

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

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Certificate Of Analysis**Sample Identification Information**Date of Analysis 2/22/2019Sample: S0603Product Name 70% KAVALACTONE EXTRACTLot# CHKB180529KE70Country of Origin CHINACountry of Processing CHINAManufacture Date 05/29/18Best By Date 05/29/21**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance BROWN LIQUID**Analyzed Characteristics****Specification****Result****Test Method**Standardization

20-90% Kavalactones

73.01%

HPLC

Identification

Complies by HPLC

Conform

HPLC

Kavalactone Profile

Noble

PASS

HPLC

Mesh Size

60-30

30

Sieve

Color

Beige to Yellow

Pass

Visual

Odor

Pass

Organoleptic

Taste

Pass

Organoleptic

Chemotype

245613

HPLC

K/DHM

1.75

Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2517.777			
Methysticin	M	1	2.21	5519.827	10.08%	7.04%	6
Dihydromethysticin	DHM	2	3.38	4458.026	8.14%	8.39%	5
Kavain	K	3	1	25258.893	46.13%	14.72%	4
Dihydrokavain	DHK	4	3.08	12853.78	23.47%	31.53%	2
Desmethoxyyangonin	DMY	5	2.52	3872.922	7.07%	6.18%	1
Yangonin	Y	6	3.12	2791.809	5.10%	5.14%	3
Kavalactones			Total:	54755.257	100.00%	73.01%	245613

*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.

Mustel Youngs 4/12/19

SAMPLE S0603
 Vial 14

0.34695g/25ml

wavelength 246 nm

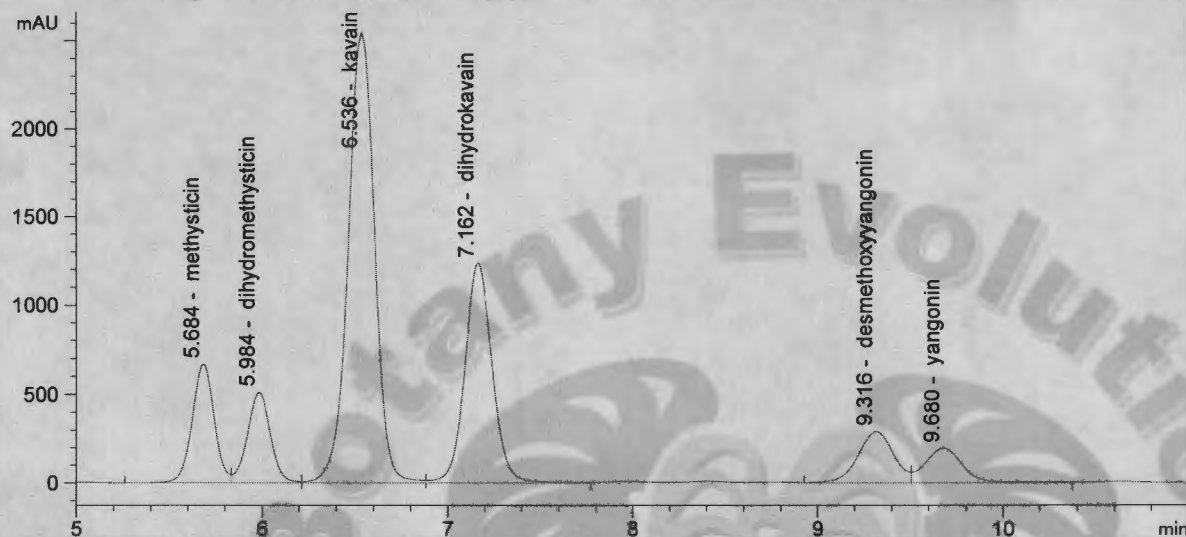
C:\CHEM32\1\DATA\KAVA_2_22_2019_15MINSTDTESTMETHOD 2019-02-22 17-22-07\014->
 SEQUENCE C:\CHEM32\1\DATA\KAVA_2_22_2019_ ->

Injection date 2/22/2019
 Injection time 10:13:41 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_2_22_201->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_2_22_2019_15MINSTDTESTMETHOD 2019-02-22 17-22-07\014-1501.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.684	5519.827	10.08	0.001
2	dihydromethysticin	5.984	4458.026	8.14	0.001
3	kavain	6.536	25258.893	46.13	0.002
4	dihydrokavain	7.162	12853.780	23.47	0.004
5	desmethoxyyangonin	9.316	3872.922	7.07	0.001
6	yangonin	9.680	2791.809	5.10	0.001

2/24/19
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