

**Botany Evolution LLC**

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

**Certificate Of Analysis****Sample Identification Information**Date of Analysis 6/20/2018Sample: S0478Product Name 40% KAVA EXTRACTLot# CHKB180522KE40Country of Origin CHINACountry of Processing CHINAManufacture Date 05/22/18Expiration Date 05/22/21**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Beige powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	20-90% Kavalactones	39.93%	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>		245361	HPLC
<u>K/DHM</u>		1.94	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2994.877			
Methysticin	M	1	2.19	2767.896	10.37%	4.29%	6
Dihydromethysticin	DHM	2	3.23	2154.881	8.07%	4.93%	5
Kavain	K	3	1	13485.612	50.50%	9.54%	4
Dihydrokavain	DHK	4	4.21	4269.214	15.99%	12.72%	2
Desmethoxyyangonin	DMY	5	2.74	1858.904	6.96%	3.60%	1
Yangonin	Y	6	3.16	2166.856	8.11%	4.85%	3
<b>Kavalactones</b>			<b>Total:</b>	<b>26703.363</b>	<b>100.00%</b>	<b>39.93%</b>	<b>245361</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.

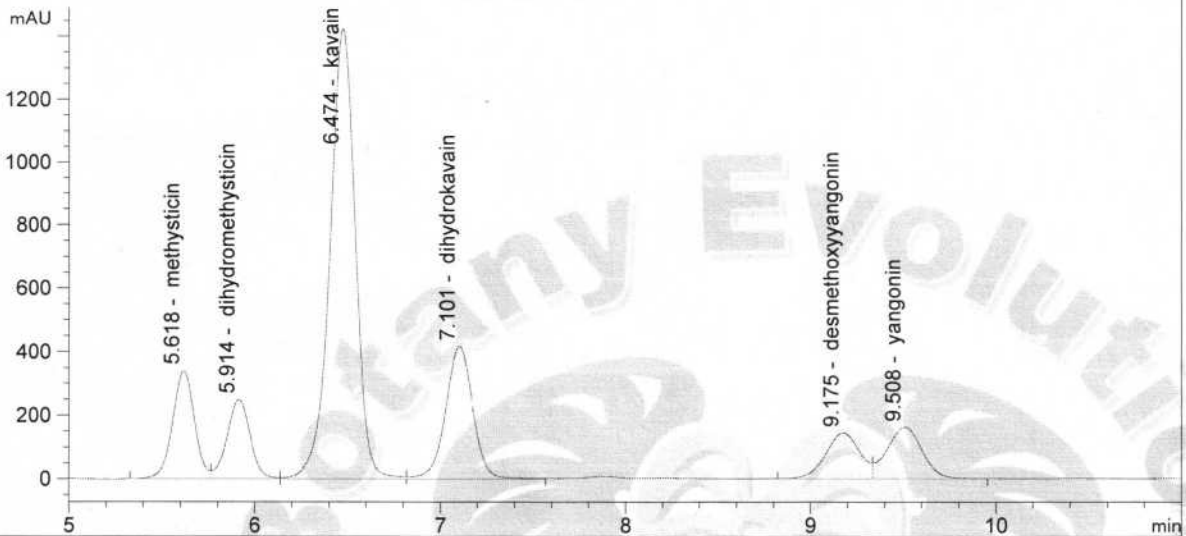
*Mustel Youngs* 6/22/18

SAMPLE S0478  
Vial 12

0.25240g/25 ML

wavelength 246 nm  
C:\CHEM32\1\DATA\KAVA\_6\_20\_2018\_15MINSTDTESTMETHOD 2018-06-20 13-22-45\012->  
SEQUENCE C:\CHEM32\1\DATA\KAVA\_6\_20\_2018\_ ->  
Injection date 6/20/2018  
Injection time 5:41:44 PM  
Acq. operator KRISTL  
Method C:\CHEM32\1\METHODS\KAVA15MIN STD TEST.M

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_6\_20\_2018\_15MINSTDTESTMETHOD 2018-06-20 13-22-45\012-1301.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.618	2767.896	10.37	0.000
2	dihydromethysticin	5.914	2154.881	8.07	0.000
3	kavain	6.474	13485.612	50.50	0.001
4	dihydrokavain	7.101	4269.214	15.99	0.002
5	desmethoxyyangonin	9.175	1858.904	6.96	0.000
6	yangonin	9.508	2166.856	8.11	0.000

6/22/18  
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