

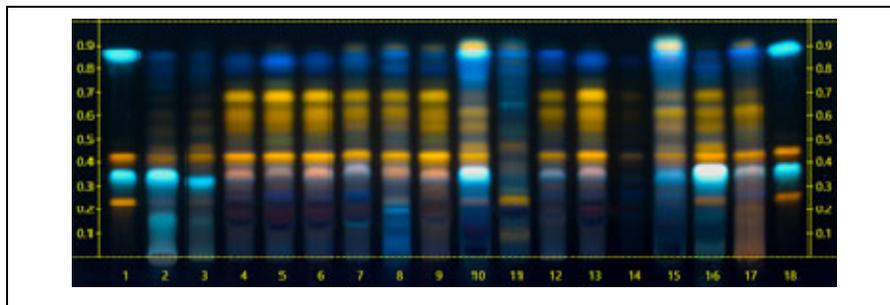
Certificate Issued To:
Xi'an Longze Biotechnology Co., Ltd
Outside the south Gate of Huian
Company
Yuxia Town, Xi'an City, Shaan Xi
China



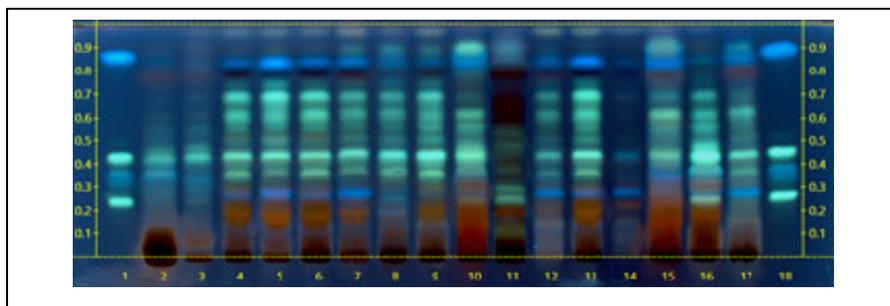
Work performed at:
Alkemist Labs
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Garden Grove, CA 92841
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Certificate of Analysis: Cranberry Extract Powder (LZ200625-2)
High Performance Thin-Layer Chromatography with Photo-Documentation

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2



Company Name:	Xi'an Longze Biotechnology Co., Ltd	Sample Received:	01/19/21
Title:	Cranberry Extract Powder	Form of Botanical:	powdered extract
Plant Part:	fruit	Lot Number:	(LZ200625-2) → Lane 8(10µl)
Appearance:	Fine Powder	Sample:	21019RKS_1
Sample Packaging:	Foil Pouch		

Latin Name: *Vaccinium macrocarpon* Aiton [Ericaceae]
Reference Sample: Lane 2(10µl) (KY33709CRB) *Vaccinium corymbosum* (fruit); Lane 3(10µl) (AAG18709UPL) *Vaccinium angustifolium* (fruit); Lane 16(10µl) (LQA17018NBTC1) *Vaccinium* sp. (fruit); Lane 17(10µl) (L19509UPL) *Vaccinium macrocarpon* (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 149818
Sample Preparation: 1g+10mL water, sonicate/heat at 50°C for 30 min. SPE condition with 5mL Methanol, equilibrate with 5mL water, load, dry, elute with 1mL Methanol(2x)

Stationary Phase: Silica gel 60, HPTLC plates
Mobile Phase: ethyl acetate: Acetic acid: Formic Acid: Water [10/0.9/0.9/2]
Detection: (1) Natural Product + Polyethylene Glycol, 366nm (Reich, E., 2007)
(2) 10% Sulfuric, 100°C, 2min, 366nm (Reich, E., 2007)

Reference Standard: Lanes 1(2µl) and 18(2µl) Rutin (A0348926, ACR), Hyperoside (27(0905/0), XSYN), Chlorogenic Acid (11(1026/0), XSYN), Caffeic acid (02(1117/0), XSYN), Methanol (0000206696, VWR)

Reference Source: Method Developed by Alkemist Labs
IDT-SOP-72-01

Comments & Conclusions: Lane 8 is the test sample Cranberry Extract Powder (LZ200625-2) Lanes 2, 3, 16, 17 are the reference samples used for comparison. This test sample, Cranberry Extract Powder (LZ200625-2) is consistent with the chromatographic profile of the reference samples of *Vaccinium* sp., used above. **This test sample Cranberry Extract Powder (LZ200625-2) has characteristics of *Vaccinium* sp., fruit.**

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: 01/28/21



Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to LZ200625-2. 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. © 2021 Alkemist Labs, Inc. All Rights Reserved