

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information**Date of Analysis 9/14/2018Sample: S0543Product Name LATERAL ROOTSLot# VSSC180821LRCountry of Origin VANUATUCountry of Processing USAManufacture Date 08/21/18Expiration Date 08/21/21**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

10.05%

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

3.89

Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2455.808			
Methysticin	M	1	2.21	709.792	7.42%	0.84%	6
Dihydromethysticin	DHM	2	3.38	444.484	4.65%	0.78%	5
Kavain	K	3	1	5578.274	58.32%	3.02%	4
Dihydrokavain	DHK	4	3.08	1244.041	13.01%	2.84%	2
Desmethoxyyangonin	DMY	5	2.52	688.08	7.19%	1.02%	1
Yangonin	Y	6	3.12	900.129	9.41%	1.54%	3
Kavalactones			Total:	9564.800	100.00%	10.05%	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.

Mustle Youngs 9/17/18

SAMPLE S0543
Vial 15

0.76482g/50mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_9_14_2018_15MINSTDTESTMETHOD 2018-09-14 14-26-06\015->

SEQUENCE C:\CHEM32\1\DATA\KAVA_9_14_2018_ ->

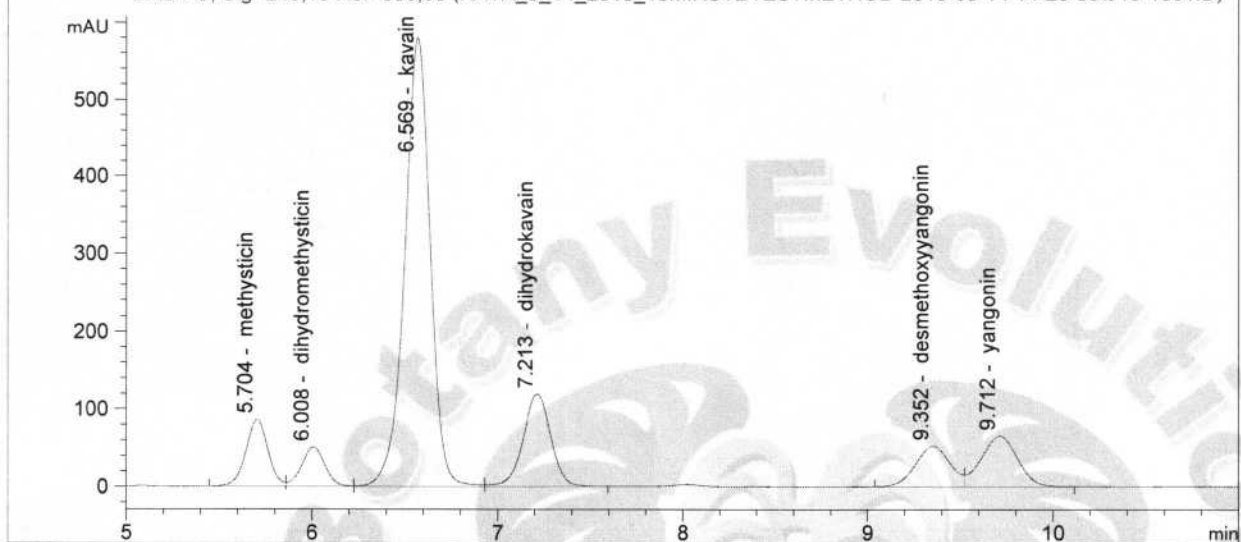
Injection date 9/14/2018

Injection time 7:33:06 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_9_14_201->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_9_14_2018_15MINSTDTESTMETHOD 2018-09-14 14-26-06\015-1601.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.704	709.792	7.42	0.000
2	dihydromethysticin	6.008	444.484	4.65	0.000
3	kavain	6.569	5578.274	58.32	0.000
4	dihydrokavain	7.213	1244.041	13.01	0.000
5	desmethoxyyangonin	9.352	688.080	7.19	0.000
6	yangonin	9.712	900.129	9.41	0.000

9/17/18
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