

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

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Certificate Of Analysis**Sample Identification Information**Date of Analysis 11/6/2019Sample: S0774Product Name CEREMONIAL INSTANTLot# VBE191010CICountry of Origin VANUATUCountry of Processing USAManufacture Date 10/10/19Best By Date 10/10/22**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

5.43%

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

243516

HPLC

K/DHM

2.68

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 | 383.488 | 7.84% | 0.46% | 6 |
| Dihydromethysticin | DHM | 2 | 3.38 | 303.817 | 6.21% | 0.532% | 5 |
| Kavain | K | 3 | 1 | 2626.646 | 53.72% | 1.42% | 4 |
| Dihydrokavain | DHK | 4 | 3.08 | 712.255 | 14.57% | 1.63% | 2 |
| Desmethoxyyangonin | DMY | 5 | 2.52 | 357.004 | 7.30% | 0.530% | 1 |
| Yangonin | Y | 6 | 3.12 | 506.734 | 10.36% | 0.87% | 3 |
| Kavalactones | | | Total: | 4889.944 | 100.00% | 5.43% | 243516 |

*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

Kriste Younger

Date

11/8/19

SAMPLE S0774
 Vial 16

0.75643g/50mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_11_6_2019_15MINSTDTESTMETHOD 2019-11-06 16-33-54\016->

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

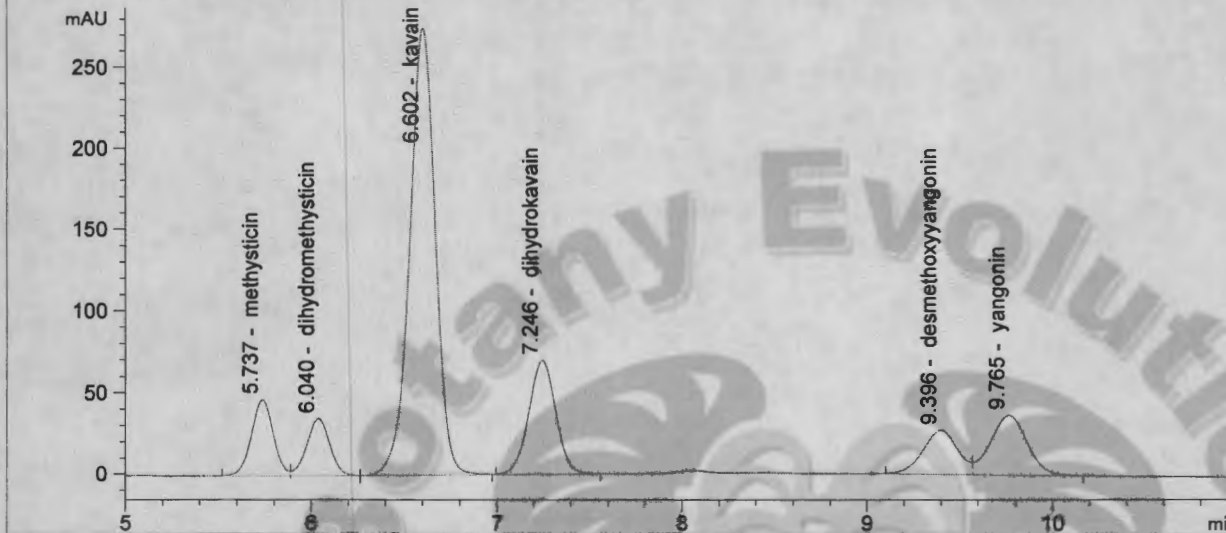
Injection date 11/6/2019

Injection time 9:57:28 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\016-1701.D)



| # | COMPOUND | RET. TIME | AREA | AREA % | AMOUNT |
|---|--------------------|-----------|----------|--------|--------|
| 1 | methysticin | 5.737 | 383.488 | 7.84 | 0.000 |
| 2 | dihydromethysticin | 6.040 | 303.817 | 6.21 | 0.000 |
| 3 | kavain | 6.602 | 2626.646 | 53.72 | 0.000 |
| 4 | dihydrokavain | 7.246 | 712.255 | 14.57 | 0.000 |
| 5 | desmethoxyyangonin | 9.396 | 357.004 | 7.30 | 0.000 |
| 6 | yangonin | 9.765 | 506.734 | 10.36 | 0.000 |

11/8/19
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