

**Botany Evolution LLC**

438 Martin Road Suite A

Palm Bay, FL 32909

321-802-4583

**Certificate Of Analysis****Sample Identification Information**Date of Analysis 3/13/2017Sample: S0095Product Name VANUATU KAVA BASAL ROOTLot# VSSC170117BRCountry of Origin VANUATUCountry of Processing VANUATUManufacture Date 01/17/17Expiration Date 01/17/20**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Beige powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	2-15% Kavalactones	6.69%	HPLC
<u>Identification</u>	Complies by HPLC	Conform	HPLC
<u>Kavalactone Profile</u>	Noble	PASS	HPLC
<u>Mesh Size</u>	60-30	60	Sieve
<u>Color</u>	Beige to Yellow	Pass	Visual
<u>Odor</u>		Pass	Organoleptic
<u>Taste</u>		Pass	Organoleptic
<u>Chemotype</u>		243561	HPLC
<u>K/DHM</u>		2.18	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2731.483			
Methysticin	M	1	2.19	443.592	7.43%	0.505%	6
Dihydromethysticin	DHM	2	3.23	436.265	7.31%	0.73%	5
Kavain	K	3	1	3071.151	51.45%	1.60%	4
Dihydrokavain	DHK	4	4.21	1142.666	19.14%	2.50%	2
Desmethoxyyangonin	Y	5	2.74	354.362	5.94%	0.504%	1
Yangonin	DMY	6	3.16	521.666	8.74%	0.86%	3
<b>Kavalactones</b>			<b>Total:</b>	<b>5969.702</b>	<b>100.00%</b>	<b>6.69%</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.

SAMPLE S0095  
Vial 5

(8)  
wt 0.75397/50ml

wavelength 246 nm

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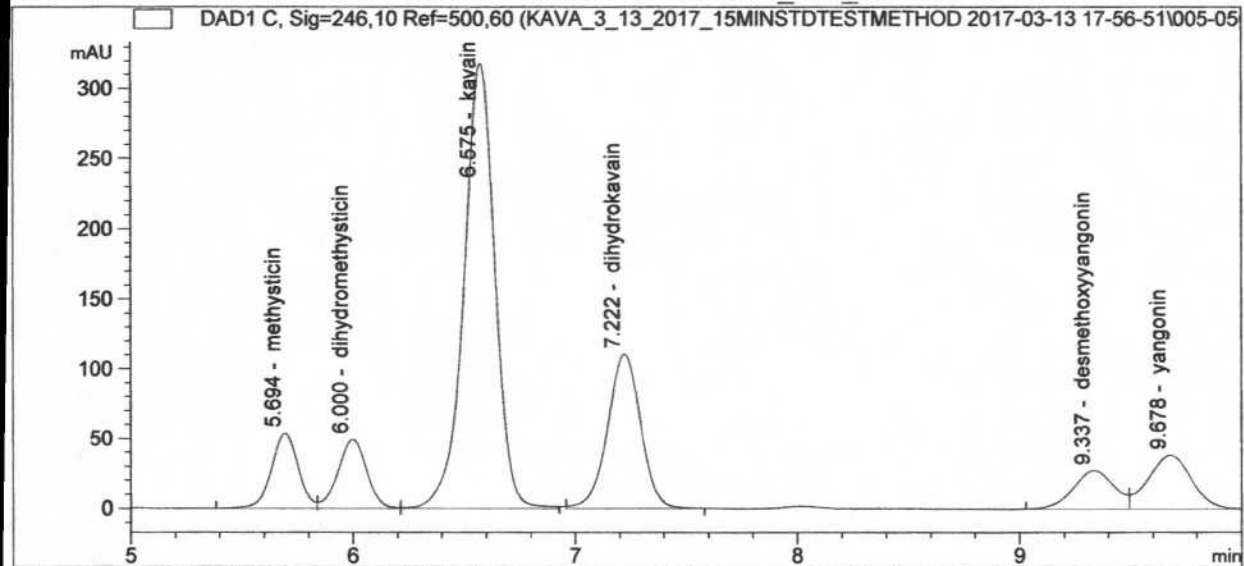
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Injection date 3/13/2017

Injection time 7:50:30 PM

Acq. operator KRISTL

Method C:\CHEM32\1\METHODS\KAVA15MIN STD TEST.M



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.694	443.592	7.43	0.032
2	dihydromethysticin	6.000	436.265	7.31	0.040
3	kavain	6.575	3071.151	51.45	1.158
4	dihydrokavain	7.222	1142.666	19.14	0.296
5	desmethoxyyangonin	9.337	354.362	5.94	0.025
6	yangonin	9.678	521.666	8.74	0.044