

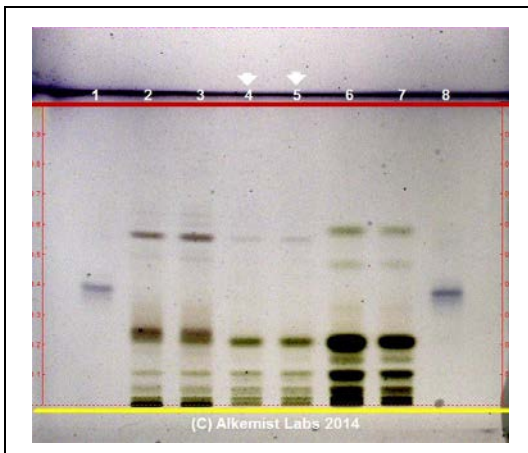
Certificate Issued To:
Superman Herbs
1226 Mission Street
Santa Cruz, CA 95060
USA



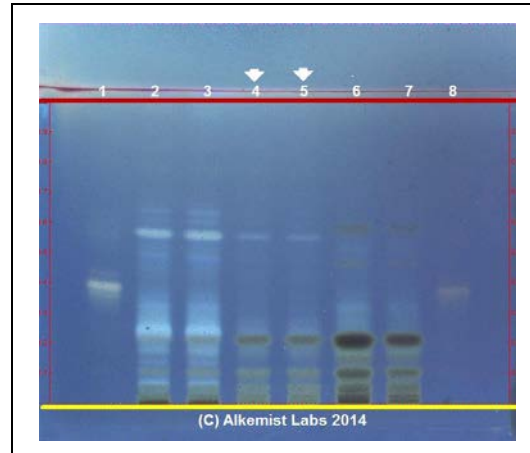
Work performed at:
Alkemist Labs
1260 Logan Ave B2
Costa Mesa, CA 92626
714-754-HERB (4372)
714-668-9972 (FAX)
E-mail: sales@alkemist.com
Web Site: www.alkemist.com

Certificate of Analysis: Shatavari (102)
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Superman Herbs
Title: Shatavari
Plant Part: root
Sample Received: 08/27/14
Sample Description: Clear Reclosable Plastic Bag
Form of Botanical: powdered extract
Appearance: brown fine powder
Lot : (102) → Lanes 4(3µl), 5(3µl)
Sample : QK23914SUP1_1
Latin Name: Asparagus racemosus Willd. [Liliaceae]
Reference Sample : Lane 2(3µl) (QK23309PB) Asparagus racemosus (root); Lane 3(3µl) (QK23209MRH) Asparagus racemosus (root); Lane 6(4µl) (FR26103SWH) Asparagus cochinchinensis (root); Lane 7(2µl) (FR26103SWH) Asparagus cochinchinensis (root); authenticated by macroscopic, microscopic &/or TLC studies according to the reference source cited below, held at Alkemist Labs, Costa Mesa, CA.
Analyst: JN, ML, JK, CB 48036
Sample Prep: 0.3g+3mL 100% gr EtOH, sonicate/heat @-50°C ~ 1/2 hr
Stationary Phase: Silica gel 60, F₂₅₄, 10 x 10 cm HPTLC plates
Mobile Phase: CHCl₃: CH₃OH: H₂O: AcCOOH [6/1.2/0.8/3.2]
Detection: (1) Vanillin/H₂SO₄ Reagent → 110° C 5 min → visible light
(2) Vanillin/H₂SO₄ Reagent → 110° C 5 min → UV 365 nm
Reference Std: Lanes 1(2µl) and 8(2µl) Escin (039K1224V, SigAl) ~0.1% in CH₃OH
Reference Source: Phytochemical Investigations of Certain Medicinal Plants Used in Ayurveda 1990
SOP-700-0001-R3

Comments & Conclusions: Yellow line = sample origin @ 10mm, red line = solvent front @ 70mm. Lanes 4, 5 are the test sample Shatavari (102). Lanes 2, 3, 6, 7 are the authenticated reference samples used for comparison. This test sample, Shatavari (102), is consistent with the chromatographic profile of the reference samples of Asparagus racemosus Willd. [Liliaceae], used above. **This test sample, Shatavari (102) is characteristic of an extract derived from Asparagus racemosus Willd. [Liliaceae] 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, Administrative Supervisor, Alkemist Labs

Report Date: 09/03/14

Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to 102.

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