

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis

Sample Identification Information

Date of Analysis 10/15/2018

Sample: S0560

Product Name LATERAL ROOTS

Lot# PNGNK181003LR

Country of Origin PAPUA NEW GUINEA

Country of Processing PAPUA NEW GUINEA

Manufacture Date 10/03/18

Expiration Date 10/03/21

General Product Specifications

Product Species Piper Methysticum

Part Used Root

Common Names Kava kava, Awa, Yagona

Appearance Beige powder

Analyzed Characteristics

Specification

Result

Test Method

Standardization

2-15% Kavalactones

6.75%

HPLC

Identification

Complies by HPLC

Conform

HPLC

Kavalactone Profile

Noble

TUDEI

HPLC

Mesh Size

60-30

60

Sieve

Color

Beige to Yellow

Pass

Visual

Odor

Pass

Organoleptic

Taste

Pass

Organoleptic

Chemotype

256431

HPLC

K/DHM

0.49

Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2408.839			
Methysticin	M	1	2.21	703.629	14.94%	0.85%	6
Dihydromethysticin	DHM	2	3.38	919.415	19.53%	1.65%	5
Kavain	K	3	1	1449.257	30.78%	0.80%	4
Dihydrokavain	DHK	4	3.08	1081.525	22.97%	2.52%	2
Desmethoxyyangonin	DMY	5	2.52	192.483	4.09%	0.29%	1
Yangonin	Y	6	3.12	362.2	7.69%	0.63%	3
Kavalactones			Total:	4708.509	100.00%	6.75%	256431

*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 10/16/18

SAMPLE S0560
Vial 13

0.76247g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_10_15_2018_15MINSTDTESTMETHOD 2018-10-15 16-39-33\01->

SEQUENCE C:\CHEM32\1\DATA\KAVA_10_15_2018_ ->

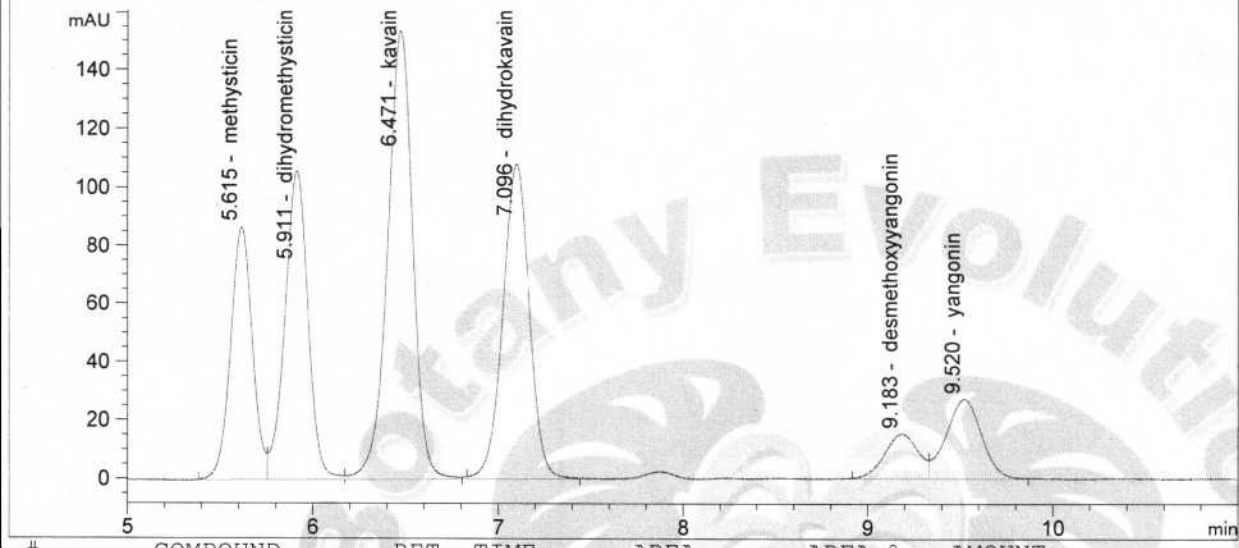
Injection date 10/15/2018

Injection time 8:58:29 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_10_15_201->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_10_15_2018_15MINSTDTESTMETHOD 2018-10-15 16-39-33\013-1301.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.615	703.629	14.94	0.000
2	dihydromethysticin	5.911	919.415	19.53	0.000
3	kavain	6.471	1449.257	30.78	0.000
4	dihydrokavain	7.096	1081.525	22.97	0.000
5	desmethoxyyangonin	9.183	192.483	4.09	0.000
6	yangonin	9.520	362.200	7.69	0.000

10/16/18
KR