



Phytodex

Analytical Services

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Certificate of Analysis

HPLC Quantitative Analysis Report

TEST NUMBER	SAMPLE ID	SAMPLE NAME	SAMPLE TYPE
PHY-2026-364	20260318-4456	Healing Herbals MZO	Concentrate
PANEL	SUBMITTED	COMPLETED	STATUS
Sceletium Alkaloids Panel	Mar 17, 2026	Mar 18, 2026	Completed

Instrument: Agilent 1100 HPLC-DAD

Analytical Method
Phytodex Sceletium Mesembrine-type Alkaloids Method HPLC-DAD

Quantitative Results

Compound	% Conc.	mg/g	LOD (ppm)	LOQ (ppm)
Mesembrine	4.0963%	40.96	0.086	0.261
Mesembranol	0.0953%	0.95	0.040	0.121
Mesembrenone	0.7407%	7.41	0.038	0.114
Δ7-Mesembrenone	ND	ND	—	—
TOTAL	4.9323%	49.32		

ND = Not Detected (below limit of detection) · LOD = Limit of Detection · LOQ = Limit of Quantification

Analysis Summary

This analysis identified 3 compounds belonging to the Mesembrine alkaloid class. The primary psychoactive alkaloid found in *Sceletium tortuosum* (Kanna). Acts as a potent serotonin reuptake inhibitor (SRI) and phosphodiesterase 4 (PDE4) inhibitor, contributing to its mood-elevating and anxiolytic effects. A reduced form of mesembrine found in *Sceletium tortuosum*. One of the four major alkaloids in Kanna, contributing to its overall pharmacological activity. A major alkaloid found in *Sceletium tortuosum*, closely related to mesembrine. Acts as a serotonin reuptake inhibitor and contributes to the overall psychoactive profile of Kanna preparations.

Mesembrine

Class: Mesembrine alkaloid

Potent SRI with $K_i \sim 1.4$ nM at SERT; PDE4 inhibitor; anxiolytic and mood-elevating properties; traditionally chewed, smoked, or brewed as tea.

Mesembranol

Class: Mesembrine alkaloid

Dihydro derivative of mesembrine; serotonin reuptake inhibitor with lower potency than mesembrine; found in both fresh and fermented Kanna.

Mesembrenone

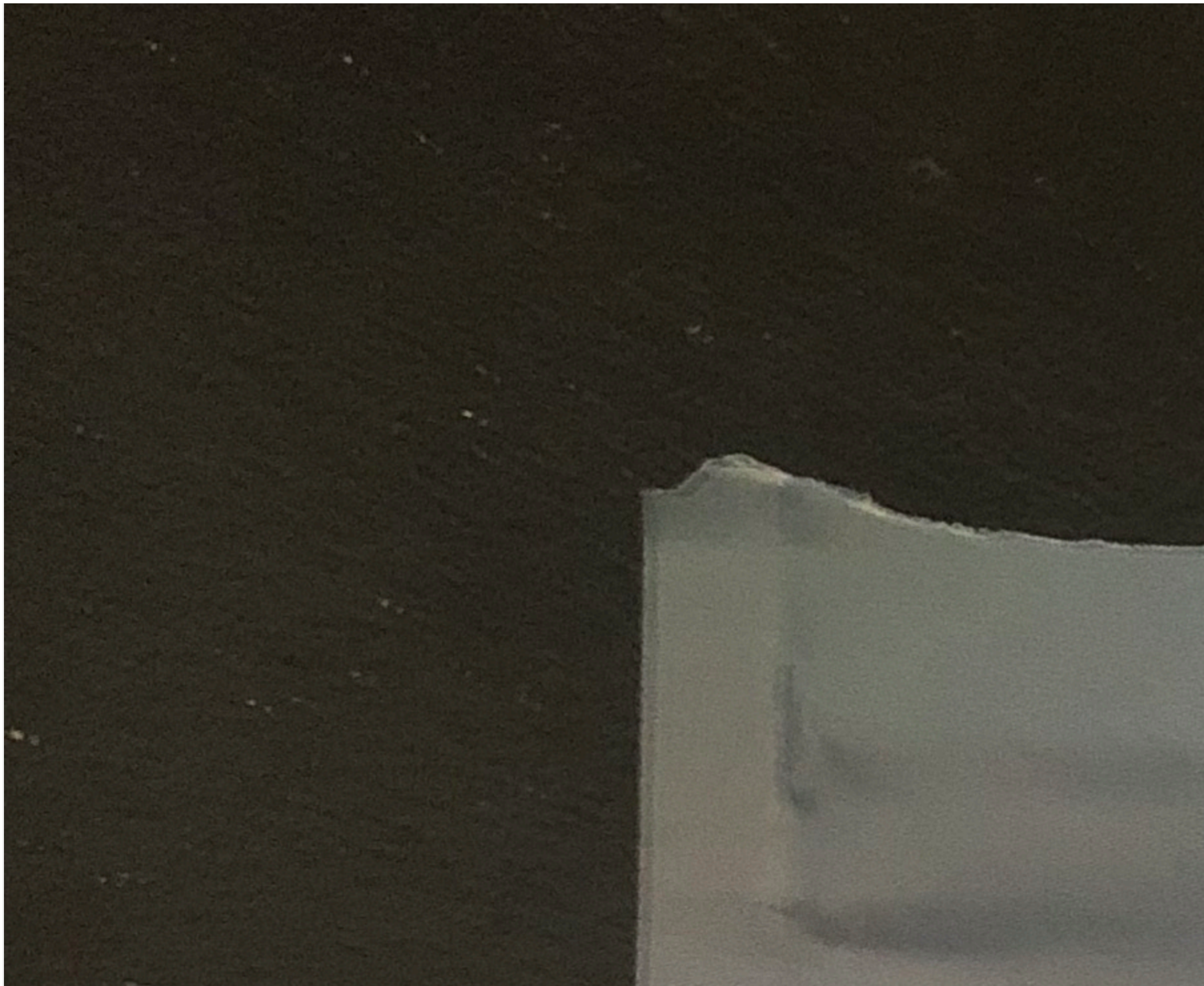
Class: Mesembrine alkaloid

Serotonin reuptake inhibitor; often the most abundant alkaloid in fermented Kanna; contributes to anxiolytic and mood-enhancing effects.

Sample Photos

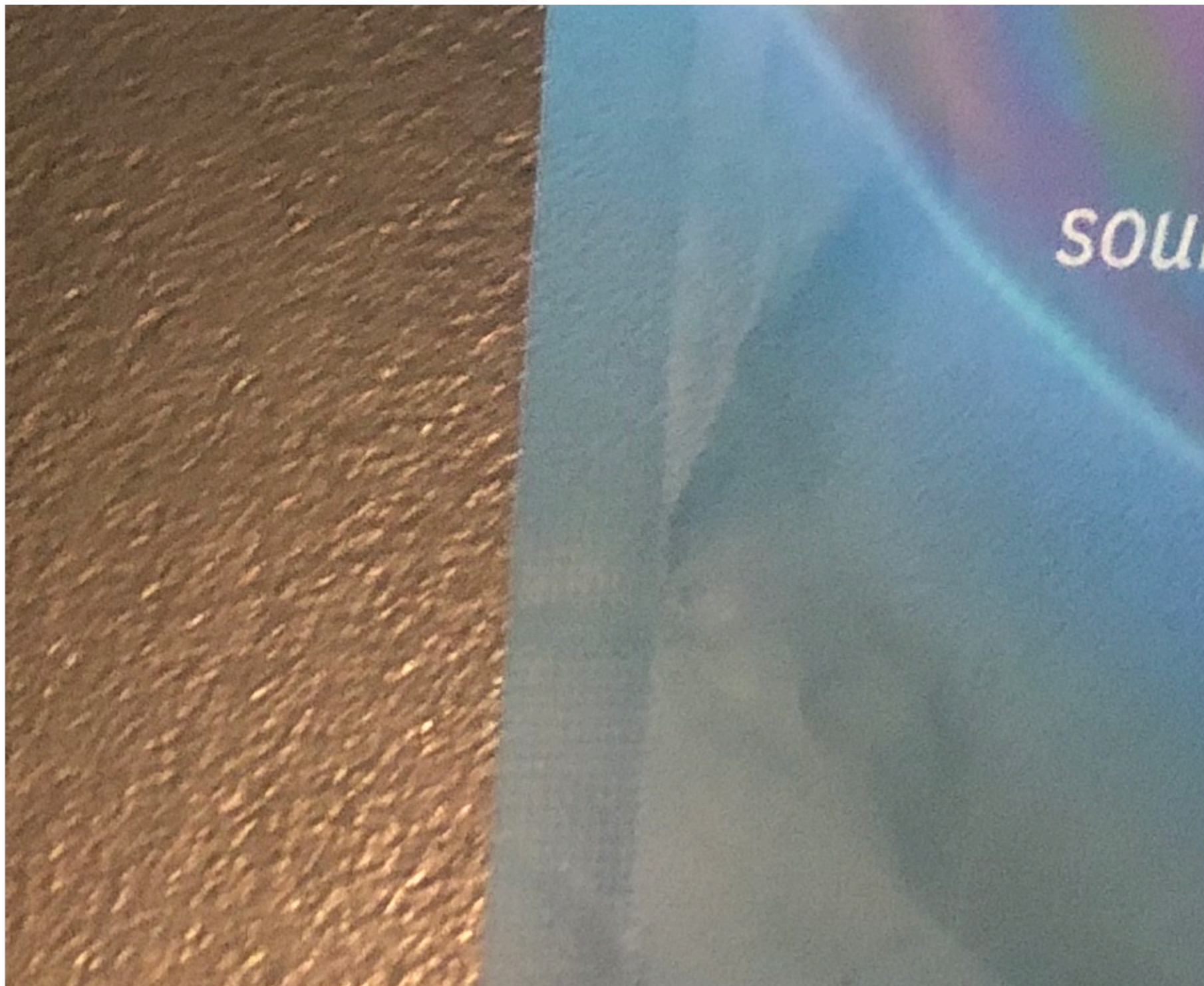






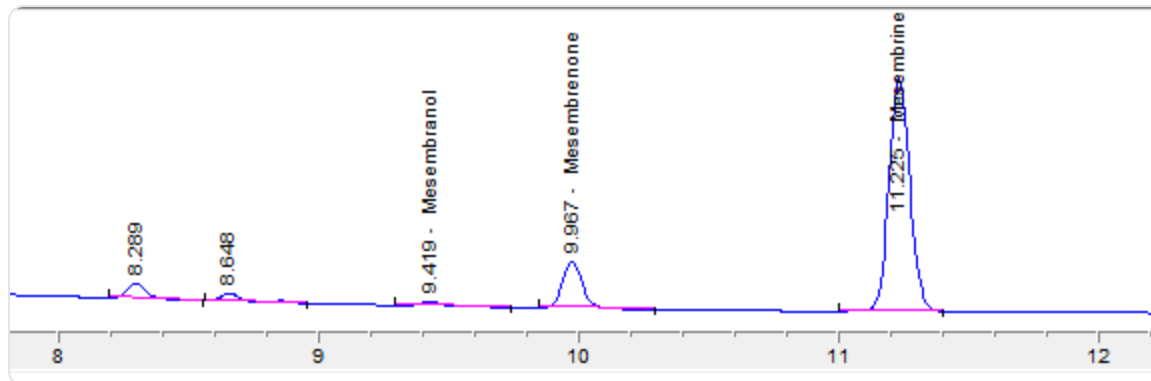








Chromatography Spectrum



This certificate is issued by Phytodex Analytical Services.

For questions, contact us at phytodex.com

Important Disclaimers

Medical: This information is not a substitute for professional medical advice. Consult a healthcare professional.

No Advocacy: Phytodex does not promote or encourage the use of illegal or controlled substances.

Legal Status: Compound legality varies by jurisdiction. Users must comply with local laws.