

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

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Certificate Of Analysis**Sample Identification Information****Date of Analysis** 8/18/2017**Sample:** S0176**Product Name** BASAL ROOT**Lot#** VFE170718BR**Country of Origin** VANUATU**Country of Processing** VANUATU**Manufacture Date** 07/18/17**Expiration Date** 07/18/20**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>	2-15% Kavalactones	7.75%	HPLC
<u>Identification</u>	Complies by HPLC	Conform	HPLC
<u>Kavalactone Profile</u>	Noble	PASS	HPLC
<u>Mesh Size</u>	60-30	60	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>		1.39	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2776.014			
Methysticin	M	1	2.19	668.731	9.93%	0.75%	6
Dihydromethysticin	DHM	2	3.23	695.396	10.32%	1.15%	5
Kavain	K	3	1	3114.711	46.23%	1.59%	4
Dihydrokavain	DHK	4	4.21	1312.948	19.49%	2.82%	2
Desmethoxyyangonin	Y	5	2.74	380.062	5.64%	0.53%	1
Yangonin	DMY	6	3.16	565.087	8.39%	0.91%	3
Kavalactones			Total:	6736.935	100.00%	7.75%	245361

*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.

Nestle Youngs 8/18/17

SAMPLE S0176
Vial 29

0.75467g/50ml

wavelength 246 nm

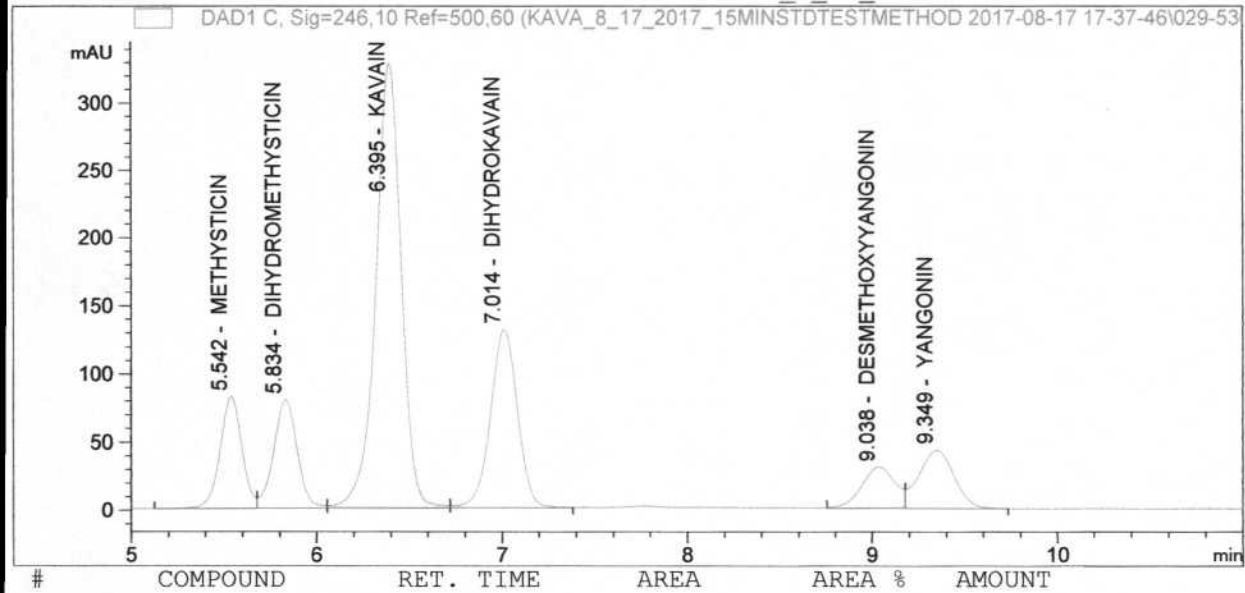
C:\CHEM32\1\DATA\KAVA_8_17_2017_15MINSTDTESTMETHOD 2017-08-17 17-37-46\029->
SEQUENCE

Injection date 8/18/2017

Injection time 8:09:47 AM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_8_17_201->



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	METHYSTICIN	5.542	668.731	9.93	0.000
2	DIHYDROMETHYSTICIN	5.834	695.396	10.32	0.000
3	KAVAIN	6.395	3114.711	46.23	0.000
4	DIHYDROKAVAIN	7.014	1312.948	19.49	0.001
5	DESMETHOXY YANGONIN	9.038	380.062	5.64	0.000
6	YANGONIN	9.349	565.087	8.39	0.000

Handwritten signature
8/18/17