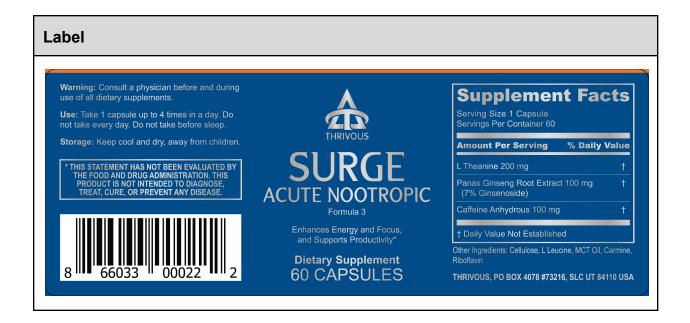


# CERTIFICATE OF ANALYSIS AND QUALITY

Product	Surge Acute Nootropic
sku	SURGE
Barcode	866033000222
Formula	3
Date	14 December 2021



Certifications
Letter of Guarantee
Good Manufacturing Practice (GMP) Certificate from Manufacturing
National Sanitation Foundation (NSF) Certificate from Manufacturing
ISO/IEC 17025 Certificate from Third-Party Testing
Certificate of Analysis from Third-Party Testing
Capsule Certificate of Analysis from Supplier
Capsule Certificate of Analysis from Third-Party Testing
Excipient L Leucine Certificate of Analysis from Supplier
Excipient L Leucine Certificate of Analysis from Third-Party Testing
Excipient MCT Oil Certificate of Analysis from Supplier
Excipient MCT Oil Certificate of Analysis from Third-Party Testing
Caffeine Anhydrous Certificate of Analysis from Supplier
Caffeine Anhydrous Certificate of Analysis from Third-Party Testing
L Theanine Certificate of Analysis from Supplier
L Theanine Certificate of Analysis from Third-Party Testing
Panax Ginseng Certificate of Analysis from Supplier
Panax Ginseng Certificate of Analysis from Third-Party Testing

14 December 2021

RE: Letter of Guarantee for Thrivous Surge Acute Nootropic

To whom it may concern,

The undersigned, Lincoln Cannon LLC DBA Thrivous ("Thrivous"), hereby guarantees as follows regarding Surge Acute Nootropic ("Product"):

- 1. Product is manufactured according to current Good Manufacturing Practices as indicated in 21 CFR Part 111.
- 2. Product is tested by third party laboratories according to current best practices as indicated in ISO/IEC 17025.
- All ingredients utilized for Product are lawful and safe as defined in section 402(f) of the FD&C Act.
- 4. To the best of Thrivous' knowledge, concentrations of active ingredients, as stated on the label of Product, are safe for consumption.

Thrivous further guarantees that any agent signing on behalf of Thrivous has the authority to bind and obligate Thrivous.

Lincoln Cannon LLC DBA Thrivous

Lincoln Cannon CEO at Thrivous



Lieutenant Governor

#### Department of Agriculture and Food

LuAnn Adams

Commissioner

Scott Ericson

Deputy Commissioner

Travis Waller

Director, Regulatory Services

Certificate No.: REG-2019-05999

#### GOOD MANUFACTURING PRACTICE CERTIFICATE

We hereby certify that ORIGIN NUTRACEUTICAL, located at, 1077 S 1675 W, OREM, UT 84059 is currently under inspection as a manufacturer of health food or dietary supplements. ORIGIN NUTRACEUTICAL has all the facilities to comply with the GOOD MANUFACTURING PRACTICE for food and dietary supplements (Code of Good Manufacturing Practice for food). We also certify that ORIGIN NUTRACEUTICAL, is an inspected facility and the manufacturing plant in which their products are produced are subject to inspections at suitable intervals.

Inspection evaluates and assures compliance with the Utah Wholesome Food Act and Utah Food Protection Rule, which identifies the standard for proper facility construction, good manufacturing practices for food and dietary supplements (GMP), and fulfills requirements of those applicable laws and rules in the State of Utah.

UTAH DEPARTMENT OF AGRICULTURE AND FOOD

Travis Waller, Director, Division of Regulatory Services

State of Utah, County of Salt Lake.

Isand Wass

On this date MAR 0 1 2019 before me, the notary, personally appeared Travis Waller, proved on the basis of satisfactory evidence to be person, whose name is subscribed to this document, and acknowledge that he/she executed the same.

Notary Public

NAKOMA KAY WARE
Notary Public - State of Uta
Comm. No. 702125
My Commission Expires on
Sep 4, 2027

Notary Public





## **NSF INTERNATIONAL**



789 N. Dixboro Road, Ann Arbor, Michigan 48105 USA +1 800 673 6275

NSF International has assessed and confirmed compliance of

# Origin Nutraceutical, Inc.

Facility: 151 East 3450 North, Spanish Fork, UT, 84660, United States

# to NSF GMP Registration Program Requirements of NSF/ANSI 173, Section 8

which includes FSMA and cGMP (21 CFR 111), (21 CFR 117)

Print Date: February 22, 2021
Certificate Number: C0570236-DS-1
Initial Certification: February 22, 2021
Expiration Date: February 22, 2022

David Trosin

Managing Director

Health Sciences Certification



# PERRY JOHNSON LABORATORY ACCREDITATION, INC.

# Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

## Contract Testing Laboratories of America

151 E. 3450 N., Spanish Fork, UT 84660

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

> **Biological Testing** (As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Initial Accreditation Date:

Issue Date:

Expiration Date:

March 31, 2021

March 31, 2021

June 30, 2023

Tracy Szerszen

President

Accreditation No.:

Certificate No.:

102267

L21-216

Perry Johnson Laboratory Accreditation, Inc. (PJLA) 755 W. Big Beaver, Suite 1325 Troy, Michigan 48084

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjlabs.com



Issue: 3/2021



# Certificate of Accreditation: Supplement

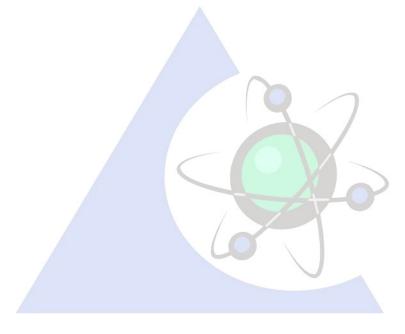
### **Contract Testing Laboratories of America**

151 E. 3450 N., Spanish Fork, UT 84660 Contact Name: Rachael Cummings Phone: 385-477-4999

Accreditation is granted to the facility to perform the following testing:

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Biological <sup>F</sup>	Food and Nutritional Supplements	Rapid E. Coli and Coliforms	AOAC OMA 2018.13	Petri Film Incubators Positive/Negative <100 cfu/g or <10 cfu/g To TNTC

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer<sup>F</sup> would mean that the laboratory performs this testing at its fixed location.





CTLA ID	42057	Sample Name	50145 Surge
Customer	Origin Nutraceutical	Lot Number	2131602
Date Received	11/17/2021	Date Complete	11/23/2021

ANALYSIS	SPECIFICATION	RESULT	METHOD	MDL	UNITS
Complete Rapid Micro					
Total Plate Count	Report	200	USP<2021>	100	cfu/g
Total Coliforms	Report	<10	BAM CH.4	10	cfu/g
E. coli	Report	Negative	USP<2022>		
Salmonella	Report	Negative	USP<2022>		
S. aureus	Report	Negative	USP<2022>		
Rapid Yeast & Mold	Report	<10	AOAC 2014.05	10	cfu/g
Heavy Metal					
Arsenic	Report	0.005	USP <2232>	0.001	ppm
Cadmium	Report	0.004	USP <2232>	0.001	ppm
Mercury	Report	0.001	USP <2232>	0.001	ppm
Lead	Report	0.034	USP <2232>	0.001	ppm
L-Theanine		200.00	By Input		mg/serving
Panax Ginseng Root Extract (7% Ginsenoside)		100.00	By Input		mg/serving
Caffeine Anhydrous		100.00	By Input		mg/serving

**COA Note:** 

Serving = 1 capsule

Approved By:

Date:

12/6/2021



Specifications provided by the Customer. Results with an asterisk (\*) denote Specification should be reviewed by the Customer. This Certificate of Analysis represents the sample submitted and does not constitute a guarantee of quality for the entire product from which it was taken. The results are provided for the benefit of the Customer. Results using the "by input" method are calculated using information provided by the Customer. MDL = Method Detection Limit

151 E 3450 N, Ste 201 Spanish Fork, UT 84660 (385) 477-4999



ISO 17025 Accreditation No: 102267





# **EMBOCAPS®**





### by SUHEUNG

SUHEUNG Co., Ltd.

Plant: 61, Osongsaengmyeong-ro, Osong-eup, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do, 28161, Korea.

Office: Suheung Bldg, 40, Janghan-ro, Dongdaemun-gu, Seoul, 02643, Korea.

Tel: +82-43-249-4200(Plant)/+82-2-2210-8173~8(Office) E-mail: inquires@suheung.com http://www.suheung.com

\* ORDER NO. HC4820

Date

Jul. 05, 2019

Ref.

: 190705 - 03

## CERTIFICATE OF ANALYSIS

Mfg.Date : Jun. 18, 2019

Exp.Date : Jun. 17, 2024

Prepared for

SUHEUNG-AMERICA

U.S.A

Product Description

Empty Hard Capsules From Hypromellose (HPMC)

Product Size

#0

Product Type

EMBO CAPS® VGNS "Kosher and Halal Certified"

Color (CAP/BODY)

STD. ORANGE TR. / STD. ORANGE TR.

Lot Number

V0A23A23 - 93802

Quantity

10,000,000 PCS ( 100 Cartons ) Carton No.

100

ITEM		STA	ANDA	ARD		RESULTS	
Length (mm)	Cap	10.3	****	11.1	In-house Spec	10.8	
	Body	18.0	****	18.8	In-house Spec	18.5	
Weight (mg)		84.6	_	105.4	In-house Spec	93.2	
Disintegration (minute)		Withir	20		USP	Passed	
Loss on Drying (%)		3.0	_	7.0	USP	4.9	
Residue on Ignition (%)		Less t	han :	3	USP	Passed	
Arsenic (ppm)		Less t	han :	3	USP	Passed	
Heavy Metals (ppm)		Less t	han	10	USP	Passed	
TAMC (CFU/g)		Less t	han	500	USP	Passed	
TYMC (CFU/g)		Less t	han	100	USP	<10	
E.Coli (-/10g)		Negat	ive		USP	Passed	
Salmonella (-/10g)		Negat	tive		USP	Passed	
Staphylococcus aureus (-/10g)		Nega	tive		USP	Passed	
Pseudomonas aeruginosa (-/10g)		Nega	tive		USP	Passed	

Quality Assurance Manager



## **Sample Information**

CTLA ID: 39612

Date Received: 9/29/2021

Sample Name: 10786 CPS Capsule, HPMC, 0, orange

Lot Number: 38760

Customer: Origin Nutraceutical

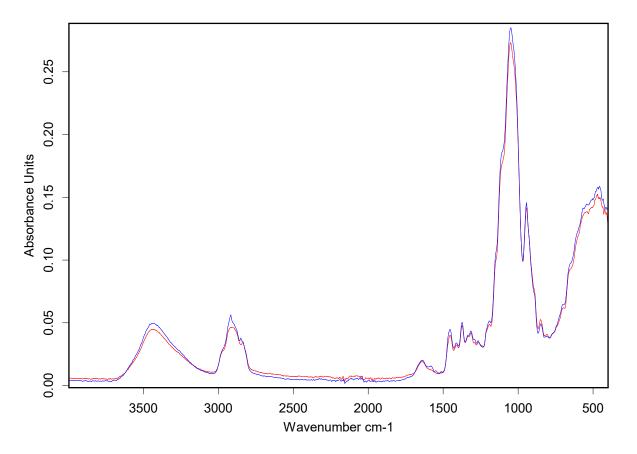
Analysis	Method	MDL	Specification	Result	Units
ID, Rapid Complete Micro Combo					
ID	FTIR		Report	>95	%
Total Plate Count	USP <2021>	100	Report	600	cfu/g
Total Coliforms	BAM CH.4	10	Report	<10	cfu/g
E. coli	USP <2022>		Report	Negative	
Salmonella	USP <2022>		Report	Negative	
Staphylococcus aureus <2022>	USP <2022>		Report	Negative	
Rapid Yeast and Mold	AOAC 2014.05	10	Report	<10	cfu/g
FTIR Spectra	FTIR		Report	Attached	

10/1/2021

DATE

Quality Manager

Search Library 10/1/2021 2:28:50 PM



2 1	40400 5 1 4110045 50745 5: 1 10
Product Number	10138 Capsule 4 HPMC 60746 Standard 2
Entry No.	151
Library name	ORIGIN STANDARDS LIBRARY.S01
Library description	Origin Nutraceutical
Copyright	Origin Nutraceutical Materials Only

Cole	r Hit Qual	ty Compound name	CAS Number	Molecular formula	Molecular weight
	975	10138 Capsule 4 HPMC 60746 Standard 2			

Colo	File	Path	Spectrum Type
	39612-ON 10786 CPS Capsule HPMC, 0, Orange (38760).0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum

10164



### 张家港市曙光生物制品厂

## Shuguang ZHANGJIAGANG SHUGUANG BIOCHEMICAL FACTORY

Address: JinFeng Town, ZhangJiaGang City, JiangSu Province, China Zip Code: 215625 Tel: 0086 512 58551123/58950567

Fax: 0086 512 58567123

Website: http://www.sgbiochem.com Email: shuguangbiochem@126.com or sales@sgbiochem.com

## 质检报告单

## **CERTIFICATE OF ANALYSIS**

品名 Product name:	L-亮氨酸 L-Leucine			
批号 Batch No.:	CP0220050601	数量 Quantity:	2000KGS	
生产日期 Manufacture date:	2020.05.06	有效期 Expiry date:	2022.05.05	

标准 Reference standard:	USP30	
项目(ITEM)	标准(STANDARD)	结论(RESULT)
鉴别 Identification:	红外吸收光谱法 Infrared Absorption	符合 Qualified
比旋光度 Specific rotation	+14.9° to +17.3°	+16.02°
рН	Between 5.5 and 7.0	6.3
干燥失重 Loss on drying	not more than (不超过)0.2%	0.12%
炽灼残渣 Residue on ignition	not more than (不超过)0.4%	0.05%
氯化物 Chloride	not more than (不超过)0.05%	<0.02%
硫酸盐 Sulfate	not more than (不超过)0.03%	<0.02%
铁盐 Iron	not more than (不超过)0.003%	<0.001%
重金属 Heavy metals	not more than (不超过)0.0015%	<0.001%
纯度 Chromatographic purity	按 USP30(薄层层析法) As per USP30 (By TLC)	符合 Qualified
单一杂质 Individual impurity	≤0.5%	<0.5%
总杂质 Total impurity	≤2.0%	<2.0%
有机挥发杂质 Organic volatile impurities	符合要求 Meets the requirements	符合 Qualified
含量 Assay	98.5 to 101.5%	99.58%

符合 USP30 标准。 结论 Conclusion: Material conforms to the USP30 standard. 分析日期 Analysis date: 2020.05.06 化验 Analyst: 陈卫红 审核 Vertier QUALIT



## **Sample Information**

CTLA ID: 31701

Date Received: 5/10/2021

Sample Name: 10164 L-Leucine

Lot Number: 35540

Customer: Origin Nutraceutical

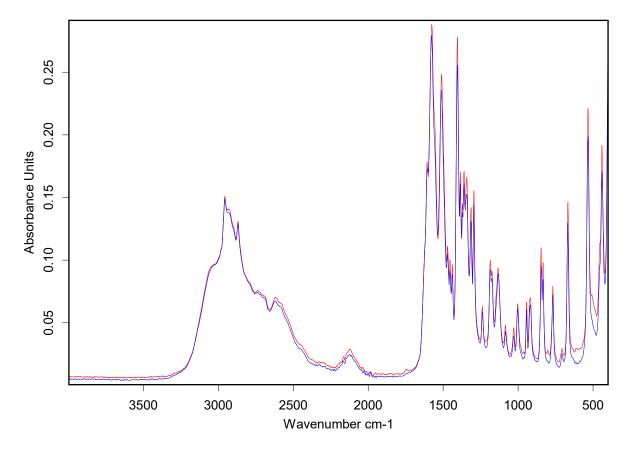
Analysis	Method	MDL	Specification	Result	Units
ID, Rapid Complete Micro Combo					
ID	FTIR		Report	>95	%
Total Plate Count	USP <2021>	100	Report	<100	cfu/g
Total Coliforms	BAM CH.4	10	Report	<10	cfu/g
E. coli	USP <2022>		Report	Negative	
Salmonella	USP <2022>		Report	Negative	
Staphylococcus aureus <2022>	USP <2022>		Report	Negative	
Rapid Yeast and Mold	AOAC 2014.05	10	Report	<10	cfu/g
FTIR Spectra	FTIR		Report	Attached	

10/4/2021

DATE

Quality Manager

Search Library 10/4/2021 3:04:23 PM



Product Number	10478 L-Leucine 7516 Standard 3
Entry No.	1128
Library name	ORIGIN STANDARDS LIBRARY.S01
Library description	Origin Nutraceutical
Copyright	Origin Nutraceutical Materials Only

Color	Hit Quality	Compound name	CAS Number	Molecular formula	Molecular weight
	968	10478 L-Leucine 7516 Standard 3			

Color	File	Path	Spectrum Type
	31701-ON 10164 DRM Leucine (35540).0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum



Material: 26154

MCT Oil

Country of Origin: Indonesia

Batch: 016228818

Mfg. Date: 10/15/2018

Retest Date: 10/15/2020

Characteristic	Units	Value	Specifications	Test Method
Acid Value	mg koh/g	<0.01	Max 0.1	AOCS Cd 3d-63
Saponification Value	mg koh/g	336.2	Min. 325 Max. 345	AOCS Cd 3-25
Iodine Value	$gl_2/100g$	0.3	Max. 0.5	AOCS CD 1d-92
Hydroxyl Value	mg KOH/g	2.8	Max. 5	AOCS Cd 13-60
Peroxide Value	meq/kg	0.3	Max. 1	AOCS Cd 8b-90
Total Ash	%	0.03	Max. 0.1	ISO 2098
C8 Caprylic Acid	%	55.41	Min. 55 Max. 65	AOCS Ce 1a-13
C10 Capric Acid	%	44.41	Min. 35 Max. 45	AOCS Ce 1a-13
Heavy Metals	ppm	<10	Max. 10	USP
Chromium	ppm	ND	Max. 0.05	AOAC 985.01
Copper	ppm	ND	Max. 0.1	AOAC 985.01
Lead	ppm	ND	Max. 0.1	AOAC 985.01
Nickel	ppm	ND	Max. 0.1	AOAC 985.01
Tin	ppm	ND	Max. 0.1	AOAC 985.01
Aerobic Plate Count*	cfu/g	ND/10	Max. 5,000	AOAC 986.32
E. Coli*	cfu/g	ND/10	Max. 10	AOAC 990.11
Yeast & Mold*	cfu/g	ND/10	Max. 100	AOAC 995.21
Salmonella*	cfu/g	Negative/10	Negative	AOAC 2013.14

<sup>\*</sup>These parameters are tested on a random batch annually. COA will be updated with the most recent results.

Tested and approved by Third Party Quality Assurance Lab

(The results are in accordance with our specification. They, do not guarantee the suitability of the product for its intended use.)

Verification of Lab Results to Technical Data Specifications

CONNOils LLC Representativé

Connoils LLC, PO Box 357, Big Bend, WI 53103

Warehouse Location: W241 S4145 Pine Hollow Ct. Waukesha, WI 53189

P: 262-662-5533, F: 262-662-2828



## **Sample Information**

CTLA ID: 38302

Date Received: 8/31/2021

Sample Name: 10842 MCT Oil 100%

Lot Number: 18053

Customer: Origin Nutraceutical

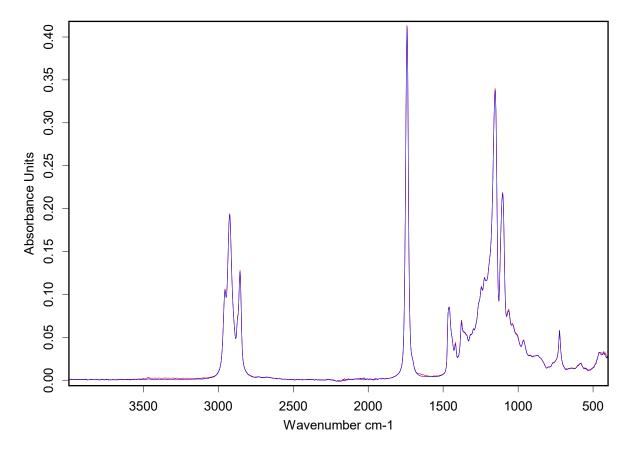
Analysis	Method	MDL	Specification	Result	Units
ID, Rapid Complete Micro Combo					
ID	FTIR		Report	>95	%
Total Plate Count	USP <2021>	100	Report	<100	cfu/g
Total Coliforms	BAM CH.4	10	Report	<10	cfu/g
E. coli	USP <2022>		Report	Negative	
Salmonella	USP <2022>		Report	Negative	
Staphylococcus aureus <2022>	USP <2022>		Report	Negative	
Rapid Yeast and Mold	AOAC 2014.05	10	Report	<10	cfu/g
FTIR Spectra	FTIR		Report	Attached	

9/3/2021

DATE

Quality Manager

Search Library 10/1/2021 5:50:53 PM



Product Number	ON 10842 LIQ MCT Oil 100% 18053 Standard
Entry No.	1721
Library name	ORIGIN STANDARDS LIBRARY.S01
Library description	Origin Nutraceutical
Copyright	Origin Nutraceutical Materials Only

Color	Hit Quality	Compound name	CAS Number	Molecular formula	Molecular weight
	991	ON 10842 LIQ MCT Oil 100% 18053 Standard 1			

Color	File	Path	Spectrum Type
	39623-ON 10842 MCT Oil 100%.0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum



## CSPC INNOVATION PHARMACEUTICAL CO., LTD.

## CERTIFICATE OF PRODUCT ANALYSIS

No.: REC-ZL-G6114 (01)

Product: Caffeine (Anhydrous)

Batch No.: 1032012482

Quantity: 1000 kg

Analysis Standard: USP42

Analysis Date: 2020, 12.16

Report Date: 2020.12.23

Manu. Date: 2020. 12. 13

Retest Date: 2024.12.12

Analysis Contents	Analysis Standard	Method	Analysis Results
[Characters]			
Appearance	White crystalline powder or white glistening needles		White crystalline
[Identification]			
A. Infrared absorption	Conforms to the caffeine  Reference Spectrum	(197M)	Pass
B. The retention time of caffeine peak	Corresponds to the Standard preparation obtained in the Assay		Pass
[Impurities]		FREE	
Organic impurities	/	大學與作品	
-Individual impurities	≤0.1%		<0.1%
-Total impurities	≤0.1%	激售专用	<0.1%
Residue on ignition	≤0.1%	42817	0. 04%
[Assay]	98.5~101.0%	HPLC	99. 8%
[Specfic tests]			440
Water determination	≤0.5%	MethodIII (921)	0. 05%

Chief of Quality Analysis Dept: [清] 元 章

Rechecker: 茅屋伎

Address: No. 62 Zhangju Road, Luancheng County, Shi Jiazhuang City, Hebei Province, China

Tel: +86 311 85408723

+86 311 85408725

Fax: +86 311 85409463



## **Sample Information**

CTLA ID: 39624

Date Received: 9/29/2021

Sample Name: 10109 Caffeine Anhydrous

Lot Number: 38011

Customer: Origin Nutraceutical

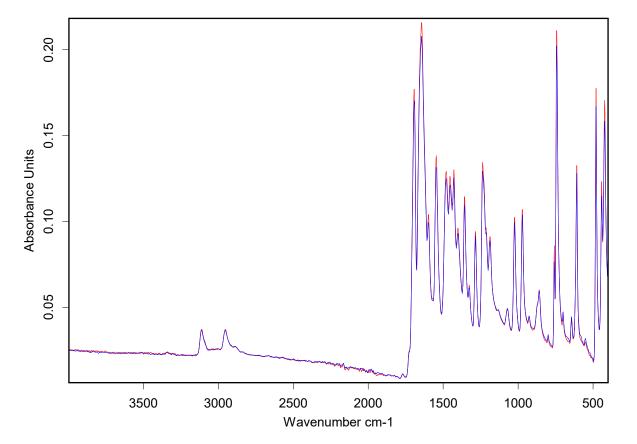
Analysis	Method	MDL	Specification	Result	Units
ID, Rapid Complete Micro Combo					
ID	FTIR		Report	>95	%
Total Plate Count	USP <2021>	100	Report	300	cfu/g
Total Coliforms	BAM CH.4	10	Report	<10	cfu/g
E. coli	USP <2022>		Report	Negative	
Salmonella	USP <2022>		Report	Negative	
Staphylococcus aureus <2022>	USP <2022>		Report	Negative	
Rapid Yeast and Mold	AOAC 2014.05	10	Report	<10	cfu/g
Caffeine	HPLC		≥100	106	%
FTIR Spectra	FTIR		Report	Attached	

10/8/2021

DATE

Quality Manager

Search Library 10/1/2021 5:51:44 PM



Product Number	-ON 10109 DRM Caffeine Anhydrous ( Kosher
Entry No.	215
Library name	DESERT STREAM.S01
Library description	Desert Stream Materials Only
Copyright	Desert Stream Materials Only

(	Color	Hit Quality	Compound name	CAS Number	Molecular formula	Molecular weight
		984	-ON 10109 DRM Caffeine Anhydrous ( Kosher) (30235) Standard 3			

Color	File	Path	Spectrum Type
	39624-ON 10109 Caffeine Anhyrous 38011.0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum

# 浙江衢州卓尔化学有限公司

ZHE JIANG QUZHOU JOY CHEMICAL CO., LTD.

No.35 Nianhua Road, High-tech Industrial Zone, Quzhou, Zhejiang, China. Postcodes: 324000 Tel:+86-0570-3881022 Fax:+86-0570-3881021

## analytical certification of product

Product Name: L- theanine

CAS#: 3081-61-6

Molecular Formula: C7H14N2O3

Molecular Weight: 174.2

Batch No: 20201005

Manufacturing date: OCT.05,2020

Expiring date: OCT.04,2022

Specification	Standard (JP2000)	Test Method	Results
Appearance	White crystalline powder	Sceing	White crystalline powder
Assay	98.0-102.0%	HPLC	99,10%
Specific rotation(a)D20 (C=1, H2O)	+7.7 to +8.5 Degree	CHP2015	+8.01Degree
Solubility (1.0g/20ml H2O)	Clear Colorless	Seeing	Clear Colorless
Chloride(C1)	≤ 0.02%	CHP2015	<0.02%
Loss on drying	≤ 0,5%	CHP2015	0.27%
Residue on ignition	≤ 0.2%	CHP2015	0.04%
PH	5.0-6.0	CHP2015	5.11
Melting point	202-215℃	CHP2015	203-203.5℃
Heavy metals(as Pb.)	≤ 10 ppm	CHP2015	< 10 ppm
Arsenic(as As )	≤ l ppm	CHP2015	< 1 ppm
Total Plate Count	< 1000cfu/g	A STATE OF THE STA	conform
Mold And Yeasts	< 100cfu/g	Z.1103012	conform
Salmonella	absent	CHP2015	absent
E.Coli	absent		absent

Conclusion: The Product Conforms To JP2000 Standard

Head of quality control dept :

Analyst: 胡鸣韵



## **Sample Information**

CTLA ID: 31177

Date Received: 4/30/2021

Sample Name: 10310 L-Theanine

Lot Number: 34824

Customer: Origin Nutraceutical

Analysis	Method	MDL	Specification	Result	Units
ID, Rapid Complete Micro Combo					
ID	FTIR		Report	>95	%
Total Plate Count	USP <2021>	100	Report	<100	cfu/g
Total Coliforms	BAM CH.4	10	Report	<10	cfu/g
E. coli	USP <2022>		Report	Negative	
Salmonella	USP <2022>		Report	Negative	
Staphylococcus aureus <2022>	USP <2022>		Report	Negative	
Rapid Yeast and Mold	AOAC 2014.05	10	Report	<10	cfu/g
FTIR Spectra	FTIR		Report	Attached	

5/4/2021

DATE

Quality Manager



## **Sample Information**

CTLA ID: 30339

Date Received: 4/16/2021

Sample Name: 10310 L-Theanine

Lot Number: 34824

Customer: Origin Nutraceutical

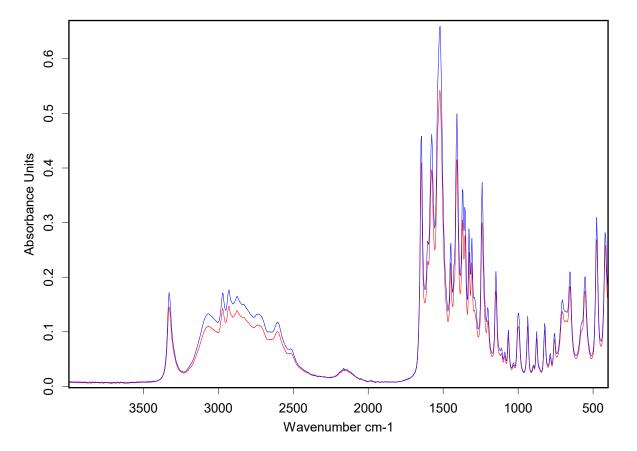
Analysis	Method	MDL Specification	Result	Units
ID	FTIR	Report	>95	%
L-Theanine	HPLC	0.001 98–102	99.05	%

4/21/2021

DATE

Quality Manager

Search Library 5/3/2021 5:36:45 PM



Product Number	10310 L-Theanine 60756 Standard 2
Entry No.	291
Library name	ORIGIN STANDARDS LIBRARY.S01
Library description	Origin Nutraceutical
Copyright	Origin Nutraceutical Materials Only

Co	olor	Hit Quality	Compound name	CAS Number	Molecular formula	Molecular weight
		978	10310 L-Theanine 60756 Standard 2			

Color	File	Path	Spectrum Type
	31177-ON 10310 L Theanine 34824.0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum



## **CERTIFICATE OF ANALYSIS**

### Panax Ginseng Root Extract 7% Ginsenosides HPLC

GENERAL INFORMATION					
Lot Number	CRSG-C-902633		Report Date	08/06/2019	
Manufacture Date	07/30/2019		Expiration Date	07/29/2022	
<b>Botanical Species</b>	Panax ginseng		Part Used	Root	
Country of Origin	China	China		Maltodextrin	
Solvent Used	Water & Ethanol	Water & Ethanol		Yes    Yes	
ITEM	SPECIFICA	TION	TEST RESULTS	METHOD	
PHYSICAL & CHEMICAL					
Identification	Corresponds to Referen	ice Standard	Complies	HPTLC    USP<203>	
Appearance	Light yellow brown fine	powder	Complies	Organoleptic	
Ginsenosides	NLT (%)	7.0	7.06	HPLC    USP<621>	
Particle Size	NLT 95% t	hrough 80 mesh	Complies	USP<786>	
Loss on Drying	NMT (%)	10.0	5.41	USP<731>	
Bulk Density	Between (g/100ml)	30-70	53	USP<616>Method I	
CONTAMINANTS					
Lead (Pb)	NMT (ppm)	2.0	0.0149	ICP-MS    USP<730>	
Arsenic (As)	NMT (ppm)	2.0	0.0097	ICP-MS    USP<730>	
Cadmium (Cd)	NMT (ppm)	1.0	0.0114	ICP-MS    USP<730>	
Mercury (Hg)	NMT (ppm)	1.0	0.0556	ICP-MS    USP<730>	
Solvent Residue	Meets Requirements		Complies	GC    USP<467>	
MICROBIOLOGICAL			·		
Total Plate Count	NMT (cfu/g)	10,000	300	USP<2021>	
Yeast & Mold	NMT (cfu/g)	1,000	20	USP<2021>	
E.Coli.	Absent (cfu/10g)		Complies	USP<2022>	
Salmonella	Absent (cfu/10g)		Complies	USP<2022>	
Staphylococcus aureus	Absent (cfu/10g)		Complies	USP<2022>	
PACKING & STORAGE	Packed in a polyethylen	e lined corrugate	d package.		
			m moisture, light, and heat.		
	Net Weight: 25 kg Paci		-, -, -, -, -, -, -, -, -, -, -, -, -, -		
SHELF LIFE			and in its original packaging.		
MANUFACTURER	Shaanxi Jiahe Pharmaceutical Co., Ltd				
NOTE		This is a natural product, variances may be found that are due to the growing and drying conditions, age,			
	season, harvest time, geog	raphic location, pri	oduction process etc.	, mg vontations, age,	

Completed by: Tao Wang

Signature: Two Wang

Title: Quality Control Manager



## **Sample Information**

CTLA ID:

11257

Date Received:

10/1/2019

Sample Name:

10139 Panax Ginseng Root Ext 7%

Lot Number:

19282

Customer:

Origin Nutraceutical

Analysis	Method	MDL Specification	Result	Units
D, Rapid Complete Micro Combo				
ID	FTIR	Report	>95	%
Total Plate Count	USP <2021>	100 Report	200	cfu/g
Total Coliforms	BAM CH.4	10 Report	<10	cfu/g
Escherichia coli	USP <2022>	Report	Negative	
Salmonella	USP <2022>	Report	Negative	
Staphylococcus aureus	USP <2022>	Report	Negative	
Rapid Yeast and Mold	AOAC 997.02	10 Report	<10	cfu/g

Quality Manager



## **Sample Information**

CTLA ID: 25531

Date Received: 1/8/2021

Sample Name: 10139 Panax Ginseng Root Ext 7%

Lot Number: 19282

Customer: Origin Nutraceutical

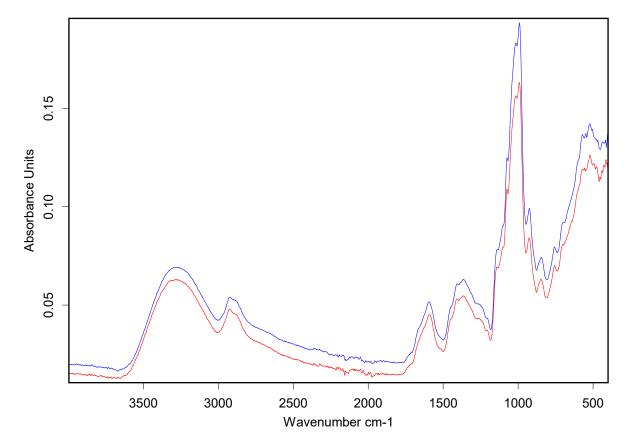
Analysis	Method	MDL Specification	Result	Units
Total Ginsenosides	HPLC	0.01 7	7.61	%

1/12/2021

DATE

Quality Manager

Search Library 10/28/2021 1:47:23 PM



Product Number	ON 10139 DRM Panax Ginseng Root Ext 7% 1
Entry No.	1778
Library name	ORIGIN STANDARDS LIBRARY.S01
Library description	Origin Nutraceutical
Copyright	Origin Nutraceutical Materials Only

C	Color	Hit Quality	Compound name	CAS Number	Molecular formula	Molecular weight
		961	ON 10139 DRM Panax Ginseng Root Ext 7% 19282 Standard 3			

Color	File	Path	Spectrum Type
	39626-ON 1039 Panax Ginseng 19282.0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum

Certificate Issued To:
CTLA
151 E 3450 N
Spanish Fork, UT 84660-8507
USA



Work performed at: **Alkemist Labs** 

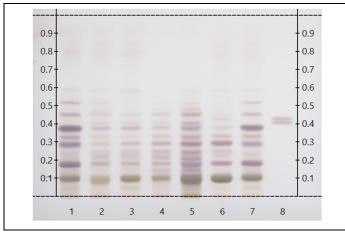
12661 Hoover Street Garden Grove, CA 92841 714-754-HERB (4372) 714-668-9972 (FAX) Sales@Alkemist.com www.Alkemist.com

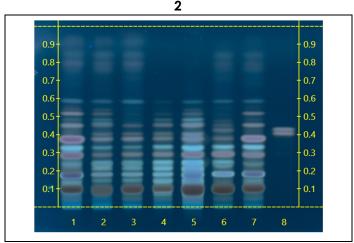
Report Date: 11/02/21

### Certificate of Analysis: CTLA 40702 (40702)

High Performance Thin-Layer Chromatography with Photo-Documentation

1





Company Name: CTLA
Title: CTLA 40702
Plant Part: root
Sample Received: 10/28/21
Sample Packaging: Clear Whirl-Pak
Form of Botanical: powder

Appearance: Light brown powder

Lot Number: (40702) → Lanes 4(0.5µI), 5(2µI)

Sample: 21301NJZ\_1

Latin Name: Panax ginseng C.A. Mey [Araliaceae]

Reference Sample: Lane 1(2µI) (EA08305SWH) Panax ginseng (herb (leaf, stem)); Lane 2(2µI) (EA30009CRB), Lane 3(2µI) (EA11910CS)

Panax ginseng (root); Lane 6(2µI) (LA14609PB) Panax quinquefolius (root); Lane 7(2µI) (VE34214KAN1) Panax

pseudoginseng Wall. Var. notoginseng (root); held at Alkemist Labs, Garden Grove, CA.

Analyst: A. Ung, B. Vuong, H. Waldstreicher, H. Dinh, J. Mares, K. Montoya, K. Tran, N. Hoang, N. Afendikova, P. Hoang, S.

Kabbaj, S. Sudberg 165520

Sample Preparation: 0.3g+3mL 70% grain Ethanol, sonicate/heat at 50° C for 30 min.

Stationary Phase: Silica gel 60, HPTLC plates

Mobile Phase: chloroform: ethyl acetate: methanol: water: ADC 50% RH [3/8/4.4/1.8/]

Detection: (1) 10% Sulfuric, 100°C, 2min, Vis (Reich, E., 2007) (2) 10% Sulfuric, 100°C, 2min, 366nm (Reich, E., 2007)

Reference Standard: Lane 8(1µI) Ginsenoside Rf (1117/0, XSYN), Methanol (188066508, BDH), Ginsenoside F11 (00007270-210, CHR),

Methanol (18C136521, BDH)

Reference Source: BTM-715-0574 IDT-SOP-72-01

Comments & Conclusions: Lanes 4, 5 are the test sample CTLA 40702 (40702). Lanes 1, 2, 3, 6, 7, are the reference samples used for comparison. This test sample, CTLA 40702 (40702) is consistent with the chromatographic profile of the reference samples of *Panax ginseng*, used above. This test sample CTLA 40702 (40702) has characteristics of *Panax ginseng* root.

NOTE: The above conclusion may be a function of the natural variance found in botanicals &/or the extraction process used to create specific extracts. The growing and drying conditions, age, seasonal variations, geographic location, extraction solvents, etc. all play a role in the phytochemical fingerprint of botanicals as well as their extracts; hence, chromatographic variations are expected.

Examined, Reviewed & Authorized by: Khanh N Tran, HPTLC, R&D Supervisor, Alkemist Labs

ISO/IEC 17025

ACCREDITED
CERTIFICATE #3851.01

Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to 40702.

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