

**Botany Evolution LLC**

2510 Kirby Circle NE

Palm Bay, FL 32945

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**Certificate Of Analysis****Sample Identification Information****Date of Analysis** 6/26/2017**Sample:** S0124**Product Name** BASAL ROOT**Lot#** VSSC170607BR**Country of Origin** VANUATU**Country of Processing** VANUATU**Manufacture Date** 06/07/17**Expiration Date** 06/07/20**General Product Specifications****Product Species** Piper Methysticum**Common Names** Kava kava, Awa, Yagona**Part Used** Root**Appearance** Beige powder

<b><u>Analyzed Characteristics</u></b>	<b><u>Specification</u></b>	<b><u>Result</u></b>	<b><u>Test Method</u></b>
<b><u>Standardization</u></b>	2-15% Kavalactones	6.65%	HPLC
<b><u>Identification</u></b>	Complies by HPLC	Conform	HPLC
<b><u>Kavalactone Profile</u></b>	Noble	PASS	HPLC
<b><u>Mesh Size</u></b>	60-30	60	Sieve
<b><u>Color</u></b>	Beige to Yellow	Pass	Visual
<b><u>Odor</u></b>		Pass	Organoleptic
<b><u>Taste</u></b>		Pass	Organoleptic
<b><u>Chemotype</u></b>		243516	HPLC
<b><u>K/DHM</u></b>		2.18	Calculation

<b>Kavalactones</b>	<b>Code</b>	<b>Peaks Ref.</b>	<b>Correction Factor</b>	<b>Area *</b>	<b>Area %</b>	<b>Corrected Kavalactones</b>	<b>Chemotype Identifier</b>
Standard Kavain	K			2745.21			
Methysticin	M	1	2.19	438.375	7.14%	0.48%	6
Dihydromethysticin	DHM	2	3.23	448.667	7.30%	0.72%	5
Kavain	K	3	1	3161.493	51.47%	1.58%	4
Dihydrokavain	DHK	4	4.21	1233.593	20.08%	2.59%	2
Desmethoxyyangonin	Y	5	2.74	363.426	5.92%	0.50%	1
Yangonin	DMY	6	3.16	496.963	8.09%	0.78%	3
<b>Kavalactones</b>			<b>Total:</b>	<b>6142.517</b>	<b>100.00%</b>	<b>6.65%</b>	<b>243516</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.

SAMPLE S0124  
Vial 12

0.78167 g/50 ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_6\_26\_2017\_15MINSTDTESTMETHOD 2017-06-26 15-51-33\012->

SEQUENCE C:\CHEM32\1\DATA\KAVA\_6\_26\_2017\_ ->

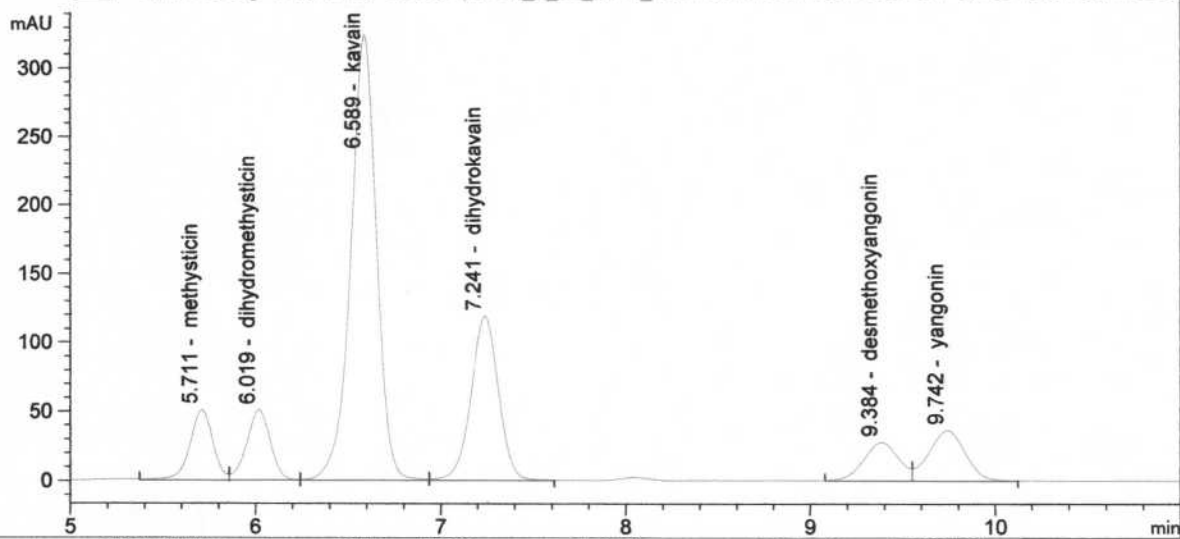
Injection date 6/26/2017

Injection time 5:45:19 PM

Acq. operator KRISTL

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

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_6\_26\_2017\_15MINSTDTESTMETHOD 2017-06-26 15-51-33\012-05)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.711	438.375	7.14	0.000
2	dihydromethysticin	6.019	448.667	7.30	0.000
3	kavain	6.589	3161.493	51.47	0.000
4	dihydrokavain	7.241	1233.593	20.08	0.001
5	desmethoxyyangonin	9.384	363.426	5.92	0.000
6	yangonin	9.742	496.963	8.09	0.000