

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information****Date of Analysis** 1/26/2018**Sample:** S0323**Product Name** LATERAL ROOTS**Lot#** PNGNK180107LR**Country of Origin** PAPUA NEW GUINEA**Country of Processing** PAPUA NEW GUINEA**Manufacture Date** 01/07/18**Expiration Date** 01/07/21**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

10.61%

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

0.76

Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2979.675			
Methysticin	M	1	2.19	1897.436	19.73%	1.96%	6
Dihydromethysticin	DHM	2	3.23	1443.976	15.02%	2.20%	5
Kavain	K	3	1	3529.753	36.71%	1.67%	4
Dihydrokavain	DHK	4	4.21	1512.028	15.72%	3.01%	2
Desmethoxyyangonin	DMY	5	2.74	349.495	3.63%	0.45%	1
Yangonin	Y	6	3.16	883.744	9.19%	1.32%	3
Kavalactones			Total:	9616.432	100.00%	10.61%	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 1/29/18

SAMPLE S0323
Vial 14

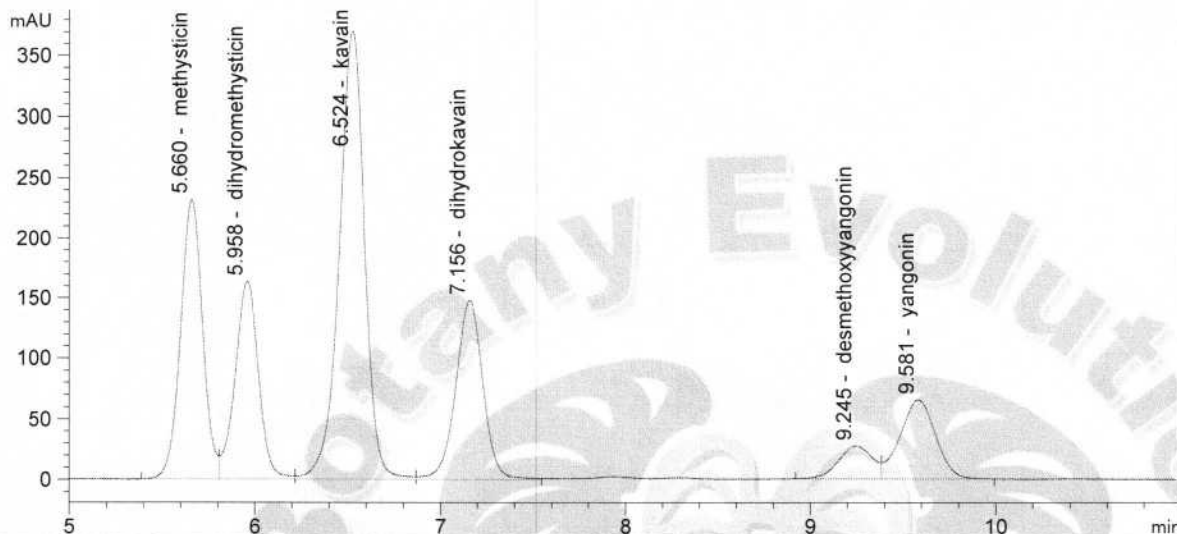
0.76067g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_1_26_2018_15MINSTDTESTMETHOD 2018-01-26 17-11-11\014->
SEQUENCE C:\CHEM32\1\DATA\KAVA_1_26_2018_ ->

Injection date 1/26/2018
Injection time 10:02:02 PM
Acq. operator KRISTL
Method C:\CHEM32\1\METHODS\KAVA15MIN_STD_TEST.M

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_1_26_2018_15MINSTDTESTMETHOD 2018-01-26 17-11-11\014-1501.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.660	1897.436	19.73	0.000
2	dihydromethysticin	5.958	1443.976	15.02	0.000
3	kavain	6.524	3529.753	36.71	0.000
4	dihydrokavain	7.156	1512.028	15.72	0.001
5	desmethoxyyangonin	9.245	349.495	3.63	0.000
6	yangonin	9.581	883.744	9.19	0.000

1/29/18
KJ