Certificate of Analysis

47 W Polk St. STE 100-241
Chicago, IL 60605
liftmode@liftmode.com

LiftMode

MoodLift Capsules

MoodLift Capsules

Material Lot #: 205066

Country of Origin: USA / China /South Africa

Test Date: 06/16/2022

Re-Test Date: 06/13/2025

MoodLift Capsules Formula

Ingredient	Serving	Test/Method	Specification	Result
Vitamin B6 (as Pyridoxine HCL)	3mg	Pyridoxine HCL (HPLC)	≥98%	Pass
Folate	1000mcg	Folic Acid (LS-MS/MS)	≥97%	Pass
Vitamin B12 (as Methylcobalamin)	600mcg	Methylcobalamin (HPLC)	≥98%	Pass
Kanna Aerial Parts Extract	28mg	≥5% Alkaloids ≥3% Mesembrine and (HPLC)	≥5% , ≥3%	Pass
Oroxylin A	18mg	Oroxylin A (HPLC)	≥98%	Pass
5-Hydoxytryptophan (5-HTP)	28mg	5-hydroxytryptopha “5-HTP” (HPLC)	≥99%	Pass
7,8-Dihydroxyflavone (7,8-DHF)	36mg	7,8-DHF “tropoflavin” (HPLC)	≥98%	Pass
Baicalein	28mg	Baicalein (HPLC)	≥98%	Pass
Benfotiamine (Vitamin B1)	28mg	Benfotiamine “Vitamin B1” (LC-DAD)	≥98%	Pass
Citicoline (CDP-Choline)	28mg	Citicoline Sodium (HPLC)	≥99%	Pass
Magnolol	28mg	Magnolol (HPLC)	≥98%	Pass
Piperine	6mg	Piperine (HPLC)	≥95%	Pass
Tetrahydroharmine (THH)	18mg	Tetrahydroharmine (HPLC)	≥99%	Pass
Triacetyluridine (TAU)	18mg	Triacetyluridine “TAU” (HPLC)	≥98%	Pass
Sinomenium accutum Stem Extract	36mg	Sinomenine HCl (HPLC)	≥98%	Pass
Arctic Root Extract (Rhodiola rosea)	56mg	≥5% Rosavins ≥3% Salidrosides (HPLC)	≥5% , ≥3%	Pass
Gotu Kola Aerial Parts Extract	28mg	Triterpenoids (HPLC)	≥70%	Pass
Ginseng Root Extract Blend	56mg	Ginsenosides (HPLC)	≥30%	Pass
Peony Root Extract	38mg	Paeoniflorin & Albiflorin (HPLC)	≥50%	Pass
Barley Malt Sprout Extract	18mg	Hordenine HCl (HPLC)	≥98%	Pass

Certificate of Analysis

47 W Polk St. STE 100-241
Chicago, IL 60605
liftmode@liftmode.com

LiftMode

MoodLift Capsules

MoodLift Capsules

Material Lot #:	205066	Test Date:	06/16/2022
Country of Origin:	USA / China /South Africa	Re-Test Date:	06/13/2025

MoodLift Capsules Safety

Test	Specification	Result	
Lead	≤0.5 ppm	0.0557 ppm	Pass
Mercury	≤0.5 ppm	<0.005 ppm	Pass
Cadmium	≤0.5 ppm	<0.005 ppm	Pass
Arsenic	≤0.5 ppm	0.0675 ppm	Pass
Total Aerobic Plate Count	<1000 cfu/g	<10 cfu/g	Pass
Yeast	< 100 cfu/g	< 10 cfu/g	Pass
Mold	< 100 cfu/g	< 10 cfu/g	Pass
Escherichia coli	<10 cfu/g	<10 cfu/g	Pass
Coliforms	<10 cfu/g	<10 cfu/g	Pass
Salmonella	Negative	Negative	Pass
Staphylococcus aureus	<10 cfu/g	<10 cfu/g	Pass

MoodLift Capsules should be stored at or below room temperature in a tightly sealed durable container.
MoodLift Capsules should be protected from excess heat, direct sunlight, excess humidity, and moisture.
MoodLift Capsules have a retesting period of 3 years from the date of analysis when properly stored.

MoodLift Capsules

eurofins | Eurofins Microbiology Laboratories (New Berlin)

Eurofins Microbiology Laboratories (New Berlin)

2345 S. 170th St.
New Berlin, Wisconsin 53151
+1 262 754 5300
Micro-MKE@EurofinsUS.com

Synaptent

Quality Control Department (COA)
425 BARCLAY BOULEVARD
Lincolnshire, IL 60069

ANALYTICAL REPORT

AR-22-QH-032977-01

Client Code: QH0000902
PO#: 1901001

Received On: 28May2022
Reported On: 16Jun2022

Eurofins Sample Code:	477-2022-05280124	**Sample Registration Date:**	28May2022
Client Sample Code:	205066	**Condition Upon Receipt:**	acceptable, 19.6°C
Sample Description:	MoodLift Capsules	**Sample Reference:**	

FS001 - Heavy Metals (As, Cd, Hg, and Pb)	**Reference** AOAC 2011.19 and 993.14 (modified)	**Accreditation**	**Completed** 07Jun2022	**Sub** 1
Parameter	**Result**			
Arsenic	55.7 ppb			
Cadmium	<5.00 ppb			
Lead	67.5 ppb			
Mercury	<5.00 ppb			

M901R - Moisture - Karl Fischer	**Reference** USP <921> Method 1a	**Accreditation**	**Completed** 16Jun2022	**Sub** 2
Parameter	**Result**			
Moisture	4.96 %			

M902B - Methylcobalamin	**Reference** Internal method	**Accreditation**	**Completed** 16Jun2022	**Sub** 2
Parameter	**Result**			
Methylcobalamin	1,070 µg/g			

UM8VD - Total Coliforms - CMMEF Chapter 9.933	**Reference** CMMEF Chapter 9.933	**Accreditation** ISO/IEC 17025:2017 A2LA 3329.07	**Completed** 29May2022
Parameter	**Result**		
Coliforms	< 10 cfu/g		
Parameter	**Result**		
Escherichia coli	< 10 cfu/g		

UMDTC - Salmonella spp. - AOAC-RI 121501	**Reference** AOAC-RI 121501	**Accreditation** ISO/IEC 17025:2017 A2LA 3329.07	**Completed** 29May2022
Parameter	**Result**		
Salmonella	Not Detected per 25 g		

Synaptent

Quality Control Department (COA)
425 BARCLAY BOULEVARD
Lincolnshire, IL 60069

ANALYTICAL REPORT

AR-22-QH-032977-01

Client Code: QH0000902
PO#: 1901001

Received On: 28May2022
Reported On: 16Jun2022

Eurofins Sample Code: 477-2022-05280124
Client Sample Code: 205066
Sample Description: MoodLift Capsules

Sample Registration Date: 28May2022
Condition Upon Receipt: acceptable, 19.6°C
Sample Reference:

UMHBM - Staphylococcus aureus - BAM Chapter 12	**Reference** BAM Chapter 12	**Accreditation** ISO/IEC 17025:2017 A2LA 3329.07	**Completed** 31May2022
Parameter	**Result**		
Staphylococcus aureus	< 10 cfu/g		

UMIB1 - Yeast - FDA BAM Chapter 18 mod.	**Reference** FDA BAM Chapter 18 mod.	**Accreditation** ISO/IEC 17025:2017 A2LA 3329.07	**Completed** 02Jun2022
Parameter	**Result**		
Yeast	< 10 cfu/g		
Parameter	**Result**		
Moulds	< 10 cfu/g		

UMVSE - Aerobic Plate Count - CMMEF Chapter 8.72	**Reference** CMMEF Chapter 8.72	**Accreditation** ISO/IEC 17025:2017 A2LA 3329.07	**Completed** 30May2022
Parameter	**Result**		
Aerobic Plate Count	< 10 cfu/g		

Subcontracting partners:
1 - Eurofins Food Chemistry Testing US Madison, WI
2 - Eurofins Botanical Testing US Brea, California

Respectfully Submitted,

Patricia Quinn
Associate Project Manager I

ACCREDITED

Pyridoxine HCL (Vitamin B6)

Medallion Labs
www.medallionlabs.com 800-245-5615 info@medlabs.com

Order # Sample ID: 2021-001626-02 **Company:** Synaptent LLC
Customer Sample ID: Pyroxidine HCL (Vitamin B6)
Sample Description: Lot #18123041

Analytical Testing

Method:	Component:	Result:	Test Date:
[1] [2] Pyridoxine (Vitamin B6)	Pyridoxine (Vitamin B6)	99.8 %	05-Mar-2021

Results Approved By: Emily Franks
(Authorized Reviewer)

[1] This analysis is performed by a partner lab.
[2] This test is not considered in-scope of our current A2LA accreditation. For a listing of in-scope tests, please visit www.medallionlabs.com.

Medallion Labs
www.medallionlabs.com 800-245-5615 info@medlabs.com

Analytical Method References:

Method Name	Method Reference
Niacin	Please contact for Method Details
Pyridoxine (Vitamin B6)	Please contact for Method Details

Medallion Labs maintains A2LA accreditation to ISO/IEC 17025 for the specific tests listed in certificates # 2769.01 and 2769.02.
Medallion Labs' services, including this report, are provided subject to all provisions of Medallion's Standard Terms and Conditions, a copy of which appears at www.medallionlabs.com. Unless otherwise noted above, samples were received in acceptable condition and analyzed as received.

[1] This analysis is performed by a partner lab.
[2] This test is not considered in-scope of our current A2LA accreditation. For a listing of in-scope tests, please visit www.medallionlabs.com.

Folate (Folic Acid)

Medallion Labs
www.medallionlabs.com 800-245-5615 info@medlabs.com

Order # Sample ID: 2021-002416-01 **Company:** Synaptent LLC
Customer Sample ID: Folic Acid
Sample Description: Lot #4200101

Analytical Testing

Method:	Component:	Result:	Test Date:
[1] [2] Folic Acid LC-MS/MS	Folic Acid LC-MS/MS	98.6 %	08-Apr-2021

Results Approved By: Jamie Reese
(Authorized Reviewer)

[1] This analysis is performed by a partner lab.
[2] This test is not considered in-scope of our current A2LA accreditation. For a listing of in-scope tests, please visit www.medallionlabs.com.

Medallion Labs
www.medallionlabs.com 800-245-5615 info@medlabs.com

Analytical Method References:

Method Name	Method Reference
Folic Acid LC-MS/MS	Please contact for Method Details

Medallion Labs maintains A2LA accreditation to ISO/IEC 17025 for the specific tests listed in certificates # 2769.01 and 2769.02.
Medallion Labs' services, including this report, are provided subject to all provisions of Medallion's Standard Terms and Conditions, a copy of which appears at www.medallionlabs.com. Unless otherwise noted above, samples were received in acceptable condition and analyzed as received.

[1] This analysis is performed by a partner lab.
[2] This test is not considered in-scope of our current A2LA accreditation. For a listing of in-scope tests, please visit www.medallionlabs.com.

Kanna Aerial Parts Extract

Eurofins Microbiology Laboratories (New Berlin)

Eurofins Microbiology Laboratories (New Berlin)

2345 S. 170th St.
New Berlin, Wisconsin 53151
+1 262 754 5300
Micro-MKE@EurofinsUS.com

Synaptent

Joseph Watkins
1442 W. Fulton Street
Chicago, IL 60607

ANALYTICAL REPORT

AR-22-QH-004671-02
Report Supersedes AR-22-QH-004671-01

Client Code: QH0000902
PO#: 107200820

Received On: 21Jan2022
Reported On: 31Jan2022

Eurofins Sample Code: 477-2022-01210375
Client Sample Code: 21052521360521
Sample Description: 3X KANNA EXTRACT MT165
Sample Registration Date: 21Jan2022
Condition Upon Receipt: acceptable, 10.3°C
Sample Reference: Ahmed

YI01X - Sceletium Alkaloids (Mesembrine, Mesembrenone,..)	Reference	Completed	Sub
	South African Journal of Botany 82 (2012) 99–107 (	26Jan2022	1

Parameter	Result
Mesembrenone	39,500 µg/g
Mesembrenol	nd µg/g
Mesembrine	189,000 µg/g
Mesembranol	9,380 µg/g
Total Reported Alkaloids	238,000 µg/g

Report Comment:
New Report Version: Amended to correct the lot number

Subcontracting partners:
1 - Eurofins SF Analytical DBA Craft Technologies, NC

Respectfully Submitted,

Michael Kaiser
Associate Technical Leader

Synaptent

Joseph Watkins
1442 W. Fulton Street
Chicago, IL 60607

ANALYTICAL REPORT

AR-22-QH-004671-02
Report Supersedes AR-22-QH-004671-01

Client Code: QH0000902
PO#: 107200820

Received On: 21Jan2022
Reported On: 31Jan2022

Oroxylin A

S & N LABS

2021 E. Fourth Street Santa Ana, California 92705 (714) 543-2211

10 June 2021

Job Number:	25122b
PO Number:	verbal

Synaptent LLC
47 West Polk Street #100-241
Chicago, Illinois 60605

REPORT OF ANALYSIS

One blue container labeled "Oroxylin A 20210609" was received on 10 June 2021. The material was analyzed for purity using high pressure liquid chromatography (HPLC). The detector was monitored at 271 nm. The results are summarized in the table below.

Sample	Chromatographic Purity (% area)
Oroxylin A 20210609	99.3

The chromatogram is enclosed for your reference.

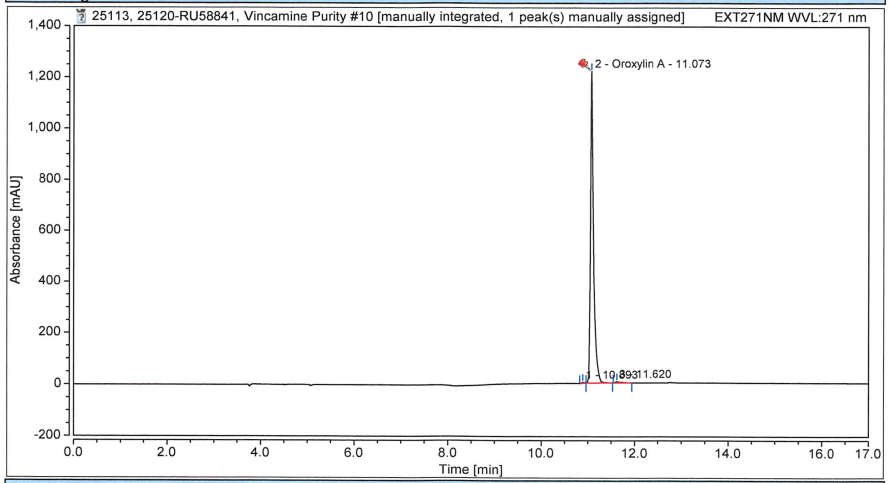
Neil E. Spingarn, Ph.D.
President

Chromatogram and Results

Injection Details

Injection Name:	**Oroxylin A 20210609**	*Run Time (min):*	**20.00**
Vial Number:	**RB6**	*Injection Volume:*	**10.00**
Injection Type:	**Unknown**	*Channel:*	**EXT271NM**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**AD 250mm MaxRP 20min**	*Bandwidth:*	**n.a.**
Processing Method:	**Processing Method**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**10/Jun/21 13:04**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount
1		10.893	0.195	3.537	0.21	0.29	n.a.
2	Oroxylin A	11.073	91.617	1217.182	99.27	99.31	n.a.
3		11.620	0.480	4.936	0.52	0.40	n.a.
Total:			**92.292**	**1225.654**	**100.00**	**100.00**	

5-hydroxytryptophan (5-HTP)

S & N LABS

2021 E. Fourth Street Santa Ana, California 92705 (714) 543-2211

10 June 2021

Job Number:	25112
PO Number:	verbal

Synaptent LLC
47 West Polk Street #100-241
Chicago, Illinois 60605

REPORT OF ANALYSIS

One blue container labeled "5-HTP C062010003" was received on 7 June 2021. The material was analyzed for purity using high pressure liquid chromatography (HPLC). The detector was monitored at 206 nm. The results are summarized in the table below.

Sample	Chromatographic Purity (% area)
5-HTP C062010003	99.9

The chromatogram is enclosed for your reference.

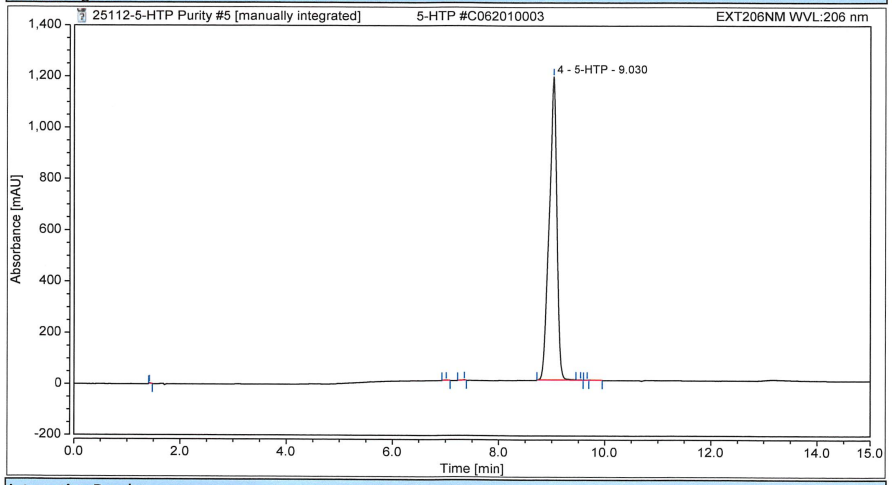
Neil E. Spingarn, Ph.D.
President

Chromatogram and Results

Injection Details

Injection Name:	**5-HTP #C062010003**	*Run Time (min):*	**20.00**
Vial Number:	**GB4**	*Injection Volume:*	**10.00**
Injection Type:	**Unknown**	*Channel:*	**EXT206NM**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**AC Ionic Strength Scherzo Method**	*Bandwidth:*	**n.a.**
Processing Method:	**Processing Method**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**09/Jun/21 16:43**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount
1		1.423	0.057	1.814	0.03	0.15	n.a.
2		7.010	0.056	0.911	0.03	0.08	n.a.
3		7.350	0.103	1.603	0.05	0.13	n.a.
4	5-HTP	9.030	198.161	1182.281	99.87	99.59	n.a.
5		9.540	0.028	0.408	0.01	0.03	n.a.
6		9.670	0.006	0.109	0.00	0.01	n.a.
Total:			**198.411**	**1187.124**	**100.00**	**100.00**	

7,8-Dihydroxyflavone (7,8-DHF tropoflavin)

S & N LABS

2021 E. Fourth Street Santa Ana, California 92705 (714) 543-2211

10 August 2021

Job Number:	25300b
PO Number:	verbal

Synaptent LLC
47 West Polk Street #100-241
Chicago, Illinois 60605

Report of Analysis

One blue jar labeled "7,8-DHF 20210727" was received on 5 August 2021. The material was analyzed for purity using high pressure liquid chromatography (HPLC). The detector was set to 266nm. The results are summarized in the table below.

Sample	Chromatographic Purity (% area)
7,8-DHF 20210727	99.2

The chromatogram is enclosed for your reference.

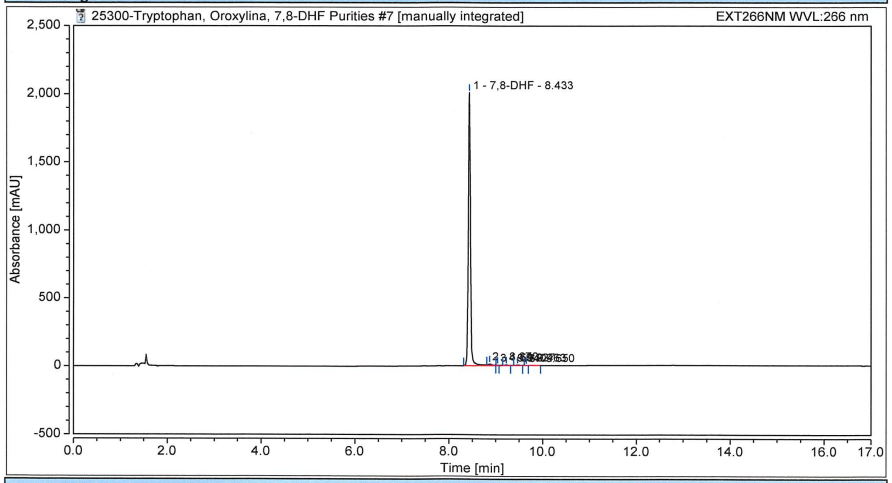
Neil E. Spingarn, Ph.D.
President

Chromatogram and Results

Injection Details

Injection Name:	**7,8-DHF 20210727**	*Run Time (min):*	**20.00**
Vial Number:	**BE5**	*Injection Volume:*	**10.00**
Injection Type:	**Unknown**	*Channel:*	**EXT266NM**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**BD pH6 250mm MaxRP 20min**	*Bandwidth:*	**n.a.**
Processing Method:	**Processing Method**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Aug/21 16:53**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount
1	7,8-DHF	8.433	107.028	2006.878	99.15	99.22	n.a.
2		8.870	0.558	9.419	0.52	0.47	n.a.
3		9.040	0.011	0.298	0.01	0.01	n.a.
4		9.227	0.164	3.169	0.15	0.16	n.a.
5		9.463	0.174	2.656	0.16	0.13	n.a.
6		9.650	0.013	0.305	0.01	0.02	n.a.
Total:			**107.948**	**2022.725**	**100.00**	**100.00**	

Baicalein

Colmaric Analyticals, LLC

Certificate of Analysis

Client:
Synaptent LLC
47 W Polk Street, 100-241
Chicago, IL 60654

Sample Collected By: Client

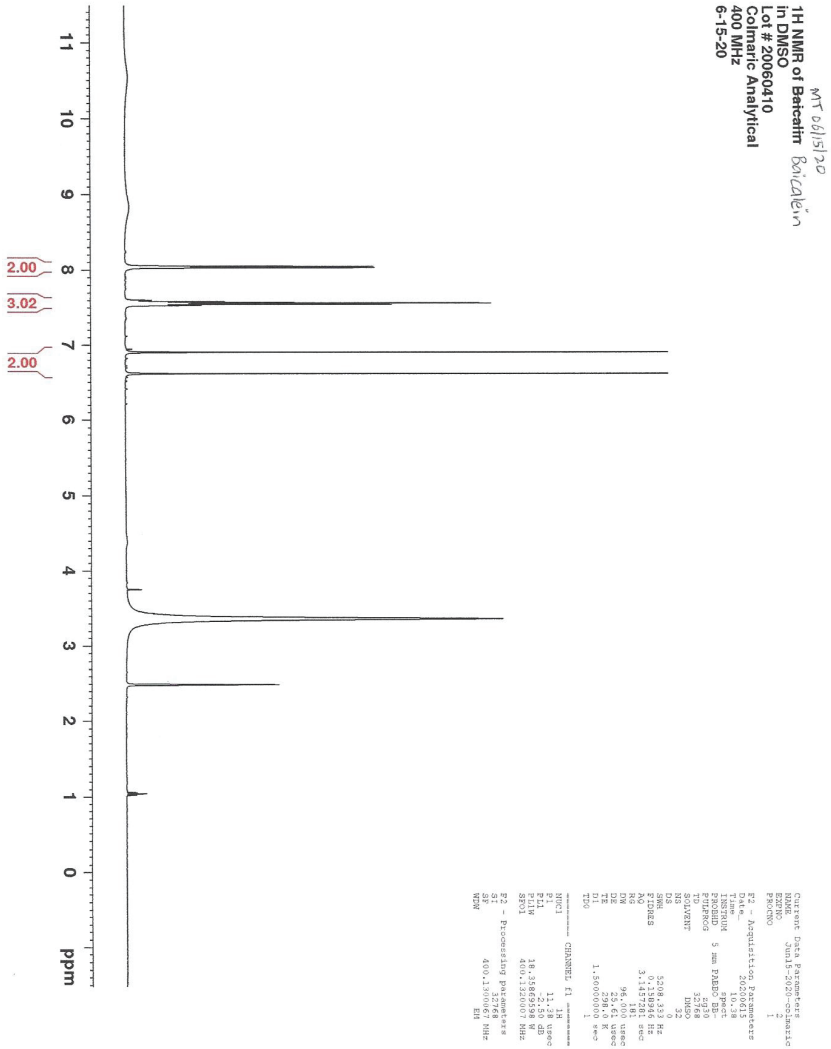
Product Name	Baicalein	Product Lot Number	20021810
Report Date	06/20/20	Laboratory Number	20060410

Description	Method	Result
Identification	H-NMR	Conforms
Assay	HPLC	99.5%
Lead	ICP-MS	0.26 ppm
Arsenic	ICP-MS	<0.03 ppm
Cadmium	ICP-MS	<0.01 ppm
Mercury	ICP-MS	<0.01 ppm
Total Aerobic Count	Biolumix	<100 cfu/g
Yeast & Mold	Biolumix	<100 cfu/g
E. Coli	Biolumix	<10 cfu/g
Coliform	Biolumix	<10 cfu/g
Salmonella	Biolumix	Absent

Collin Thomas
Laboratory Manager

06/20/2020
Date

812 Meadow Lark Lane, Goodlettsville, TN 37072
Tel: 615-239-8604



Benfotiamine (Vitamin B1)

Eurofins Microbiology Laboratories (New Berlin)

Eurofins Microbiology Laboratories (New Berlin)

2345 S. 170th St.
New Berlin, Wisconsin 53151
+1 262 754 5300
Micro-MKE@EurofinsUS.com

Synaptent

Quality Control Department (COA)
425 BARCLAY BOULEVARD
Lincolnshire, IL 60069

ANALYTICAL REPORT

AR-22-QH-038919-01

Client Code: QH0000902
PO#: 160623

Received On: 22Jun2022
Reported On: 14Jul2022

Eurofins Sample Code:	477-2022-06220115	**Sample Registration Date:**	22Jun2022
Client Sample Code:	20202009-1	**Condition Upon Receipt:**	acceptable, 21.2°C
Sample Description:	Benfotiamine (Vitamin B1)	**Sample Reference:**	

M904X - Benfotiamine	Reference	Accreditation	Completed	Sub
	Internal method		14Jul2022	1

Parameter	Result
Benfotiamine	1,010,000 µg/g

Subcontracting partners:
1 - Eurofins Botanical Testing US Brea, California

Respectfully Submitted,

Christine Gwinn
Associate Technical Leader

Citicoline Sodium

S & N LABS

2021 E. Fourth Street Santa Ana, California 92705 (714) 543-2211

31 January 2022

Job Number:	25696
PO Number:	verbal

Synaptent LLC
47 W. Polk Street #100-241
Chicago, Illinois 60605

REPORT OF ANALYSIS

One small jar labeled "Citicoline Sodium #20210301" was received on 27 January 2022. The contents of the jar were analyzed for purity using high pressure liquid chromatography (HPLC). The detector was set to 212nm. The results are summarized in the table below.

Sample	Chromatographic Purity (% area)
Citicoline Sodium #20210301	99.2

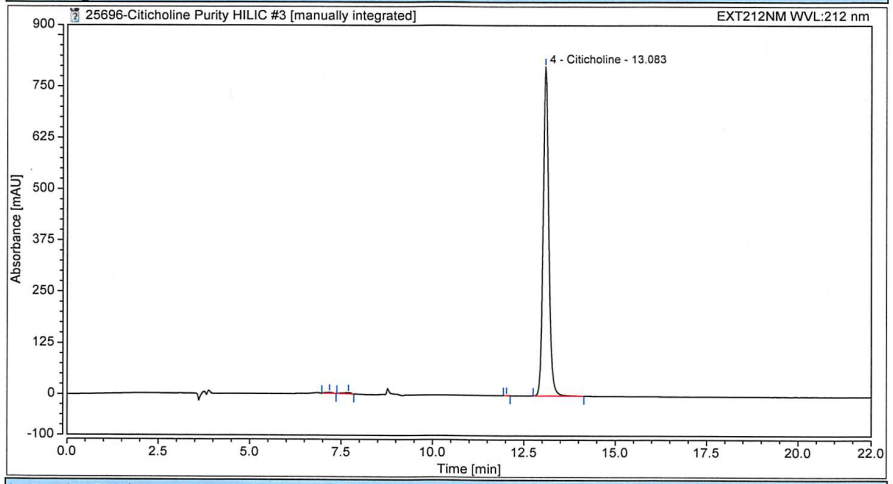
Neil E. Spingarn, Ph.D.
President

Chromatogram and Results

Injection Details

Injection Name:	**Citicholine Sodium 20210301**	*Run Time (min):*	**25.00**
Vial Number:	**RD5**	*Injection Volume:*	**10.00**
Injection Type:	**Unknown**	*Channel:*	**EXT212NM**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**CA HILIC 25min Purity Method**	*Bandwidth:*	**n.a.**
Processing Method:	**Processing Method**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**27/Jan/22 16:53**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount
1		7.183	0.451	2.258	0.31	0.28	n.a.
2		7.703	0.657	2.521	0.46	0.31	n.a.
3		12.020	0.012	0.125	0.01	0.02	n.a.
4	Citicholine	13.083	142.877	801.633	99.22	99.39	n.a.
Total:			**143.998**	**806.537**	**100.00**	**100.00**	

Magnolol

S & N LABS

2021 E. Fourth Street Santa Ana, California 92705 (714) 543-2211

4 August 2021

Job Number:	25285b
PO Number:	verbal

Synaptent LLC
47 West Polk Street #100-241
Chicago, Illinois 60605

REPORT OF ANALYSIS

One packet labeled "Magnolol 98% Batch 012011069M" was received on 2 August 2021. The material was analyzed for purity using high pressure liquid chromatography (HPLC). The detector was set to 195nm. The results are summarized in the table below.

Sample	Chromatographic Purity (% area)
Magnolol 98% Batch 012011069M	99.8

The chromatogram is enclosed for your reference.

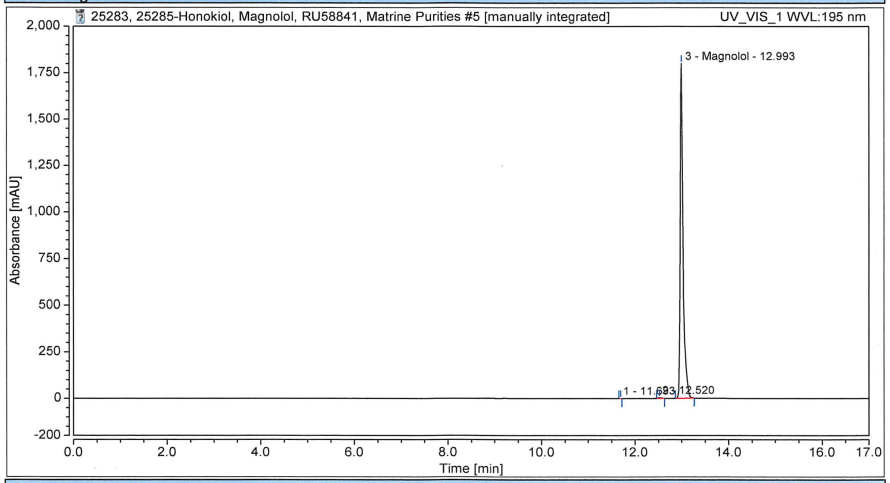
Neil E. Spingarn, Ph.D.
President

Chromatogram and Results

Injection Details

Injection Name:	**Magnolol Batch:012011069M**	*Run Time (min):*	**20.00**
Vial Number:	**GD3**	*Injection Volume:*	**10.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**195**
Instrument Method:	**AD 250mm MaxRP 20min**	*Bandwidth:*	**5**
Processing Method:	**Processing Method**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**03/Aug/21 18:26**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount
1		11.693	0.007	0.189	0.01	0.01	n.a.
2		12.520	0.228	3.920	0.18	0.22	n.a.
3	Magnolol	12.993	125.819	1799.929	99.81	99.77	n.a.
Total:			**126.054**	**1804.039**	**100.00**	**100.00**	

Piperine

S & N LABS

2021 E. Fourth Street Santa Ana, California 92705 (714) 543-2211

12 April 2022

Job Number:	25857b
PO Number:	verbal

Synaptent LLC
47 W. Polk Street #100-241
Chicago, Illinois 60605

REPORT OF ANALYSIS

One small jar labeled "Piperine #2021026504" was received on 8 April 2022. The contents of the jar were analyzed for purity using high pressure liquid chromatography (HPLC). The detector was set to 250nm. The results are summarized in the table below.

Sample	Chromatographic Purity (% area)
Piperine #2021026504	97.8

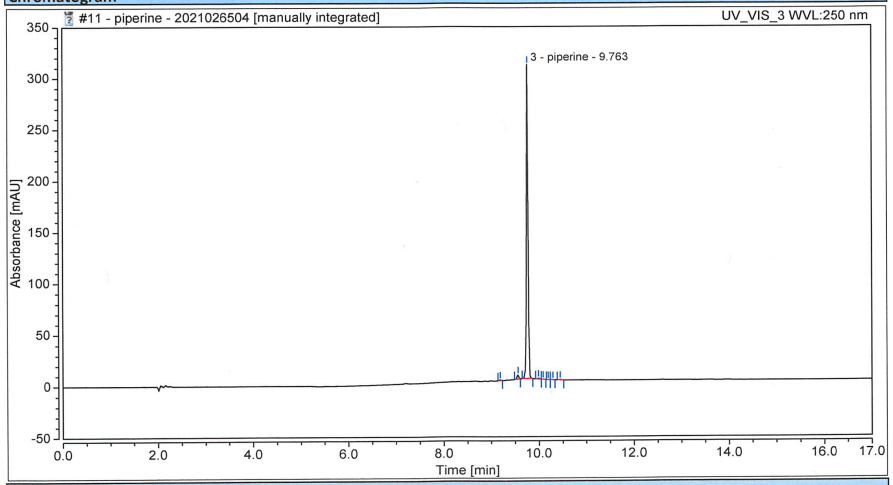
Neil E. Spingarn, Ph.D.
President

Chromatogram and Results

Injection Details

Injection Name:	**piperine - 2021026504**	*Run Time (min):*	**20.00**
Vial Number:	**RA4**	*Injection Volume:*	**20.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_3**
Calibration Level:		*Wavelength:*	**342.0**
Instrument Method:	**piperine purity method**	*Bandwidth:*	**10**
Processing Method:	**piperine purity processing**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**11/Apr/22 17:52**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount µg/ml
1		9.183	0.026	0.693	0.22	0.22	n.a.
2		9.557	0.158	4.102	1.29	1.31	n.a.
3	piperine	9.763	11.977	305.972	97.81	97.91	n.a.
4		9.983	0.037	0.866	0.30	0.28	n.a.
5		10.083	0.009	0.151	0.08	0.05	n.a.
6		10.190	0.004	0.112	0.03	0.04	n.a.
7		10.287	0.006	0.157	0.05	0.05	n.a.
8		10.440	0.027	0.465	0.22	0.15	n.a.
Total:			**12.245**	**312.518**	**100.00**	**100.00**	

Tetrahydroharmine (THH)

S & N LABS

2021 E. Fourth Street Santa Ana, California 92705 (714) 543-2211

20 November 2020

Job Number:	24526
PO Number:	verbal

Synaptent LLC
47 West Polk Street #100-241
Chicago, Illinois 60605

REPORT OF ANALYSIS

One sealed bag labeled "Tetrahydroharmine #200928" was received on 16 November 2020. The powder in the bag was assayed for purity using high pressure liquid chromatography (HPLC) using UV detection at 224nm. The results are summarized in the table below.

Sample	Chromatographic Purity (%, w/w)
Tetrahydroharmine #200928	99.5

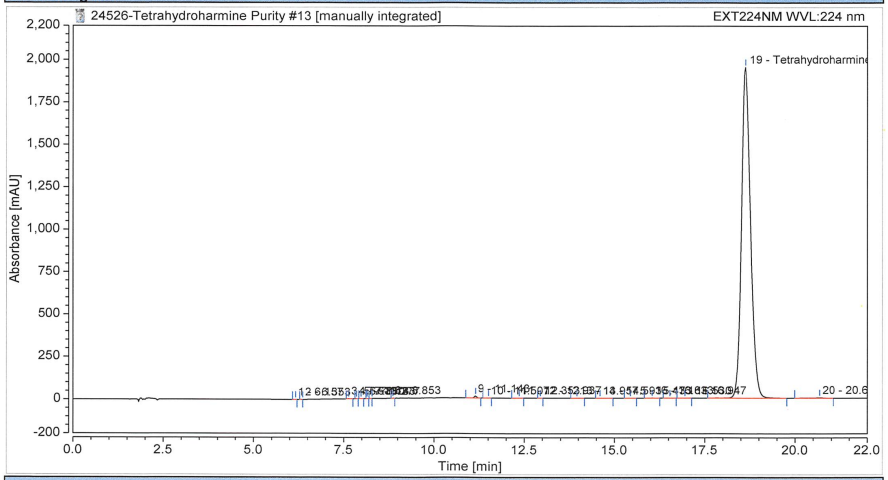
Neil E. Spingarn, Ph.D.
President

Chromatogram and Results

Injection Details

Injection Name:	**Tetrahydroharmine; #200928; 450ppm**	*Run Time (min):*	**25.00**
Vial Number:	**RD3**	*Injection Volume:*	**10.00**
Injection Type:	**Unknown**	*Channel:*	**EXT224NM**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**#2 pH6 BD 80% 150mm MaxRP 20min**	*Bandwidth:*	**n.a.**
Processing Method:	**Processing Method**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**20/Nov/20 15:37**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount
1		6.157	0.009	0.166	0.00	0.01	n.a.
2		6.353	0.004	0.000	0.00	0.00	n.a.
3		7.633	0.071	1.352	0.01	0.07	n.a.
4		7.850	0.020	0.533	0.00	0.03	n.a.
5		7.973	0.021	0.352	0.00	0.02	n.a.
6		8.143	0.004	0.101	0.00	0.01	n.a.
7		8.277	0.005	0.000	0.00	0.00	n.a.
8		8.853	0.047	1.177	0.01	0.06	n.a.
9		11.143	0.893	12.041	0.15	0.61	n.a.
10		11.507	0.021	0.186	0.00	0.01	n.a.
11		12.353	0.052	0.446	0.01	0.02	n.a.
12		12.937	0.012	0.159	0.00	0.01	n.a.
13		13.957	0.043	0.245	0.01	0.01	n.a.
14		14.593	0.046	0.166	0.01	0.01	n.a.
15		15.433	0.027	0.162	0.00	0.01	n.a.
16		16.033	0.201	1.188	0.03	0.06	n.a.
17		16.530	0.033	0.172	0.01	0.01	n.a.
18		16.947	0.051	0.282	0.01	0.01	n.a.
19	Tetrahydroharmine	18.620	574.644	1949.185	99.53	98.92	n.a.
20		20.673	1.164	2.512	0.20	0.13	n.a.
Total:			**577.370**	**1970.427**	**100.00**	**100.00**	

Triacetyluridine (TAU)

S & N LABS

2021 E. Fourth Street Santa Ana, California 92705 (714) 543-2211

8 February 2022

Job Number:	25712b
PO Number:	verbal

Synaptent LLC
47 W. Polk Street #100-241
Chicago, Illinois 60605

REPORT OF ANALYSIS

One small jar labeled "TAU #20211114" was received on 4 February 2022. The contents of the jar were analyzed for purity using high pressure liquid chromatography (HPLC). The detector was set to 259nm. The results are summarized in the table below.

Sample	Chromatographic Purity (% area)
TAU #20211114	98.1

The chromatogram is enclosed for your reference.

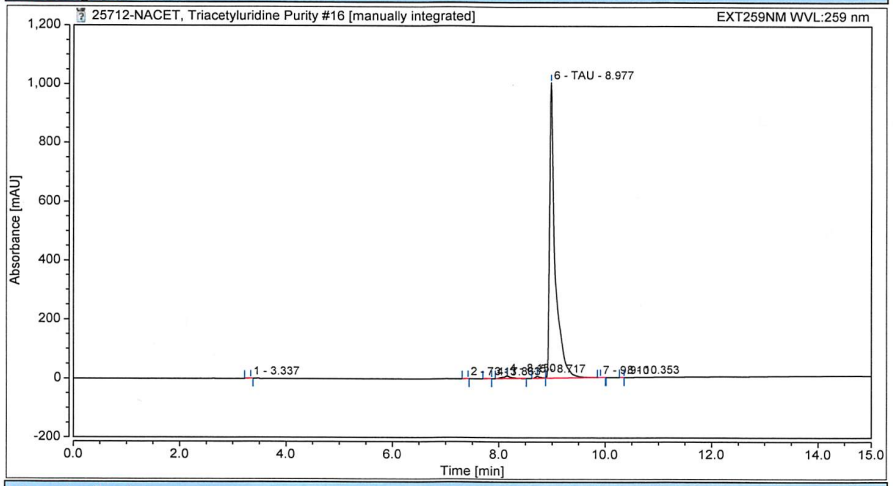
Neil E. Spingarn, Ph.D.
President

Chromatogram and Results

Injection Details

Injection Name:	**TAU**	*Run Time (min):*	**25.00**
Vial Number:	**RD4**	*Injection Volume:*	**10.00**
Injection Type:	**Unknown**	*Channel:*	**EXT259NM**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**BD 250mm Hydro RP 25min Purity Method**	*Bandwidth:*	**n.a.**
Processing Method:	**Processing Method**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**08/Feb/22 12:02**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount
1		3.337	0.009	0.112	0.01	0.01	n.a.
2		7.413	0.011	0.061	0.01	0.01	n.a.
3		7.863	0.008	0.000	0.01	0.00	n.a.
4		8.150	1.615	10.227	1.31	1.00	n.a.
5		8.717	0.732	7.074	0.60	0.69	n.a.
6	TAU	8.977	120.415	1004.194	98.06	98.27	n.a.
7		9.910	0.011	0.167	0.01	0.02	n.a.
8		10.353	0.002	0.000	0.00	0.00	n.a.
Total:			**122.802**	**1021.834**	**100.00**	**100.00**	

Sinomenine Hydrochloride

S & N LABS

2021 E. Fourth Street Santa Ana, California 92705 (714) 543-2211

25 February 2021

Job Number:	24784a
PO Number:	verbal

Synaptent LLC
47 W. Polk Street #100-241
Chicago, Illinois 60605

REPORT OF ANALYSIS

One jar labeled "Sinomenine #210216" was received on 23 February 2021. The powder in the jar was analyzed for purity using high pressure liquid chromatography (HPLC). The detector was set to 202nm. The results are summarized in the table below.

Sample	Chromatographic Purity (% area)
Sinomenine #210216	99.8

The chromatogram is enclosed for your reference.

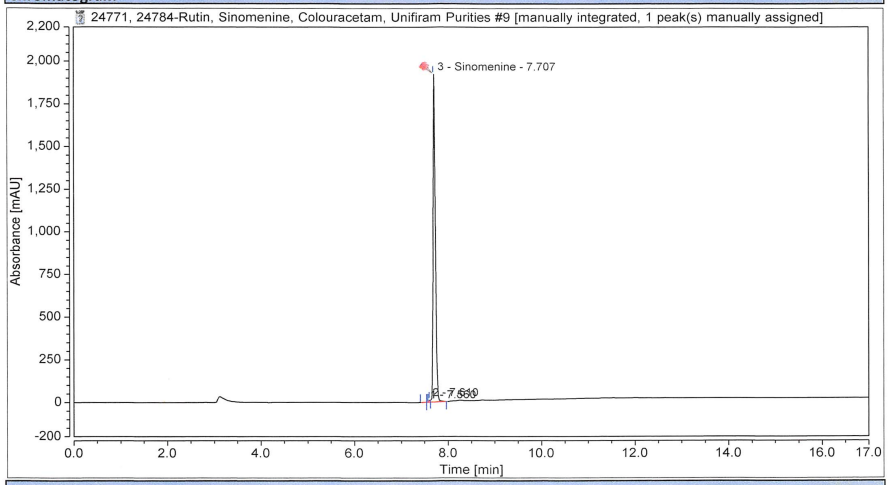
Neil E. Spingarn, Ph.D.
President

Chromatogram and Results

Injection Details

Injection Name:	**Sinomenine; 210216**	*Run Time (min):*	**20.00**
Vial Number:	**GA5**	*Injection Volume:*	**10.00**
Injection Type:	**Unknown**	*Channel:*	**EXT202NM**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**AD 250mm MaxRP 20min**	*Bandwidth:*	**n.a.**
Processing Method:	**Processing Method**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**24/Feb/21 19:03**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount
1		7.560	0.029	0.000	0.03	0.00	n.a.
2		7.610	0.214	7.119	0.20	0.37	n.a.
3	Sinomenine	7.707	106.693	1919.466	99.77	99.63	n.a.
Total:			**106.937**	**1926.585**	**100.00**	**100.00**	

Arctic Root Extract (Rhodiola rosea)

CERTIFICATE OF ANALYSIS

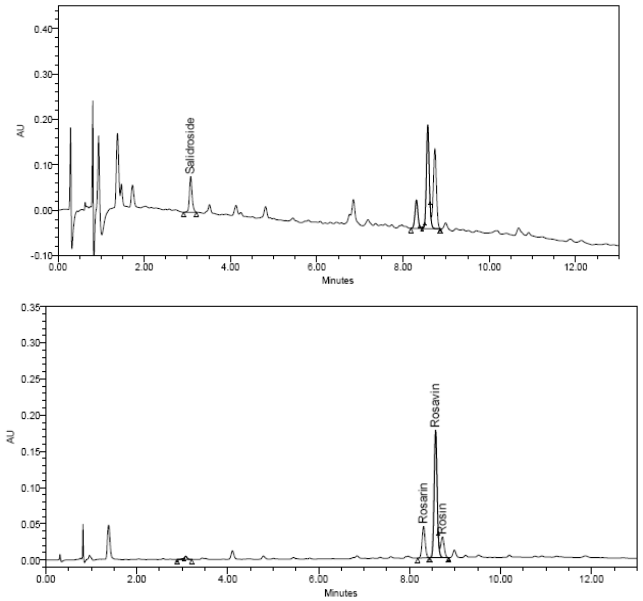
ALKEMIST LABS

12661 HOOVER STREET GARDEN GROVE, CA 92841 | P. 714-754-4372 | F. 714-668-9972 | WWW.ALKEMIST.COM

Report Issued To:
Synaptent
47 W. Polk St. ; 100-241
Chicago IL 60605-2000
USA

Sample Name: Rhodiola rosea
Description: Powdered extract; Fine dark tan powder
Lot #: 160623
AL #: 22174XOI_1
Analysis ID: 179491
Received: 06/23/22

Determination of Rosavins Content by HPLC



Ret. Time (min)	Compound Name	Prep 1 (%)	Prep 2 (%)	Average (%)	Specification	Result
3.1	Salidroside	3.617	3.540	3.578	≥2%	Pass
8.3	Rosarin	0.952	0.946	0.949	N/A	N/A
8.6	Rosavin	3.685	3.695	3.690	N/A	N/A
8.7	Rosin	0.455	0.456	0.455	N/A	N/A
	Total Rosavins	5.092	5.097	5.094	≥5%	Pass

Celine Deneuve
Senior Analytical Chemist

Digitally signed by Celine Deneuve
DN: cn=Celine Deneuve, o, ou, email=celine@alkemist.com, c=US
Date: 2022.07.06 11:37:25 -07'00'

Analysis Date : 07/01/22 **Analyzed By: A Maimone** **Authorized By: Celine Deneuve, Analytical Chemistry Supervisor**
Rev 1: CD 07/05/22

ALKEMIST LABS

12661 HOOVER STREET GARDEN GROVE, CA 92841 | P. 714-754-4372 | F. 714-668-9972 | WWW.ALKEMIST.COM

Chromatographic Conditions:

Method:	ATM-815-0238
Column:	AP204 Kinetex 5 µm C18 100A (100 x 4.6 mm)
Temperature:	25°C
Flow Rate:	1.5 mL/min
Injection Volume:	3 µL
UV Detection:	205 nm, 254 nm
Mobile Phase:	0.1% Trifluoroacetic Acid Acetonitrile
HPLC Instrument:	Alliance_5

Sample Preparation:
Mixed sample well. Weighed about 115 mg into a 25 mL flask and diluted to volume with 50% acetonitrile. Vortexed for 30 seconds and sonicated for 15 minutes at room temperature. Centrifuged 10 minutes. Filtered through a 0.2 µm Nylon membrane filter into an HPLC vial for analysis.

Report Summary:

Conclusion:	This " Rhodiola rosea " test sample contains 5% total rosavins and 4% salidroside on the as is basis.
OOS Reference:	N/A
Notebook Reference:	18122 Rosavins
Rev 1:	Revised results for salidroside and total rosavins from "N/A" to "Pass".

Analysis Date : 07/01/22 **Analyzed By: A Maimone** **Authorized By: Celine Deneuve, Analytical Chemistry Supervisor**
Rev 1: CD 07/05/22

This report applies to the sample investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. This report is for the exclusive use of the party who requested the report and not for public dissemination or use by third parties, including for promotional purposes, without the prior written permission of Alkemist Labs. This report provides technical results for a specific sample and the report shall not be altered, modified, supplemented or abstracted in any manner. Any violation of these conditions renders the report and its results void
© 2018 Alkemist Labs All Rights Reserved

Gotu Kola Aerial Parts Extract

CERTIFICATE OF ANALYSIS

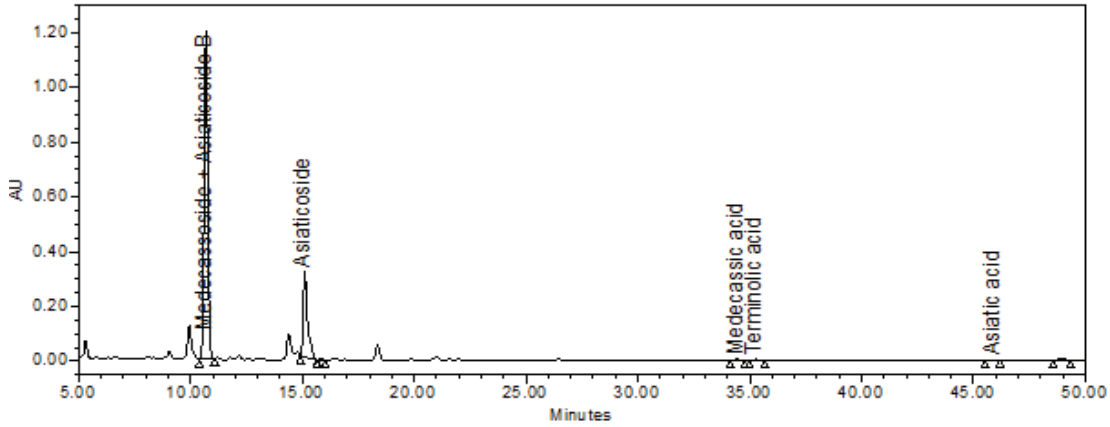
ALKEMIST LABS

12661 HOOVER STREET GARDEN GROVE, CA 92841 | P. 714-754-4372 | F. 714-668-9972 | WWW.ALKEMIST.COM

Report Issued To: Synaptent
47 W. Polk St. ; 100-241
Chicago IL 60605-2000
USA

Sample Name: Gotu Kola Extract
Description: Liquid extract; Beige Liquid
Lot #: 20210615
AL #: 21168CLT_1
Analysis ID: 157973
Received: 06/17/21

Determination of Triterpene Derivatives Content by HPLC



Ret. Time (min)	Compound Name	Prep 1 As Is (%)	Prep 2 As Is (%)	Average As Is (%)	Average Dry Basis (%)	Specification	Result
10.9	Madecassoside + Asiaticoside B	55.815	55.418	55.616	55.616	N/A	N/A
15.2	Asiaticoside	17.319	17.189	17.254	17.254	N/A	Pass
34.8	Medecassic acid	0.104	0.109	0.106	0.106	N/A	N/A
35.7	Terminolic Acid	0.091	0.090	0.091	0.091	N/A	N/A
45.8	Asiatic Acid	0.043	0.040	0.041	0.041	N/A	N/A
	Total	73.371	72.846	73.109	73.109	>= 70% Average Dry Basis	Pass

Chromatographic Conditions:

Method:	USP 43 - Powdered Centella asiatica Extract- Triterpene Derivatives
Column:	AP138 Zorbax SB C8 5µm (4.6 x 250 mm)
Temperature:	25°C
Flow Rate:	1 mL/min
Injection Volume:	10 µL
UV Detection:	200 nm
Mobile Phase:	0.3% Phosphoric acid in Water Acetonitrile
HPLC Instrument:	Alliance_3

Sample Preparation:
Transferred approximately 70 mg of sample into a 10 mL volumetric flask. Filled to volume with methanol and vortexed 30 seconds. Sonicated for 30 minutes at room temperature. Let cool and filtered through 0.45 µm PTFE syringe filter into an HPLC vial, discarding the first few milliliters of filtrate.

Report Summary:

Conclusion:	This "Gotu Kola Extract" test sample contains an average of 73% total triterpene derivatives as Madecassoside & Asiaticoside B, Asiaticoside, Madecassic & Terminolic Acids and Asiatic Acid on the dry basis.
OOS Reference:	N/A
Loss on Drying:	0.00%
Empower Reference:	17421 Triterpenes

Celine Deneuve
Senior Analytical Chemist

Digitally signed by Colin Gray
DN: cn=Colin Gray, email=colin@alkemist.com, c=US
Date: 2021.06.24 17:00:30 -07'00'

Analysis Date : 06/24/21 **Analyzed By: C Deneuve**

Authorized By: Colin Gray, Lead Analytical Chemist

Ginseng Root Extract Blend

eurofins **SN Special Analysis West**

15 May 2022

Job Number:	25880
PO Number:	verbal

Synaptent LLC
47 W. Polk Street #100-241
Chicago, Illinois 60605

REPORT OF ANALYSIS

One small jar labeled "Ginseng Mix #204735" was received on 15 April 2022. The contents of the jar were analyzed for total gensenosides using high pressure liquid chromatography (HPLC). The results are summarized in the table below.

Component	Concentration (%, w/w)
Ginsenoside Rb1	7.30
Ginsenoside Rb2	1.95
Ginsenoside Rc	1.10
Ginsenoside Rd	5.90
Ginsenoside Re	8.32
Ginsenoside Rf	< 0.0005
Ginsenoside Rg1	9.65
Ginsenoside Rg1	1.69
Total Gensenosides	35.9

Neil E. Spingarn, Ph.D.
Lab Director

2021 East Fourth Street, Suite 112 Santa Ana, California 92705 (714) 543-2211

Peony Root Extract

eurofins SN Special Analysis West

5 May 2022

Job Number:	25916a
PO Number:	verbal

Synaptent LLC
47 W. Polk Street #100-241
Chicago, Illinois 60605

REPORT OF ANALYSIS

One jar labeled "Peony Root Extract #20210602" was received on 29 April 2022. The contents of the jar were analyzed for two specific components using high pressure liquid chromatography (HPLC). The results are summarized in the table below.

Component	Specification (NLT %, w/w)	Measured (%, w/w)
albiflorin		22.2
peoniflorin		48.7
total	50	70.9

Neil E. Spingarn, Ph.D.
Lab Director

Barley Malt Extract (Hordenine HCl)

Colmaric Analyticals, LLC

812 Meadow Lark Lane, Godlettsville, TN 37072
Telephone: 615-239-8604

Certificate of Analysis

Synaptent LLC
47 W Polk Street, 100-241
Chicago, IL 60654

Product Name	Barley Malt Extract	Client Lot Number	20170415
Report Date	12/30/19	Laboratory Number	13516

Test	Method	Result
Hordenine HCL	HPLC	100.2%
Lead	ICP-MS USP <730>	0.039 ppm
Arsenic	ICP-MS USP <730>	<0.0001 ppm
Cadmium	ICP-MS USP <730>	0.006 ppm
Mercury	ICP-MS USP <730>	0.001 ppm
Total Aerobic count	Biolumix	<100 cfu/g
Yeast and Mold	Biolumix	<100 cfu/g
E. Coli	Biolumix	<10 cfu/g
Coliform	Biolumix	<10 cfu/g
Salmonella	Biolumix	Negative

Collin Thomas
Laboratory Manager

12/30/2019 12/30/19
Date