

# Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

## Certificate Of Analysis

### Sample Identification Information

Date of Analysis 12/9/2022  
Sample: S1785 A  
Product Name 30% KAVA EXTRACT  
Batch # NA

### NECTAR LAB

Country of Origin NA  
Country of Processing NA  
Manufacture Date NA  
Best By Date NA

### General Product Specifications

Product Species Piper Methysticum  
Part Used Root

Common Names Kava kava, Awa, Yagona  
Appearance YELLOW POWDER

### Analyzed Characteristics

### Specification

### Result

### Test Method

<u>Standardization</u>	20-90% Kavalactones	33.16%	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>		243561	HPLC
<u>K/DHM</u>		2.2	Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			12574.313			
Methysticin	M	1	2.21	2933.354	10.48%	3.65%	6
Dihydromethysticin	DHM	2	3.38	2064.664	7.38%	3.79%	5
Kavain	K	3	1	14379.229	51.39%	8.17%	4
Dihydrokavain	DHK	4	3.08	4359.487	15.58%	10.42%	2
Desmethoxyyangonin	DMY	5	2.52	2014.89	7.20%	3.13%	1
Yangonin	Y	6	3.12	2228.348	7.96%	4.00%	3
<b>Kavalactones</b>			<b>Total:</b>	<b>27979.972</b>	<b>100.00%</b>	<b>33.16%</b>	<b>243561</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.

Chemist

*Musth Youngs*

Date

*12/9/22*

SAMPLE S1785 A  
Vial 14

0.35104g/25mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_12\_09\_2022\_15MINSTDTESTMETHOD 2022-12-09 13-49-41\01->  
SEQUENCE C:\CHEM32\1\DATA\KAVA\_12\_09\_2022\_ ->

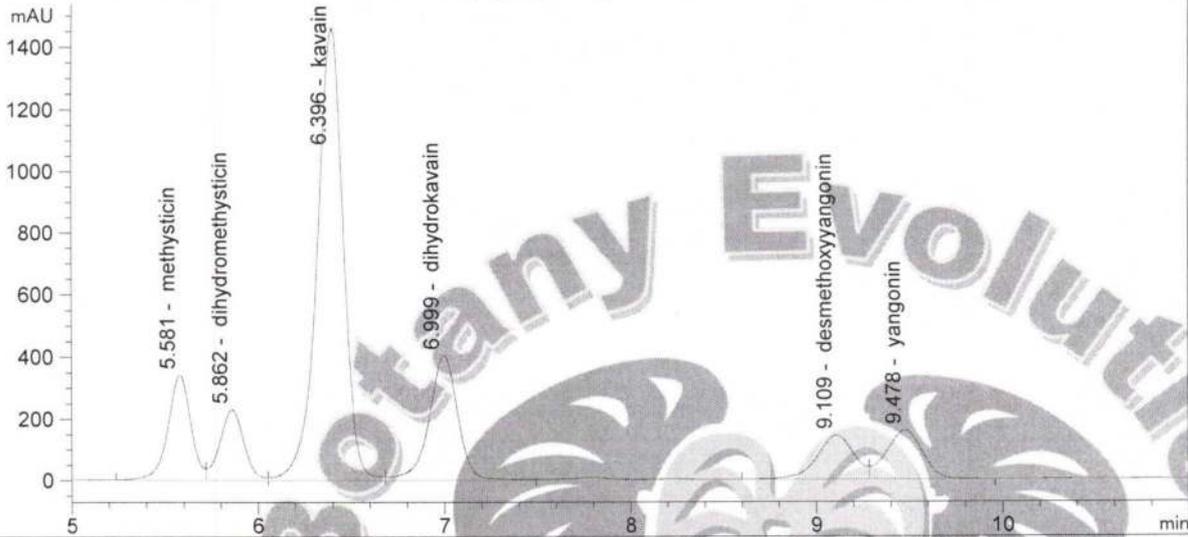
Injection date 12/9/2022

Injection time 3:11:12 PM

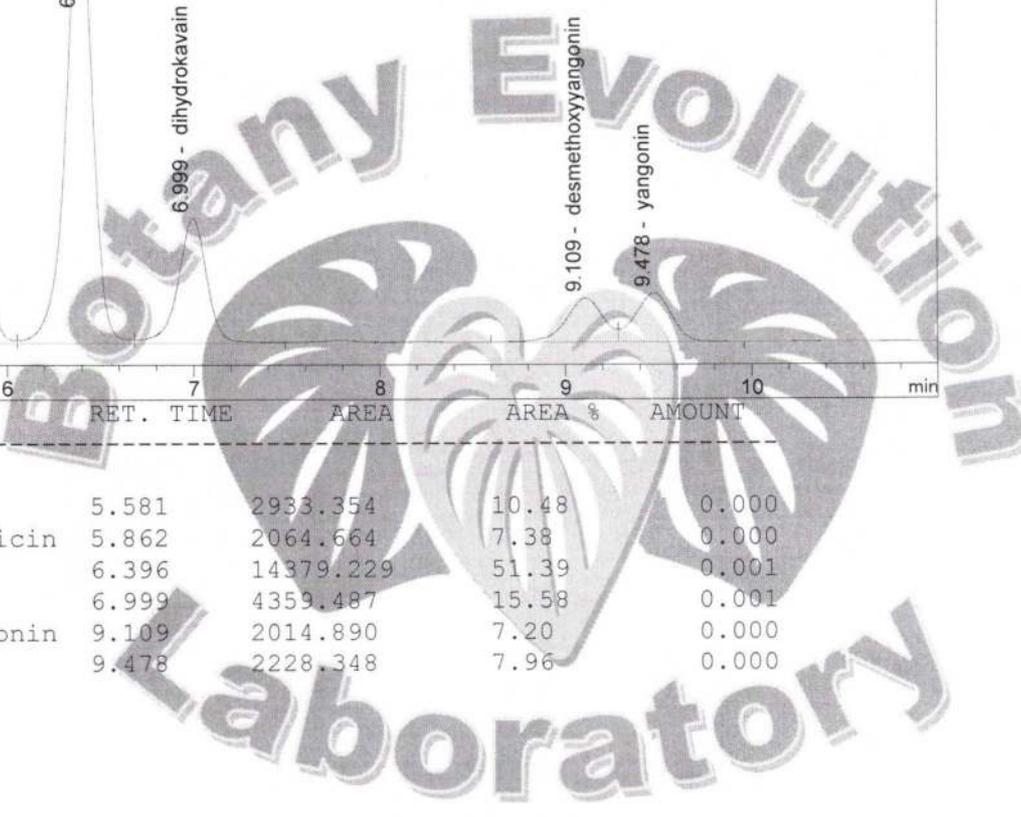
Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA\_12\_09\_202->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_12\_09\_2022\_15MINSTDTESTMETHOD 2022-12-09 13-49-41\014-0501.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.581	2933.354	10.48	0.000
2	dihydromethysticin	5.862	2064.664	7.38	0.000
3	kavain	6.396	14379.229	51.39	0.001
4	dihydrokavain	6.999	4359.487	15.58	0.001
5	desmethoxyyangonin	9.109	2014.890	7.20	0.000
6	yangonin	9.478	2228.348	7.96	0.000



12/9/22  
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Standardization

20-90% Kavalactones

33.26%

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

243561

HPLC

K/DHM

2.2

Calculation

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Kavain	K	3	1	14713.167	51.54%	8.23%	4
Dihydrokavain	DHK	4	3.08	4416.25	15.47%	10.40%	2
Desmethoxyyangonin	DMY	5	2.52	2051.06	7.19%	3.14%	1
Yangonin	Y	6	3.12	2294.976	8.04%	4.06%	3
Kavalactones			<b>Total:</b>	<b>28545.476</b>	<b>100.00%</b>	<b>33.26%</b>	<b>243561</b>

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*Misti Youngs*

Date

*12/9/22*

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Vial 15

0.35638g/25mL

wavelength 246 nm

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SEQUENCE C:\CHEM32\1\DATA\KAVA\_12\_09\_2022\_ ->

Injection date 12/9/2022  
Injection time 3:27:18 PM

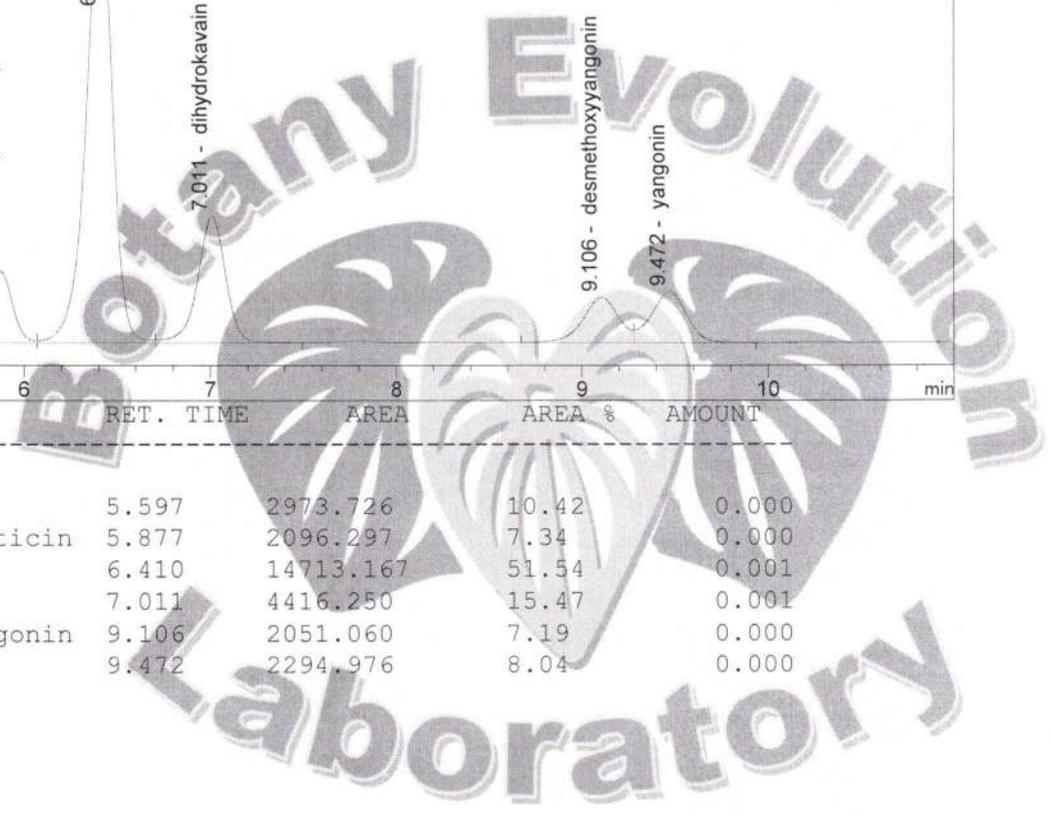
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#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.597	2973.726	10.42	0.000
2	dihydromethysticin	5.877	2096.297	7.34	0.000
3	kavain	6.410	14713.167	51.54	0.001
4	dihydrokavain	7.011	4416.250	15.47	0.001
5	desmethoxyyangonin	9.106	2051.060	7.19	0.000
6	yangonin	9.472	2294.976	8.04	0.000



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