

Certificate Issued To:

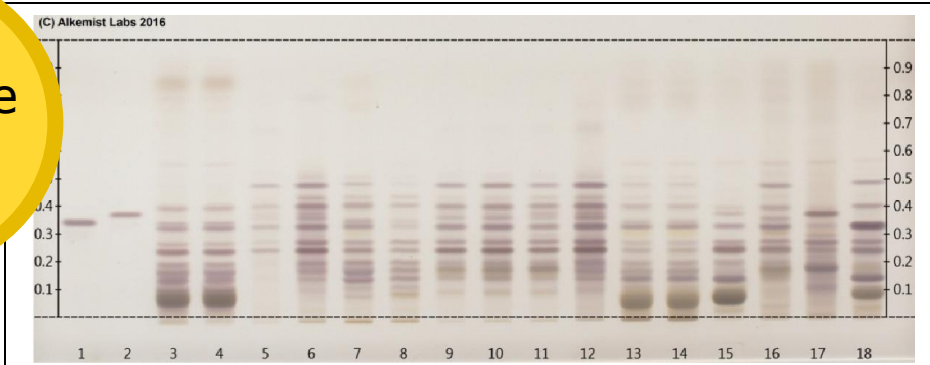
Dietary Supplement Company
1234 Main Street
Los Angeles, CA 90000



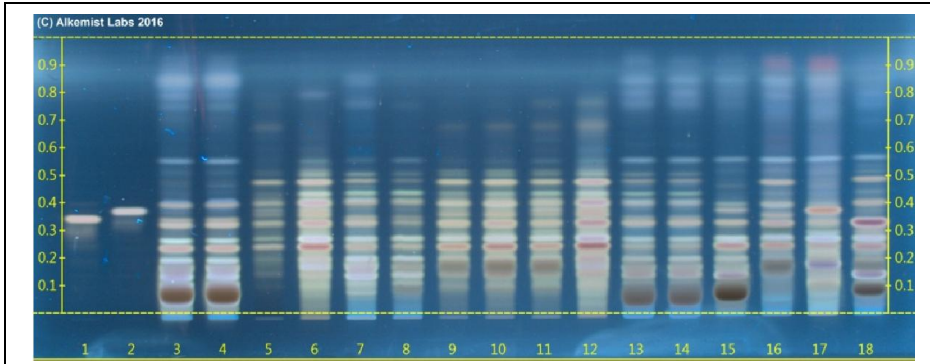
Work performed at:
Alkemist Labs
1260 Logan Ave B2
Costa Mesa, CA 92626
714-754-HERB (4372)
714-668-9972 (FAX)
sales@alkemist.com
www.alkemist.com

Certificate of Analysis: Panax Ginseng Extract (ABCDEFG)
High Performance Thin-Layer Chromatography with Photo-Documentation

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Company Name: Dietary Supplement Company
Title: Panax Ginseng Extract
Plant Part: root
Appearance: Foil Pouch
Sample Description: Foil Pouch
Latin Name: Panax ginseng C.A. Mey [Araliaceae]

Sample Received: 01/01/2016
Lot: (ABCDEFG) → Lane 7(0.5µl)
Sample: 12345
Form of Botanical: powdered extract

Reference Sample: Lane 13(2µl) (EA30009CRB) Panax ginseng (root); Lane 14(2µl) (EA13805SWH) Panax ginseng (root); Lane 15(2µl) (LA14609CRB1) Panax quinquefolius (root); Lane 16(2µl) (EA08305SWH) Panax ginseng (leaf); Lane 17(2µl) (LA08905BMX) Panax quinquefolius (herb (leaf, stem)); Lane 18(2µl) (VE15305SWH) Panax pseudoginseng Wall. Var. notoginseng (root); held at Alkemist Labs, Costa Mesa, CA.

Analyst: N. Hoang, L. Scott, P. Fast, T. Collins 65801
Sample Prep: 0.3g+3mL 70% grain EtOH sonicate/heat @~50° C ~ 1/2 hr

Stationary Phase: Silica gel 60, F₂₅₄, HPTLC plates
Mobile Phase: chloroform: ethyl acetate: CH₃OH: water [3/8/4.4/1.8]
Detection: (1) 10% Ethanolic H₂SO₄ → 120° C 10 min → visible light
(2) 10% Ethanolic H₂SO₄ → 120° C 10 min → UV 365 nm

Reference Std: Lane 1(2µl) Ginsenoside Rf (00007216-601, CHR); Lane 2(2µl) Ginsenoside F11 in Methanol (55162, VWR) ~0.1%
Reference Source: Method Developed by Alkemist Labs
IDT-SOP-72-01

Comments & Conclusions: Lane 7 is the test sample Panax Ginseng Extract (ABCDEFG). Lanes 13, 14, 15, 16, 17, 18 are the reference samples used for comparison. This test sample, Panax Ginseng Extract (012-1601204-15), is consistent with the chromatographic profile of the reference samples of Panax ginseng C.A. Mey [Araliaceae], used above. **This test sample, Panax Ginseng Extract (ABCDEFG) has characteristics of an extract derived from Panax ginseng C.A. Mey [Araliaceae] 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: Sandy Sudberg, Senior Data Analyst, Alkemist Labs

Report Date: 01/10/2016



Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to 012-1601204-15. **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. © 2016 Alkemist Labs, Inc. All Rights Reserved**