

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information****Date of Analysis** 3/22/2017**Sample:** S0100**Product Name** BULA**Lot#** FBE170227B**Country of Origin** FIJI**Country of Processing** USA**Manufacture Date** Feb-17**Expiration Date** Feb-20**General Product Specifications****Product Species** Piper Methysticum**Part Used** Root**Common Names** Kava kava, Awa, Yagona**Appearance** Beige powder**Analyzed Characteristics****Specification****Result****Test Method****Standardization**

2-15% Kavalactones

6.02%

HPLC

Identification

Complies by HPLC

Conform

HPLC

Kavalactone Profile

Noble

PASS

HPLC

Mesh Size

60-30

60

Sieve

Color

Beige to Yellow

Pass

Visual

Odor

Pass

Organoleptic

Taste

Pass

Organoleptic

Chemotype

246531

HPLC

K/DHM

1.82

Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2802.987			
Methysticin	M	1	2.19	927.02	15.98%	1.02%	6
Dihydromethysticin	DHM	2	3.23	488.611	8.42%	0.79%	5
Kavain	K	3	1	2876.323	49.57%	1.45%	4
Dihydrokavain	DHK	4	4.21	763.881	13.16%	1.62%	2
Desmethoxyyangonin	Y	5	2.74	263.086	4.53%	0.36%	1
Yangonin	DMY	6	3.16	483.609	8.33%	0.77%	3
Kavalactones			Total:	5802.530	100.00%	6.02%	246531

*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 S0100
Vial 5

0.75784g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_3_22_2017_STD_RECAL_15MINMETHOD 2017-03-22 14-02-25\->

SEQUENCE C:\CHEM32\1\DATA\KAVA_3_22_2017_STD_RECAL->

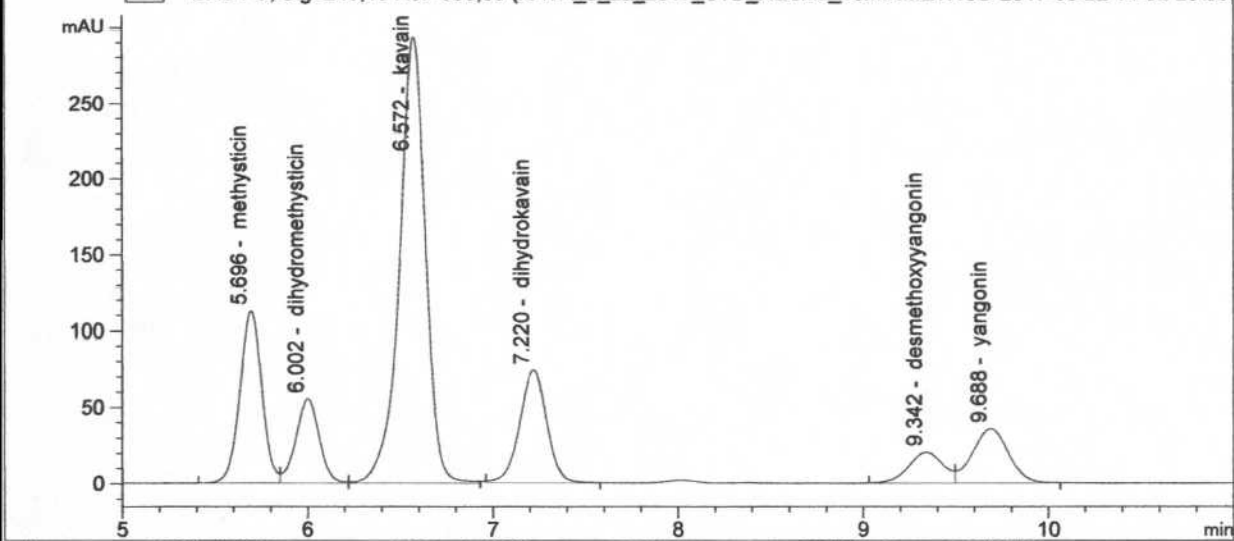
Injection date 3/22/2017

Injection time 5:49:05 PM

Acq. operator KRISTL

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

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_3_22_2017_STD_RECAL_15MINMETHOD 2017-03-22 14-02-25\00)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.696	927.020	15.98	0.066
2	dihydromethysticin	6.002	488.611	8.42	0.045
3	kavain	6.572	2876.323	49.57	1.084
4	dihydrokavain	7.220	763.881	13.16	0.198
5	desmethoxyyangonin	9.342	263.086	4.53	0.019
6	yangonin	9.688	483.609	8.33	0.041