

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information**Date of Analysis 9/18/2019Sample: S0722Product Name LATERAL ROOTSLot# VFE190819LRCountry of Origin VANUATUCountry of Processing VANUATUManufacture Date 08/19/19Best By Date 08/19/22**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

11.60%

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

3.70

Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2410.626			
Methysticin	M	1	2.21	920.827	8.29%	1.10%	6
Dihydromethysticin	DHM	2	3.38	548.333	4.93%	0.96%	5
Kavain	K	3	1	6548.363	58.92%	3.56%	4
Dihydrokavain	DHK	4	3.08	1447.895	13.03%	3.32%	2
Desmethoxyyangonin	DMY	5	2.52	768.839	6.92%	1.15%	1
Yangonin	Y	6	3.12	880.127	7.92%	1.51%	3
Kavalactones			Total:	11114.384	100.00%	11.60%	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

Mustel Youngs

Date

9/19/19

SAMPLE S0722
Vial 19

0.75961g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_9_18_2019_15MINSTDTESTMETHOD 2019-09-18 15-50-27\019->

SEQUENCE C:\CHEM32\1\DATA\KAVA_9_18_2019_ ->

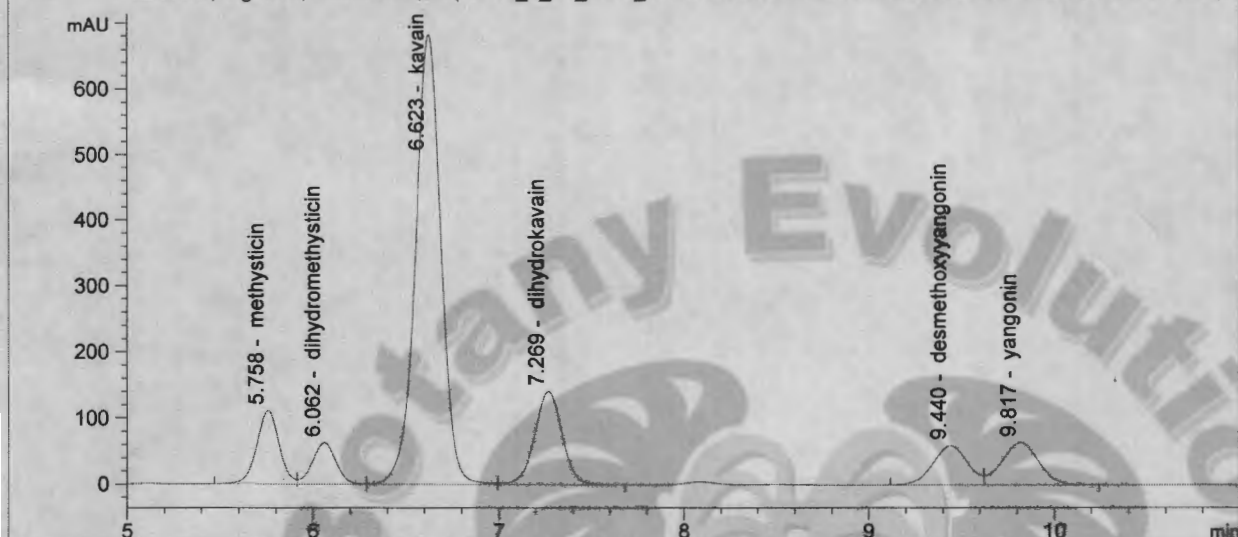
Injection date 9/18/2019

Injection time 9:46:18 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_9_18_201->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_9_18_2019_15MINSTDTESTMETHOD 2019-09-18 15-50-27\019-1901.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.758	920.827	8.29	0.000
2	dihydromethysticin	6.062	548.333	4.93	0.000
3	kavain	6.623	6548.363	58.92	0.001
4	dihydrokavain	7.269	1447.895	13.03	0.000
5	desmethoxyyangonin	9.440	768.839	6.92	0.000
6	yangonin	9.817	880.127	7.92	0.000

*alkala
ng*