

Title: **Quercetin Bioflavonoids, 100 Vegetarian Capsules**

Allergy Research Group® / NutriCology®

Document No.: 70050CA

Revision: 010

**Certificate of Analysis**

<b>Part Number</b>	70050		
<b>Lot Number</b>	00612		
<b>Product Count &amp; Form</b>	100 Vegetarian Capsules		
<b>Packaging, Closure</b>	225 cc bottle, desiccant, rayon/cotton		
<b>Storage Condition</b>	Room Temperature		
<b>Shelf Life</b>	36 months	Expiration Date	05/2023
<b>Label Number, Size</b>	70050L, H		
<b>Retain Sample</b>	1 bottle per label (2 bottles total)		

**ANALYSIS**

**Physical**

Attribute	Method / SOP	Specification	Test Result
Product Color & Size	QC011	Light Green to Yellow, clear size "00"	Complies
Product Weight	SOP 514	Meets USP <2091> 670 – 850 mg	Passes, 755 mg‡
Disintegration Time	SOP 522	Meets USP <2040>	Passes, 26:00 mins‡

‡ per CMO CoA

**Purity / Strength per Capsule**

Ingredients	Label Claim	Specification	Test Result
Lemon Bioflavonoid Complex	400 mg	100-150% LC by input	100-150% LC by input*
Quercetin	50 mg	100-150% LC by HPLC	60.63 mg/capsule
Citrus (Fruit) Extract (containing 92% Hesperidin)	50 mg	100-150% LC by HPLC	100-150% LC by HPLC*
Rutin	50 mg	100-150% LC by HPLC	100-150% LC by HPLC*

**Other Ingredients**

Hydroxypropyl Methylcellulose, Microcrystalline Cellulose, L-Leucine

\*Production and Process Control

**Identification \ Chemical \ Heavy Metals**

Attribute	Method / SOP	Specification	Test Result
Identity	Bulk Certificate of Analysis Review	Approved	Approved
Identity	Near Infrared Spectroscopy	Matches Reference	Matches Reference
Arsenic (inorganic)	ICP-MS per USP <2232>	≤ 15 mcg/day Ψ	0.023 mcg/day
Cadmium	ICP-MS per USP <2232>	≤ 5 mcg/day Ψ	0.005 mcg/day
Mercury (total)	ICP-MS per USP <2232>	≤ 15 mcg/day Ψ	0.109 mcg/day
Lead	ICP-MS per USP <2232>	≤ 10 mcg/day Ψ	0.593 mcg/day

\*Production and Process Control, Ψ-Permitted Daily Exposure, φ - Complies with California Proposition 65 Limits

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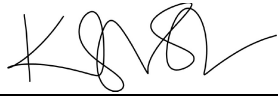

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**Microbiology**

Attribute	Method / SOP	Specification	Test Result
Total Aerobic Count	USP/ AOAC/ FDA BAM	$\leq 1 \times 10^4$ CFU/g	220 CFU/g
Total Yeast & Mold	USP/ AOAC/ FDA BAM	$\leq 1 \times 10^3$ CFU/g	< 10 CFU/g
Coliform	USP/ AOAC/ FDA BAM	$\leq 1 \times 10^2$ 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

\*Production and Process Control

Approval: 	 Digitally signed by Kimberly Vennebush Date: 2020.06.18 10:47:52 -06'00'	Date: 18JUN2020
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## Test Certificate - Amended

Description: Quercetin Bioflavonoids  
Sample ID: 40050 / 00612  
Lot No:  
Location:  
Received: 5/7/2020  
Completed: 5/14/2020

Client: Allergy Research Group  
2300 S Main St  
Salt Lake City, UT 84115

Lab No: 195695-01A

Analysis	Result	Per Unit	Specifications	Method
Mercury	0.024	ug/g	< 0.5 ug/g	ICP-MS USP <730>
Lead	0.131	ug/g	< 0.5 ug/g	ICP-MS USP <730>
Arsenic	0.005	ug/g	< 0.5 ug/g	ICP-MS USP <730>
Cadmium	0.001	ug/g	< 0.5 ug/g	ICP-MS USP <730>
† Quercetin	60.63	mg/cap	> 50 mg/cap	HPLC
Total Aerobic Microbial Count	220	CFU/g	<= 1,000 CFU/g	USP <2021>
Coliform	<10	CFU/g	<= 100 CFU/g	AOAC 991.14
E.Coli	Absent	per 10 grams	Absent	USP <2022>
Staphylococcus aureus	Absent	per 10 grams	Absent	USP <2022>
Salmonella	Absent	per 10 grams	Absent	USP <2022>
Total Yeast & Mold	<10	CFU/g	<= 100 CFU/g	USP <2021>
Yeast *	<10	CFU/g	<= 100 CFU/g	USP <2021>
Mold *	<10	CFU/g	<= 100 CFU/g	USP <2021>

**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:



Kristina Nolf - Quality Technician

Dated:

5/14/2020

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: 5/15/2020 2:22:25 PM

Lab No. 195695-01A  
replaces 195695-01



If you liked our service, please tell a friend. If you didn't, please tell us!

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Analysis	Result	Per Unit	Specifications	Method
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\* For informational purposes only.

Quercetin analysis performed using HPLC by method adapted from Ji YB, Xu QS, Hu YZ, Heyden YV "Development, optimization and validation of a fingerprint of Ginkgo biloba extracts by high-performance liquid chromatography" as published in Journal Of Chromatography A 1066 (1-2): 97-104 Feb 25 2005; utilizing linear gradient elution with acetonitrile/0.1% phosphoric acid (from 14/86 to 30/70, v/v, in 40 min) on a Waters Symmetry C18 3µm (150 x 4.6mm) column at a temperature of 30°C. Detection performed by scanning PDA (200-400nm) with signal extraction at 311nm for quantification.

§Reported Quercetin in cap per customer request.

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