

**Botany Evolution LLC**

438 Martin Road Suite A

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**Certificate Of Analysis****Sample Identification Information****Date of Analysis** 12/17/2016**Sample:** S0075**Product Name** 70% CO2 Extract**Lot#** ROH161105CO2E70**Country of Origin** FIJI**Country of Processing** USA**Manufacture Date** Nov-16**Expiration Date** Nov-19**General Product Specifications****Product Species** Piper Methysticum**Common Names** Kava kava, Awa, Yagona**Part Used** Root**Appearance** Yellow paste

<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>	30-90% Kavalactones	73.22%	HPLC
<b><u>Identification</u></b>	Complies by HPLC	Conform	HPLC
<b><u>Kavalactone Profile</u></b>	Noble	Pass	HPLC
<b><u>Mesh Size</u></b>	60-30	N/A	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>		245613	HPLC
<b><u>K/DHM</u></b>		1.87	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			2684.05			
Methysticin	M	1	2.28	7456.106	10.66%	9.47%	<b>6</b>
Dihydromethysticin	DHM	2	2.99	6210.618	8.88%	10.34%	<b>5</b>
Kavain	K	3	1	34646.316	49.54%	19.29%	<b>4</b>
Dihydrokavain	DHK	4	3.15	12288.086	17.57%	21.55%	<b>2</b>
Desmethoxyyangonin	Y	5	2.26	5250.331	7.51%	6.61%	<b>1</b>
Yangonin	DMY	6	2.63	4077.536	5.83%	5.97%	<b>3</b>
<b>Kavalactones</b>			<b>Total:</b>	<b>69928.993</b>	<b>100.00%</b>	<b>73.22%</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 S0075  
Vial 18

0.35800g

wavelength 246 nm

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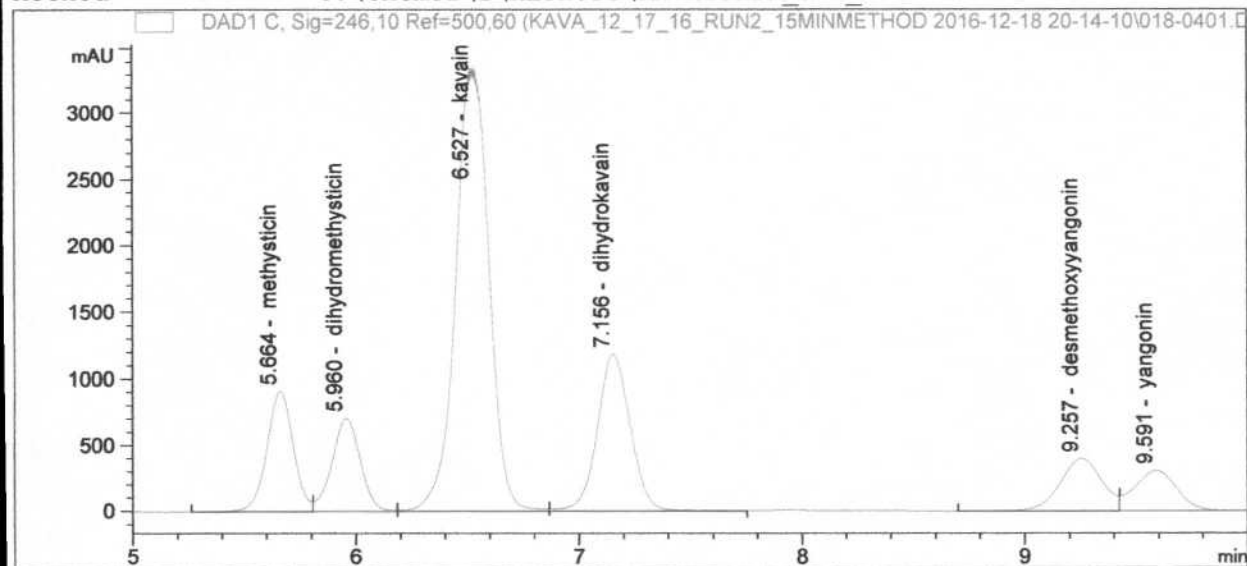
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Injection date 12/18/2016

Injection time 9:35:43 PM

Acq. operator KRISTL

Method C:\Chem32\1\METHODS\KAVA15MIN\_STD\_TEST.M



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.664	7456.106	10.66	0.530
2	dihydromethysticin	5.960	6210.618	8.88	0.572
3	kavain	6.527	34646.316	49.54	13.061
4	dihydrokavain	7.156	12288.086	17.57	3.188
5	desmethoxyyangonin	9.257	5250.331	7.51	0.374
6	yangonin	9.591	4077.536	5.83	0.344