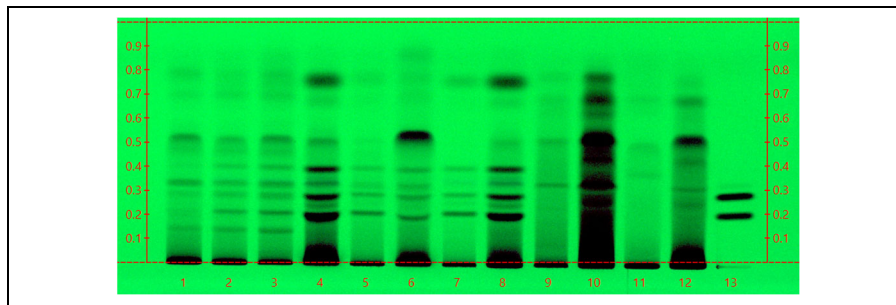


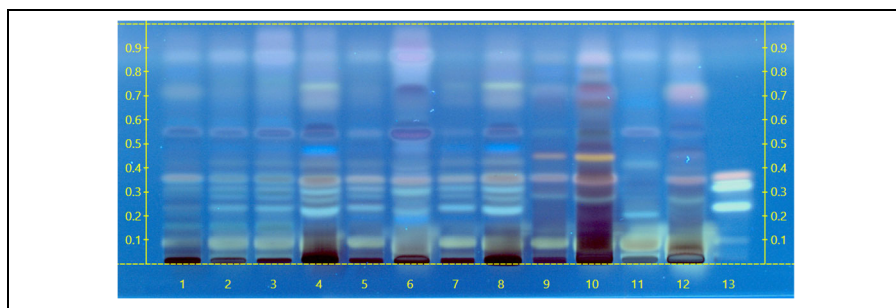


Certificate of Analysis: Rhodiola (BNRHOD17JUL23)
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Lost Empire Herbs
Title: Rhodiola
Plant Part: root
Appearance: brown powder
Sample Packaging: Clear Reclosable Plastic Bag

Sample Received: 08/07/23
Form of Botanical: powdered extract
Lot Number: (BNRHOD17JUL23) → Lane 6(3µl)
Sample: 23219BUY_1

Latin Name: *Rhodiola rosea* L. [Crassulaceae]
Reference Sample: Lane 1 (3µl) (PO01707CHR), Lane 2(3µl) (PO00213AP1), Lane 3(3µl) (PO00213AP1) *Rhodiola rosea* (root); Lane 11 (3µl) (AVQ10111MYWY1), Lane 12(3µl) (AVQ09811SWH1) *Rhodiola crenulata* (root); held at Alkemist Labs, Garden Grove, CA.

Analyst: A.Foultis, D.Robinson, J.Mares, K.Chopra, K.Montoya, K.Tran, L.Tang, M.Fox, N.Alvarez, N.Hoang, N.Afendikova, N.Waldstreicher, P.Hoang, S.Kabbaj, S.Sudberg 206284

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: Lane 13(3µl) Rosavin (00018365-161, CHR), Rosarin (00018366-219, CHR), Salidroside (00019550-101, CHR)

Reference Source: BTM-715-0166

IDT-SOP-72-01

Comments & Conclusions: Lane 6 is the test sample *Rhodiola* (BNRHOD17JUL23). Lanes 1, 2, 3, 11, 12, are the reference samples used for comparison. This test sample, *Rhodiola* (BNRHOD17JUL23) is consistent with the chromatographic profile of the reference samples of *Rhodiola rosea*, used above. **This test sample *Rhodiola* (BNRHOD17JUL23) 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.

Examined, Reviewed & Authorized by: Khanh N Tran, HPTLC, R&D Supervisor, Alkemist Labs

Report Date: 08/10/23



Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to BNRHOD17JUL23.
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