

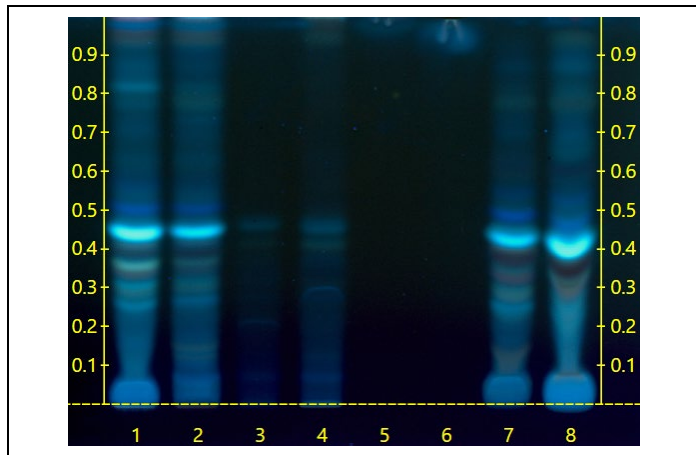
Certificate Issued To:  
**Lost Empire Herbs**  
195 Aviation Way Suite 102  
Watsonville, LA 95076  
USA



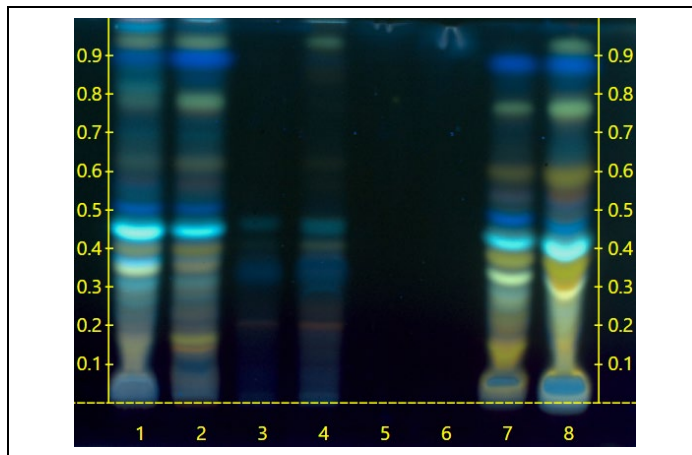
Work performed at:  
**Alkemist Labs**  
12661 Hoover Street  
Garden Grove, CA 92841  
714-754-HERB (4372)  
714-668-9972 (FAX)  
Sales@Alkemist.com  
www.Alkemist.com

**Certificate of Analysis: Sea Buckthorn (SB180820)**  
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Lost Empire Herbs  
Title: Sea Buckthorn  
Plant Part: fruit  
Sample Received: 08/31/20  
Sample Packaging: Clear Reclosable Plastic Bag  
Form of Botanical: powdered extract  
Appearance: Fine Light Yellow Powder  
Lot Number: (SB180820) → Lane 4(5µl)  
Sample: 20244RNO\_2  
Latin Name: *Hippophae rhamnoides* L. [Elaeagnaceae]  
Reference Sample: Lane 1(5µl) *Hippophae rhamnoides* (APD35515MRH1, 22482 (Batch# O-1505-BX-50) , fruit); Lane 2(5µl) *Hippophae rhamnoides* (APD19615STB1, X000S6YKSP , fruit); Lane 3(5µl) *Hippophae rhamnoides* (20258XKH, YF-SJYJ-200901 vendor supplied reference sample, fruit); Lane 7(5µl) *Hippophae rhamnoides* (APD19515AHP1, 3711 , fruit); Lane 8(5µl) *Hippophae rhamnoides* (19329LHH, 5301 , fruit); held at Alkemist Labs, Garden Grove, CA.  
Analyst: A. Davis, N. Afendikova, M. Edwards, S. Kabbaj, N. Hoang, K. Tran, J. Lopez, J. Mares 142468  
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) UV 366 nm  
(2) Preheat at 110°C, 3min, Natural Product, 366nm (Reich, E., 2007)  
Reference Source: BTM-715-0581  
IDT-SOP-72-01

**Comments & Conclusions:** Lane 4 is the test sample Sea Buckthorn (SB180820) Lanes 1, 2, 3, 7, 8 are the reference samples used for comparison. This test sample, Sea Buckthorn (SB180820), is consistent with the chromatographic profile of the reference samples used above. **This test sample Sea Buckthorn (SB180820), has characteristics of vendor supplied reference sample, *Hippophae rhamnoides* fruit (YF-SJYJ-200901).**

**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: 09/17/20

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 SB180820. 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. © 2020Alkemist Labs, Inc. All Rights Reserved