

Title: AntiOx Essentials™, 60 vegetarian capsules	
Allergy Research Group® / NutriCology®	
Document No.: 77490CA	Revision: 001

Certificate of Analysis

Part Number	77490		
Lot Number	165381		
Product Count & Form	60 vegetarian capsules		
Packaging, Closure	150 cc white HDPE bottle with 38 mm white ribbed cap		
Storage Condition	Room Temperature		
Shelf Life	24 months	Expiration Date	07/21
Label Number, Size	77490L, E		
Retain Sample	2 bottles		

ANALYSIS

Physical

Attribute	Method / SOP	Specification	Test Result
Product Color, Size	SOP 515	Beige, clear, size "00"	Complies
Product Weight Variation	SOP 514	Meets USP <2091> 580 – 750 mg	Pass, 667 mg
Disintegration Time	SOP 522	Meets USP <2040> <30 minutes	Conforms*

Purity/Strength per 1 capsule

Active Ingredients	Label Claim	Release Limits	Test Result
Vitamin C (as Ascorbyl Palmitate)	25 mg	NLT 25 mg	58 mg
Zinc (as Zinc Picolinate)	2 mg	100-150% LC by ICP-MS	2 mg
Selenium (as from SelenoExcell organically bound high-selenium yeast)	25 µg	NLT 25 µg	66 ug
Vitamin E (as 68.75 IU of alpha-Tocopherol) (sunflower)	46 mg	100-150% LC by HPLC	75.31 IU
Other Tocopherols	6.87 mg	100-150% LC by HPLC	100-150% LC by HPLC*
Tocotrienols (EVNolMax® 15%)	2.84 mg	100-150% LC by HPLC	100-150% LC by HPLC*
Vitamin A (100 IU) Mixed Carotenoids (EVTeneSol® 3%)	2.8 mg	NLT 100 IU	165 IU
N-Acetyl Cysteine	25 mg	100-150% LC by HPLC	27 mg
R-Lipoic Acid	25 mg	100-150% LC by HPLC	100-150% LC by HPLC*↓
Spectra™ Proprietary Blend Containing: Coffea Arabia Extract, Green Tea Extract, Broccoli Sprout Concentrate,	100 mg	100-150% LC by input	100-150% LC by input*

Title: **AntiOx Essentials™, 60 vegetarian capsules**

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Coffea Arabia Extract, Green Tea Extract, Broccoli Sprout Concentrate, Onion Extract, Apple Extract, Quercetin, Tomato Concentrate, Broccoli Concentrate, Camu Camu Concentrate, Maltodextrin, Acerola Extract, Acai Concentrate, Turmeric Concentrate, Garlic Concentrate, Basil Concentrate, Oregano Concentrate, Cinnamon Concentrate, Carrot Concentrate, Elderberry Concentrate, Mangosteen Concentrate, Blackcurrant Extract, Blueberry Extract, Sweet Cherry Concentrate, Raspberry Concentrate, Spinach Concentrate, Chokeberry Concentrate, Kale Concentrate, Blackberry Concentrate, Silicone Dioxide, Bilberry Extract, Brussels Sprout Concentrate.			
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Other ingredients: Hydroxypropyl Methylcellulose, L-Leucine.

* Production and Process control, ‡ refer to 18OOS-19

Identification \ Chemical \ Heavy Metals

Attribute	Method / SOP	Specification	Test Result
Identity	Bulk Certificate of Analysis Review	Approved	Complies
Arsenic (inorganic)	ICP-MS per USP <2232>	$\leq 15 \mu\text{g/day } \Psi$	BQL
Cadmium	ICP-MS per USP <2232>	$\leq 5 \mu\text{g/day } \Psi$	BQL
Mercury (total)	ICP-MS per USP <2232>	$\leq 15 \mu\text{g/day } \Psi$	0.268 ug/day
Lead	ICP-MS per USP <2232>	$\leq 10 \mu\text{g/day } \Psi$	BQL

Ψ Permitted Daily Exposure,

Microbiology

Attribute	Method / SOP	Specification	Test Result
Total Aerobic Count	USP/ AOAC/ FDA BAM	$\leq 1 \times 10^3 \text{ CFU/g}$	<10 CFU/g
Total Yeast & Mold	USP/ AOAC/ FDA BAM	$\leq 1 \times 10^2 \text{ CFU/g}$	<10 CFU/g
Coliform	USP/ AOAC/ FDA BAM	$\leq 1 \times 10^2 \text{ CFU/g}$	<10 CFU/g
Escherichia coli	USP/ AOAC/ FDA BAM	None Detected	None Detected
Staphylococcus aureus	USP/ AOAC/ FDA BAM	None Detected	None Detected
Salmonella	USP/ AOAC/ FDA BAM	None Detected	None Detected

Approval: 	Date: 10/21/19
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Micro Quality Labs, Inc.

Specializing in Pharmaceutical, Dietary Supplements, Toys and Cosmetics Testing

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E-Mail: Karine@MicroQualityLabs.com



Customer: Allergy Research Group, LLC
Address: 2300 North Loop Road
Alameda, CA 94502

ANALYTICAL/CHEMICAL CERTIFICATE OF ANALYSIS

Sample Name: NEW ANTIOXIDANT
Product Code: 87490
Batch/Lot: 165381
MLQ Accession: 190827-0246

PO#: LJ08232019
Sample Description: FG
Rush: N/A
Received Date: 08/27/19

Test Requested:	Test Method:	Specification:	Results:
Vitamin A (as mixed Carotenoids)	MLTMM-0101 By UV	NLT 100 IU / capsule	165 IU / capsule *
Vitamin C (as Ascorbyl Palmitate)	USP 42 Modified	NLT 25 mg / capsule	58 mg / capsule *
Vitamin E (as mixed Tocopherol and tocotrienols)	MLTMM-0154 By HPLC	NLT 16.75 IU / capsule	75.31 IU / capsule (**)
N-Acetyl-L-Cysteine	MLTMM-0214 By HPLC	NLT 25 mg / capsule	27 mg / capsule *

Prepared By:

Kendra Hensley/Document Control Specialist

SEP 16 2019

09/16/19

Reviewed By:

Raffie Avakian/Quality Assurance Reviewer

SEP 16 2019

09/16/19

Comment: [*] This result is not covered under our A2LA accreditation. The test has been carried out following general compendial methods (USP/NF, EP, JP and AOAC). (**) OUT OF SPECIFICATION.

Micro Quality Laboratories, Inc. (MQL), is an A2LA ISO 17025 accredited testing laboratory (Certificate Number 3034.01). The requirements of ISO 17025 were followed for the test, results and preparation of this certificate of analysis.
MQL's scope of accreditation may be found on A2LA or MQL websites.

The aforementioned results on this report are representative of the samples submitted and may not be indicative of the entire manufacture, batch, and/or lot. Applicable current GMP's shall always be used when sampling. GLP's shall always be practiced by Micro Quality Labs to ensure the most accurate results.

This report is submitted for the exclusive use of the person, partnership, or corporation to whom it is addressed, and neither the report nor the name of Micro Quality Labs, Inc. nor any member of its staff, may be used in connection with the advertising or sale of any product or process without written authorization from Micro Quality Labs, Inc. Failure to comply will result in immediate legal action by Micro Quality Labs, Inc.

Form# 03B.2 Analytical / Chemical Certificate of Analysis, Revised 07-05-2016 DCR2016-0062



CHEMICAL SOLUTIONS
LABORATORIES, INC.

Analytical Report

September 03, 2019

Tuyen Luong
Allergy Research Group/NutriCology
2300 North Loop Road
Alameda, CA 94502

Page 1 of 1
WO Number: W19H0880

Client: Allergy Research Group-QC
Client #: A5537-T
Sample Type: Capsule
Collector: Client

Customer PO: LJ08232019
Date Received: 8/26/2019
Date Completed: 09/03/2019
Discard Date: 09/17/2019

CSL#: 19H2044 New Antioxidant - Lot#: 87490/ 165381

Parameter	Result	PQL	Method	Date	Analyst
Arsenic*	<0.10 ug/g	0.10	ICP MS/KED	09/03/19	CEN
Cadmium	<0.050 ug/g	0.050	ICP MS	08/28/19	ARB
Lead	0.10 ug/g	0.050	ICP MS	08/28/19	ARB
Mercury	<0.050 ug/g	0.050	ICP MS	08/28/19	ARB
Selenium	99 ug/g	0.50	ICP MS	08/28/19	KMS
Zinc	3,000 ug/g	0.50	ICP MS	08/28/19	KMS

CSL#: 19H2044

Parameter	Result	Serving Size	Unit Weight	Specification
Arsenic*	<0.10 ug/g	1 Capsule	0.67 g	<0.50 ug/g
Cadmium	<0.05 ug/g	1 Capsule	0.67 g	<0.50 ug/g
Lead	0.10 ug/g	1 Capsule	0.67 g	<0.50 ug/g
Mercury	<0.05 ug/g	1 Capsule	0.67 g	<0.50 ug/g
Selenium	66 ug/cap	1 Capsule	0.67 g	≥ 25 ug/Capsule
Zinc	2 mg/cap	1 Capsule	0.67 g	≥ 2 mg/Capsule

Respectfully Submitted,
Chemical Solutions, Ltd.

QA Representative

Notes:

CONFIDENTIAL REPORT. This report is confidential and is for the sole use of the addressee.

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The units for the PQL are the same as those shown for the result.

*PQL reported is above the minimum report level specified on the Sample Submittal Form. The requested levels were not attainable due to the nature of this sample.

931 north seventh st harrisburg, pa 17102 phone 717/697-7536 fax 717/697-4800

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Report of Analysis

Allergy Research Group

2300 North Loop Rd.
Alameda, CA 94502

ICT Reference No: I1720

Sample Type: capsule
Received on: August 28, 2019
Reported on: September 5, 2019

Test Requested: Hydro ORAC

Description	Lot #	Results	Units
New Antioxidant	87490 / 165381	1,448	μmole TE/capsule

* The samples were extracted in 70% ethanol : 30% water (v/v)

** The results are based on fill material only. Average weight is 0.588 gram/ capsule.

Method Reference:

Development and Validation of an Improved Oxygen Radical Absorbance Capacity Assay Using Fluorescein as the Fluorescent Probe. Ou, B; Hampsch-Woodill, M.; Prior, R. L.; *J. Agric. Food Chem.*; 2001; 49(10), 4619-4626.
SOP# 701

Signed for and on behalf of International Chemistry Testing

Tony Chang, Ph.D.

International Chemistry Testing is accredited to the ISO/IEC 17025:2005 standard



Accreditation #84329



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40 West Louise Ave., Salt Lake City, UT 84115
Phone: (801) 485-1800 Fax: (801) 484-9211
Email: utlab@advancedlabsinc.com
FDA Registration #3006423386

Test Certificate

Description: New Antioxidant
Sample ID:
Lot No: 87490/165381
Part Code:
Location:
PO No: LJ09162019
Received: 9/17/2019

Client: Allergy Research Group
2300 N Loop Rd.
Alameda, CA 94502

Lab No: 178745-01
Completed: 9/24/2019

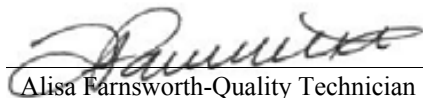
Analysis	Result	Per Unit	Specifications	Method
† R-Alpha-Lipoic Acid	26.84	mg/capsule	>= 25 mg/capsule	HPLC

R-Alpha-Lipoic Acid assay performed using HPLC by method adapted from Niebch, G., et al. "Enantioselective high-performance liquid chromatography assay of (+)R- and (-)S-alpha-lipoic acid in human plasma" as published in Chirality, 9(1): 32-36, 1997; utilizing LiChrospher 60 select B column (250x 4 mm) at 35°C with 55% 0.2M-K₂HPO₄ (pH 5.8) and 45% acetonitrile/methanol (1:1) as mobile phase (1.7 ml/min), detection with scanning photo diode array (200-400nm) with signal extraction at 274nm for quantification. Authentic chemical reference material obtained from Sigma-Aldrich.

THESE RESULTS APPLY ONLY TO THE SAMPLE SUBMITTED AND NOT TO THE PRODUCT FROM WHICH IT WAS TAKEN. THESE RESULTS ARE PROVIDED ONLY FOR THE BENEFIT OF CLIENT, WITHOUT REPRESENTATION OR WARRANTY OF ANY KIND, EXCEPT FOR THE EXPRESS LIMITED WARRANTY PROVIDED SOLELY TO CLIENT IN ADVANCED LABORATORIES' TERMS OF SERVICE.

THIS CERTIFICATE SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT WRITTEN APPROVAL FROM ADVANCED LABORATORIES.

Results Approved By:


Alisa Farnsworth-Quality Technician

Dated: 9/24/2019

Tests marked with † were done at Atlas Bioscience Labs, LLC, a joint venture with Advanced Laboratories. -
1775 S. Pantano Rd - Ste #110, Tucson, AZ 85710

Printed: 9/24/2019 5:21:03 PM





AEMTEK, INC.

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Fremont, CA 94539
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Web: www.aemtek.com

Project Description: Product Testing (PO #LJ08232019)
Report Issued To: Allergy Research Group
2300 North Loop Rd.
Alameda, CA 94502
Contact: Janice Vu

Certificate of Analysis

AEMTEK #: 19081261

Sampling Date: 2019-08-23
Sample Received: 2019-08-26
Analysis Started: 2019-08-26
Analysis Performed By: HJ, MM, WY
Report Issue Date: 2019-08-29

Analyte		Aerobic Plate Count	Total Coliforms	Yeast	Mold	Escherichia coli	Salmonella	Staphylococcus aureus
Method		AOAC OMA 990.12	AOAC OMA 991.14	AOAC OMA 2014.05	AOAC OMA 2014.05	USP 37 -62- (mod.)	USP 37 -62- (mod.)	USP 37 -62- (mod.)
Reporting Unit		CFU/g	CFU/g	CFU/g	CFU/g	per 10g	per 10g	per 10g
Method Detection Limit for Reporting		10	10	10	10	P/A	P/A	P/A
Sample Description		RESULTS						
Sample ID	Lot #/Code							
3	New Antioxidant 87490/ 165381	<10	<10	<10	<10	ND	ND	ND

Terminology:

CFU = Colony Forming Units
< Indicates less than the reporting limit as noted
ND = Not Detected, negative, absent. Sensitivity is about 1 organism per test portion.
BAM = FDA Bacteriological Analytical Manual
AOAC OMA = Official Methods of Analysis of the AOAC International, 18th ed.

MPN = Most Probable Number

P/A = Presence/Absence

CP Staph = Coagulase Positive Staphylococcus aureus

CMMEF = Compendium of Methods for the Microbiological Examination of Foods, 4th ed.

AOAC RI = AOAC Research Institute Performance Tested.

N/A = Not Applicable or not analyzed

1/8 08/29/19