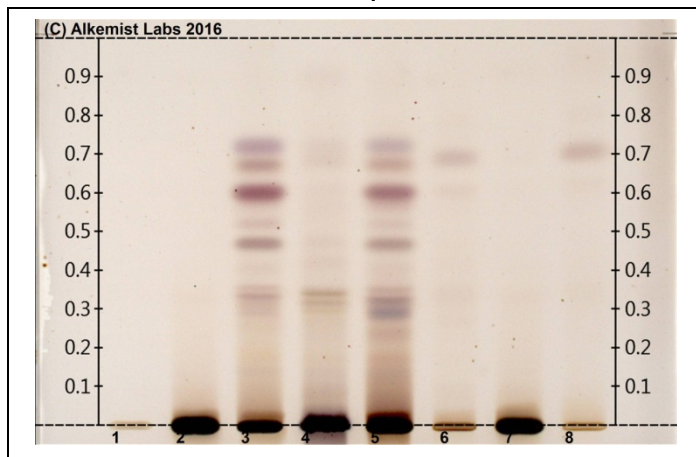


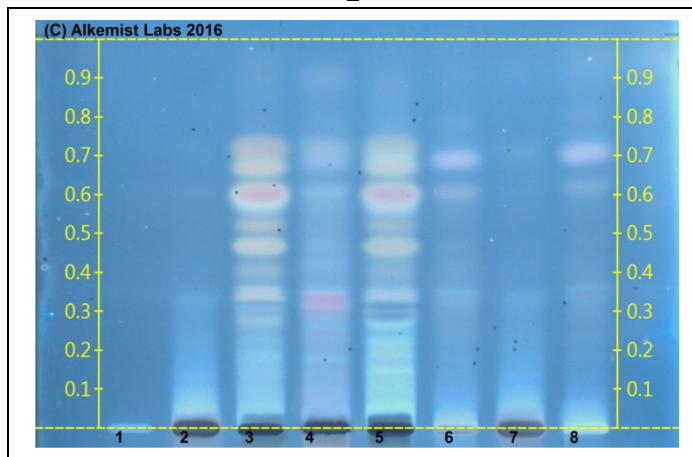


**Certificate of Analysis: Chaga (CH-416)**  
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Superman Herbs  
Title: Chaga  
Plant Part: fruiting body  
Sample Received: 5/13/2016  
Sample Packaging: Clear Reclosable Plastic Bag  
Form of Botanical: powdered extract  
Appearance: Fine dark brown powder  
Lot: (CH-416) → Lane 5(7µl)  
Sample: ACK13416SUP1\_1  
Latin Name: Inonotus obliquus (Pers.: Fr.) Pilat [Hymenochaetaceae]  
Reference Sample: Lane 3(7µl) (ACK16913NAMX1) Inonotus obliquus (fungus); Lane 6(7µl) (ACK36309FPM) Inonotus obliquus (fungus); Lane 7(7µl) (ACK02716FPM3) Inonotus obliquus (mycelia); Lane 8(7µl) (ACK15113FPM1) Inonotus obliquus (mycelia); held at Alkemist Labs, Costa Mesa, CA.  
Analyst: N. Hoang, L. Scott, P. Fast, T. Collins 69866  
Sample Preparation: 0.3g+3mL 70% grain EtOH sonicate/heat @-50° C ~ 1/2 hr  
Stationary Phase: Silica gel 60, F<sub>254</sub>, HPTLC plates  
Mobile Phase: toluene: ethyl formate: HCOOH [5/5/0.2]  
Detection: (1) 10% Ethanolic H<sub>2</sub>SO<sub>4</sub> → 120° C 10 min → visible light  
(2) 10% Ethanolic H<sub>2</sub>SO<sub>4</sub> → 120° C 10 min → UV 365 nm  
Reference Standard: Lane 1(3µl) (-)-Adenosine (SLBL0630V, SigAl), Water (118358, JTB), Reagent Alcohol (073015B, VWR) ~0.1%  
Reference Source: Method Developed by Alkemist Labs  
IDT-SOP-72-01

**Comments & Conclusions:** Lane 5 is the test sample Chaga (CH-416). Lanes 3, 6, 7, 8 are the reference samples used for comparison. This test sample, Chaga (CH-416), is consistent with the chromatographic profile of the reference samples of Inonotus obliquus (Pers.: Fr.) Pilat [Hymenochaetaceae] used above. **This test sample, Chaga (CH-416) has characteristics of an extract derived from Inonotus obliquus (Pers.: Fr.) Pilat [Hymenochaetaceae] fruiting body.**

*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: Jonathan Nguyen, HPTLC Supervisor, Alkemist Labs

Report Date: 5/20/2016



Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to CH-416. 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