

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information**Date of Analysis 8/28/2017Sample: S0185Product Name BLACK LABELLot# VFE170730BLCountry of Origin VANUATUCountry of Processing VANUATUManufacture Date 07/30/17Expiration Date 07/30/20**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Beige powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	2-15% Kavalactones	7.91%	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>		243561	HPLC
<u>K/DHM</u>		2.67	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2828.846			
Methysticin	M	1	2.19	677.022	8.87%	0.75%	6
Dihydromethysticin	DHM	2	3.23	478.156	6.26%	0.78%	5
Kavain	K	3	1	4129.818	54.08%	2.09%	4
Dihydrokavain	DHK	4	4.21	1166.957	15.28%	2.49%	2
Desmethoxyyangonin	Y	5	2.74	508.354	6.66%	0.71%	1
Yangonin	DMY	6	3.16	675.804	8.85%	1.08%	3
Kavalactones			Total:	7636.111	100.00%	7.91%	243561

*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.

Russell Youngs 8/11/17

SAMPLE S0185
 Vial 14

0.74635g/50ml

wavelength 246 nm

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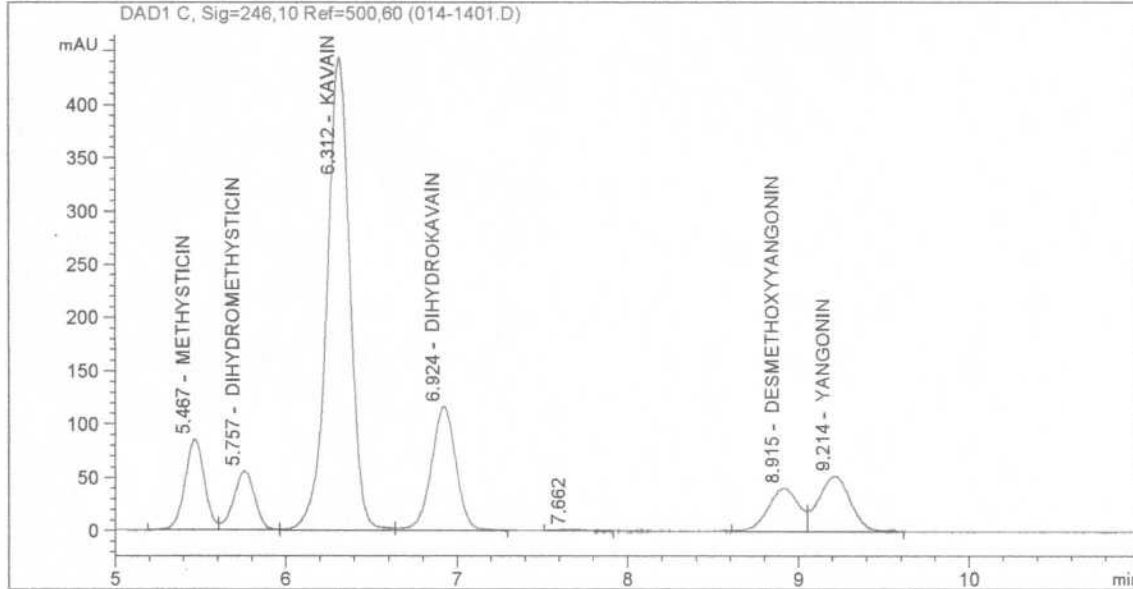
SEQUENCE C:\Chem32\1\DATA\KAVA_8_29_2017_ ->

Injection date 8/29/2017

Injection time 8:51:52 PM

Acq. operator KRISTL

Method C:\Chem32\1\DATA\KAVA_8_29_201->



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1		1.017	47.958	0.61	0.000
2		1.457	18.928	0.24	0.000
3		1.709	14.662	0.19	0.000
4		2.270	13.729	0.18	0.000
5		2.417	12.257	0.16	0.000
6		3.095	14.803	0.19	0.000
7		3.214	15.376	0.20	0.000
8		3.998	16.874	0.22	0.000
9	METHYSTICIN	5.467	677.022	8.68	0.000
10	DIHYDROMETHYSTICIN	5.757	478.156	6.13	0.000
11	KAVAIN	6.312	4129.818	52.94	0.000
12	DIHYDROKAVAIN	6.924	1166.957	14.96	0.001
13		7.662	10.810	0.14	0.000
14	DESMETHOXYYANGONIN	8.915	508.354	6.52	0.000
15	YANGONIN	9.214	675.804	8.66	0.000