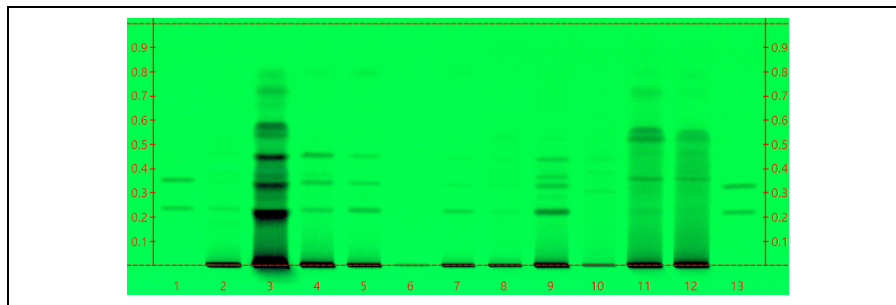


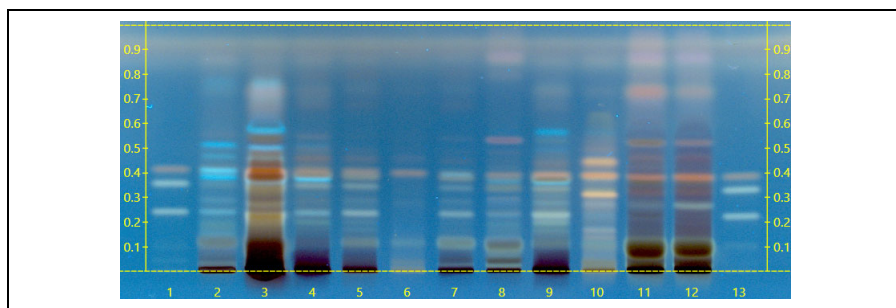


Certificate of Analysis: Rhodiola (BNRHOD1MAR22)
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Lost Empire Herbs
Title: Rhodiola
Plant Part: root
Appearance: Fine Brown Powder
Sample Packaging: Clear Reclosable Plastic Bag

Sample Received: 03/07/22
Form of Botanical: powdered extract
Lot Number: (BNRHOD1MAR22) →Lane 8(0.5µl)
Sample: 22066JUA_1

Latin Name: *Rhodiola rosea* L. [Crassulaceae]
Reference Sample: Lane 2(3µl) (PO00213AP1), Lane 3(3µl) (PO13909SYN) *Rhodiola rosea* (root); Lane 11(3µl) (AVQ09811SWH1), Lane 12(3µl) (AVQ09711PRM1) *Rhodiola crenulata* (root); held at Alkemist Labs, Garden Grove, CA.

Analyst: A.Ung, J.Mares, K.Chopra, K.Montoya, K.Tran, M.Levine, N.Carson, N.Hoang, N.Afendikova, P.Hoang, S. Kabbaj, S.Sudberg, T.Louis 172461

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

Stationary Phase: Silica gel 60, HPTLC plates

Mobile Phase: ethyl acetate: Methanol: water [7.7/1.3/1]

Detection: (1) UV 254 nm

(2) Vanillin/Sulfuric, 110°C, 2min, 366nm (Reich, E., 2007)

Reference Standard: Lanes 1(3µl) and 13(3µl) Rosavin (00018365-143, CHR), Rosarin (18366-515, CHR), Salidroside (19550-825, CHR)

Reference Source: BTM-715-0166

IDT-SOP-72-01

Comments & Conclusions: Lane 8 is the test sample *Rhodiola* (BNRHOD1MAR22). Lanes 2, 3, 11, 12, are the reference samples used for comparison. This test sample, *Rhodiola* (BNRHOD1MAR22) is consistent with the chromatographic profile of the reference samples of *Rhodiola rosea*, used above. **This test sample *Rhodiola* (BNRHOD1MAR22) has characteristics of *Rhodiola rosea* 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.