

**Botany Evolution LLC**

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

**Certificate Of Analysis****Sample Identification Information**Date of Analysis 12/28/2020Sample: S1084Product Name LATERAL ROOTSLot# VK200916LRCountry of Origin VANUATUCountry of Processing USAManufacture Date 09/16/20Best By Date 09/16/23**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Yellow, beige powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	2-17% Kavalactones	11.13%	HPLC
<u>Identification</u>	Complies by HPLC	Conform	HPLC
<u>Kavalactone Profile</u>	Noble	PASS	HPLC
<u>Mesh Size</u>	60-30	60	Sieve
<u>Color</u>	Beige to Yellow	Pass	Visual
<u>Odor</u>		Pass	Organoleptic
<u>Taste</u>		Pass	Organoleptic
<u>Chemotype</u>		243615	HPLC
<u>K/DHM</u>		2.9	Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2401.817			
Methysticin	M	1	2.21	946.409	9.32%	1.14%	6
Dihydromethysticin	DHM	2	3.38	594.73	5.86%	1.05%	5
Kavain	K	3	1	5636.249	55.52%	3.09%	4
Dihydrokavain	DHK	4	3.08	1504.156	14.82%	3.47%	2
Desmethoxyyangonin	DMY	5	2.52	709.938	6.99%	1.07%	1
Yangonin	Y	6	3.12	759.66	7.48%	1.32%	3
Kavalactones			<b>Total:</b>	<b>10151.142</b>	<b>100.00%</b>	<b>11.13%</b>	<b>243615</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

*Mustel Youngs*

Date

*12/29/20*

SAMPLE S1084  
Vial 15

0.75679g/50mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_12\_28\_2020\_15MINSTDTESTMETHOD 2020-12-28 14-52-07\01->

SEQUENCE C:\CHEM32\1\DATA\KAVA\_12\_28\_2020\_ ->

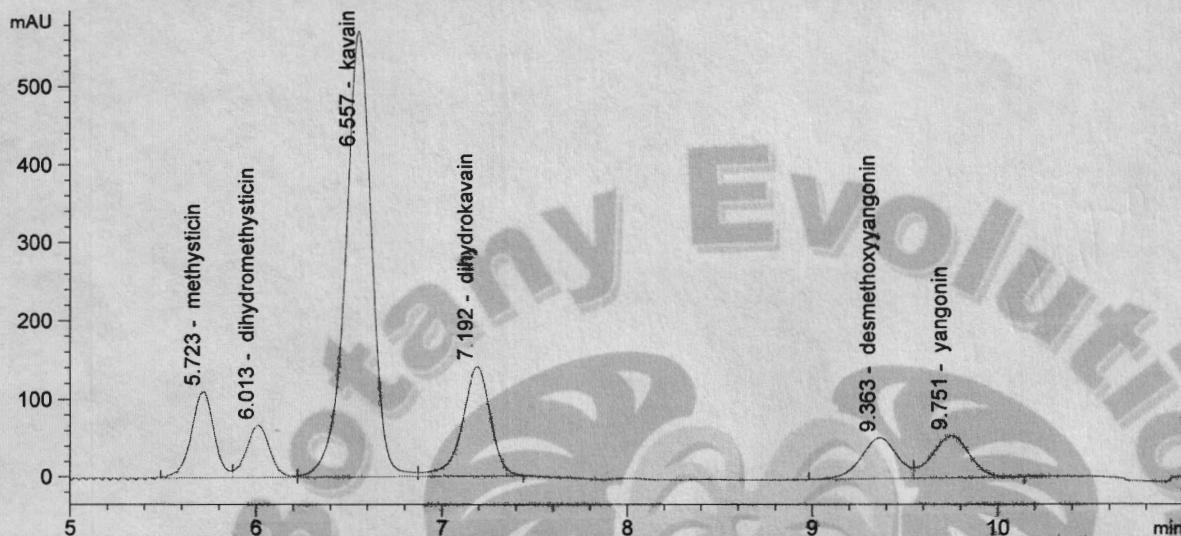
Injection date 12/28/2020

Injection time 7:43:42 PM

Acq. operator KRISTL

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

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_12\_28\_2020\_15MINSTDTESTMETHOD 2020-12-28 14-52-07\015-1501.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.723	946.409	9.32	0.000
2	dihydromethysticin	6.013	594.730	5.86	0.000
3	kavain	6.557	5636.249	55.52	0.000
4	dihydrokavain	7.192	1504.156	14.82	0.000
5	desmethoxyyangonin	9.363	709.938	6.99	0.000
6	yangonin	9.751	759.660	7.48	0.000

*Handwritten signature:* 12/29/20  
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