

CERTIFICATE OF ANALYSIS

GENERAL INFORMATION

Report Date	3/5/2025	Country of Origin	Solomon Islands
Sample Number	S2234	Country of Processing	USA
Product Name	Kastom Lateral Roots	Manufacture Date	Mar-25
Lot Number	SIK2502-KLR3	Best By Date	Mar-28

ITEM	SPECIFICATION	TEST RESULTS	METHOD
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PHYSICAL & CHEMICAL

Identification	Piper methysticum	Complies	HPLC
Appearance	Beige to Yellow Powder	Complies	Organoleptic
Kavalactone Standard	2-17 % Kavalactones	15.43%	HPLC
Kavalactone Profile	Noble	Pass	HPLC
Chemotype	If # 5 is in 1st or 2nd in Abundance	423156	HPLC
K/DHM	> 1.2 for Noble	5.4	Calculation

HEAVY METALS

		Results	
Arsenic (As)	NMT 1,000 (ppb)*	104 ppb	FDA EAM 4.7
Cadmium (Cd)	NMT 1,000 (ppb)*	622 ppb	FDA EAM 4.7
Lead (Pb)	NMT 1,000 (ppb)*	530 ppb	FDA EAM 4.7
Mercury (Hg)	NMT 1,000 (ppb)*	< 10 ppb	FDA EAM 4.7

*Heavy Metals Action Limits Based on Maximum PDE at 5% Kavalactones. Results May Exceed 1,000 ppb action limit with higher kavalactone contents.

MICROBIOLOGICAL

		Results	
AEROBIC PLATE COUNT	NMT 10,000,000 cfu	23,000 cfu / 10 g	USP 2021
E. COLI	ABSENT (cfu/10g)	Absent cfu / 10 g	USP 2022
PSEUDOMONAS AERUGINOSA	ABSENT (cfu/10g)	Absent cfu / 10 g	USP 2022
SALMONELLA	ABSENT (cfu/10g)	Absent cfu / 10 g	USP 2022
STAPHYLOCOCCUS AUREUS	ABSENT (cfu/10g)	Absent cfu / 10 g	USP 2022
YEAST	NMT 100,000 cfu (Combined)	6,000 cfu / 10 g	
MOLD		300 cfu / 10 g	USP 2021
TOTAL YEAST & MOLD	NMT 100,000 cfu (Combined)	6300 cfu / 10 g	


cfu/g = Colony Forming Units Per Gram NMT = No More Than PDE = Permitted Daily Exposure PPB = Parts Per Billion

Analysis Performed by a Third-Party Laboratory

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.

Completed By:  Title: Manager Date: 3/7/2025

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis

Sample Identification Information

Date of Analysis 3/5/2025
Sample: S2234
Product Name KASTOM LATERAL ROOTS
Lot# SIK2502-KLR-3

Country of Origin SOLOMON ISLANDS
Country of Processing USA
Manufacture Date Mar-25
Best By Date Mar-28

General Product Specifications

Product Species Piper Methysticum
Part Used Root

Common Names Kava kava, Awa, Yagona
Appearance Yellow, Brown, beige powder

Analyzed Characteristics

Specification

Result

Test Method

<u>Standardization</u>	2-17% Kavalactones	15.43%	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>		423156	HPLC
<u>K/DHM</u>	TUDEI < 1.2 > NOBLE	5.4	Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2380.544			
Methysticin	M	1	2.21	718.978	4.85%	0.93%	6
Dihydromethysticin	DHM	2	3.38	510.508	3.45%	1.01%	5
Kavain	K	3	1	9256.076	62.49%	5.42%	4
Dihydrokavain	DHK	4	3.48	2143.443	14.47%	4.37%	2
Desmethoxyyangonin	DMY	5	2.52	840.517	5.67%	1.24%	1
Yangonin	Y	6	3.12	1343.226	9.07%	2.46%	3
Kavalactones			Total:	14812.748	100.00%	15.43%	423156

*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.

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Chemist

Austie Youngs

Date

3/10/25

SAMPLE S2234
Vial 13

0.75143g/50mL

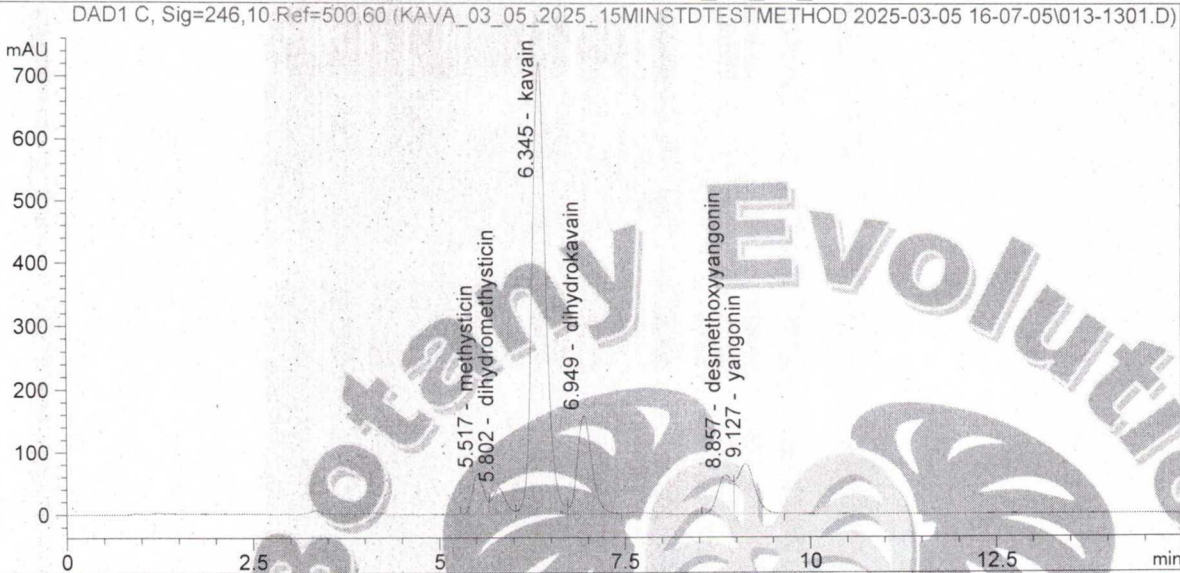
wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_03_05_2025_15MINSTDTESTMETHOD 2025-03-05 16-07-05\01->
SEQUENCE C:\CHEM32\1\DATA\KAVA_03_05_2025_ -->

Injection date 3/5/2025
Injection time 8:26:20 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_03_05_202->



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.517	718.978	4.85	0.000
2	dihydromethysticin	5.802	510.508	3.45	0.000
3	kavain	6.345	9256.076	62.49	0.001
4	dihydrokavain	6.949	2143.443	14.47	0.000
5	desmethoxyyangonin	8.857	840.517	5.67	0.000
6	yangonin	9.127	1343.226	9.07	0.000

3/6/25
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