

Title: <b>Echinacea Ivy/ Echinacea Plus</b>	
Allergy Research Group® / NutriCology®	
Document No.: 77630CA	Revision: New

### Certificate of Analysis

<b>Part Number</b>	77630CA		
<b>Lot Number</b>	0063001		
<b>Product Count &amp; Form</b>	60 Capsules		
<b>Packaging, Closure</b>	100cc bottle, cotton/ rayon, desiccant		
<b>Storage Condition</b>	Room Temperature		
<b>Shelf Life</b>	24 months	Expiration Date	09/2022
<b>Label Number, Size</b>	77630, C		
<b>Retain Sample</b>	2 bottles per label (4 bottles total)		

#### ANALYSIS

#### Physical

Attribute	Method / SOP	Specification	Test Result
Product Color	QC011	Tan-Beige with white speckles, Clear size "0"	Complies
Product Weight Variation	QC012	Meets USP <2091> 480-600 mg	Passes, 538 mg
Disintegration Time	QC018	Meets USP <2040>	Passes, 5 min.

#### Purity/Strength per capsule

Active Ingredients	Label Claim	Release Limits	Test Result
<i>Echinacea purpurea</i> Extract 45:1	230 mg	100-150% LC by Input	Confirmed via HPTLC
Ivy (Leaf) Extract 5.5:1	25 mg	100-150% LC by Input	100-150% LC by Input*

**Other Ingredients:** Microcrystalline Cellulose, Nu-Mag

\*Unable to detect due to matrix interference


#### Identification \ Chemical \ Heavy Metals

Attribute	Method / SOP	Specification	Test Result
Identity	Bulk Certificate of Analysis Review	Approved	Complies
Identity	Near Infrared Spectroscopy	Matches Reference	Matches
Arsenic (inorganic)	ICP-MS per USP <2232>	≤ 15 mcg/day	0.018 mcg/day
Cadmium	ICP-MS per USP <2232>	≤ 5 mcg/day	BQL
Mercury (total)	ICP-MS per USP <2232>	≤ 15 mcg/day	BQL
Lead	ICP-MS per USP <2232>	≤ 10 mcg/day	0.048 mcg/day

BQL-Below Quantitative Limits

#### Microbiology

Attribute	Method / SOP	Specification	Test Result
Total Aerobic Count	USP/ AOAC/ FDA BAM	≤ 1 x 10 <sup>4</sup> CFU/g	<10 CFU/g
Total Yeast & Mold	USP/ AOAC/ FDA BAM	≤ 1 x 10 <sup>3</sup> CFU/g	<10 CFU/g
Coliform	USP/ AOAC/ FDA BAM	≤ 1 x 10 <sup>2</sup> 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: 	Casey Van Wagoner 2020.12.11 15:34:46 -07'00'	Date: 11DEC2020
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## Test Certificate

 Description: Echinacea Ivy  
 Sample ID: 87630  
 Lot No: 0063001  
 Location:  
 Received: 9/25/2020  
 Completed: 10/2/2020

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

Lab No: 203827-02

Analysis	Result	Per Unit	Specifications	Method
Mercury	<0.001	µg/g	< 0.5 µg/g	ICP-MS USP <730>
Lead	0.045	µg/g	< 0.5 µg/g	ICP-MS USP <730>
Arsenic	0.017	µg/g	< 0.5 µg/g	ICP-MS USP <730>
Cadmium	<0.001	µg/g	< 0.5 µg/g	ICP-MS USP <730>
Total Aerobic Microbial Count	<10	CFU/g	<= 10,000 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	<= 1,000 CFU/g	USP <2021>
Yeast *	<10	CFU/g	<= 1,000 CFU/g	USP <2021>
Mold *	<10	CFU/g	<= 1,000 CFU/g	USP <2021>

\* For informational purposes only.

**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.**

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Results Approved By:



Kristina Noll - Quality Technician

Dated:

10/2/2020

Printed: 10/2/2020 3:10:27 PM



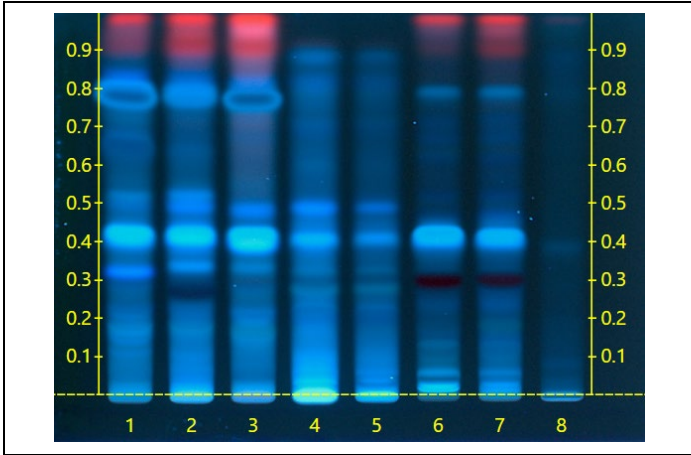
Certificate Issued To:  
**Allergy Research Group**  
2300 S. Main St.  
South Salt Lake, Utah 84115  
United States



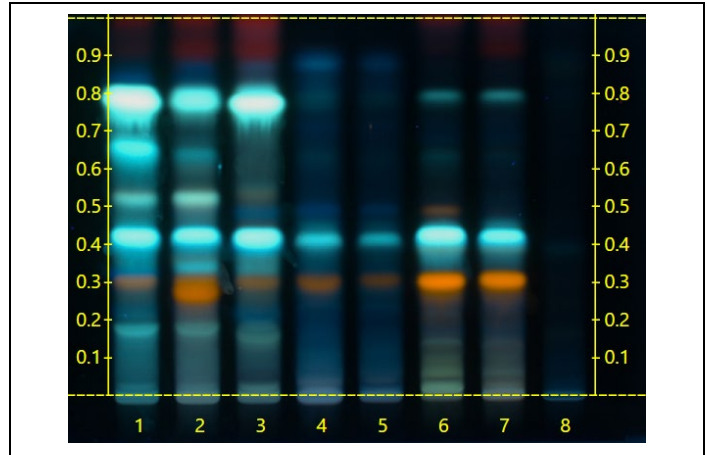
Work performed at:  
**Alkemist Labs**  
12661 Hoover Street  
Garden Grove, CA 92841  
714-754-HERB (4372)  
714-668-9972 (FAX)  
Sales@Alkemist.com  
www.Alkemist.com

**Certificate of Analysis: Echinacea Ivy (87630/0063001)**  
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Allergy Research Group  
Title: Echinacea Ivy  
Plant Part: herb  
Sample Received: 09/28/20  
Sample Packaging: Clear Whirl-Pak  
Form of Botanical: powdered extract  
Appearance: Fine Beige Powder  
Lot Number: (87630/0063001) → Lanes 4(10µl), 5(5µl)  
Sample: 20272JXL\_1  
Latin Name: *Echinacea purpurea* (L.) Moench [Asteraceae]  
Reference Sample: Lane 1(5µl) (OA21818HH2) *Echinacea pallida* (aerial part); Lane 2(5µl) (DG21906TLF) *Echinacea angustifolia* (herb (leaf, flower, stem)); Lane 3(5µl) (KA19410CS) *Echinacea purpurea* (herb (leaf, flower, stem)); Lane 6(3µl) (20044KBD) *Hedera helix* (aerial part); Lane 7(3µl) (20148WUK) *Hedera helix* (leaf); Lane 8(6µl) (19086QBY) *Oryza sativa* (hull); held at Alkemist Labs, Garden Grove, CA.  
Analyst: A. Davis, N. Afendikova, M. Edwards, S. Kabbaj, N. Hoang, K. Tran, J. Lopez, J. Mares 144153  
Sample Preparation: 0.3g+3mL 70% grain Ethanol (87630/0063001) sonicate/heat at 50° C for 30 min.  
Stationary Phase: Silica gel 60, HPTLC plates  
Mobile Phase: ethyl acetate: Acetic acid: Formic Acid: Water [10/1.1/1.1/1.2]  
Detection: (1) UV 366 nm  
(2) 10% Sulfuric, 100°C, 2min, 366nm (Reich, E., 2007)  
Reference Source: Method Developed by Alkemist Labs  
IDT-SOP-72-01

**Comments & Conclusions:** Lanes 4, 5 are the test sample *Echinacea Ivy* (87630/0063001). Lanes 1, 2, 3, 6, 7, 8 are the reference samples used for comparison. This test sample, *Echinacea Ivy* (87630/0063001) has characteristics of the chromatographic profile of *Echinacea sp.* reference samples used above. **This test sample *Echinacea Ivy* (87630/0063001) indicates the presence of *Echinacea sp. herb*.**

**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: 10/15/20

ISO/IEC 17025



Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to 87630/0063001. This report applies to the sample investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. This report is for the exclusive use of the party who requested the report and not for public dissemination or use by third parties, including for promotional purposes, without the prior written permission of Alkemist Labs, Inc. This report provides technical results for a specific sample and the report shall not be altered, modified, supplemented or abstracted in any manner. Any violation of these conditions renders the report and its results void. © 2020 Alkemist Labs, Inc. All Rights Reserved

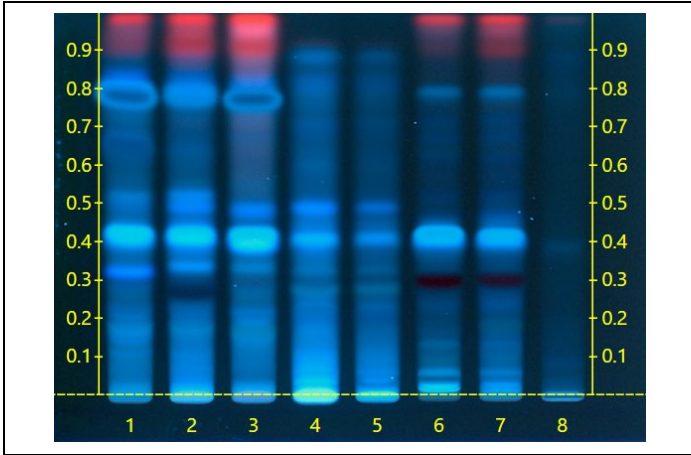
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2300 S. Main St.  
South Salt Lake, Utah 84115  
United States



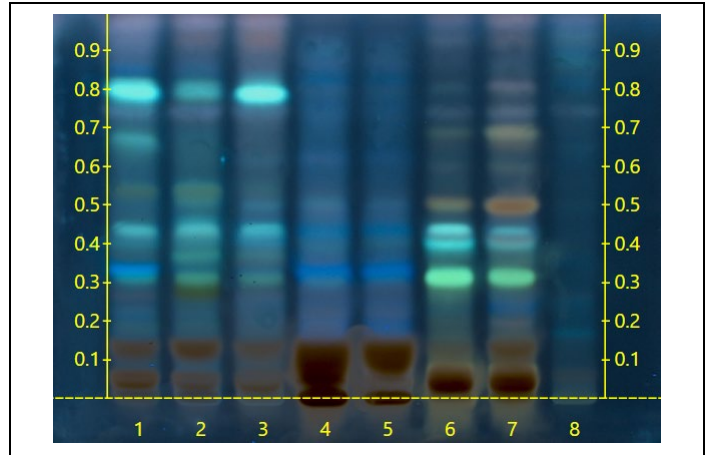
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**Certificate of Analysis: Echinacea Ivy (87630/0063001)**  
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Allergy Research Group  
Title: Echinacea Ivy  
Plant Part: entire  
Sample Received: 09/28/20  
Sample Packaging: Clear Whirl-Pak  
Form of Botanical: powdered extract  
Appearance: Fine Beige Powder  
Lot Number: (87630/0063001) → Lanes 4(10µl), 5(5µl)  
Sample: 20272HMMU\_1  
Latin Name: *Hedera helix* L. [Araliaceae]  
Reference Sample: Lane 1(5µl) (OA21818HH2) *Echinacea pallida* (aerial part); Lane 2(5µl) (DG21906TLF) *Echinacea angustifolia* (herb (leaf, flower, stem)); Lane 3(5µl) (KA19410CS) *Echinacea purpurea* (herb (leaf, flower, stem)); Lane 6(3µl) (20044KBD) *Hedera helix* (aerial part); Lane 7(3µl) (20148WUK) *Hedera helix* (leaf); Lane 8(6µl) (19086QBY) *Oryza sativa* (hull); held at Alkemist Labs, Garden Grove, CA.  
Analyst: A. Davis, N. Afendikova, M. Edwards, S. Kabbaj, N. Hoang, K. Tran, J. Lopez, J. Mares 144153  
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: Acetic acid: Formic Acid: Water [10/1.1/1.1/1.2]  
Detection: (1) UV 366 nm  
(2) 10% Sulfuric, 100°C, 2min, 366nm (Reich, E., 2007)  
Reference Source: Method Developed by Alkemist Labs  
IDT-SOP-72-01

**Comments & Conclusions:** Lanes 4, 5 are the test Sample Echinacea Ivy (87630/0063001) Lanes 1, 2, 3, 6, 7, 8 are the reference samples used for comparison. This test sample, Echinacea Ivy (87630/0063001) is not consistent of the chromatographic profile of *Hedera helix* reference samples used above. The chromatographic profile demonstrated above cannot distinguish the presence of *Hedera helix* entire from other components in the blend. **As per the analysis performed above, the matrix or concentration of the botanical tested for, the limits of this method & the technology used to make this determination, this analysis is unable to indicate the presence of *Hedera helix* entire.**

**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: 10/15/20



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 Email: utlab@advancedlabsinc.com  
**FDA Registration #14353128308**

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## Test Certificate

Description: Echinacea Ivy  
 Sample ID: 87630  
 Lot No: 0063001  
 Location:  
 Received: 9/28/2020  
 Completed: 10/5/2020

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

Lab No: 203906-02

Analysis	Result	Per Unit	Specifications	Method
Gluten***	<5.0	ppm	Report	ELISA
Nonfat Dried Milk (NFDM)**	<2.5	ppm	Report	ELISA

\*\*\*Limit of Quantification (LOQ) = 5.0 ppm

\*\*\*Samples tested for gliadin. Gliadin results are multiplied by two (2) to obtain gluten results.

\*\*Limit of Quantification (LOQ) = 2.5 ppm

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Results Approved By:   
 Kristina Noll - Quality Technician

Dated: 10/5/2020

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