

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information**Date of Analysis 11/6/2019Sample: S0779Product Name 30% KAVA EXTRACTLot# CJ191022KE30Country of Origin FIJICountry of Processing CHINAManufacture Date 10/22/19Best By Date 10/22/22**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Yellow powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	20-90% Kavalactones	36.28%	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>		1.76	Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2429.563			
Methysticin	M	1	2.21	3132.787	10.77%	3.91%	6
Dihydromethysticin	DHM	2	3.38	2431.593	8.36%	4.48%	5
Kavain	K	3	1	13822.279	47.51%	7.88%	4
Dihydrokavain	DHK	4	3.08	5093.596	17.51%	12.22%	2
Desmethoxyyangonin	DMY	5	2.52	2189.817	7.53%	3.42%	1
Yangonin	Y	6	3.12	2425.229	8.34%	4.37%	3
Kavalactones			Total:	29095.301	100.00%	36.28%	245361

*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.

Chemist

Mustel Youngs

Date

11/8/19

SAMPLE S0779
Vial 21

0.35963g/25mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_11_6_2019_15MINSTDTESTMETHOD 2019-11-06 16-33-54\021->

SEQUENCE C:\CHEM32\1\DATA\KAVA_11_6_2019_ ->

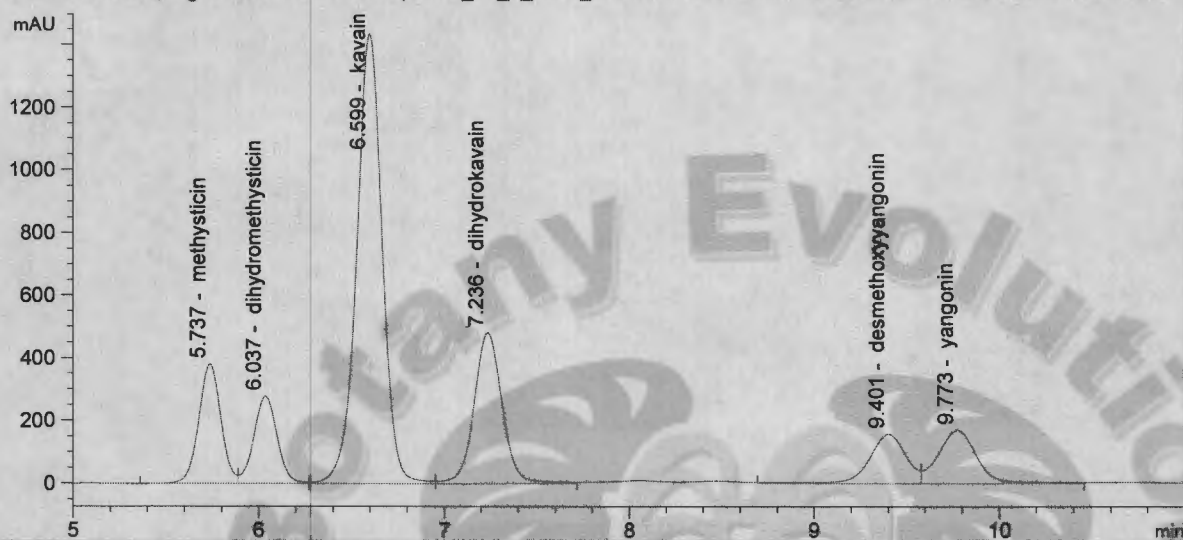
Injection date 11/6/2019

Injection time 11:18:16 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_11_6_201->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_11_6_2019_15MINSTDTESTMETHOD 2019-11-06 16-33-54\021-2201.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.737	3132.787	10.77	0.001
2	dihydromethysticin	6.037	2431.593	8.36	0.001
3	kavain	6.599	13822.279	47.51	0.001
4	dihydrokavain	7.236	5093.596	17.51	0.001
5	desmethoxyyangonin	9.401	2189.817	7.53	0.000
6	yangonin	9.773	2425.229	8.34	0.001

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