

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information**Date of Analysis 7/26/2017Sample: S0135Product Name BASAL ROOTSLot# VLN170717BRCountry of Origin VANUATUCountry of Processing USAManufacture Date 07/17/17Expiration Date 07/17/20**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

4.85%

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

245361

HPLC

K/DHM

2.18

Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2777.361			
Methysticin	M	1	2.19	371.833	8.42%	0.42%	6
Dihydromethysticin	DHM	2	3.23	323.811	7.33%	0.53%	5
Kavain	K	3	1	2284.896	51.72%	1.17%	4
Dihydrokavain	DHK	4	4.21	880.55	19.93%	1.89%	2
Desmethoxyyangonin	Y	5	2.74	253.096	5.73%	0.35%	1
Yangonin	DMY	6	3.16	303.362	6.87%	0.49%	3
Kavalactones			Total:	4417.548	100.00%	4.85%	245361

*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.

Mustel Youngs 7/27/2017

SAMPLE S0135
 Vial 21

0.75477g/50ml

wavelength 246 nm

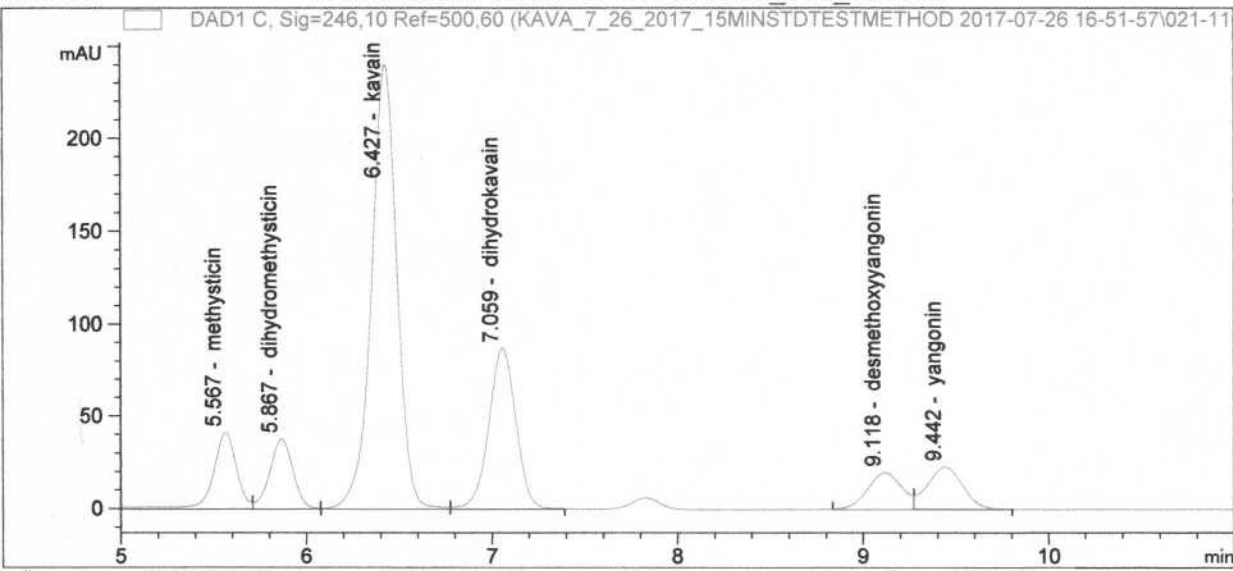
C:\CHEM32\1\DATA\KAVA_7_26_2017_15MINSTDTESTMETHOD 2017-07-26 16-51-57\021->
 SEQUENCE C:\CHEM32\1\DATA\KAVA_7_26_2017_ ->

Injection date 7/26/2017

Injection time 7:50:30 PM

Acq. operator KRISTL

Method C:\CHEM32\1\METHODS\KAVA15MIN STD TEST.M



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.567	371.833	8.42	0.000
2	dihydromethysticin	5.867	323.811	7.33	0.000
3	kavain	6.427	2284.896	51.72	0.000
4	dihydrokavain	7.059	880.550	19.93	0.001
5	desmethoxyyangonin	9.118	253.096	5.73	0.000
6	yangonin	9.442	303.362	6.87	0.000

Handwritten signature
 7/27/17