

**Botany Evolution LLC**

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

**Certificate Of Analysis****Sample Identification Information**Date of Analysis 12/13/1/2017Sample: S0286Product Name CEREMONIALLot# VBE171208CCountry of Origin VANUATUCountry of Processing VANUATUManufacture Date 12/08/17Expiration Date 12/08/20**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Beige powder**Analyzed Characteristics****Specification****Result****Test Method**Standardization

2-15% Kavalactones

8.08%

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

243561

HPLC

K/DHM

3.09

Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2923.234			
Methysticin	M	1	2.19	702.905	8.18%	0.73%	6
Dihydromethysticin	DHM	2	3.23	487.524	5.68%	0.75%	5
Kavain	K	3	1	4865.371	56.64%	2.30%	4
Dihydrokavain	DHK	4	4.21	1255.866	14.62%	2.50%	2
Desmethoxyyangonin	DMY	5	2.74	549.681	6.40%	0.71%	1
Yangonin	Y	6	3.16	729.322	8.49%	1.09%	3
Kavalactones			<b>Total:</b>	<b>8590.669</b>	<b>100.00%</b>	<b>8.08%</b>	<b>243561</b>

\*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.

*Mustie Youngs*

12/14/17

SAMPLE S0286  
Vial 24

0.77362 g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_12\_13\_2017\_15MINSTDTESTMETHOD 2017-12-13 16-18-28\02->

SEQUENCE C:\CHEM32\1\DATA\KAVA\_12\_13\_2017\_ ->

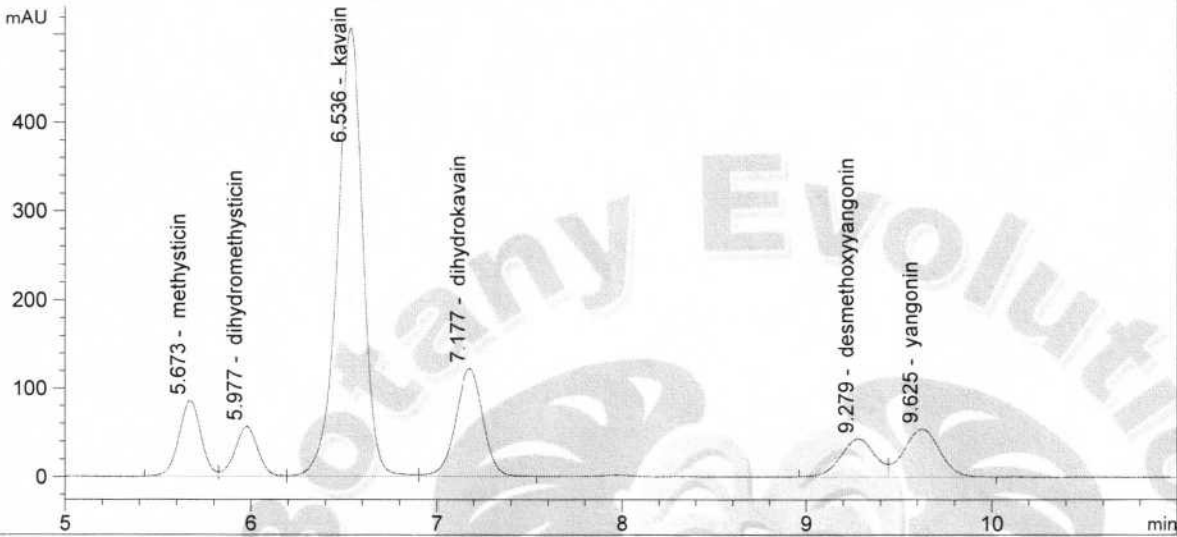
Injection date 12/13/2017

Injection time 8:37:17 PM

Acq. operator KRISTL

Method C:\CHEM32\1\METHODS\KAVA15MIN\_STD\_TEST.M

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_12\_13\_2017\_15MINSTDTESTMETHOD 2017-12-13 16-18-28\024-1501.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.673	702.905	8.18	0.000
2	dihydromethysticin	5.977	487.524	5.68	0.000
3	kavain	6.536	4865.371	56.64	0.000
4	dihydrokavain	7.177	1255.866	14.62	0.001
5	desmethoxyyangonin	9.279	549.681	6.40	0.000
6	yangonin	9.625	729.322	8.49	0.000

*Handwritten signature and date:*  
12/14/17