

**Botany Evolution LLC**

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**Certificate Of Analysis**

**Sample Identification Information**

Date of Analysis 2/7/2017  
Sample: S0087  
Product Name 40% KAVA EXTRACT  
Lot# HKB170117KE40C

Country of Origin CHINA  
Country of Processing USA  
Manufacture Date Jan-17  
Expiration Date Jan-20

**General Product Specifications**

Product Species Piper Methysticum  
Part Used Root

Common Names Kava kava, Awa, Yagona  
Appearance Beige powder

**Analyzed Characteristics**

**Specification**

**Result**

**Test Method**

<u>Standardization</u>	20-90% Kavalactones	42.01%	HPLC
<u>Identification</u>	Complies by HPLC	Conform	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>		245361	HPLC
<u>K/DHM</u>		1.43	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2688.106			
Methysticin	M	1	2.19	4207.405	12.36%	5.14%	6
Dihydromethysticin	DHM	2	3.23	3336.595	9.80%	6.01%	5
Kavain	K	3	1	15392.666	45.23%	8.59%	4
Dihydrokavain	DHK	4	4.21	5551.384	16.31%	13.04%	2
Desmethoxyyangonin	Y	5	2.74	2357.548	6.93%	3.60%	1
Yangonin	DMY	6	3.16	3189.881	9.37%	5.62%	3
<b>Kavalactones</b>			<b>Total:</b>	<b>34035.479</b>	<b>100.00%</b>	<b>42.01%</b>	<b>245361</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 S0087  
Vial 28

0.35675g

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_3\_7\_2017\_STD\_CHECK\_15MINMETHOD 2017-02-07 13-49-20\ ->

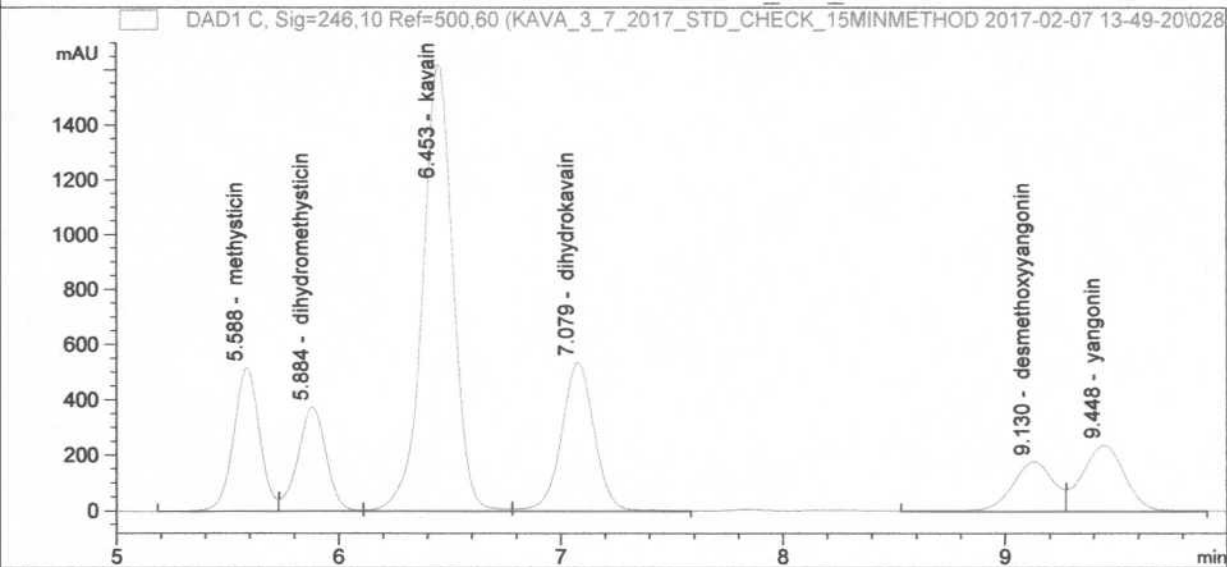
SEQUENCE C:\CHEM32\1\DATA\KAVA\_3\_7\_2017\_STD\_CHECK\_ ->

Injection date 2/7/2017

Injection time 8:16:15 PM

Acq. operator KRISTL

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



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.588	4207.405	12.36	0.299
2	dihydromethysticin	5.884	3336.595	9.80	0.307
3	kavain	6.453	15392.666	45.23	5.803
4	dihydrokavain	7.079	5551.384	16.31	1.440
5	desmethoxyyangonin	9.130	2357.548	6.93	0.168
6	yangonin	9.448	3189.881	9.37	0.269