

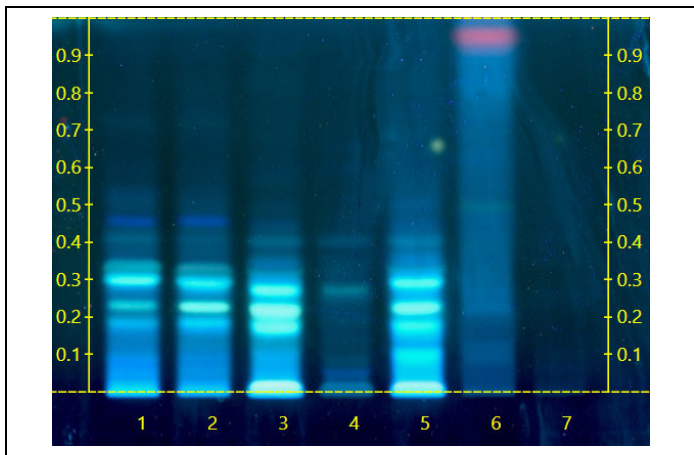
Certificate Issued To:
Lost Empire Herbs
8301 NW 101st Ter.
Kansas City, MO 64153-2321
United States



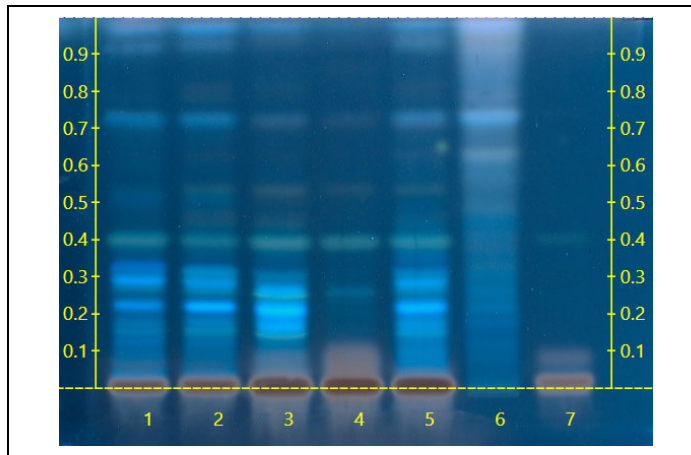
Work performed at:
Alkemist Labs
12661 Hoover Street
Garden Grove, CA 92841
714-754-HERB (4372)
714-668-9972 (FAX)
Sales@Alkemist.com
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Certificate of Analysis: Beet (BBEET08NOV23)
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Lost Empire Herbs
Title: Beet
Plant Part: root
Sample Received: 12/08/23
Sample Packaging: Clear Reclosable Plastic Bag
Form of Botanical: powder
Appearance: purple powder
Lot Number: (BBEET08NOV23) → Lane 3(5µl)
Sample: 23342UWJ_1
Latin Name: *Beta vulgaris* L. [Chenopodiaceae]
Reference Sample: Lane 1 (5µl) (21179CLR), Lane 2(5µl) (XF03316SIL1) *Beta vulgaris* (root); Lane 6(5µl) (XF22102MTG) *Beta vulgaris* (leaf); held at Alkemist Labs, Garden Grove, CA.
Analyst: N.Afendikova, N.Alvarez, K.Chopra, A.Foults, M.Fox, N.Hoang, P.Hoang, R.Islam, S.Kabbaj, J.Mares, K.Montoya, S.Sudberg, L.Tang, K.Tran, N.Waldstreicher 217065
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: Acetic acid: Formic Acid: Water [10/1.1/1.1/2.6]
Detection: (1) Natural Product + Polyethylene Glycol, 366nm (Reich, E., 2007)
(2) 10% Sulfuric, 100°C, 2min, 366nm (Reich, E., 2007)
Reference Standard: Lane 7(2µl) Betanin (GMY8C-TB, TCI)
Reference Source: Method Developed by Alkemist Labs
IDT-SOP-72-01

Comments & Conclusions: Lane 3 is the test sample Beet (BBEET08NOV23) Lanes 1, 2, 6 are the reference samples used for comparison. This test sample, Beet (BBEET08NOV23), is consistent with the chromatographic profile of the reference samples of *Beta vulgaris* used above. **This test sample Beet (BBEET08NOV23) has characteristics of *Beta vulgaris* 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: Nam Hoang, HPTLC, R&D Lead Chemist, Alkemist Labs

Report Date: 12/15/23

ISO/IEC 17025



Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to BBEET08NOV23. This report applies to the sample investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. This report is for the exclusive use of the party who requested the report and not for public dissemination or use by third parties, including for promotional purposes, without the prior written permission of Alkemist Labs, Inc. This report provides technical results for a specific sample and the report shall not be altered, modified, supplemented, or abstracted in any manner. Any violation of these conditions renders the report and its results void. © 2023 Alkemist Labs, Inc. All Rights Reserved