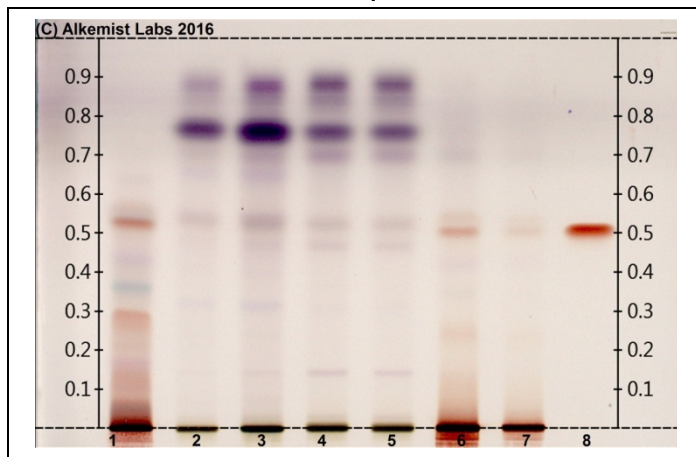


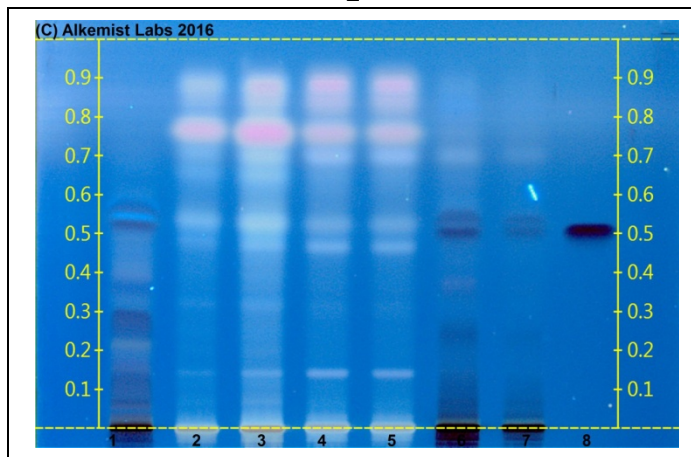


**Certificate of Analysis: Pine Pollen (YE0031)**  
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Superman Herbs  
Title: Pine Pollen  
Plant Part: pollen  
Sample Received: 5/13/2016  
Sample Packaging: Clear Reclosable Plastic Bag  
Form of Botanical: powder  
Appearance: Fine light yellow powder  
Lot: (YE0031) → Lanes 4(3µl), 5(3µl)  
Sample: KIR13416SUP1\_1  
Latin Name: Pinus sp.  
Reference Sample: Lane 2(2µl) (Vendor Supplied Reference Material) (KIR35813SUP1) Pinus sp. (11) (pollen); Lane 3(4µl) (Vendor Supplied Reference Material) (KIR35813SUP1) Pinus sp. (11) (pollen); Lane 6(4µl) (TS12205HEC) Pinus maritima / pinus pinaster (bark); Lane 7(2µl) (TS12205HEC) Pinus maritima / pinus pinaster (bark); held at Alkemist Labs, Costa Mesa, CA.  
Analyst: N. Hoang, L. Scott, P. Fast, T. Collins 69881  
Sample Preparation: 0.3g+3mL CH<sub>3</sub>OH sonicate/heat @ -50° C ~ 1/2 hr.  
Stationary Phase: Silica gel 60, F<sub>254</sub>, HPTLC plates  
Mobile Phase: ethyl acetate: formic acid: water [10/0.1/0.06]  
Detection: (1) Vanillin/H<sub>2</sub>SO<sub>4</sub> Reagent → 120° C 10 min → visible light  
(2) Vanillin/H<sub>2</sub>SO<sub>4</sub> Reagent → 120° C 10 min → UV 365 nm  
Reference Standard: Lane 1(3µl) Maritime Pine Extract (F0K092, USP); Lane 8(3µl) Catechin Hydrate (BCBF0735V, SigAl) ~0.1%  
Reference Source: Method Developed by Alkemist Labs  
IDT-SOP-72-01

**Comments & Conclusions:** Lanes 4, 5 are the test sample Pine Pollen (YE0031). Lanes 2, 3, 6, 7 are the reference samples used for comparison. This test sample, Pine Pollen (YE0031), is compared to and consistent with the chromatographic profile of the reference sample of Pinus sp. used above. **This test sample, Pine Pollen (YE0031) has characteristics of the vendor supplied reference material Pinus sp. pollen.**

*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 YE0031. 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