

**Botany Evolution LLC**

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**Certificate Of Analysis****Sample Identification Information****Date of Analysis** 12/17/2016**Sample:** S0074**Product Name** 40X Kang Biotech**Lot#** KL161004KU40x**Country of Origin** Vanuatu**Country of Processing** China**Manufacture Date** Oct-16**Expiration Date** Oct-19**General Product Specifications****Product Species** Piper Methysticum**Part Used** Root**Common Names** Kava kava, Awa, Yagona**Appearance** Yellow fine powder

<b><u>Analyzed Characteristics</u></b>	<b><u>Specification</u></b>	<b><u>Result</u></b>	<b><u>Test Method</u></b>
<b><u>Standardization</u></b>	20-90% Kavalactones	35.46%	HPLC
<b><u>Identification</u></b>	Complies by HPLC	Fail	HPLC
<b><u>Kavalactone Profile</u></b>	Noble	Pass	HPLC
<b><u>Mesh Size</u></b>	60-30	30	Sieve
<b><u>Color</u></b>	Beige to Yellow	Pass	Visual
<b><u>Odor</u></b>		Pass	Organoleptic
<b><u>Taste</u></b>		Pass	Organoleptic
<b><u>Chemotype</u></b>		245631	HPLC
<b><u>K/DHM</u></b>		1.55	Calculation

<b>Kavalactones</b>	<b>Code</b>	<b>Peaks Ref.</b>	<b>Correction Factor</b>	<b>Area *</b>	<b>Area %</b>	<b>Corrected Kavalactones</b>	<b>Chemotype Identifier</b>
Standard Kavain	K			2687.04			
Methysticin	M	1	2.28	3938.974	12.40%	5.17%	6
Dihydromethysticin	DHM	2	2.99	3120.429	9.82%	5.37%	5
Kavain	K	3	1	14459.352	45.52%	8.32%	4
Dihydrokavain	DHK	4	3.15	5166.206	16.27%	9.37%	2
Desmethoxyyangonin	Y	5	2.26	2129.248	6.70%	2.77%	1
Yangonin	DMY	6	2.63	2948.362	9.28%	4.46%	3
<b>Kavalactones</b>			<b>Total:</b>	<b>31762.571</b>	<b>100.00%</b>	35.46%	

\*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 S0074  
Vial 17

0.34592g

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_12\_17\_16\_15MINMETHOD 2016-12-17 17-44-32\017-1601.D

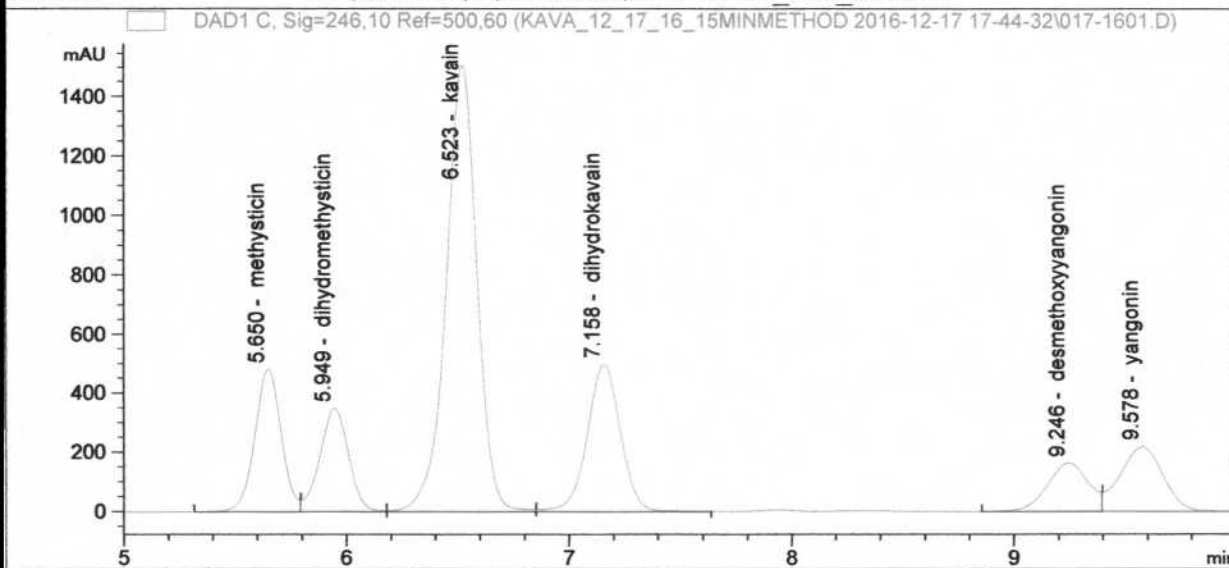
SEQUENCE C:\CHEM32\1\DATA\KAVA\_12\_17\_16\_15MINMETHO->

Injection date 12/17/2016

Injection time 10:35:52 PM

Acq. operator KRISTL

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



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.650	3938.974	12.40	0.280
2	dihydromethysticin	5.949	3120.429	9.82	0.287
3	kavain	6.523	14459.352	45.52	5.451
4	dihydrokavain	7.158	5166.206	16.27	1.340
5	desmethoxyyangonin	9.246	2129.248	6.70	0.152
6	yangonin	9.578	2948.362	9.28	0.249