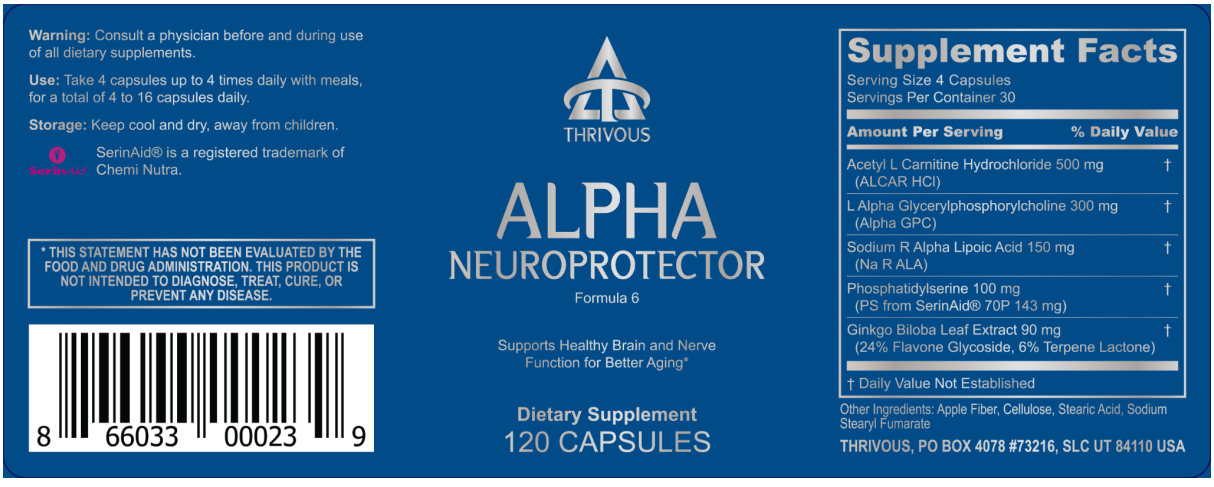
THRIVOUS

thrivous.com – support@thrivous.com – +1 801 658 9661 – PO Box 4078 #73216, SLC UT 84110 USA

CERTIFICATE OF ANALYSIS AND QUALITY

Product	Alpha Neuroprotector
SKU	ALPHA
Barcode	866033000239
Formula	6
Date	10 September 2021

Label



Certifications
Letter of Guarantee
Good Manufacturing Practice (GMP) 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 Apple Fiber Certificate of Analysis from Supplier
Excipient Apple Fiber Certificate of Analysis from Third-Party Testing
Excipient Sodium Stearyl Fumarate Certificate of Analysis from Supplier
Excipient Sodium Stearyl Fumarate Certificate of Analysis from Third-Party Testing
Excipient Stearic Acid Certificate of Analysis from Supplier
Excipient Stearic Acid Certificate of Analysis from Third-Party Testing
Acetyl L Carnitine Certificate of Analysis from Supplier
Acetyl L Carnitine Certificate of Analysis from Third-Party Testing
Alpha GPC Certificate of Analysis from Supplier
Alpha GPC Certificate of Analysis from Third-Party Testing
Ginkgo Biloba Certificate of Analysis from Supplier
Ginkgo Biloba Certificate of Analysis from Third-Party Testing
Phosphatidylserine Certificate of Analysis from Supplier
Phosphatidylserine Certificate of Analysis from Third-Party Testing

R Alpha Lipoic Acid Certificate of Analysis from Supplier
R Alpha Lipoic Acid Certificate of Analysis from Third-Party Testing

THRIVOUS
thrivous.com – support@thrivous.com – +1 801 658 9661 – PO Box 4078 #73216, SLC UT 84110 USA

10 September 2021

RE: Letter of Guarantee for Thrivous Alpha Neuroprotector

To whom it may concern,

The undersigned, Lincoln Cannon LLC DBA Thrivous ("Thrivous"), hereby guarantees as follows regarding Alpha Neuroprotector ("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.

3. 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

State of Utah
GARY R HERBERT
Governor
SPENCER J COX
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

Travis Waller, Director, Division of Regulatory Services

State of Utah, County of Salt Lake.
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.

NAKOMA KAY WARE
Notary Public - State of Utah
Comm. No. 702125
My Commission Expires on
Sep 4, 2022

Nakoma Kay Ware

Notary Public

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

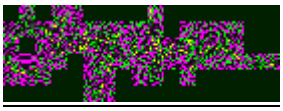
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system
(as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

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:



Tracy Szerszen
President

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

Initial Accreditation Date:	*Issue Date:*	*Expiration Date:*
March 31, 2021	March 31, 2021	June 30, 2023

Accreditation No.:	*Certificate No.:*
102267	L21-216

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

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[F]	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[F] would mean that the laboratory performs this testing at its fixed location.

Certificate of Analysis

CTLA ID	35055	**Sample Name**	30098 Alpha Neuroprotector
Customer	Thrivous	**Lot Number**	211074
Date Received	7/6/2021	**Date Complete**	7/9/2021

ANALYSIS	SPECIFICATION	RESULT	METHOD	MDL	UNITS
Complete Rapid Micro					
Total Plate Count	Report	1,700	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	1,000	AOAC 2014.05	10	cfu/g
Heavy Metal					
Arsenic	Report	0.026	USP <2232>	0.001	ppm
Cadmium	Report	0.028	USP <2232>	0.001	ppm
Mercury	Report	0.011	USP <2232>	0.001	ppm
Lead	Report	0.011	USP <2232>	0.001	ppm
Acetyl L Carnitine Hydrochloride		500	By Input		mg/serving
L Alpha Glycerylphosphorylcholine		300	By Input		mg/serving
Sodium R Alpha Lipoic Acid		150	By Input		mg/serving
Phosphatidylserine		100	By Input		mg/serving
Ginkgo Biloba Leaf Extract		90	By Input		mg/serving

COA Note: Serving siae = 4 capsules

Approved By:

Date: 9/7/2021

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

山东赫尔希胶囊有限公司
Shandong Healsee Capsule Ltd.
检 验 报 告
Certificate of Analysis

报告编号Report No: BG20200810006

产品名称 Product Name	羟丙甲纤维素空心胶囊 Vegetable Empty Capsule (HPMC-CAPS)		型 号 Size	00#
批 号 Batch No.	8182008004		生产日期 Production Date	2020-08-02
颜 色 Color	帽：透明 Cap:Transparent	体：透明 Body: Transparent	有效期至 Expiration Date	2025-08-01
印 字 Printing	帽：/ Cap:/	体：/ Body: /	报告日期 Report Date	2020-08-20
数 量 Quantity	9,450,000pcs		包装规格 Packing Size	70,000粒/箱 70,000pcs/Carton
依 据 According to	本企业羟丙甲纤维素空心胶囊质量标准 The quality standard of empty capsules made of hypromellose			
检验项目 Test items	标准规定 Specifications			检验结果 Results
性 状 Character	本品呈圆筒状，系由帽和体两节套合的质硬且具有弹性的空囊。囊体应光洁、大小、形状和色泽均应一致，几乎无臭。 This product is a cylindrical hard capsule with a cap and body section. The shape, size, color and luster of the capsules should be uniform. Almost odourless.			[符合规定] Conform
鉴 别 Identification	应符合规定 Conform			[符合规定] Conform
润滑剂 Lubricant content	≤0.5%			0.02%
干燥失重 Loss on drying	4~7%			4.9%
炽灼残渣 Ignition residue	≤3%（透明Transparent） ≤6%（着色 Colored）			0.9%
重金属 Heavy metal	≤10 ppm			<10ppm
砷 盐 Arsenic	≤2 ppm			<2ppm
崩解时限 Disintegration time	≤15min			13.04
微生物限度 Microbial	需氧菌总数不得过1000cfu/g Total bacteria count≤1000cfu/g			[<10]cfu/g
	霉菌和酵母菌总数不得过100cfu/g Total yeast and mold count≤100cfu/g			[<10]cfu/g
	每1g不得检出大肠埃希菌 Negative E.coli/1g			[未检出] Negative
	每1g不得检出金黄色葡萄球菌 Negative staphylococcus aureus /1g			[未检出] Negative
	每10g不得检出沙门菌 Negative salmonella/10g			[未检出] Negative
结 论 Conclusion	本品按本企业羟丙甲纤维素空心胶囊质量标准检验，结果符合规定。 The result complies with the quality standard of empty capsules made of hypromellose.			
备 注 Note	/			

放行

报告人：Reporter 2020.08.20　复核人：Reviewer 2020.08.20　QC负责人：QC Manager 2020.08.20　QA放行人：Released by QA 2020.08.20

山东省淄博市周村区赫达路1111号 邮箱(E-mail)：lwl@sdhead.net　www.healsee.net
电话(TEL)：+86533-6806090　传真(FAX)：+86533-6806090
No.1111, Heda Road, Zhoucun zone, Zibo City, Shandong P.R. China

CTLA
Contract TESTING Laboratories
OF AMERICA

Certificate of Analysis

Sample Information

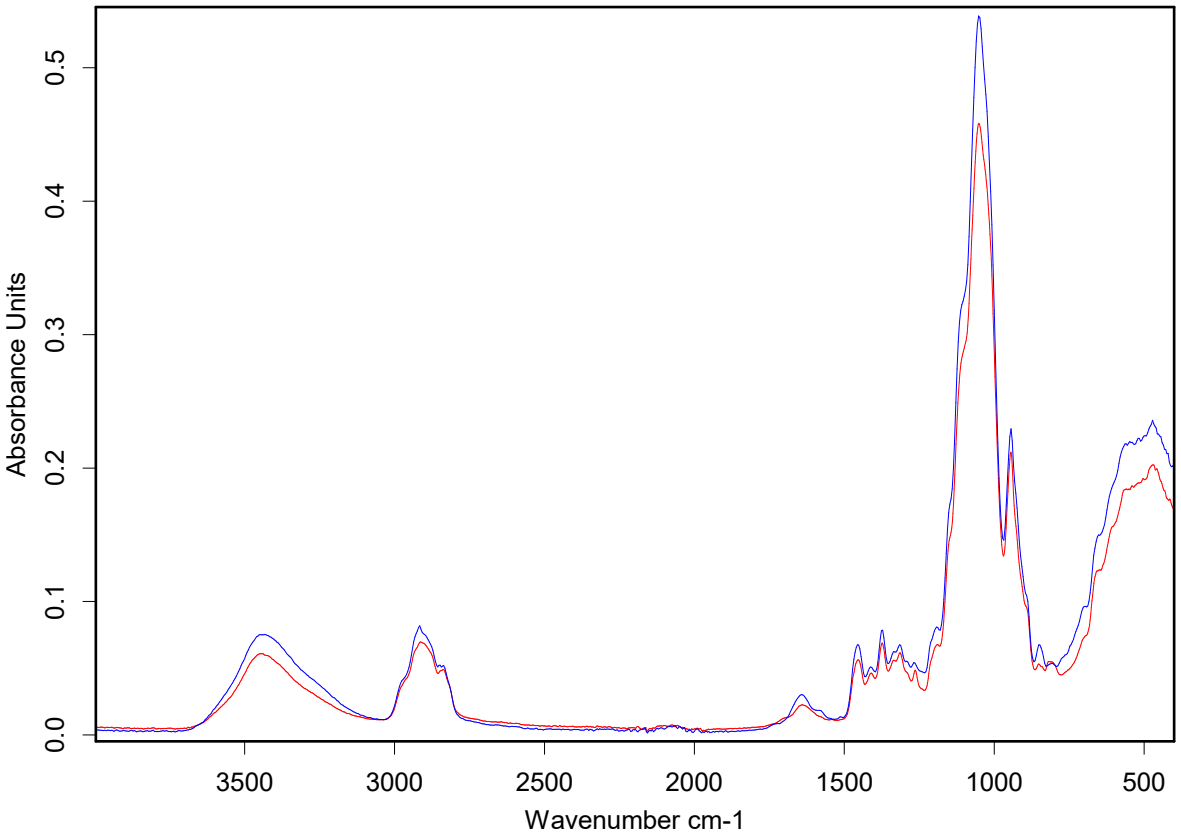
CTLA ID: 22468
Date Received: 10/21/2020
Sample Name: 10344 Capsule, HPMC, 00, Clear
Lot Number: 29814
Customer: Origin Nutraceutical

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	USP <2022>		Report	Negative	
Rapid Yeast and Mold	AOAC 997.02	10	Report	<10	cfu/g

10/23/2020
DATE

Quality Manager

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



Product Number	10138 Capsule 4 HPMC 61453 Standard 1
Entry No.	152
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
	979	10138 Capsule 4 HPMC 61453 Standard 1			

Color	File	Path	Spectrum Type
	29415-ON 10344 Capsule HPMC 00 Clear 29814.3	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum

FruitSmart™
The Smart Choice...Naturally

CERTIFICATE OF ANALYSIS

Product: Apple Fiber – 40 Mesh

Lot #: D001APFB1-40M

Pack Date: January 10, 2021

Expiration Date: January 10, 2023

Species/Genus: *Malus Domestica*

Part of Plant Used: Flesh of Fruit

Country of Origin: USA

Analytical	Method	
Particle Size	U.S.A Standard Testing Sieve	99.0% Thru 40 mesh screen
% Moisture	Moisture Analyzer	2.45%
Color & Appearance	Visual	Tan in color
Water Activity (a_w)	Water Activity Meter	0.2009
Aerobic Plate Count (cfu/gram)***	AOAC Method 990.12	680 cfu/gram
Yeast (cfu/gram)***	AOAC Method 997.02	10 cfu/gram
Mold (cfu/gram)***	AOAC Method 997.02	30 cfu/gram
Coliforms (cfu/gram)	AOAC Method 991.14	<10 cfu/gram
E. Coli (cfu/gram)	AOAC Method 991.14	Negative

***Micro results are the highest readings from 3 separate samples.

Fill / Packaging: 50 Lbs./Case

Reported By: *Maria Rangel*

CTLA
Contract TESTING Laboratories
OF AMERICA

Certificate of Analysis

Sample Information

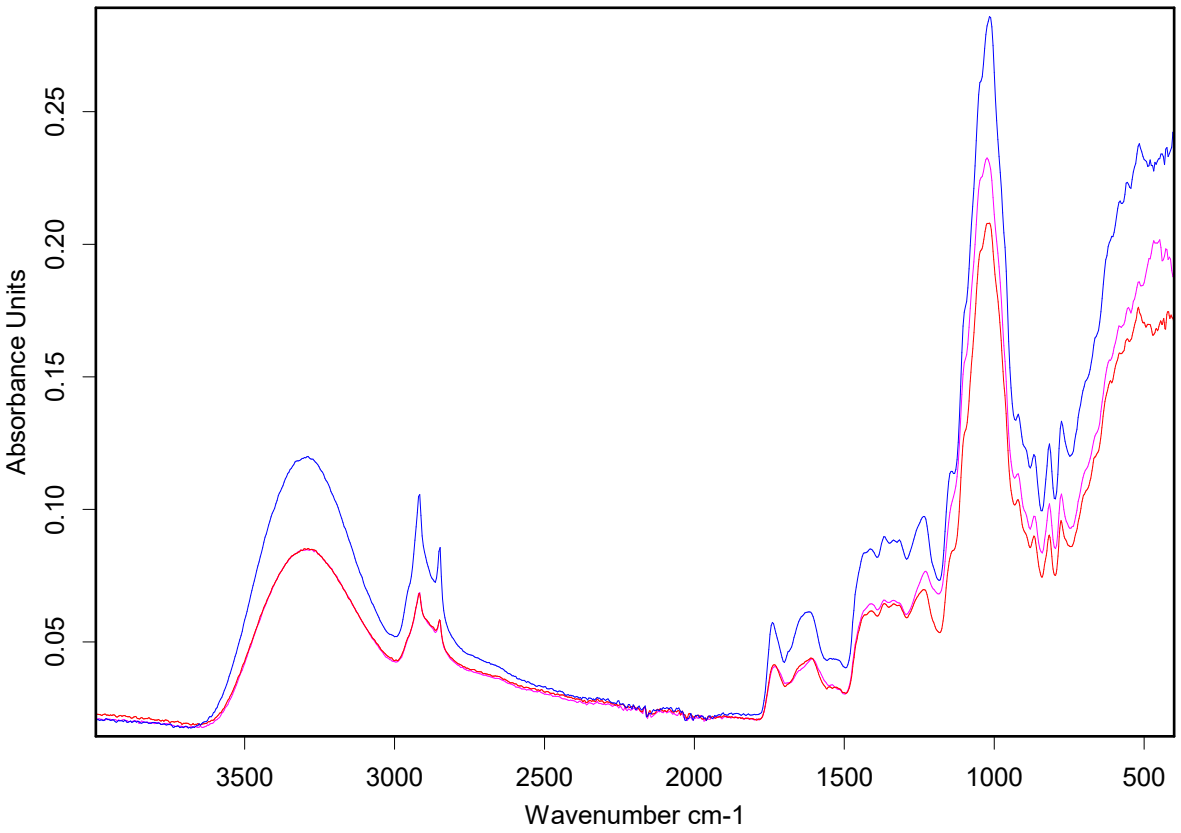
CTLA ID: 28631
Date Received: 3/9/2021
Sample Name: 10008 Apple Fiber
Lot Number: 33922
Customer: Origin Nutraceutical

Analysis	Method	MDL	Specification	Result	Units
ID	FTIR		Report	>95	%

3/11/2021
DATE

Quality Manager

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



Product Number	MM Apple Fruit Powder 19-02-032 Standard
Entry No.	246
Library name	MAPLE MOUNTAINSTANDARDS.S01
Library description	Maple Mountain Co-Packers Standards Librar
Copyright	Maple Mountain Co-Packers Standards only

Color	Hit Quality	Compound name	CAS Number	Molecular formula	Molecular weight
	958	10008 Apple Fiber 62642 Standard 2			
	952	MM Apple Fruit Powder 19-02-032 Standard 1			

Color	File	Path	Spectrum Type
	29411-ON 10008 Apple Fiber 33922.0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum

JRS PHARMA GMBH & CO. KG

THE EXCIPIENT FAMILY

A Member of the JRS Group

PRUV®

Sodium Stearyl Fumarate Ph. Eur., NF, JPE

CERTIFICATE OF ANALYSIS

Batch No.: **2374** Manufacturing Site: Polanco, Spain
Re-evaluation date: 07/2022
Manufacturing date: 07/2019

Description	
Appearance	white or almost white, fine powder with agglomerates of flat, circular particles
Solubility	practically insoluble in water, slightly soluble in methanol, practically insoluble in acetone and in ethanol

Characteristics	Specification	Lot Result	Test Reference
Identification (1) [2]	Conforms	Conforms	USP, Ph. Eur., JPE
Water	NMT 5.0%	3.0 %	USP, Ph. Eur., JPE
Lead[1]	NMT 0.001%	< 0.001%	USP
Heavy metals	NMT 0.002%	< 0.002%	JPE
Saponification value	142.2 - 146.0	144.0	NF, JPE
Limit of Sodium stearyl maleate[2]	NMT 0.25%	< 0.25 %	NF
Limit of Stearyl alcohol [2]	NMT 0.5%	< 0.5 %	NF
Assay	99.0 - 101.5%	100.1 %	NF, Ph. Eur., JPE
Related substances (Ph. Eur.)	Largest single impurity nmt 0.5%	0.1 %	Ph. Eur.
	Total Impurities nmt 5.0%	0.2 %	Ph. Eur.
Related substances (JPE)[1]	Conforms	Conforms	JPE
Identification (2)	Responds to qualitative test (1) for sodium salt	Conforms	JPE
Arsenic[1]	NMT 0.0002%	< 0.0002%	JPE
Specific Surface Area	1.2 - 2.0 m^2/g	1.6 m^2/g	JRS method
Residual Solvents (GC)[3]	Acetone NMT 500 ppm	< 500 ppm	JRS method
	Toluene NMT 890 ppm	< 890 ppm	JRS method
Sodium stearyl maleate (GC)	NMT 0.25%	0.01 %	JRS method
Limit of Stearyl alcohol (GC)	NMT 0.5%	< 0.1 %	JRS method
Particle size distribution	d10: max. 2.5 µm	1.5 µm	JRS method
(Laser diffraction)	d50: max. 20 µm	9 µm	JRS method
	d90: max. 45 µm	21 µm	JRS method

1) Results reported are expected results based on historical data. Zpruvp02g
2) Additional data in attachment.
3) Conformity declaration regarding the general chapters for residual solvents (USP<467>, Ph. Eur. <5.4>): Only class 2 solvent toluene and class 3 solvent acetone are likely to be present. Residual Class 2 solvent is below the option 1 limit and residual Class 3 solvent is below 0.5 per cent. PRUV® is not routinely tested for toluene as the content complies with the exemption procedure B (Class 2 solvents used prior the last step of the synthesis) in Annex I CPMP/QWP/450/03 of the Guideline CPMP/ICH/283/95.

The batch described by this certificate meets the requirements of Ph. Eur., NF, and JPE monographs for "Sodium Stearyl Fumarate" current edition. Elements listed in ICH Q3D Guideline for elemental impurities are not used in manufacturing and not analyzed per batch; detail information is available on request.

2019-09-05
Ref: JRS Pharma LP

Stefanie Henker
QUALITY ASSURANCE
Pharmaceutical and Food Excipients

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info@jrspharma.com · www.jrspharma.com
Customer Service: +1 (845) 878 3414

CTLA
Contract TESTING Laboratories
OF AMERICA

Certificate of Analysis

Sample Information

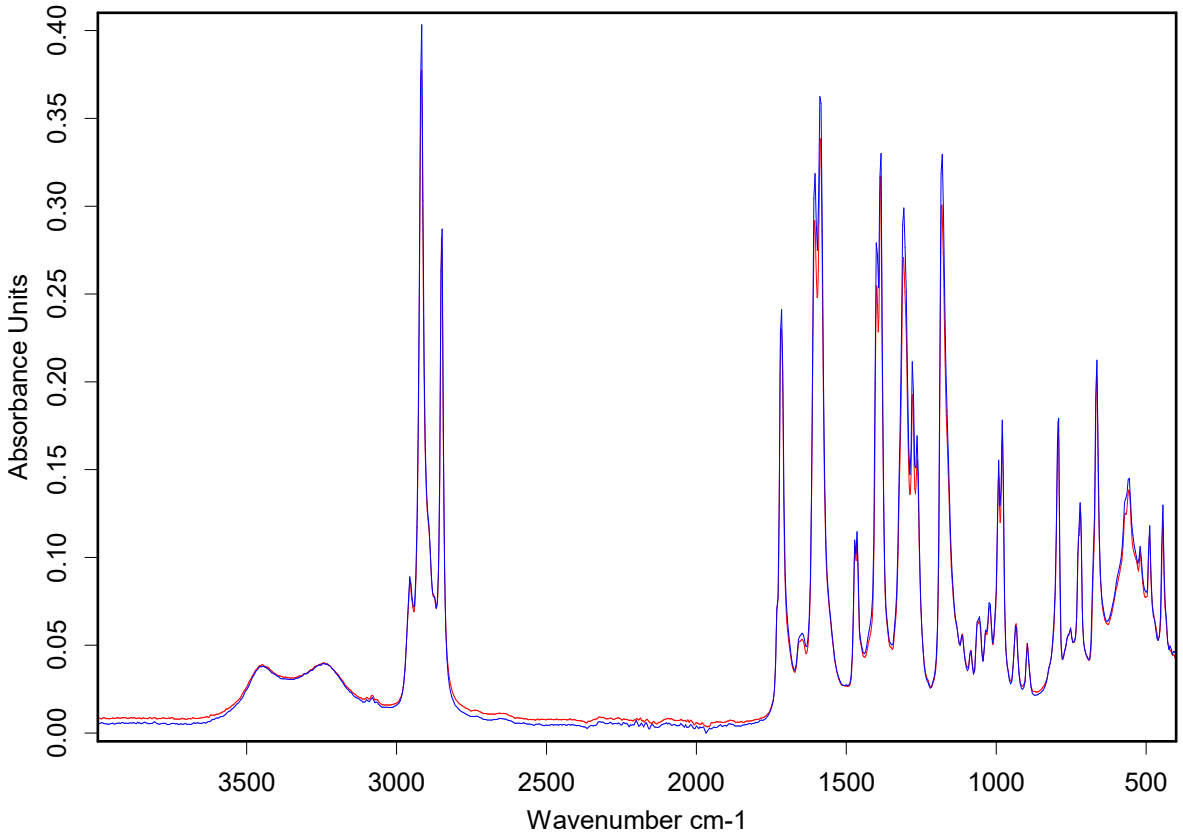
CTLA ID: 21376
Date Received: 9/16/2020
Sample Name: 10530 PRUV
Lot Number: 28866
Customer: Origin Nutraceutical

Analysis	Method	MDL	Specification	Result	Units
ID, Rapid Complete Micro Combo					
ID	FTIR		Report	>95	%
Total Plate Count	USP <2021>	100	Report	200	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	USP <2022>		Report	Negative	
Rapid Yeast and Mold	AOAC 997.02	10	Report	<10	cfu/g

9/18/2020
DATE

Quality Manager

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



Product Number	10530 PRUV 4862 Standard 2
Entry No.	870
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
	988	10530 PRUV 4862 Standard 2			

Color	File	Path	Spectrum Type
	29416-ON 10530 Exc PRUV 31380.0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum

KONSEP TRADISI SDN BHD

No. 15 Jalan Anggerik Mokara 31/56, Kota Kemuning, 40460 Bandar Shah Alam,
Selangor Darul Ehsan, Malaysia.
Tel : 603-5121 0198/8198 Fax : 603-5122 3198

VIVION www.vivioninc.com

Proudly Supplied By: Vivion, Inc.
929 Bransten Road, San Carlos, CA 94070
Phone: (650) 595-3600, Fax: (650) 595-2094

DATE	:	30/05/2018			
PRODUCT	:	STEARIC ACID VEG NF PWD			
QUANTITY	:	20.0 METRIC TONS (1000 CARTON BOXES)	P.O NO.	:	15528
LOT NO.	:	211805 15528 105	COUNTRY OF ORIGIN	:	MALAYSIA
MFG DATE	:	21 MAY 2018	EXPIRE DATE	:	20 MAY 2021

FDA - FOOD FACILITY REGISTRATION NO. 19375870600

100515
1218-2057
JG 12.19.18

CERTIFICATION OF ANALYSIS

We certified that we have analysed a composite sample of the above mentioned goods with the following results:

	NF Specification	Test Methods	Test Result
Identification			
A (Freezing Point)	To Pass Test	NF	Pass
B (Acid Value)	194 - 212	NF	208.6
C (Retention Time Peaks)	To Pass Test	NF	Pass
Residue on Ignition (%)	Not more than 0.1%	NF	<0.01
Heavy Metals ppm	Not more than 10 ppm	NF	<10
Lead ppm	1 ppm max		<1
Arsenic ppm	0.5 ppm max		<0.5
Mercury ppm	1 ppm max		<1
Fat and Fixed Oils, Iodine Value USP <401>	Not more than 4.0	NF	0.24
Color of Solution	Meets Requirements	NF	Pass
Acidity	Meets Requirements	NF	Pass
Freezing Point	53 - 59 Deg. C	NF	56.2
Residual Solvents	No Solvents Used		None
(NF Methods are described in the NF Monograph)			
Fatty Acid Composition in %		NF Method using USP Stearic Acid RS And USP Palmitic Acid RS	
C_{12}/ C_{14}	3 %	- / <0.1	
C_{16}	40 % Min	51.2	
C_{18}	40 % Min	48.4	
C_{20}	1 %	0.4	
Combination of C_{16} & C_{18} in not less than 90%			
Mesh size	**% Retained (Max)**	**% Retained**	
200 Mesh	70.0	46.0	
100 Mesh	10.0	8.0	
50 Mesh	0	0	

KONSEP TRADISI SDN BHD 468658-V

Major (Rtd) Foo Soo Nam
B.Sc. M.Sc Chemical Engineering
Quality Control Officer

KONSEP TRADISI SDN BHD

No. 15 Jalan Anggerik Mokara 31/56, Kota Kemuning, 40460 Bandar Shah Alam,
Selangor Darul Ehsan, Malaysia.
Tel : 603-5121 0198/8198 Fax : 603-5122 3198

DATE : 30/05/2018
PRODUCT : STEARIC ACID VEG NF PWD
QUANTITY : 20.0 METRIC TONS (1000 CARTON BOXES) P.O NO. : 15528
LOT NO. : 211805 15528 105 COUNTRY OF ORIGIN : MALAYSIA
MFG DATE : 21 MAY 2018 EXPIRE DATE : 20 MAY 2021
FDA - FOOD FACILITY REGISTRATION NO. 19375870600

CERTIFICATION OF ANALYSIS

We certified that we have analysed a composite sample of the above mentioned goods with the following results:

	Methods	Test Result
Total Plate Count cfu/g	FDA/BAM	< 10
Mould & Yeast cfu/g	FDA/BAM	< 10
E. Coli	FDA/BAM	Absent
Salmonella in 25g	FDA/BAM	Absent
Staphylococcus aureus	FDA/BAM	Absent
Coliform	FDA/BAM	Absent

KONSEP TRADISI SDN BHD 468658-V

Major (Rtd) Foo See Nam
B.Sc. M.Sc Chemical Engineering
Quality Control Officer

CTLA
Contract TESTING Laboratories
OF AMERICA

Certificate of Analysis

Sample Information

CTLA ID: 6995
Date Received: 3/19/2019
Sample Name: 10050 Stearic Acid Vegetable
Lot Number: 14205
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	
Staph. aureus	USP <2022>		Report	Negative	
Rapid Yeast and Mold	AOAC 997.02	10	Report	<10	cfu/g

Quality Manager

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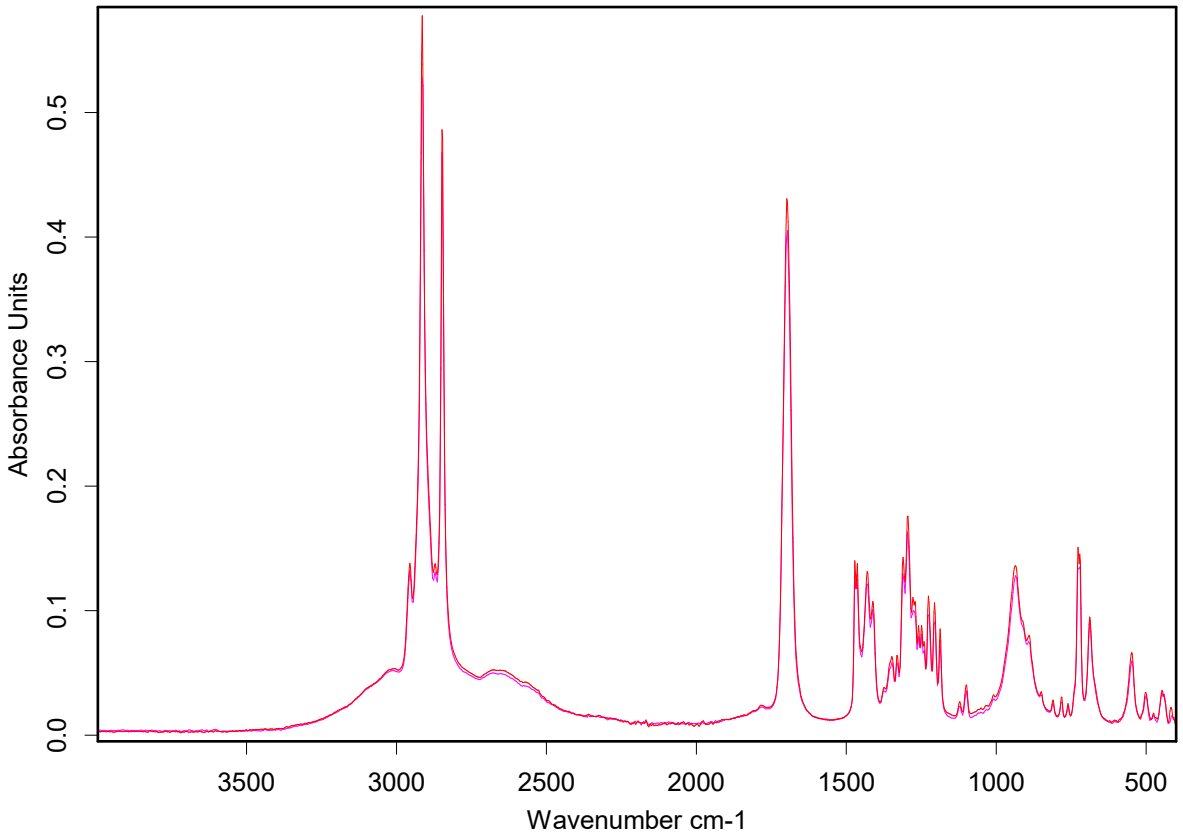

Product Number	10050 Stearic Acid Vegetable 4266 Standard 2
Entry No.	807
Library name	ORIGIN STANDARDS LIBRARY.S01
Library description	Origin Nutraceutical
Copyright	Origin Nutraceutical Materials Only

Color	Hit Quality	Compound name	CAS Number	Molecular formula	Molecular weight
	983	10050 Stearic Acid Vegetable 4266 Standard 2			

Color	File	Path	Spectrum Type
	6995-10050 DRM Stearic Acid Vegetable (Halal) 14205.0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum

黄冈华阳药业有限公司
Huanggang Huayang Pharmaceutical Co., Ltd.

Certificate of Analysis

Product Name	Acetyl-L-Carnitine HCL	Check Foundation	In-house Standard
Batch Quantity	1000kgs	Batch No	ALC20091102
Package	25kg/drum	Manufacturing Date	SEP 11, 2020
Checking Date	SEP 11, 2020	Retesting Date	SEP 10, 2022

Check Item	Specification	Methods	Check Results
Identification	In accordance with the IR absorption spectrum of the standard	IR	Conform
Appearance	White Crystalline Powder	Visual	Conform
Particle size (mesh)	Through 20mesh	20 Mesh Screen	100% passed
Specific Rotation	-27.0~ -29.0°	USP	-27.8°
PH	2.0~3.0	USP	2.5
Loss on drying	≤0.50%	USP	0.12%
Residue on ignition	≤0.50%	USP	0.13%
Assay	98.0%～101.0%	Titration	99.3%
Heavy metal	≤10ppm	USP	＜10ppm
Lead （Pb）	≤3ppm	USP	＜3ppm
Cadmium (Cd)	≤1ppm	USP	＜1ppm
Mercury （Hg）	≤0.1ppm	USP	＜0.1ppm
Arsenic (As)	≤1ppm	USP	＜1ppm
TPC	≤1000Cfu/g	USP	< 10Cfu/g
Yeast & Mold	≤100Cfu/g	USP	< 10Cfu/g
E.Coli	Negative	USP	Negative
Salmonella	Negative	USP	Negative
Bulk density	0.3-0.7 g/ml	Physical	Conform
Tapped density	0.5- 0.9 g/ml	Physical	Conform
Conclusion： Comply with In-house Standard			
Tester:		Auditor:	

Add: 8 Wangu RD, Sanlifan Town, Luotian County, Hubei 438621, China
Tel: 86 713 5811498 Fax: 86 713 5811628
www. huayangbio.com Email: info@huayangbio.com

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OF AMERICA

Certificate of Analysis

Sample Information

CTLA ID:	29413
Date Received:	3/26/2021
Sample Name:	10276
Lot Number:	N-Acetyl-L-Carnitine HCl (ALCAR)
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	
N-Acetyl-L-Carnitine	HPLC	0.0096	95–101	100.9	%

4/1/2021
DATE

Quality Manager

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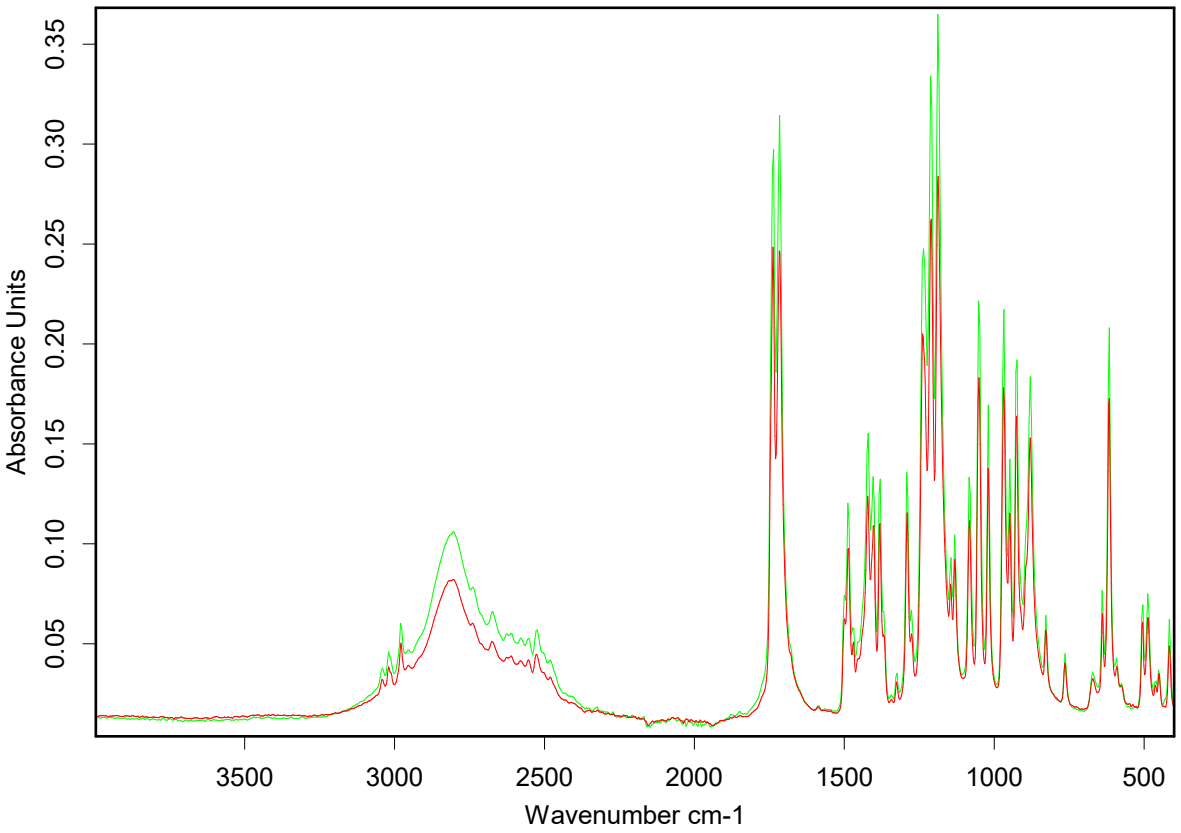

Product Number	Acetyl L Carnitine HCL ALC180211 Standard 1
Entry No.	19
Library name	ELITE MANUFACTURING AND PACKAGING.S0
Library description	Elite Manufacturing and Packaging
Copyright	ONLY Elite Materials

Color	Hit Quality	Compound name	CAS Number	Molecular formula	Molecular weight
	965	Acetyl L Carnitine HCL ALC180211 Standard 1			

Color	File	Path	Spectrum Type
	29413-ON 10276 N Acetyl L Carnitine (32972).0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum

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Tel: (86-510)-8518 8225
Fax: (86-510)-8518 5685
E-mail:info@cimasci.com

Certificate of Analysis

Product and Batch Information			
Product Name	Choline Alfoscerate Powder	**Country of Origin**	P.R. China
CAS No.	28319-77-9	**Molecular Weight**	257
Molecular Formular	$C_8H_{20}NO_6P$	**Batch**	CS-GPCP-210205
Manufacture Date	Feb 05, 2021.	**Analysis Date**	Feb 05, 2021.
Report Date	Feb 08, 2021.	**Expired Date**	Feb 04, 2023.

Item	Specification	Result	Test Method
Active Ingredient			
Assay(%,On Dried Base)	98.5%~102.0%	99.95%	KPC
Physical Control			
Appearance	Fine Powder with highly Hygroscopic	Complies	Visual
Color	White to light yellow	Complies	Visual
Odor	Neutral	Complies	Organoleptic
Identification	The R value of the sample and STD should be same.	Complies	TLC
Specification Rotation $[a]^{25}_D$	-2.4° to -2.8°	-2.69°	KPC
Solubility(H_2O,10%W/W)	Clear	Complies	Visual
Color of Solution	NMT Y7	Complies	KPC
Water	1.0% Max	0.36%	K.F.
Ph(10% GPC Solution,w/v)	5.0-7.0	6.0	KPC
Chemical Control			
Heavy Metals	NMT10PPM	Conforms	CPh
Sulfate(SO4)	NMT 0.020%	Conforms	CPh
Iron(Fe)	NMT10PPM	Conforms	CPh
Chloride(Cl)	NMT 0.020%	Conforms	CPh
Phosphate Ion(P)	The color of the sample is not darker than that of reference.	Conforms	KPC
Solvent Residual	Meeting USP Standard	Conforms	GC
Related Substance	Total impurites:NMT2.0%	Conforms	KPC
	Single impurity:NMT0.5%	Conforms	KPC
Packing and Storage			
Packing	Pack in paper-drums and Aluminum foil lined-bags inside. 25Kg/Drum		
Storage	Store in a well-closed container away from moisture and direct sunlight.		
Shelf Life	2 years if sealed and stored properly.		

QC:

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Certificate of Analysis

Sample Information

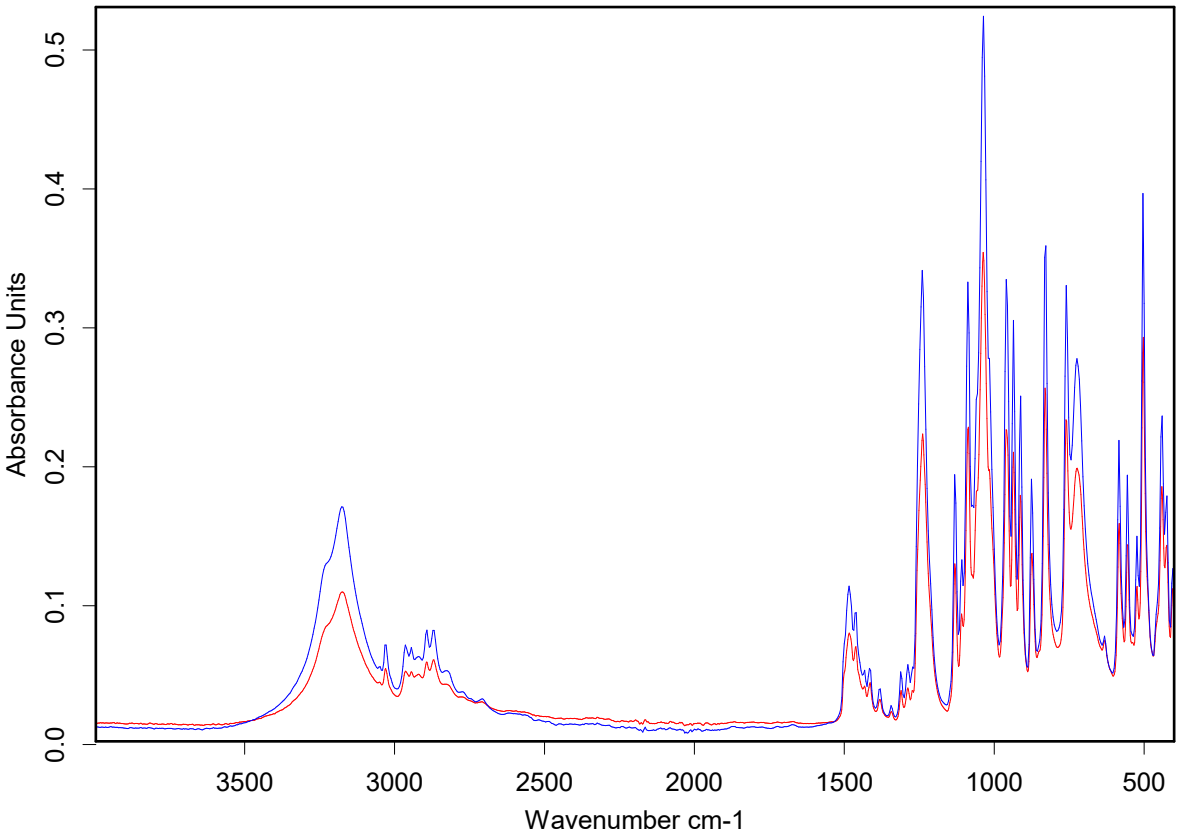
CTLA ID:	29093
Date Received:	3/18/2021
Sample Name:	11023 aGPC 99%
Lot Number:	34114
Customer:	Origin Nutraceutical

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
Alpha glycerylphosphorylcholine	HPLC	.01	>=99	99.3	%
FTIR Spectra	FTIR		Report	Attached	

4/9/2021
DATE

Quality Manager

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



Product Number	ON 11023 DRM aGPC 99% 34114 Standard 1
Entry No.	2413
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
	957	ON 11023 DRM aGPC 99% 34114 Standard 1			

Color	File	Path	Spectrum Type
	29093-ON 11023 DRM aGPC 99% 34114.0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum

Herb Green Health
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Product Name	Ginkgo Biloba Extract	**Sample Quantity**	1362.8kg
Latin Name	*Ginkgo Biloba* L.	**Botanical part used**	Dried leaves
Extract solvent	Ethanol&Water	**Carrier**	None
Batch No.	20181202	**Extract ratio**	50:1
Manufacturing Date	2018-12-18	**Sampling date**	2018-12-20
Expiry Date	2021-12-17	**Report Date**	2018-12-27
Country of Origin	China	**Specification**	TS3-C110201-03-00-B

Test Items		Specifications	Test Results	Test Method
Character	Appearance	It should be light brown yellow to tan powder .Little bitter.	Complied	Organoleptic
Identification	TLC	Have to comply	Complied	ChP<0502>
	Fingerprint	Have to comply	Complied	HPLC
	HPLC	Q/K NLT 0.8-1.2	1.09	ChP<0512>
	HPLC	I/Q NLT 0.15	0.31	ChP<0512>
Content	Total flavone glycosides, %	22.0-27.0 (Calculated as flavonol glycosides , Q+K+I, on the dried basis)	24.2（10.89+9.96+3.35）	ChP<0512>
	Terpene lactones, %	5.4-12 (Calculated as Terpene lactones, on the dried basis)	8.31 (3.31+2.21+1.18+1.61)	ChP<0512>
		2.6-5.8 Bilobalides	3.31	
		2.8-6.2 Ginkgolides A+B+C	5.00	
	Ginkgolic acids, ppm	NMT 5.0	1.05	ChP<0512>
Test	Loss on drying, %	NMT 5.0	2.04	ChP<0831>
	Particle size(80mesh sieve), %	95	99.63	Ch.P<0982>
	Bulk density, g/mL	0.45-0.55	0.46	Enterprise method
	Rutin, %	NMT 3.0	2.03	ChP<0512>
	Free Quercetin, %	NMT 0.3	0.11	ChP<0512>
	Sophoricoside, ppm	NMT 300	Complied	ChP<0512>
Heavy metal	Heavy metal, mg/kg	NMT 20	Complied	Ch.P<0821>
Pesticide residue	Pesticide residue	USP<561>	Complied	Test by External Lab
Solvent residue	Ethanol, ppm	NMT 1000	Complied	ChP<0861>
	Methanol, ppm	NMT 10	Complied	ChP<0861>
Other limited	PAHs, ppb	NMT 50	Complied	Test by External Lab
	BaP, ppb	NMT 10	Complied	Test by External Lab
	Total aerobic bacteria count, cfu/g	NMT 1000	<10	ChP<1105>

地址：中国江西省赣州市宁都县水东工业园莲花南路 Address：Lianhua South Road, Ningdu Industrial Zone, Ganzhou, Jiangxi, P.R.C
电话（TEL）：0086-574-87432602，87432606 邮编（Postcode）:5342800 传真（FAX）：0574-87432605

Herb Green Health
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Certificate of Analysis

Microbial limits	Total molds and yeasts count, cfu/g	NMT 100	<10	ChP<1105>
	E. coli, /g	Absent	ND	ChP<1106>
	Salmonella, /g	Absent	ND	ChP<1106>
Conclusion: The test results conform to the manufacture's standard.				
Storage: Preserve in room temperature, sealed place, keep away from light.				
Shelf life: 3 years.				
Note: This product is non-GMO, non-irradiation, non- ETO, TSE / BSE free.				
Analyst: Liu Ying			**Recheck:** Zhang Lizhen	
Approved: Guan Lanfang			**Issue date:** 2018-12-27	

地址：中国江西省赣州市宁都县水东工业园莲花南路 Address：Lianhua South Road, Ningdu Industrial Zone, Ganzhou, Jiangxi, P.R.C
电话（TEL）：0086-574-87432602，87432606 邮编（Postcode）:5342800 传真（FAX）：0574-87432605

Certificate of Analysis

Sample Information

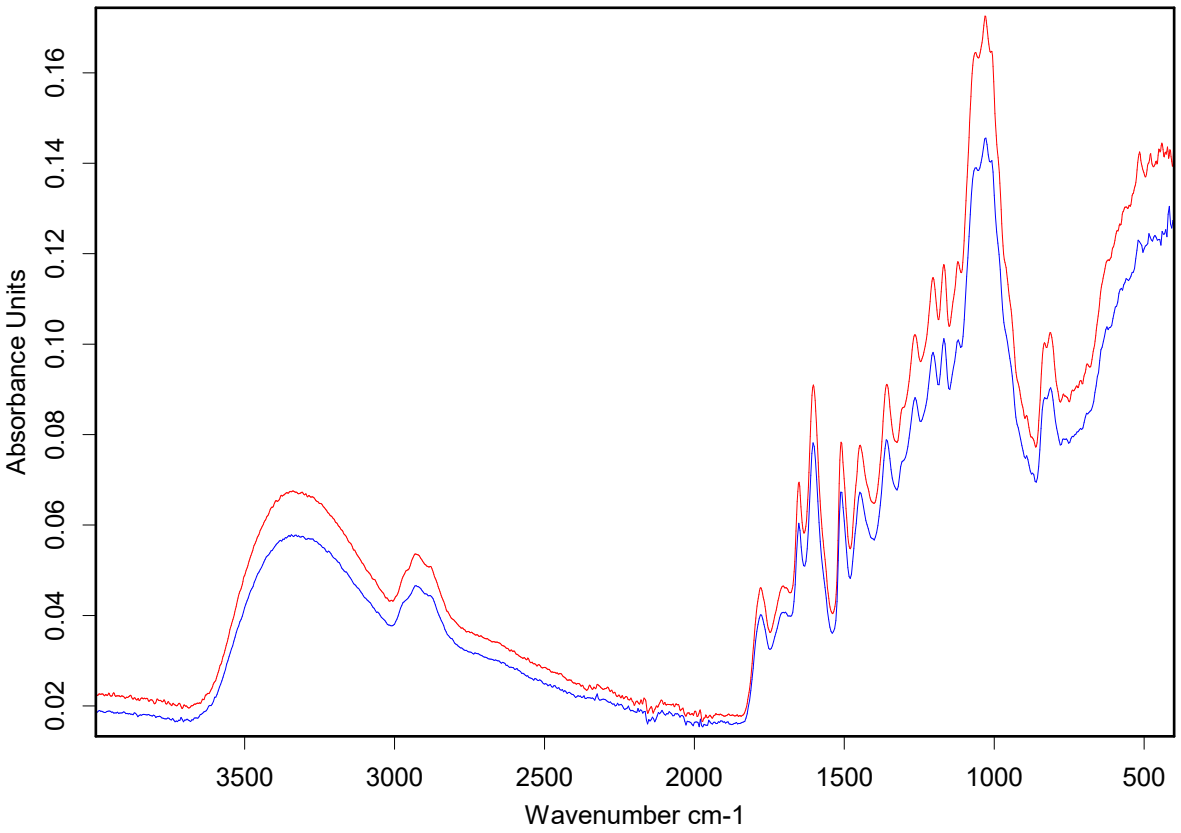
CTLA ID:	29414
Date Received:	3/26/2021
Sample Name:	10322 Ginkgo Biloba Leaf PE 24/6
Lot Number:	21010
Customer:	Origin Nutraceutical

Analysis	Method	MDL	Specification	Result	Units
ID	FTIR		Report	>95	%
FTIR Spectra	FTIR		Report	Attached	
Ginkgo flavone Glycosides	HPLC		>=24	26.1	%
Ginkgo Terpene Lactones	HPLC		>=6	6.5	%

4/27/2021
DATE

Quality Manager

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



Product Number	ON 10322 Ginkgo Biloga Leaf Pe 2416 (21010
Entry No.	1846
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
	979	ON 10322 Ginkgo Biloga Leaf Pe 2416 (21010) Standard 2			

Color	File	Path	Spectrum Type
	29414-ON 10322 Ginko Biloba 21010.0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum

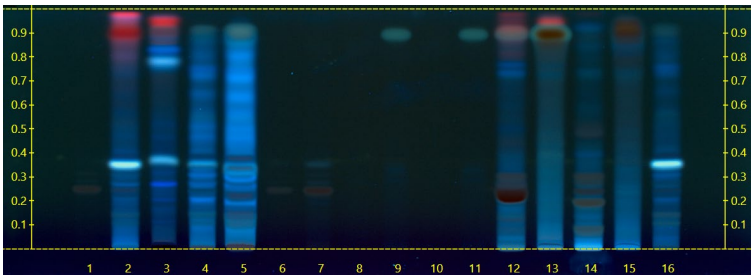
Certificate Issued To:
CTLA
1055 S. 1675 W
Orem, UT 84059
USA

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

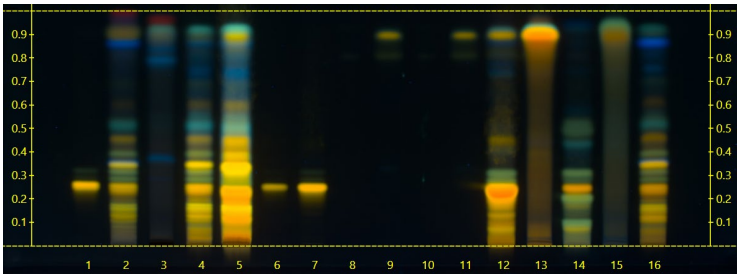
Certificate of Analysis: CTLA 13263 (CTLA 13263)

High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name:	CTLA	**Sample Received:**	12/16/19
Title:	CTLA 13263	**Form of Botanical:**	crude plant powder
Plant Part:	Leaf	**Lot Number:**	(CTLA 13263) →Lanes 4(0.5µl), 5(3µl)
Appearance:	Fine tan powder	**Sample:**	19350MJN_1
Sample Packaging:	Clear Whirl-Pak		

Latin Name: *Ginkgo biloba* L. [Ginkgoaceae]
Reference Sample: Lane 2(3µl) (X15209CRB), Lane 3(1.5µl) (X15209CRB) Ginkgo biloba (leaf); Lane 12(3µl) (AGK02609SWH1), Lane 13(1.5µl) (AGK02609SWH1) Sophora japonica (flower); Lane 14(3µl) (AGK02609SWH2), Lane 15(1.5µl) (AGK02609SWH2) Sophora japonica (fruit); held at Alkemist Labs, Garden Grove, CA.
Analyst: A. Davis, N. Afendikova, M. Edwards, S. Kabbaj, N. Hoang, K. Tran, J. Lopez, J. Mares 128709
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: ethyl acetate: Formic Acid: Acetic acid: Water [10/0.9/0.9/2]
Detection: (1) UV 366 nm
(2) Natural Product + Polyethylene Glycol, 366nm (Reich, E., 2007)
Reference Standard: Lane 16(3µl) Ginkgo Biloba Extract (,), Ethyl alcohol (6901001, VWR); Lane 1(3µl) Rutin (A0348926, ACR), Methanol (0000239114, VWR)
Reference Source: Method developed by Alkemist Labs
IDT-SOP-72-01

Comments & Conclusions: Lanes 4, 5 are the test sample CTLA 13263 (CTLA 13263) Lanes 2, 3, 12, 13, 14, 15 are the reference samples used for comparison. This test sample, CTLA 13263 (CTLA 13263), is consistent with the chromatographic profile of the reference samples of *Ginkgo biloba* used above. **This test sample CTLA 13263 (CTLA 13263) has characteristics of a customized extract derived from *Ginkgo biloba* leaf.**

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

Report Date: 12/20/19

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 CTLA 13263.

ITF CHEMICAL Ltda.
Quality Assurance Department
Manufactured in Brazil

CERTIFICATE OF ANALYSIS Nº 00950114

Code: FV3358

Manuf. date: 11/2020
Retest. date: 11/2022

Camaçari: 03/12/2020

Product: SerinAid 70P
Sinonym: Phosphatidylserine 70% Powder
Formula: ==========

Batch Nº: 20B0348

Tests	Quality specifications		Results	Test Method
Description	Light-yellow to yellow powder		Conform	Visual
Identification	TLC or NMR (Positive)		Conform	P31 NMR/ITF Chemical
Phospholipids	Phosphatidylserine:	NLT 70%	72	P31 NMR/ITF Chemical
	Phosphatidylcholine:	0 - 6%	2	P31 NMR/ITF Chemical
	Phosphatidylethanolamine:	0 - 6%	2	P31 NMR/ITF Chemical
	Phosphatidylinositol:	0 - 4%	1	P31 NMR/ITF Chemical
Peroxide Value	Not more than 5		0	Iodide Titration
Moisture (K.F.)	Not more than 1.5%		0.6	Karl Fischer
Microbial Contamination	Total Plate Count:	NMT 1000 CFU/g	50	USP
	Yeast and Moulds:	NMT 100 CFU/g	LT 100	USP
	Coliforms:	Negative/g	Negative	USP
	Staphylococcus aureus:	Negative/g	Negative	USP
	Escherichia coli:	Negative/g	Negative	USP
	Salmonella:	Negative/10g	Negative	USP

Manufacturer Name & Address:
ITF Chemical Ltda.
Rua Beta, 574
Area Industrial Norte, COPEC, 42816-090
Camaçari, Bahia
Brazil
P: 001.55.71.3634.2940
F: 001.55.71.3634.2902

USA Business Unit & Address:
Chemi Nutra
11100 Metric Blvd
Suite 200D Austin,
TX 78758
USA

DATE
03.12.2020

QUALITY CONTROL
ANA PAULA ALVES

Certificate of Analysis

Sample Information

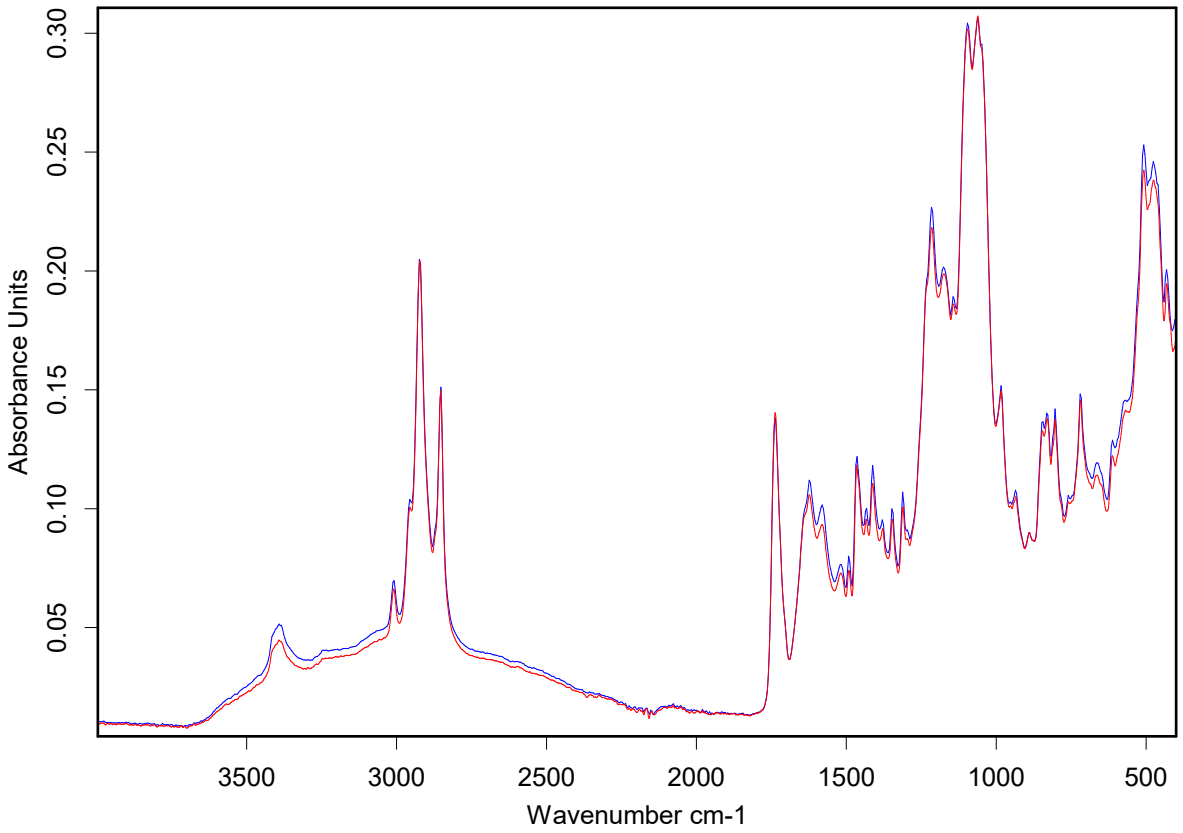
CTLA ID: 29195
Date Received: 3/22/2021
Sample Name: 10619 SerinAid® Phosphatidyl Serine 70%
Lot Number: 34176
Customer: Origin Nutraceutical

Analysis	Method	MDL	Specification	Result	Units
ID	FTIR		Report	>95	%
FTIR Spectra	FTIR		Report	Attached	
Phosphatidylserine	NMR		Report	Attached	
Rapid Complete Micro					
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

4/8/2021
DATE

Quality Manager

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



Product Number	ON 10619 SerinAida Phosphatidyl Serine (341
Entry No.	2415
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
	980	ON 10619 SerinAida Phosphatidyl Serine (34176) Standard 3			

Color	File	Path	Spectrum Type
	29195-ON 10619 SerinAida Phosphatidyl Serine (34176).0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum

Certificate of Analysis
CTLA11893-1

STEELYARD ANALYTICS

Steelyard Analytics, Inc. 704 Quince Orchard Road Suite 130 Gaithersburg, MD 20878 (USA)

Contract Testing Laboratories of America
Alec Harding
151 E 3450 N
Spanish Fork, UT 84660
United States

Phone: +1 (240) 398-5380
E-Mail: info@steelyardanalytics.com

Analysis method: quantitative 31P-NMR spectroscopy

Instrument: Bruker Avance III HD 600 MHz NMR spectrometer with automated sample changer and BBO cryoprobe

Internal standard: TPP (Triphenyl phosphate) Content [%]: 99.8 MW [g/mol]: 326.29

Sample Ident.:	**CTLA 29195**	**Batch/Lot:**	**N/A**
Steelyard Inc Code:	**CTLA11893-1**	**Arrival:**	**31. Mar. 2021**

TPP	Integral	Molecular weight [g/Mol]	mMol	Initial weight [mg]	Content [%]	Number P
Internal Standard	18.70	326.29	0.0627	20.51	99.8	1
Test item				308.12		1
Phospholipid	Integral	Molecular weight [g/Mol]	mMol	Content [mg]	**Weight-%**	Mol-%
PC	2.17	770.0	0.0073	5.5976	**1.82**	2.0
1-LPC	0.00	515.0	0.0000	0.0000	**---*)**	---*)
2-LPC	0.50	515.0	0.0017	0.8638	**0.28**	0.5
PI	0.00	835.0	0.0000	0.0000	**---*)**	---*)
LPI	0.00	570.0	0.0000	0.0000	**---*)**	---*)
PS	83.26	797.2	0.2793	222.6770	**72.27**	75.3
LPS	1.90	517.0	0.0064	3.2901	**1.07**	1.7
SPH	0.00	770.0	0.0000	0.0000	**---*)**	---*)
PE	2.11	725.0	0.0071	5.1294	**1.66**	1.9
LPE	0.84	470.0	0.0028	1.3260	**0.43**	0.8
APE	3.36	990.0	0.0113	11.1524	**3.62**	3.0
PG	0.36	758.0	0.0012	0.9231	**0.30**	0.3
DPG	2.24	682.5	0.0075	5.1355	**1.67**	2.0
PA	7.76	685.0	0.0260	17.8321	**5.79**	7.0
LPA	1.05	430.0	0.0035	1.5146	**0.49**	1.0
Other	5.10	770.0	0.0171	13.1687	**4.27**	4.6
Sum	110.65				**93.67**	100.0
Phosphorus					**3.73**	

*) = not observed, no signal assignment

Rounding 2 | Balance | XP205 en

01. Apr. 2021

Buchen, Thorsten
Study Director

The Certificate is authorized by original signature. Use or publication in parts is not authorized on principle and is not allowed to be related with the company's name or a signature of a staff member. Misuse will be prosecuted.

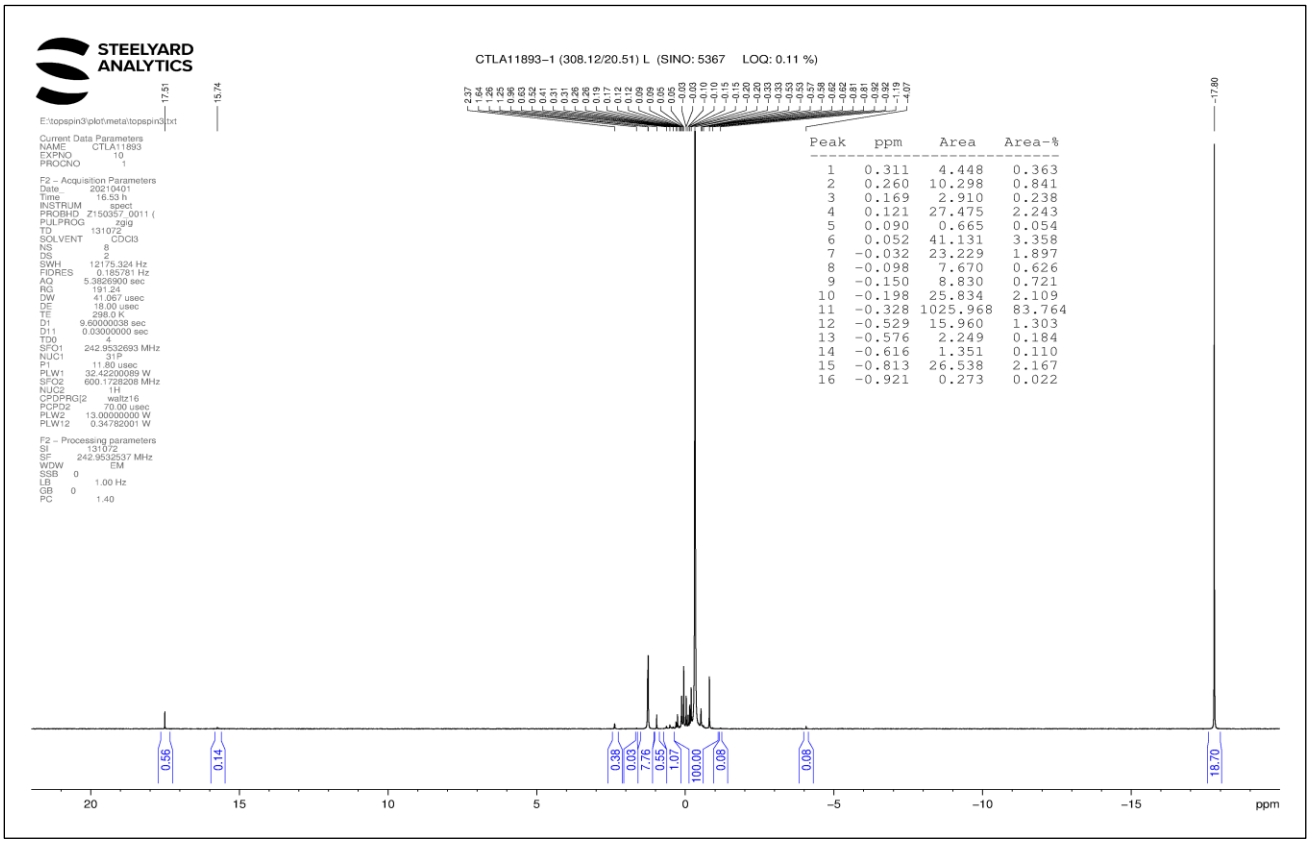


Fig. 1 ^{31}P-NMR-Spectrum of test item CTLA11893-1

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Certificate of Analysis

Product Name: R-(+)-Lipoic Acid Sodium Salt
Batch Number: RALA.N.1902181
Manufacturing Date: February, 2019
Re-Test Date: July, 2022
Country of Origin: China

Item	Standard	Result	Method
Appearance	Off-white to light yellow powder	Off-white to light yellow powder	Organoleptic
Melting Point	230°C ~ 250°C	230°C ~ 250°C	USP
Solubility (H_xO)	Soluble in Water	Soluble in Water	USP
Specific Rotation	+80° ~ +95°	+93.0°	USP
Loss on Drying	3.0% max	0.57%	USP
Heavy Metals	10 ppm max	<10 ppm	USP
Total Microbial Count	1,000 per/g max	<10 per/g	USP
Molds & Yeasts	100 per/g max	<10 per/g	USP
E. Coli	Negative	Negative	USP
Salmonella	Negative	Negative	USP
Particle Size	100% through 20 mesh 80% through 80 mesh	100% through 20 mesh 80% through 80 mesh	USP
Assay R-Alpha Lipoic Acid R-(+)-Lipoic Acid Sodium	 80.0% min 99.0% min	 84.9% 99.9%	HPLC

Conclusion: The above results meet the factory standard

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E-mail: sales@creativecompounds.com | www.creativecompounds.com

CTLA
Contract TESTING Laboratories
OF AMERICA

Certificate of Analysis

Sample Information

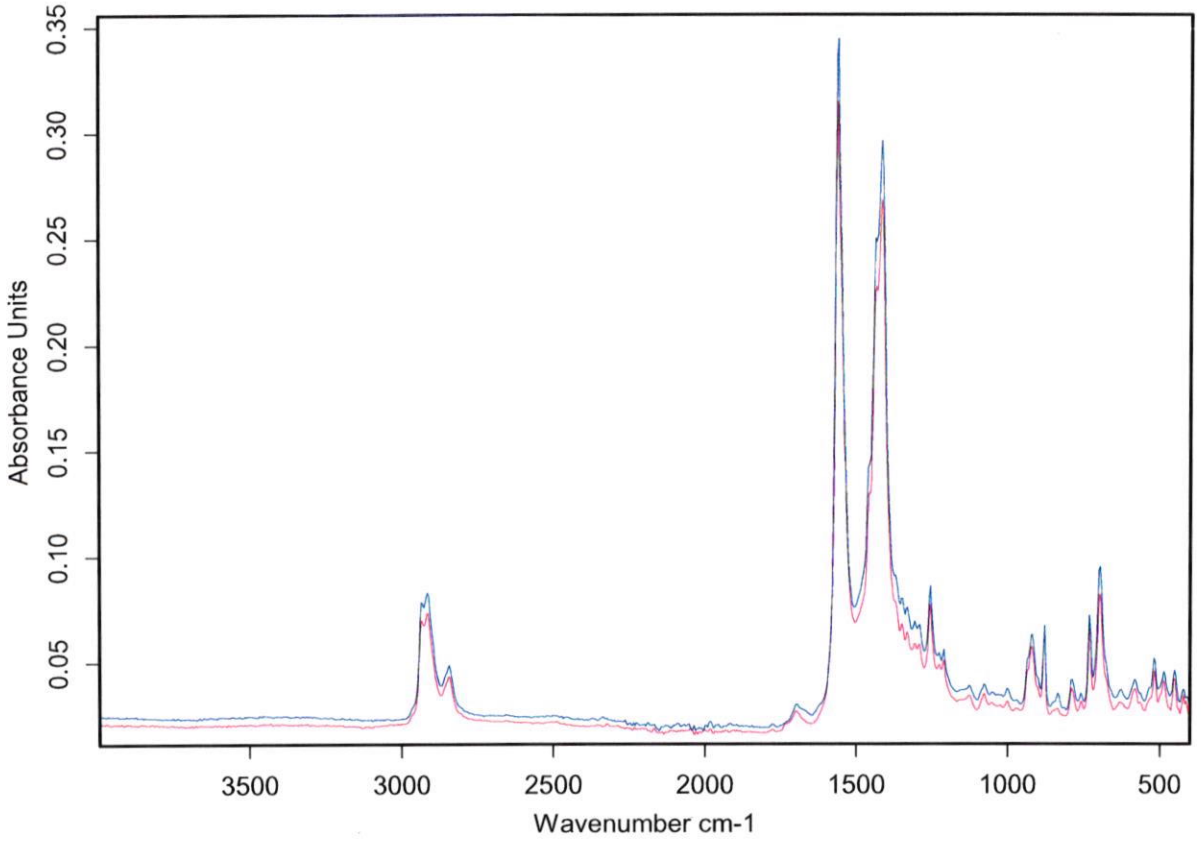
CTLA ID: 31030
Date Received: 4/28/2021
Sample Name: 10552 R-ALA Sodium Salt
Lot Number: 34050
Customer: Origin Nutraceutical

Analysis	Method	MDL	Specification	Result	Units
Rapid Complete Micro					
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
Mineral Analysis	ICP		>99	Sodium 122	g/100g
R-Alpha Lipoic Acid (RALA)	HPLC		>90	91.622	%

5/10/2021
DATE

Quality Manager

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



Product Number	10552 ALA Sodium Salt 4480 Standard 1
Entry No.	835
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
	977	10552 ALA Sodium Salt 4480 Standard 1			

Color	File	Path	Spectrum Type
	12832-ON 10552 DRM R-ALA Sodium Salt 20712.0	C:\Users\Israel\Documents\Bruker\OPUS_7.5.18\Data\MEAS	Query Spectrum