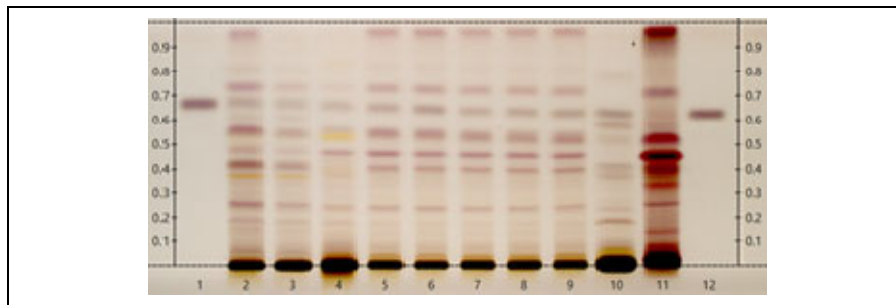


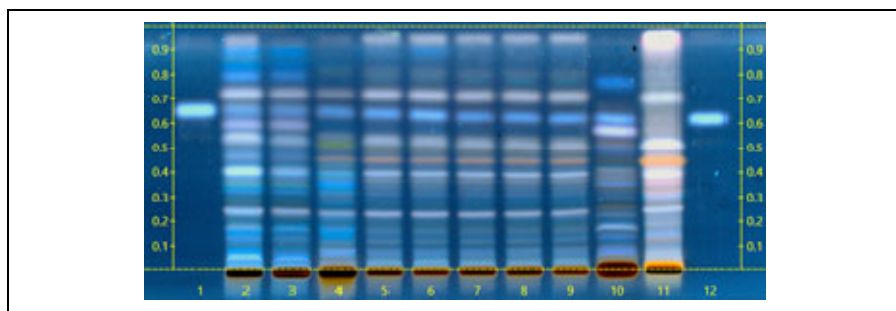


Certificate of Analysis: Ashwagandha Tincture (A220D)
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Lost Empire Herbs
Title: Ashwagandha Tincture
Plant Part: root
Appearance: cloudy liquid
Sample Packaging: Light Sensitive Glass Bottle or Jar

Sample Received: 08/08/22
Form of Botanical: liquid extract
Lot Number: (A220D) → Lane 10(8µl)
Sample: 22220HQS_1

Latin Name: *Withania somnifera* (L.) Dunal [Solanaceae]
Reference Sample: Lane 2(8µl) (J04505PB), Lane 3(8µl) (J04505PB), Lane 4(8µl) (J15916NRPL1) *Withania somnifera* (root); Lane 11(5µl) (J02218NRPL2) *Withania somnifera* (aerial part); held at Alkemist Labs, Garden Grove, CA.

Analyst: J.Mares, K.Chopra, K.Montoya, K.Tran, M.Levine, N.Carson, N.Hoang, N.Afendikova, P.Hoang, S. Kabbaj, S.Sudberg, T.Louis, D.Robinson 181666

Sample Preparation: 0.3g+3mL Methanol, sonicate/heat at 50°C for 30 min.

Stationary Phase: Silica gel 60, HPTLC plates

Mobile Phase: Dichloromethane: Methanol [9/1]

Detection: (1) 10% Sulfuric, 100°C, 2min, Vis (Reich, E., 2007)
(2) 10% Sulfuric, 100°C, 2min, 366nm (Reich, E., 2007)

Reference Standard: Lanes 1(1µl) and 12(1µl) Withanolide A (R143A0, USP), Methanol (217743, VWR)

Reference Source: Method Developed by Alkemist Labs
IDT-SOP-72-01

Comments & Conclusions: Lane 10 is the test sample Ashwagandha Tincture (A220D) Lanes 2, 3, 4, 11 are the reference samples used for comparison. This test sample, Ashwagandha Tincture (A220D), is consistent with the chromatographic profile of the reference samples of *Withania somnifera* used above. **This test sample Ashwagandha Tincture (A220D) indicates the presence of a customized extract derived from *Withania somnifera* 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.