

Botany Evolution LLC

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Certificate Of Analysis**Sample Identification Information****Date of Analysis** 12/17/2016**Sample:** S0071**Product Name** Lateral Root**Lot#** VFE161112LR**Country of Origin** Vanuatu**Country of Processing** Vanuatu**Manufacture Date** Nov-16**Expiration Date** Nov-19**General Product Specifications****Product Species** Piper Methysticum**Part Used** Root**Common Names** Kava kava, Awa, Yagona**Appearance** Beige powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	2-15% Kavalactones	11.62%	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>		423165	HPLC
<u>K/DHM</u>		6.53	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2687.04			
Methysticin	M	1	2.28	885.17	6.52%	1.07%	6
Dihydromethysticin	DHM	2	2.99	446.002	3.28%	0.71%	5
Kavain	K	3	1	8705.308	64.11%	4.62%	4
Dihydrokavain	DHK	4	3.15	1663.868	12.25%	2.78%	2
Desmethoxyyangonin	Y	5	2.26	929.888	6.85%	1.12%	1
Yangonin	DMY	6	2.63	948.734	6.99%	1.32%	3
Kavalactones			Total:	13578.970	100.00%	11.62%	

*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 S0071
Vial 14

0.75052g

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_12_17_16_15MINMETHOD 2016-12-17 17-44-32\014-1301.D

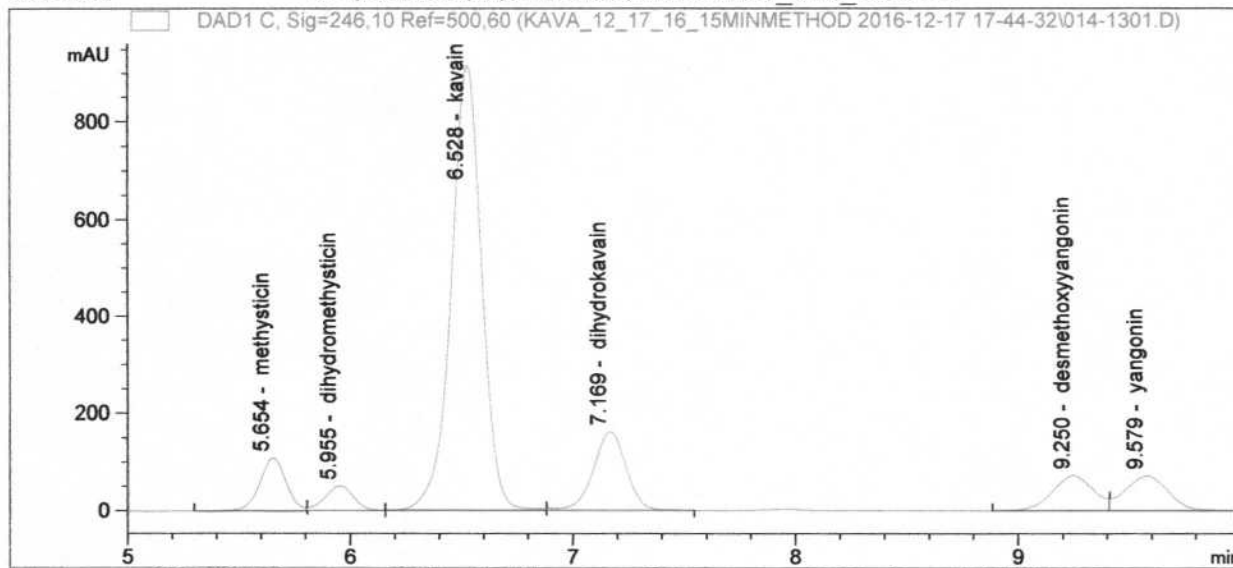
SEQUENCE C:\CHEM32\1\DATA\KAVA_12_17_16_15MINMETHO->

Injection date 12/17/2016

Injection time 9:47:26 PM

Acq. operator KRISTL

Method C:\CHEM32\1\METHODS\KAVA15MIN_STD_TEST.M



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.654	885.170	6.52	0.063
2	dihydromethysticin	5.955	446.002	3.28	0.041
3	kavain	6.528	8705.308	64.11	3.282
4	dihydrokavain	7.169	1663.868	12.25	0.432
5	desmethoxyyangonin	9.250	929.888	6.85	0.066
6	yangonin	9.579	948.734	6.99	0.080