Certificate Issued To:

American Herbal Products Association 8630 Fenton Street, Suite 918 Silver Springs, MD 20910



Work performed at:

Alkemists Pharmaceuticals Inc.

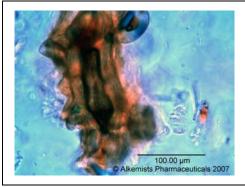
1260 Logan Ave B3 Costa Mesa, CA 92626 714-754-HERB (4372) 714-668-9972 (FAX) E-mail: info@alke mist.com Web Site: www.alke mist.com

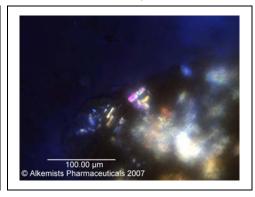
Certificate of Analysis: Illicium ve rum fruit

Macroscopy & Microscopy with Digital Photo-Documentation

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Report Date: 4/25/2007

Company Name: American Herbal Products Association

Title: Illic ium ve rum

Plant Part: fruit Sample Received: 4/6/2007

Sample Description: ~8g in a zip locked bag

Form of Botanical: whole/dry

Appearance: (1) brown/orange fragments of composite fruits with long slender follicles

Lot # :

Sample #: MT09607CHR

La tin Name: Illic ium ve rum Hook. f. [Ilic ia ceae]

Re fe re nc e Sample #: MT16604AHP1; MT13506C S1 Illic ium ve rum Hook. f. [Illic ia c e a e], MU16604AHP Illic ium a nisa tum

Lauthenticated by macroscopic, microscopic &/or TLC studies according to the reference

so urc e s c ite d b e lo w he ld a t Alke mists Pha mac e utic a ls, Co sta Me sa, CA.

Examiner: EMS Magnification: (2) 400X

 $Che mic al Reagents: \qquad \qquad (2) ac id ified chloral hydrate glycerol so lution$

Sample Findings: (2) large a strosc le reid

Magnific ation: (2) 400X

Chemic al Reagents: (3) a cidifie d chloral hydrate glycerol solution

Sample Findings: (3) rhomboidalor rectangular crystals of calcium oxalate

Reference Source: British Pharmacopoeia, 2003;

He rb a l Drug s and Phyto p ha mac e utic als, Max Wic htl, 3rd e d., 2004

USP-PF, Vol. 27(2) [Mar.-Apr. 2001]; Official Methods of Analysis of AOAC, 16th Ed.

Comments & Conclusions:

This sample is representative of *Illic ium ve rum* fruit based on authenticated reference samples and the consistent characteristic cellular structure of a fruit as well as the references cited above. The characteristic cellular structures identified in this sample are the large astrosclereid seen in micrograph (2) above. In micrograph (3) we see the rhomboidal or rectangular crystals of calcium oxalate. This test sample, *Illic ium ve rum* is consistent with the microscopic characteristics of the reference samples of *I ve rum* used above & is characteristic of *I ve rum* fruit.

NOTE Significant differences found between *I. verum* and *I. anisatum* are the macroscopic variations as well as the lack of large astrosclereids in *I. anisatum*.

Analyzed by: Élan M Sudberg

Authorized by: Sidney Sudberg, Director, Alkemists Pharmaceuticals

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