

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information**Date of Analysis 11/6/2019Sample: S0772Product Name LATERAL ROOTSLot# VFE190926LRCountry of Origin VANUATUCountry of Processing VANUATUManufacture Date 09/26/19Best By Date 09/26/22**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Yellow, beige powder**Analyzed Characteristics****Specification****Result****Test Method**Standardization

2-17% Kavalactones

12.77%

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

4.11

Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2429.563			
Methysticin	M	1	2.21	978.474	7.92%	1.17%	6
Dihydromethysticin	DHM	2	3.38	557.703	4.51%	0.98%	5
Kavain	K	3	1	7408.3	59.93%	4.03%	4
Dihydrokavain	DHK	4	3.08	1581.972	12.80%	3.63%	2
Desmethoxyyangonin	DMY	5	2.52	839.961	6.79%	1.25%	1
Yangonin	Y	6	3.12	995.826	8.06%	1.71%	3
Kavalactones			Total:	12362.236	100.00%	12.77%	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.

Chemist

Mustie Youngs

Date

11/8/19

SAMPLE S0772
Vial 14

0.75299g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_11_6_2019_15MINSTDTESTMETHOD 2019-11-06 16-33-54\014->

SEQUENCE C:\CHEM32\1\DATA\KAVA_11_6_2019_ ->

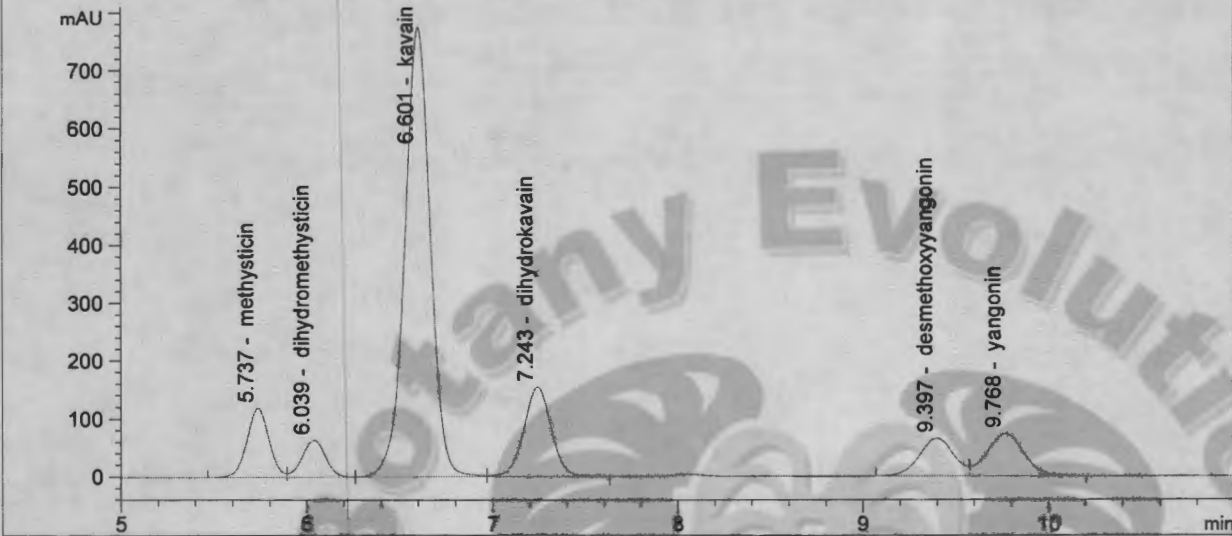
Injection date 11/6/2019

Injection time 9:25:12 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_11_6_201->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_11_6_2019_15MINSTDTESTMETHOD 2019-11-06 16-33-54\014-1501.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.737	978.474	7.92	0.000
2	dihydromethysticin	6.039	557.703	4.51	0.000
3	kavain	6.601	7408.300	59.93	0.001
4	dihydrokavain	7.243	1581.972	12.80	0.000
5	desmethoxyyangonin	9.397	839.961	6.79	0.000
6	yangonin	9.768	995.826	8.06	0.000

11/8/19
Y