Certificate Issued To:
Lost Empire Herbs
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United States

Work performed at:
Alkemist Labs
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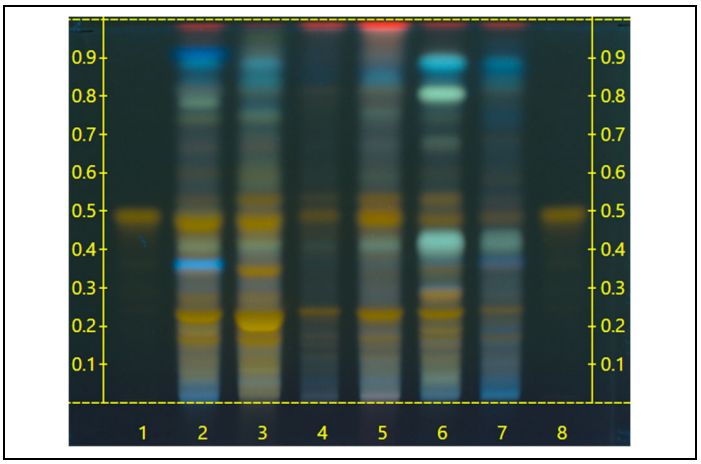
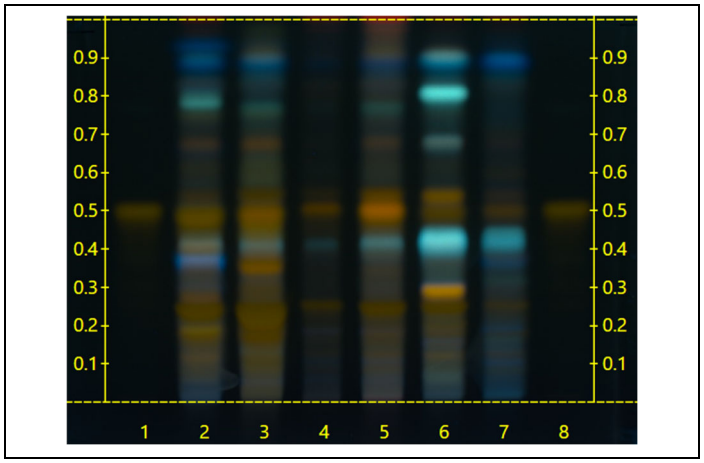
Certificate of Analysis: Horny Goat Weed (BHGW14JUN22)

High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name:	Lost Empire Herbs
Title:	Horny Goat Weed
Plant Part:	leaf
Sample Received:	06/24/22
Sample Packaging:	Clear Reclosable Plastic Bag
Form of Botanical:	powdered extract
Appearance:	Fine beige green powder
Lot Number:	(BHGW14JUN22) →Lanes 4(0.5µl), 5(3µl)
Sample:	22175JPH_1
Latin Name:	*Epimedium sp.*
Reference Sample:	Lane 2(3µl) (FS05405MAYA) Epimedium sagittatum (leaf); Lane 3(3µl) (OY36304SWH) Epimedium brevicornum (leaf); Lane 6(3µl) (IAD25611MRH1) Epimedium sp. (leaf); Lane 7(3µl) (CI14010BDS) Epimedium grandiflorum (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 179069
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: formic acid: Acetic acid: water [10/0.9/0.9/2]
Detection:	(1) UV 366 nm (2) Natural Product + Polyethylene Glycol, 366nm (Reich, E., 2007)
Reference Standard:	Lanes 1(3µl) and 8(3µl) Icariin (00009033_612, CHR)
Reference Source:	Method Developed by Alkemist Labs IDT-SOP-72-01

Comments & Conclusions: Lanes 4, 5 are the test sample Horny Goat Weed (BHGW14JUN22). Lanes 2, 3, 6, 7, are the reference samples used for comparison. This test sample, Horny Goat Weed (BHGW14JUN22) is consistent with the chromatographic profile of the reference samples of *Epimedium sp.,* used above. **This test sample Horny Goat Weed (BHGW14JUN22) has characteristics of *Epimedium sp.* leaf.**

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.

Khanh Tran
HPTLC, R&D Technical Supervisor

Digitally signed by Khanh Tran
Date: 2022.07.01 15:08:41 -07'00'

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

Report Date: 07/01/22

ISO/IEC 17025
ACCREDITED
CERTIFICATE #3851.01

Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to BHGW14JUN22.

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