

**Botany Evolution LLC**

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

**Certificate Of Analysis****Sample Identification Information**Date of Analysis 11/17/2020Sample: S1000Product Name KADAVU WAKALot# FKK200909KWCountry of Origin FIJICountry of Processing FIJIManufacture Date 09/09/20Best By Date 09/09/23**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Yellow, beige powder**Analyzed Characteristics****Specification****Result****Test Method**Standardization

2-17% Kavalactones

7.26%

HPLC

Identification

Complies by HPLC

Conform

HPLC

Kavalactone Profile

Noble

PASS

HPLC

Mesh Size

60-30

60

Sieve

Color

Beige to Yellow

Pass

Visual

Odor

Pass

Organoleptic

Taste

Pass

Organoleptic

Chemotype

246351

HPLC

K/DHM

1.7

Calculation

| Kavalactones       | Code | Peaks Ref.<br>(elution order) | Correction<br>Factor | Area *          | Area %         | Corrected<br>Kavalactones | Chemotype Identifier |
|--------------------|------|-------------------------------|----------------------|-----------------|----------------|---------------------------|----------------------|
| Standard Kavain    | K    |                               |                      | 2364.24         |                |                           |                      |
| Methysticin        | M    | 1                             | 2.21                 | 1101.611        | 17.65%         | 1.35%                     | 6                    |
| Dihydromethysticin | DHM  | 2                             | 3.38                 | 525.091         | 8.41%          | 0.95%                     | 5                    |
| Kavain             | K    | 3                             | 1                    | 2915.039        | 46.70%         | 1.63%                     | 4                    |
| Dihydrokavain      | DHK  | 4                             | 3.08                 | 711.096         | 11.39%         | 1.67%                     | 2                    |
| Desmethoxyyangonin | DMY  | 5                             | 2.52                 | 365.276         | 5.85%          | 0.56%                     | 1                    |
| Yangonin           | Y    | 6                             | 3.12                 | 623.954         | 10.00%         | 1.10%                     | 3                    |
| Kavalactones       |      |                               | <b>Total:</b>        | <b>6242.067</b> | <b>100.00%</b> | <b>7.26%</b>              | <b>246351</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

*Mustil Youngs*

Date

*11/18/20*

SAMPLE S1000  
Vial 16

0.75363g/50mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_11\_17\_2020\_15MINSTDTESTMETHOD 2020-11-17 10-27-04\01->

SEQUENCE C:\CHEM32\1\DATA\KAVA\_11\_17\_2020\_ ->

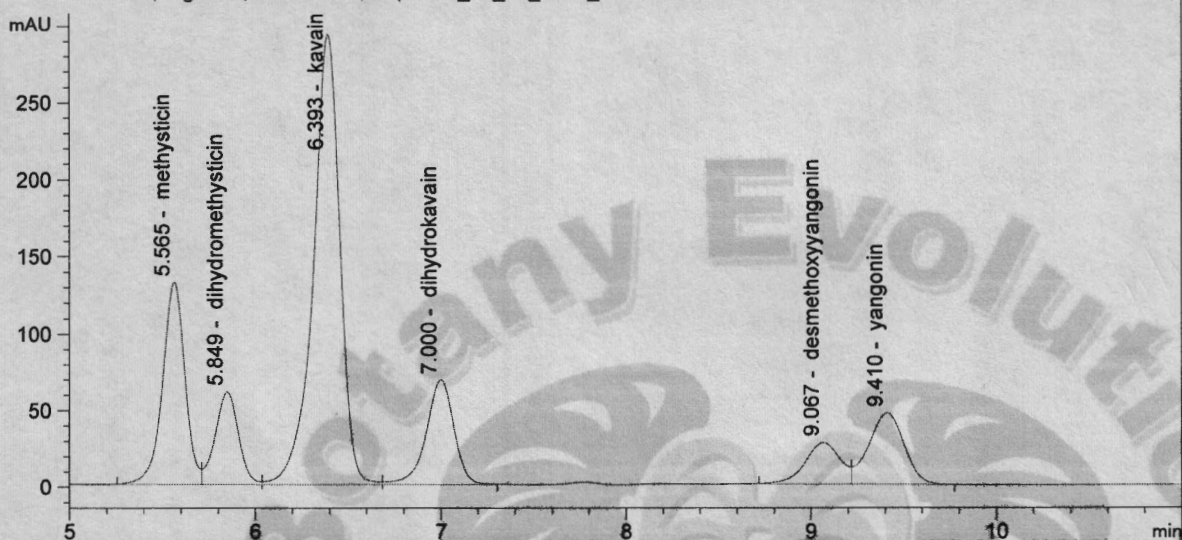
Injection date 11/17/2020

Injection time 3:34:50 PM

Acq. operator KRISTL

Method C:\CHEM32\1\METHODS\KAVA15MIN STD TEST.M

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_11\_17\_2020\_15MINSTDTESTMETHOD 2020-11-17 10-27-04\016-1601.D)



| # | COMPOUND           | RET. TIME | AREA     | AREA % | AMOUNT |
|---|--------------------|-----------|----------|--------|--------|
| 1 | methysticin        | 5.565     | 1101.611 | 17.65  | 0.000  |
| 2 | dihydromethysticin | 5.849     | 525.091  | 8.41   | 0.000  |
| 3 | kavain             | 6.393     | 2915.039 | 46.70  | 0.000  |
| 4 | dihydrokavain      | 7.000     | 711.096  | 11.39  | 0.000  |
| 5 | desmethoxyyangonin | 9.067     | 365.276  | 5.85   | 0.000  |
| 6 | yangonin           | 9.410     | 623.954  | 10.00  | 0.000  |

*Handwritten signature:* ulle/so y