

MUIH Herbal Dispensary

Botanical Specification Sheet

Document Name	Botanical	Plant Part(s)	Version	Date
SCUL - SP	<i>Scutellaria laterifolia</i>	Dried Aerial Parts in Flower	02	11 December 2017

COMMON NAME

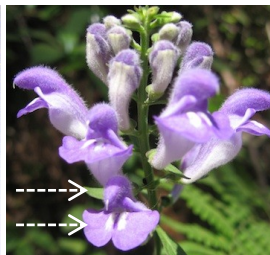
Skullcap

ORGANIC/WILD CRAFTED STATUS

Certified Organic



S. laterifolia, commerce form



Two-lipped corolla

S. lateriflora, flowers, calyx with scutellum



scutellum

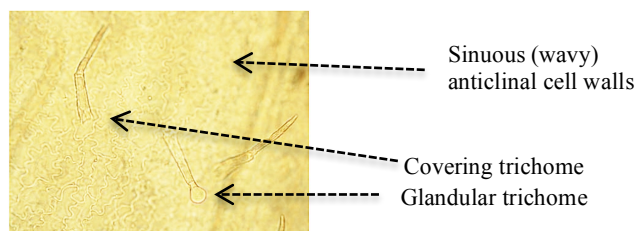


ADULTERANT

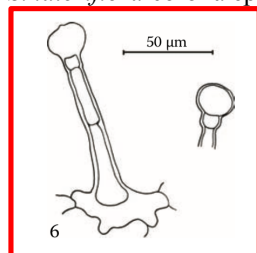
T. canadense

TESTS	SPECIFICATION	REJECTION	REFERENCE
ORGANOLEPTIC			
Color	Leaf: dark green upper surface, paler green lower. Stem: dull green, yellow to brown occasionally some purple. Flower: blue-purple, rarely white or pink; anthers yellow. Fruit: green or brown. Calyx: green.	Purple anthers= <i>S. incana</i> . Rose red flower= <i>T. chamaedrys</i> .	ABC/AHP/AHPA/ Applequist/BHP/ Felter/WHO Upton
Odor	Weakly fragrant, fading rapidly with age.	Alliaceous= <i>S. galericulata</i> .	
Taste	Slightly bitter to bitter.	Not bitter.	
MACROSCOPIC			
Appearance	Stem: 1-4mm diameter, quadrangular, hollow, collapse, longitudinally ribbed, glabrous or sparsely hairy (pubescent). Leaf: toothed (serrate) edge, 3-7 cm, sparsely hairy on lower surface, sometimes purple on lower surface, veins raised on lower surface, pinnate with reticulate secondary veins. Flower: two-lipped irregular flower (helmet-shaped) with lower lip longer than upper lip, 5-10 mm, 4 stamens; upper lip of calyx (sepals) with a conspicuous projection (scutellum), 4mm long. Fruits ellipsoid nutlets, leathery, with 2 adjacent flat faces and one rounded surface, slightly pitted, 2mm, sometimes remaining in groups of four, enclosed in an enlarged asymmetrical calyx, (bonnet-like) ovoid-conical, pale green, 4mm.	Absence of flowers. No fruit nutlets (seed)= <i>S. churchilliana</i> . Absence of scutellum on flower calyx; radially symmetric, 5 toothed calyx= <i>Teucrium spp.</i> Flower >12mm; 18-25mm= <i>S. incana</i> , 14-20mm= <i>S. galericulata</i> , 10-20mm= <i>S. ovata</i> . Stem and leaf densely hairy= <i>T. canadense</i> & <i>chamaedrys</i> .	ABC/AHP/AHPA/ Applequist/BHP Kraemer/ Leonard/WHO/ Upton
ADULTERANTS			
Botanical	<i>Teucrium canadense</i> (American Germander), <i>T. chamaedrys</i> (Wall Germander); <i>Scutellaria spp.</i> - <i>S. ovata</i> , <i>S. incana</i> , <i>S. galericulata</i> , <i>S. churchilliana</i> .	See above and below.	ABC/AHP/AHPA/ Applequist /BHP/ Leonard
PURITY			
Foreign Matter	NMT 2%	Greater than 2%	Eur. Pharm 2.8.2

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SCUL-SP	<i>Scutellaria laterifolia</i> L.	Aerial parts in flower	01	27 November 2017



S. lateriflora corolla epidermis (sv)

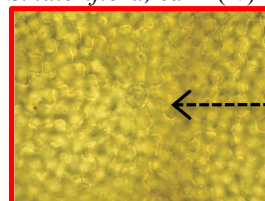


Glandular trichome from calyx with no scutellum.

ADULTERANT *T. chamaedrys*, calyx



S. lateriflora, calyx (lv)



Glandular trichome with bicellular head

ADULTERANT *T. chamaedrys*, epidermis (sv)

TESTS	SPECIFICATION	REJECTION	REFERENCE
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MICROSCOPIC

Appearance	Erect dorsal scale (scutellum) on calyx. Leaf epidermis very sinuous anticlinal walls; Stomata diacytic and anomocytic, closely packed, in the lower epidermis only; glandular scales and covering trichomes more frequent than on upper surface. Covering trichomes long and narrow, uniseriate, up to 4 or more cells long, finely warted, often curved or flattened and twisted. On corolla and calyx only (not stamen), glandular trichomes with unicellular stalk (up to 100µm) and spheroidal head (up to 20 µm). Calcium oxalate absent, but many tiny birefringent prisms of scutellarin in the leaf tissue.	Leaf has glandular trichomes with bicellular head= <i>T. chamaedrys</i> . Anther has no covering trichomes= <i>Teucrium spp.</i> Filament has glandular trichomes= <i>Teucrium spp.</i> Absence of scutellum on calyx= <i>Teucrium spp.</i> Stem is densely hairy= <i>Teucrium spp.</i>	AHP/AHPA/ BHP
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- [WHO] World Health Organization (Ed.). (1999). WHO monographs on selected medicinal plants (Vol. 3). Geneva: World Health Organization.

QC Approval: _____ Date: _____