

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: S0184Product Name LATERAL ROOTLot# VFE170730LRCountry 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**Analyzed Characteristics****Specification****Result****Test Method**Standardization

2-15% Kavalactones

13.59%

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

423165

HPLC

K/DHM

4.05

Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2828.846			
Methysticin	M	1	2.19	1122.726	7.70%	1.20%	6
Dihydromethysticin	DHM	2	3.23	665.242	4.56%	1.05%	5
Kavain	K	3	1	8703.143	59.65%	4.25%	4
Dihydrokavain	DHK	4	4.21	1915.758	13.13%	3.94%	2
Desmethoxyyangonin	Y	5	2.74	989.048	6.78%	1.32%	1
Yangonin	DMY	6	3.16	1193.874	8.18%	1.84%	3
Kavalactones			Total:	14589.791	100.00%	13.59%	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.

Mustie Youngs 9/11/17

SAMPLE S0184
 Vial 13

0.77515g/50ml

wavelength 246 nm

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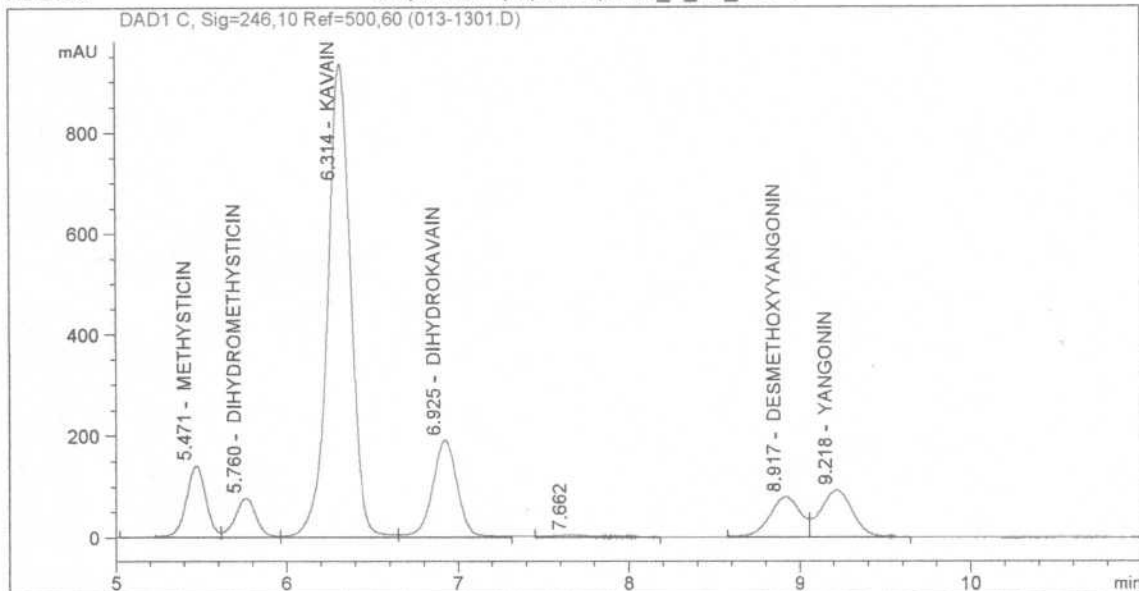
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Injection date 8/29/2017

Injection time 8:35:43 PM

Acq. operator KRISTL

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



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1		0.791	10.471	0.07	0.000
2		1.006	33.622	0.23	0.000
3		1.249	16.777	0.11	0.000
4		2.409	13.137	0.09	0.000
5		3.101	24.976	0.17	0.000
6		3.205	29.390	0.20	0.000
7		3.889	65.865	0.44	0.000
8		3.999	39.504	0.27	0.000
9	METHYSTICIN	5.471	1122.726	7.55	0.000
10	DIHYDROMETHYSTICIN	5.760	665.242	4.47	0.000
11	KAVAIN	6.314	8703.143	58.52	0.000
12	DIHYDROKAVAIN	6.925	1915.758	12.88	0.002
13		7.662	48.410	0.33	0.000
14	DESMETHOXYANGONIN	8.917	989.048	6.65	0.000
15	YANGONIN	9.218	1193.874	8.03	0.000