

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

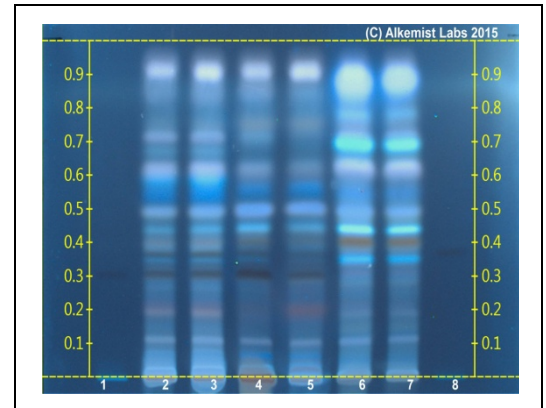
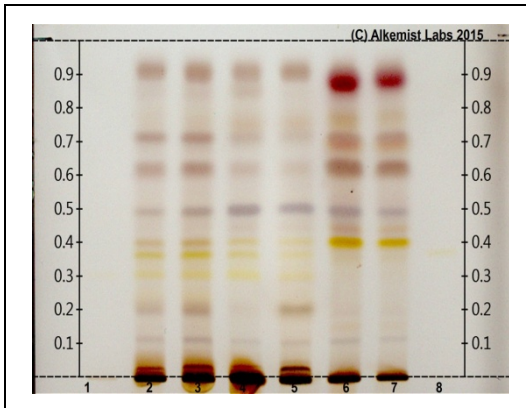


Work performed at:
Alkemist Labs
1260 Logan Ave B2
Costa Mesa, CA 92626
714-754-HERB (4372)
714-668-9972 (FAX)
E-mail: sales@alkemist.com
Web Site: www.alkemist.com

Certificate of Analysis: Schisandra (SB02)
High Performance Thin-Layer Chromatography with Photo-Documentation

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Company Name: Superman Herbs
Title: Schisandra
Plant Part: fruit
Sample Received: 11/11/2015
Sample Description: Clear Reclosable Plastic Bag
Form of Botanical: crude plant powder
Appearance: dark purple/red fine powder
Lot : (SB02) → Lane 4(5µl)
Sample : G31515SUP1_1
Latin Name: Schisandra chinensis (Turcz.) Baill. [Schisandraceae]
Reference Sample : Lane 2(3µl) (G16414AHP1) Schisandra chinensis (fruit); Lane 3(5µl) (G16414AHP1) Schisandra chinensis (fruit); Lane 6(5µl) (AIY07110SWH) Schisandra sphenanthera (fruit); Lane 7(3µl) (AIY07110SWH) Schisandra sphenanthera (fruit); held at Alkemist Labs, Costa Mesa, CA.
Analyst: N. Hoang, L. Scott, P. Fast, T. Collins 62793
Sample Prep: 0.3g+3mL CH₃OH sonicate/heat @-50° C ~ 1/2 hr.
Stationary Phase: Silica gel 60, F₂₅₄, HPTLC plates
Mobile Phase: toluene: ethyl acetate: acetic acid [7/3.3/0.3]
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(5µl) Schisandrin A (19504-501, CHR); Lane 8(5µl) Schisandrol B (00019501-018, CHR), ~0.1% in CH₃OH (54212, EMD)
Reference Source: Method Developed by Alkemist Labs
IDT-SOP-72-01

Comments & Conclusions: Lane 4 is the test sample Schisandra (SB02). Lanes 2, 3, 6, 7 are the reference samples used for comparison. This test sample, Schisandra (SB02), is consistent with the chromatographic profile of the reference samples of Schisandra chinensis (Turcz.) Baill. [Schisandraceae], used above. **This test sample, Schisandra (SB02) has characteristics of Schisandra chinensis (Turcz.) Baill. [Schisandraceae] fruit.**

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: 11/17/2015

Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to SB02.

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