

Botany Evolution LLC

438 Martin Road Suite A

Palm Bay, FL 32909

321-802-4583

Certificate Of Analysis**Sample Identification Information****Date of Analysis** 2/7/2017**Sample:** S0082**Product Name** ISA LATERAL ROOT**Lot#** PNGNK170116IM**Country of Origin**

PAPUA NEW GUINEA

Country of Processing

PAPUA NEW GUINEA

Manufacture Date

Jan-17

Expiration Date

Jan-20

General Product Specifications**Product Species** Piper Methysticum**Common Names**

Kava kava, Awa, Yagona

Part Used Root**Appearance**

Beige powder

Analyzed Characteristics**Specification****Result****Test Method****Standardization**

2-15% Kavalactones

8.86%

HPLC

Identification

Complies by HPLC

Conform

HPLC

Kavalactone Profile

Noble

Fail

HPLC

Mesh Size

60-30

60

Sieve

Color

Beige to Yellow

Pass

Visual

Odor

Pass

Organoleptic

Taste

Pass

Organoleptic

Chemotype

254631

HPLC

K/DHM

0.55

Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2688.106			
Methysticin	M	1	2.19	866.181	13.27%	0.99%	6
Dihydromethysticin	DHM	2	3.23	1167.627	17.89%	1.96%	5
Kavain	K	3	1	2089.934	32.01%	1.09%	4
Dihydrokavain	DHK	4	4.21	1706.299	26.14%	3.73%	2
Desmethoxyyangonin	Y	5	2.74	265.862	4.07%	0.38%	1
Yangonin	DMY	6	3.16	432.409	6.62%	0.71%	3
Kavalactones			Total:	6528.312	100.00%	8.86%	254631

*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.

SAMPLE S0082
Vial 23

0.76572g

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_3_7_2017_STD_CHECK_15MINMETHOD 2017-02-07 13-49-20\ ->

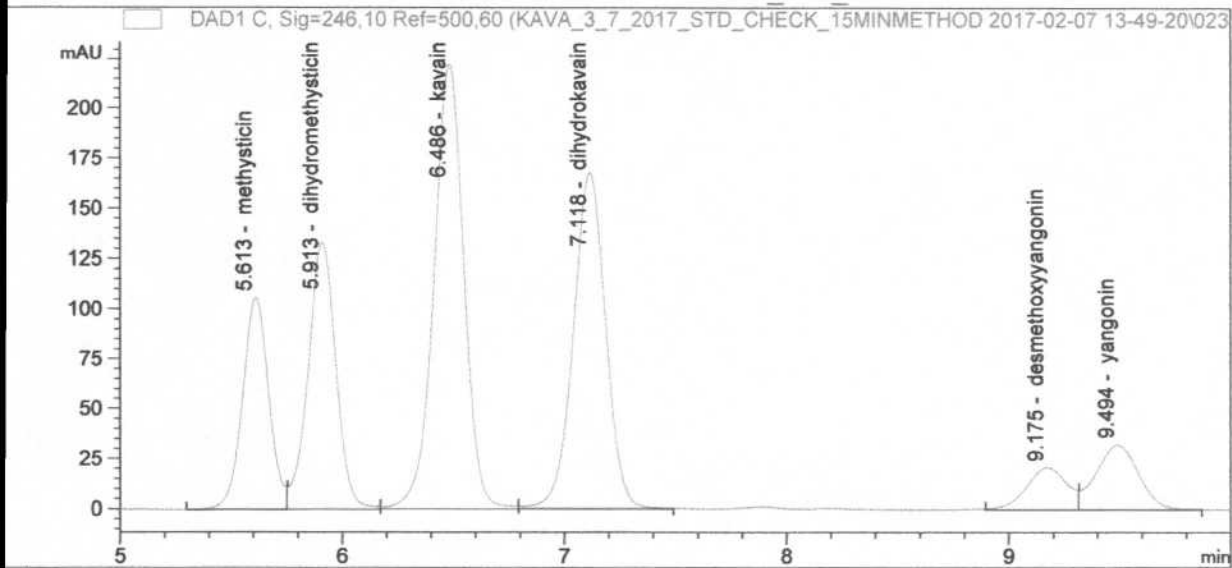
SEQUENCE C:\CHEM32\1\DATA\KAVA_3_7_2017_STD_CHECK_->

Injection date 2/7/2017

Injection time 6:55:42 PM

Acq. operator KRISTL

Method C:\CHEM32\1\METHODS\KAVA15MIN_STD_TEST.M



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.613	866.181	13.27	0.062
2	dihydromethysticin	5.913	1167.627	17.89	0.107
3	kavain	6.486	2089.934	32.01	0.788
4	dihydrokavain	7.118	1706.299	26.14	0.443
5	desmethoxyyangonin	9.175	265.862	4.07	0.019
6	yangonin	9.494	432.409	6.62	0.036