

Botany Evolution LLC

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Certificate Of Analysis**Sample Identification Information**Date of Analysis 12/17/2016Sample: S0069Product Name Basal RootLot# VFE161119BRCountry of Origin VANUATUCountry of Processing VANUATUManufacture Date Nov-16Expiration Date Nov-19**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Beige powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	2-15% Kavalactones	7.49%	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>		245631	HPLC
<u>K/DHM</u>		1.05	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2687.04			
Methysticin	M	1	2.28	840.046	12.55%	1.04%	6
Dihydromethysticin	DHM	2	2.99	866.77	12.95%	1.41%	5
Kavain	K	3	1	2708.567	40.48%	1.47%	4
Dihydrokavain	DHK	4	3.15	1351.204	20.19%	2.32%	2
Desmethoxyyangonin	Y	5	2.26	362.162	5.41%	0.45%	1
Yangonin	DMY	6	2.63	562.844	8.41%	0.81%	3
Kavalactones			Total:	6691.593	100.00%	7.49%	

*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 S0069
 Vial 12

0.73199g

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_12_17_16_15MINMETHOD 2016-12-17 17-44-32\012-1101.D

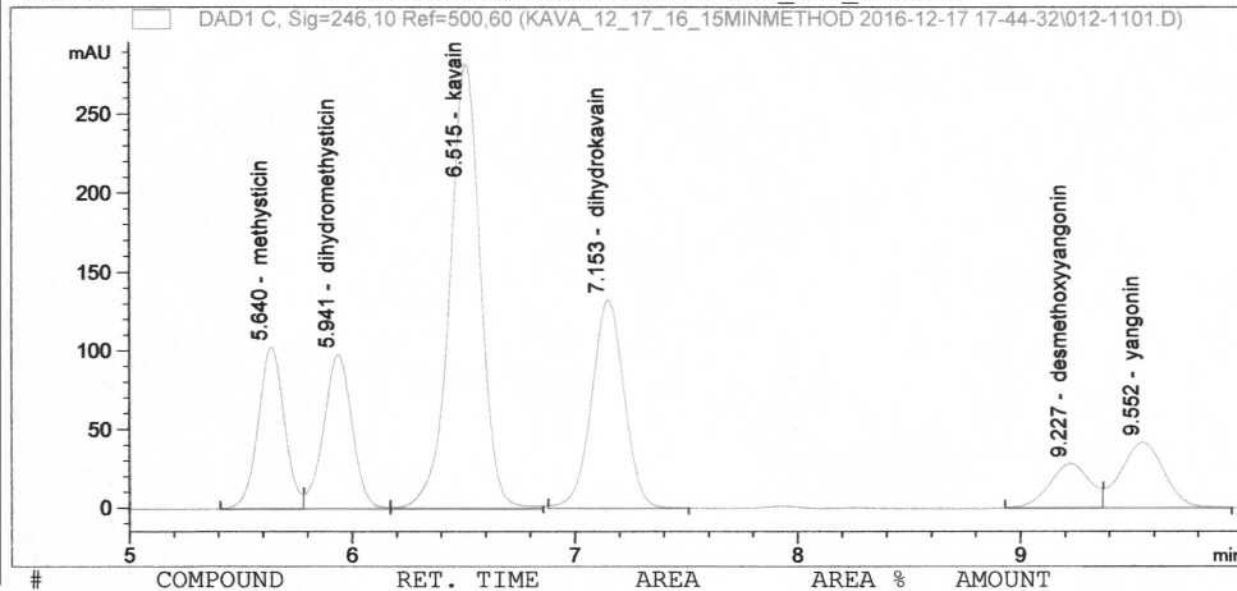
SEQUENCE C:\CHEM32\1\DATA\KAVA_12_17_16_15MINMETHO->

Injection date 12/17/2016

Injection time 9:15:08 PM

Acq. operator KRISTL

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



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.640	840.046	12.55	0.060
2	dihydromethysticin	5.941	866.770	12.95	0.080
3	kavain	6.515	2708.567	40.48	1.021
4	dihydrokavain	7.153	1351.204	20.19	0.351
5	desmethoxyyangonin	9.227	362.162	5.41	0.026
6	yangonin	9.552	562.844	8.41	0.047