

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information****Date of Analysis** 8/8/2017**Sample:** S0142**Product Name** BLACK LABEL**Lot#** VFE170701BL**Country of Origin** VANUATU**Country of Processing** VANUATU**Manufacture Date** 07/01/17**Expiration Date** 07/01/20**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	9.32%	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>		243156	HPLC
<u>K/DHM</u>		3.31	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2784.394			
Methysticin	M	1	2.19	722.573	7.67%	0.79%	6
Dihydromethysticin	DHM	2	3.23	500.633	5.32%	0.81%	5
Kavain	K	3	1	5355.282	56.86%	2.67%	4
Dihydrokavain	DHK	4	4.21	1351.207	14.35%	2.84%	2
Desmethoxyyangonin	Y	5	2.74	638.392	6.78%	0.87%	1
Yangonin	DMY	6	3.16	850.353	9.03%	1.34%	3
Kavalactones			Total:	9418.440	100.00%	9.32%	243156

*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.

Muste Youngs 8/10/17

SAMPLE S0142
 Vial 11

0.76980g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_8_8_2017_15MINSTDTESTMETHOD 2017-08-08 14-31-45\011-->
 SEQUENCE C:\CHEM32\1\DATA\KAVA_8_8_2017_ ->

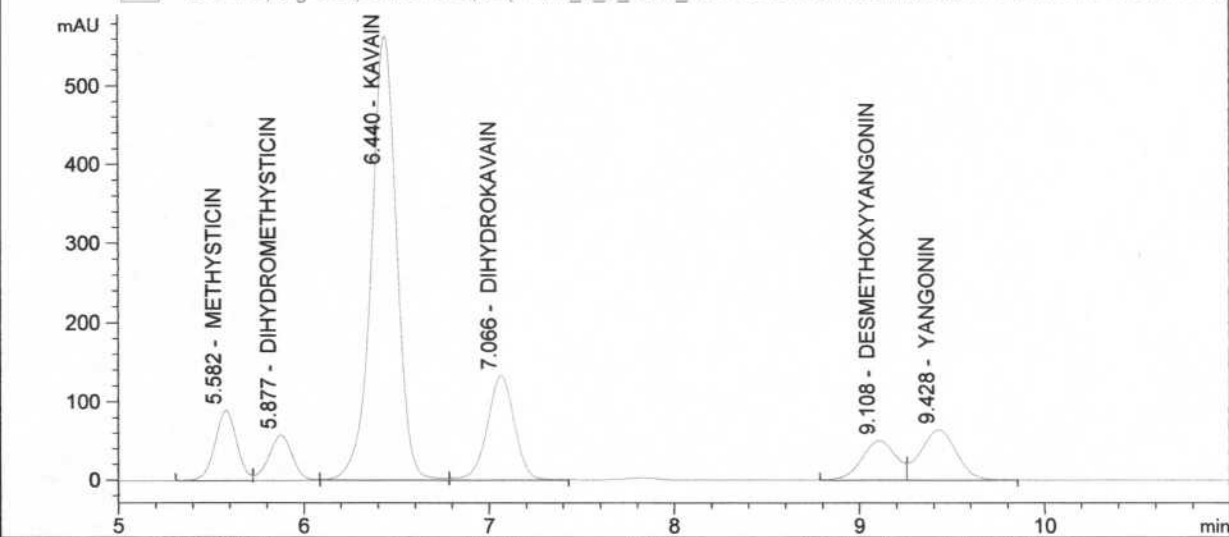
Injection date 8/8/2017

Injection time 5:46:10 PM

Acq. operator KRISTL

Method C:\CHEM32\1\METHODS\KAVA15MIN_STD_TEST.M

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_8_8_2017_15MINSTDTESTMETHOD 2017-08-08 14-31-45\011-110)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	METHYSTICIN	5.582	722.573	7.67	0.000
2	DIHYDROMETHYSTICIN	5.877	500.633	5.32	0.000
3	KAVAIN	6.440	5355.282	56.86	0.000
4	DIHYDROKAVAIN	7.066	1351.207	14.35	0.001
5	DESMETHOXYANGONIN	9.108	638.392	6.78	0.000
6	YANGONIN	9.428	850.353	9.03	0.000

8/10/17
[Signature]