

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: S0145
Product Name LATERAL ROOTS
Lot# VFE170701LR

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	12.88%	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>		423165	HPLC
<u>K/DHM</u>		6.57	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2784.394			
Methysticin	M	1	2.19	859.147	6.08%	0.95%	6
Dihydromethysticin	DHM	2	3.23	431.671	3.06%	0.70%	5
Kavain	K	3	1	9164.943	64.88%	4.63%	4
Dihydrokavain	DHK	4	4.21	1779.69	12.60%	3.78%	2
Desmethoxyyangonin	Y	5	2.74	971.817	6.88%	1.34%	1
Yangonin	DMY	6	3.16	918.438	6.50%	1.47%	3
Kavalactones			Total:	14125.706	100.00%	12.88%	423165

*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 S0145
Vial 14

0.76090g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_8_8_2017_15MINSTDTESTMETHOD 2017-08-08 14-31-45\014-->

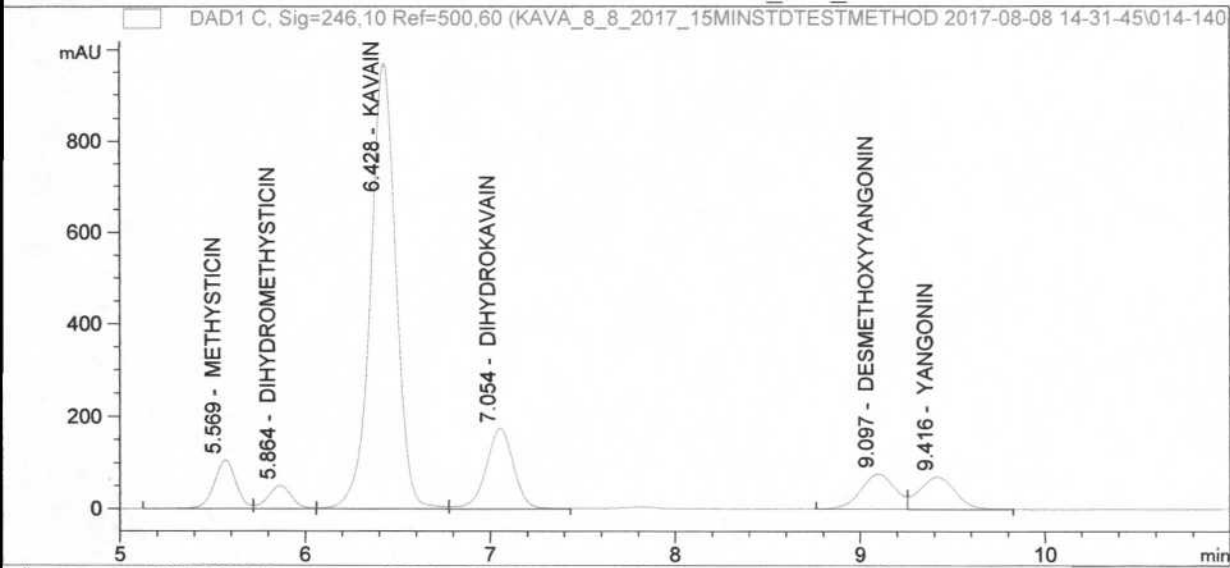
SEQUENCE C:\CHEM32\1\DATA\KAVA_8_8_2017_ ->

Injection date 8/8/2017

Injection time 6:34:28 PM

Acq. operator KRISTL

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



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	METHYSTICIN	5.569	859.147	6.08	0.000
2	DIHYDROMETHYSTICIN	5.864	431.671	3.06	0.000
3	KAVAIN	6.428	9164.943	64.88	0.001
4	DIHYDROKAVAIN	7.054	1779.690	12.60	0.001
5	DESMETHOXYANGONIN	9.097	971.817	6.88	0.000
6	YANGONIN	9.416	918.438	6.50	0.000

Handwritten signature
8/10/17