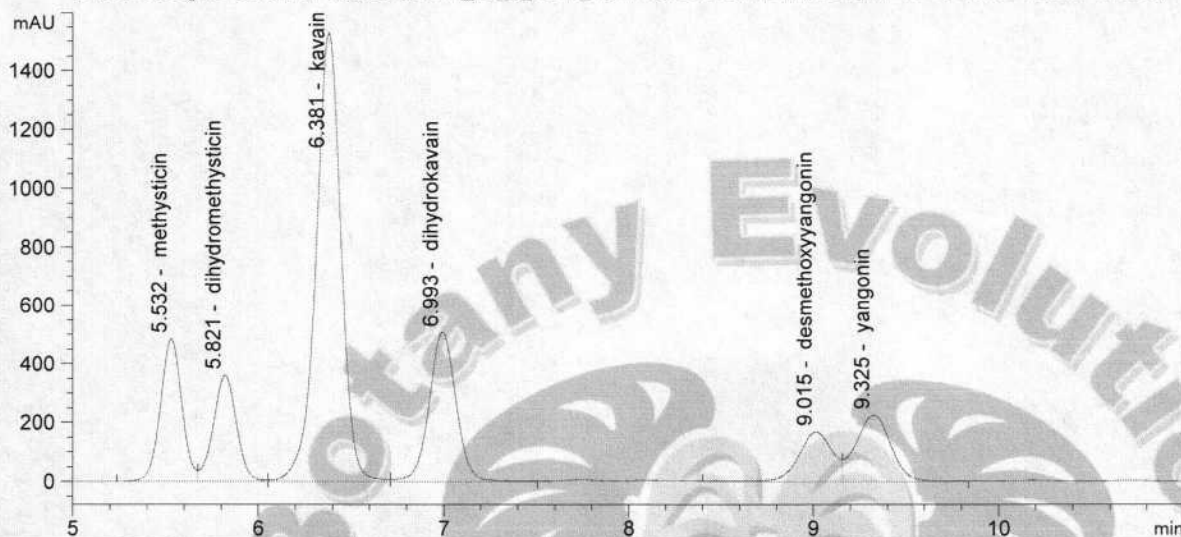
Injection date 12/6/2017

Injection time 5:06:27 PM

Acq. operator KRISTL

Method C:\CHEM32\1\METHODS\KAVA15MIN\_STD\_TEST.M

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_12\_6\_2017\_15MINSTDTESTMETHOD 2017-12-06 13-52-13\011-1101.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.532	3865.137	12.30	0.001
2	dihydromethysticin	5.821	3105.115	9.88	0.001
3	kavain	6.381	14263.335	45.38	0.001
4	dihydrokavain	6.993	5103.906	16.24	0.003
5	desmethoxyyangonin	9.015	2134.132	6.79	0.000
6	yangonin	9.325	2958.751	9.41	0.001

12/8/17