

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

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Certificate Of Analysis**Sample Identification Information**Date of Analysis 11/1/2018Sample: S0571Product Name LATERAL ROOTSLot# VFE180817LRCountry of Origin VANUATUCountry of Processing VANUATUManufacture Date 08/17/18Expiration Date 08/17/21**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

12.82%

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

423615

HPLC

K/DHM

3.38

Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2423.995			
Methysticin	M	1	2.21	1053.388	8.81%	1.27%	6
Dihydromethysticin	DHM	2	3.38	631.903	5.29%	1.13%	5
Kavain	K	3	1	6894.28	57.66%	3.80%	4
Dihydrokavain	DHK	4	3.08	1591.487	13.31%	3.70%	2
Desmethoxyyangonin	DMY	5	2.52	813.761	6.81%	1.23%	1
Yangonin	Y	6	3.12	971.425	8.12%	1.69%	3
Kavalactones			Total:	11956.244	100.00%	12.82%	423615

*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.

Muste Youngs 11/5/18

SAMPLE S0571
Vial 14

0.76119g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_11_1_2018_15MINSTDTESTMETHOD 2018-11-01 17-59-36\014->

SEQUENCE C:\CHEM32\1\DATA\KAVA_11_1_2018_ ->

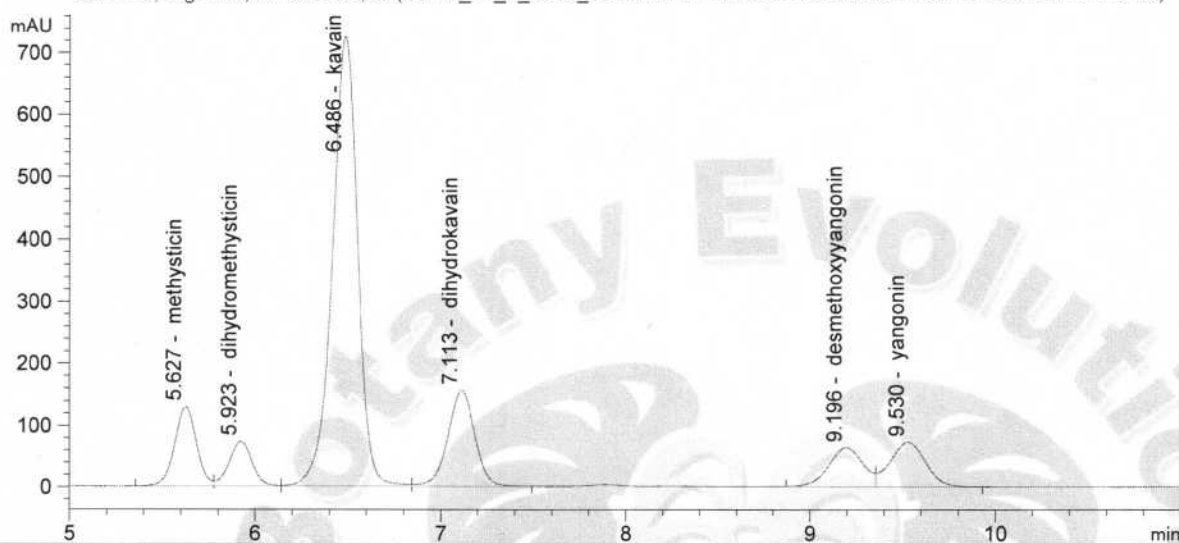
Injection date 11/1/2018

Injection time 10:35:05 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_11_1_201->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_11_1_2018_15MINSTDTESTMETHOD 2018-11-01 17-59-36\014-1401.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.627	1053.388	8.81	0.000
2	dihydromethysticin	5.923	631.903	5.29	0.000
3	kavain	6.486	6894.280	57.66	0.001
4	dihydrokavain	7.113	1591.487	13.31	0.000
5	desmethoxyyangonin	9.196	813.761	6.81	0.000
6	yangonin	9.530	971.425	8.12	0.000

11/5/18
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