

Certificate Issued To:  
**Superman Herbs**  
2800 Rodeo Gulch Dr Unit G  
Soquel, CA 95073  
USA

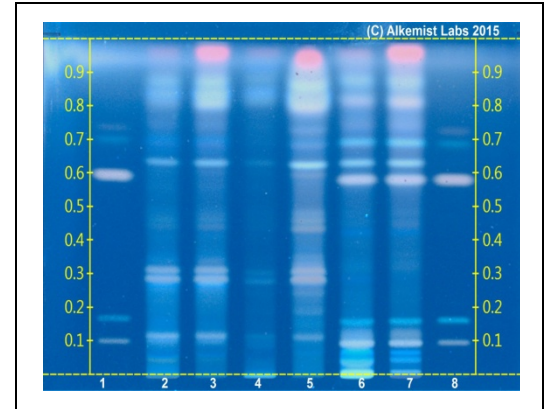
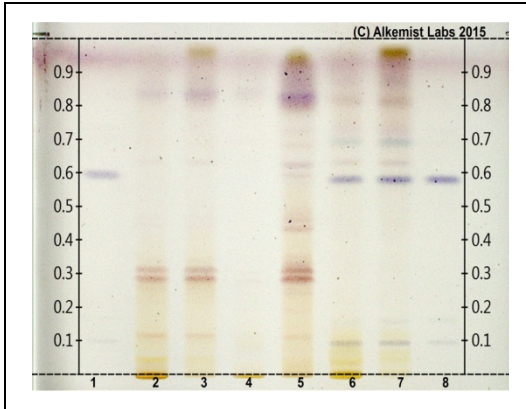


Work performed at:  
**Alkemist Labs**  
1260 Logan Ave B2  
Costa Mesa, CA 92626  
714-754-HERB (4372)  
714-668-9972 (FAX)  
E-mail: sales@alkemist.com  
Web Site: www.alkemist.com

**Certificate of Analysis: Bacopa (BAC01)**  
High Performance Thin-Layer Chromatography with Photo-Documentation

1

2



Company Name: Superman Herbs  
Title: Bacopa  
Plant Part: leaf  
Sample Received: 11/11/2015  
Sample Description: Light Sensitive Reclosable Plastic Bag  
Form of Botanical: powdered extract  
Appearance: light sensitive reclosable plastic bag  
Lot : (BAC01) → Lane 4(1µl)  
Sample : UL31515SUP1\_1  
Latin Name: Bacopa monnieri (L.) Pennell [Scrophulariaceae]  
Reference Sample : Lane 2(2µl) (UL21010CRB) Bacopa monnieri (herb); Lane 3(2µl) (UL21010CRB) Bacopa monnieri (herb); Lane 6(2µl) (DA20109CRB) Centella asiatica (aerial part); Lane 7(2µl) (DA20109CRB) Centella asiatica (aerial part); held at Alkemist Labs, Costa Mesa, CA.  
Analyst: N. Hoang, L. Scott, P. Fast, T. Collins 62844  
Sample Prep: 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: CH<sub>2</sub>Cl<sub>2</sub>: methanol: water [7/3/0.5]  
Detection: (1) Vanillin/H<sub>2</sub>SO<sub>4</sub> Reagent → 110° C 5 min → visible light  
(2) Vanillin/H<sub>2</sub>SO<sub>4</sub> Reagent → 110° C 5 min → UV 365 nm  
Reference Std: Lanes 1(3µl) and 8(3µl) Madecassoside (00013015-114, CHR), Asiaticoside (FOJ354, USP), Madecassic Acid (00013009-306, CHR) ~0.1% in CH<sub>3</sub>OH (041715D, VWR)  
Reference Source: Method Developed by Alkemist Labs  
IDT-SOP-72-01

**Comments & Conclusions:** Lane 4 is the test sample Bacopa (BAC01). Lanes 2, 3, 6, 7 are the reference samples used for comparison. This test sample, Bacopa (BAC01), is consistent with the chromatographic profile of the reference samples of Bacopa monnieri (L.) Pennell [Scrophulariaceae], used above. **This test sample, Bacopa (BAC01) has characteristics of an extract derived from Bacopa monnieri (L.) Pennell [Scrophulariaceae] leaf.**

*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: 11/19/2015

Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to BAC01.

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