

**Botany Evolution LLC**

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**Certificate Of Analysis****Sample Identification Information**Date of Analysis 12/17/2016Sample: S0073Product Name 30X (2) Kang BiotechLot# KL161004ESKU30xCountry of Origin VANUATUCountry of Processing CHINAManufacture Date Oct-16Expiration Date Oct-19**General Product Specifications**Product Species Piper MethysticumCommon Names Kava kava, Awa, YagonaPart Used RootAppearance yellow fine powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	20-90% Kavalactones	28.95%	HPLC
<u>Identification</u>	Complies by HPLC	Fail	HPLC
<u>Kavalactone Profile</u>	Noble	Pass	HPLC
<u>Mesh Size</u>	60-30	30	Sieve
<u>Color</u>	Beige to Yellow	Pass	Visual
<u>Odor</u>		Pass	Organoleptic
<u>Taste</u>		Pass	Organoleptic
<u>Chemotype</u>		246531	HPLC
<u>K/DHM</u>		1.55	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2687.04			
Methysticin	M	1	2.28	3455.74	13.00%	4.42%	6
Dihydromethysticin	DHM	2	2.99	2575.842	9.69%	4.32%	5
Kavain	K	3	1	11972.359	45.05%	6.72%	4
Dihydrokavain	DHK	4	3.15	4176.593	15.71%	7.39%	2
Desmethoxyyangonin	Y	5	2.26	1911.243	7.19%	2.42%	1
Yangonin	DMY	6	2.63	2485.935	9.35%	3.67%	3
<b>Kavalactones</b>			<b>Total:</b>	<b>26577.712</b>	<b>100.00%</b>	<b>28.95%</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 S0073  
Vial 16

0.35465g

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_12\_17\_16\_15MINMETHOD 2016-12-17 17-44-32\016-1501.D

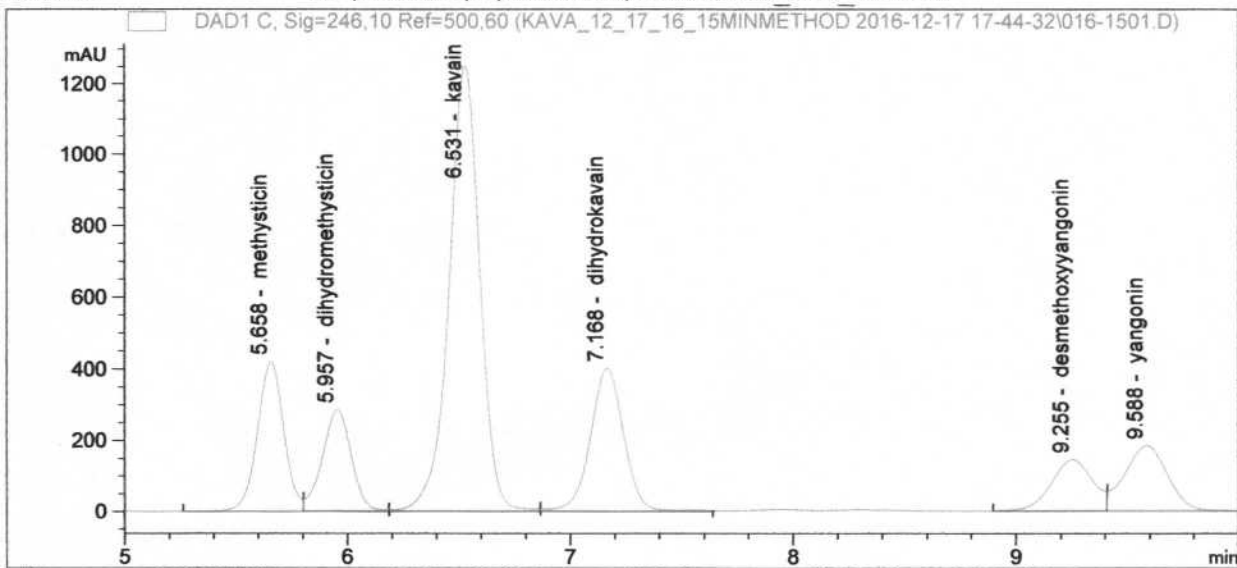
SEQUENCE C:\CHEM32\1\DATA\KAVA\_12\_17\_16\_15MINMETHO->

Injection date 12/17/2016

Injection time 10:19:43 PM

Acq. operator KRISTL

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



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.658	3455.740	13.00	0.246
2	dihydromethysticin	5.957	2575.842	9.69	0.237
3	kavain	6.531	11972.359	45.05	4.513
4	dihydrokavain	7.168	4176.593	15.71	1.084
5	desmethoxyyangonin	9.255	1911.243	7.19	0.136
6	yangonin	9.588	2485.935	9.35	0.210