

Certificate Issued To:
Trout Lake Farm
180 Airport St NE
Ephrata, WA 98823



Work performed at:
Alkemists Laboratories
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Certificate of Analysis: Skullcap leaf (SKU-D2, N4, S2)

Macroscopy & Microscopy with Digital Photo-Documentation

1



2



3



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|---------------------|---|
| Company Name: | Trout Lake Farm |
| Title: | Skullcap |
| Plant Part: | leaf |
| Sample Received: | 11/01/13 |
| Sample Description: | clear Whirl-Pak |
| Form of Botanical: | cut and sifted |
| Appearance: | (1) green dried pieces |
| Lot : | SKU-D2, N4, S2 |
| Sample : | LE30513TLF1_2 |
| Latin Name: | Scutellaria lateriflora L. [Lamiaceae] |
| Reference Sample : | LE17502TOM Scutellaria lateriflora L. [Lamiaceae] authenticated by macroscopic, microscopic &/or TLC studies according to the reference source cited below held at Alkemists Pharmaceuticals, Costa Mesa, CA. |
| Analyst: | E. Sudberg |
| Magnification: | (2) 400X |
| Chemical Reagents: | (2) acidified chloral hydrate glycerol solution |
| Sample Findings: | (2) section of leaf showing finger like covering trichome with a warted exine |
| Magnification: | (3) 400X |
| Chemical Reagents: | (3) acidified chloral hydrate glycerol solution |
| Sample Findings: | (3) section of leaf showing a large glandular scale |
| Reference Source: | Gafner S Sudberg S and E et al Journal of AOAC International Vol 86 No 3 SOP-1000-0001-R1 USP-PF, Vol. 27(2) [Mar.-Apr. 2001]; Official Methods of Analysis of AOAC, 16 th Ed. |

Comments & Conclusions:

This sample is representative of *Scutellaria lateriflora* L. [Lamiaceae] leaf based on an authenticated reference sample and the consistent characteristic cellular structure of a leaf as well as the reference cited above. The characteristic cellular structures identified in this sample are the section of leaf showing finger like covering trichomes with a warted exine seen in micrograph (2) above. In micrograph (3) we see the section of leaf showing a large glandular scale. **This test sample, Skullcap (SKU-D2, N4, S2), is consistent with the microscopic characteristics of the reference samples of *Scutellaria lateriflora* L. [Lamiaceae] used above & is characteristic of *Scutellaria lateriflora* L. [Lamiaceae] leaf.**

NOTE: The presence of soluble excipients and other plant species material was not detected in this test sample.

Analyzed by: Élan M Sudberg

Examined, Reviewed & Authorized by: Sidney Sudberg, Director, Alkemists Labs

Report Date: 11/07/13

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