

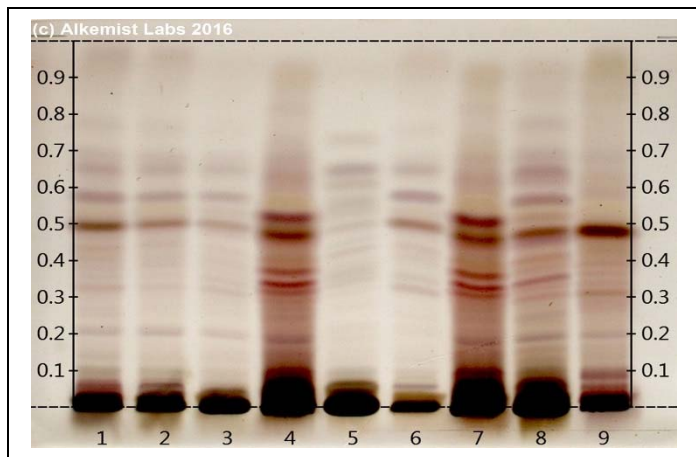
Certificate Issued To:  
Lost Empire Herbs  
2800 S. Rodeo Gulch Dr Unit G  
Soquel, CA 95073  
USA



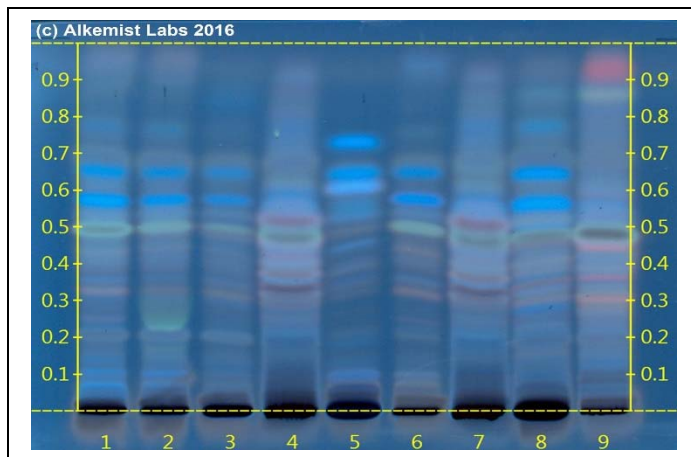
Work performed at:  
**Alkemist Labs**  
1260 Logan Ave B2  
Costa Mesa, CA 92626  
714-754-HERB (4372)  
714-668-9972 (FAX)  
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**Certificate of Analysis: Ashwagandha Tincture (AT1101)**  
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Lost Empire Herbs  
Title: Ashwagandha Tincture  
Plant Part: root  
Sample Received: 12/14/2016  
Sample Description: Light Sensitive Glass Bottle or Jar  
Form of Botanical: liquid extract  
Appearance: Light Sensitive Glass Bottle or Jar  
Lot : (AT1101) → Lane 5(7µl)  
Sample : J34916SUP1\_1  
Latin Name: Withania somnifera (L.) Dunal [Solanaceae]  
Reference Sample : Lane 1(7µl) (J15209CRB) Withania somnifera (root); Lane 2(7µl) (J22813NRPL1) Withania somnifera (root); Lane 3(7µl) (J1499AHP) Withania somnifera (root); Lane 9(7µl) (J36110SC1) Withania somnifera (leaf); held at Alkemist Labs, Costa Mesa, CA.  
  
Analyst: J. Nguyen, N. Hoang, P. Fast, S. Kabbaj, K. Tran 78668  
Sample Prep: Spray directly on to plate  
Stationary Phase: Silica gel 60, F<sub>254</sub>, HPTLC plates  
Mobile Phase: CH<sub>2</sub>Cl<sub>2</sub>: CH<sub>3</sub>OH [9/1]  
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 Source: HPTLC Chromatography for the Analysis of Medicinal Plants pg. 144  
IDT-SOP-72-01

**Comments & Conclusions:** Lane 5 is the test sample Ashwagandha Tincture (AT1101). Lanes 1, 2, 3, 9 are the reference samples used for comparison. This test sample, Ashwagandha Tincture (AT1101), is consistent with the chromatographic profile of the reference samples of Withania somnifera (L.) Dunal [Solanaceae] used above. **This test sample, Ashwagandha Tincture (AT1101) has characteristics of an extract derived from Withania somnifera (L.) Dunal [Solanaceae] 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: 12/22/2016



Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to AT1101. 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