

Herba Glechomae versus Herba Centellae



Source

***Herba Glechomae**
is the dried aerial part of
Glechoma longituba (Nakai) Kupr.
in the family Labiatae

Herba Centellae[#]
is the dried whole part of
Centella asiatica (L.) Urb.
in the family Umbelliferae

Overview

Herba Glechomae and Herba Centellae are Chinese Materia Medica (CMM) listed in both Schedule 2 of the Chinese Medicine Ordinance and the Chinese Pharmacopoeia (2020). According to the research by *Zhong hua ben cao*, the name “*Ji xue cao*” was first recorded in the *Shen nong ben cao jing*. However, no description was recorded for the morphology and thus, it was difficult to verify its species. Later, in the *Ben cao gang mu*, a picture of “*Ji xue cao*” was recorded which appeared to be *Glechoma longituba* in the family Labiatae. On the other hand, it was found that the name “*Ji xue cao*” referred to more than one CMM in ancient literature of Herba Centellae, reflecting the confusion problem has persistently existed. According to the Chinese Pharmacopoeia, both CMM can clear heat and drain dampness, and detoxify and disperse swelling; while Herba Glechomae can also dissipate stasis and relieve strangury. As these two CMM possess different functions, they should be used accordingly.

Note:

*Its name in the Chinese Pharmacopoeia (2020) is “Glechomae Herba”.

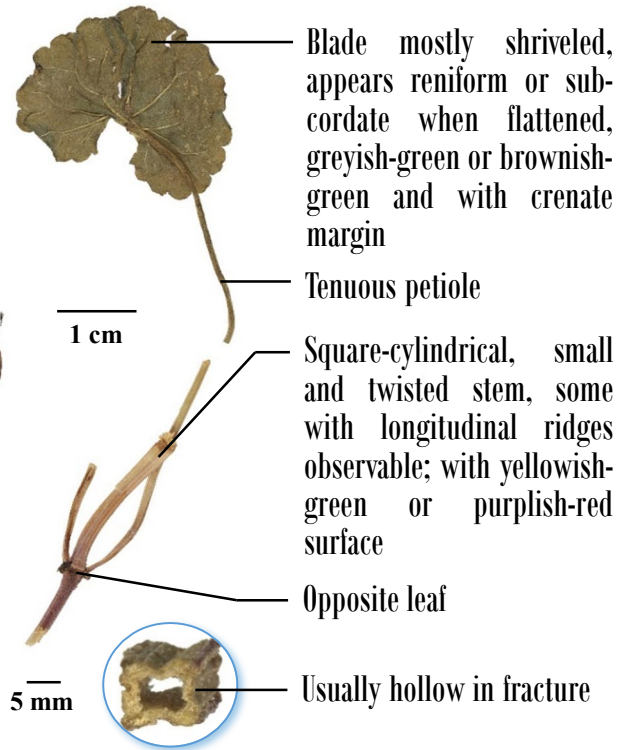
[#]Its name in the Chinese Pharmacopoeia (2020) is “Centellae Herba”.

Key identification features

Macroscopic features of Herba Glechomae



- ◆ Appears strip-shaped and varies in length



Micro-morphological features

A: Densely covered with pubescences



(Surface of the stem)

B: Densely covered with pubescences on the vein

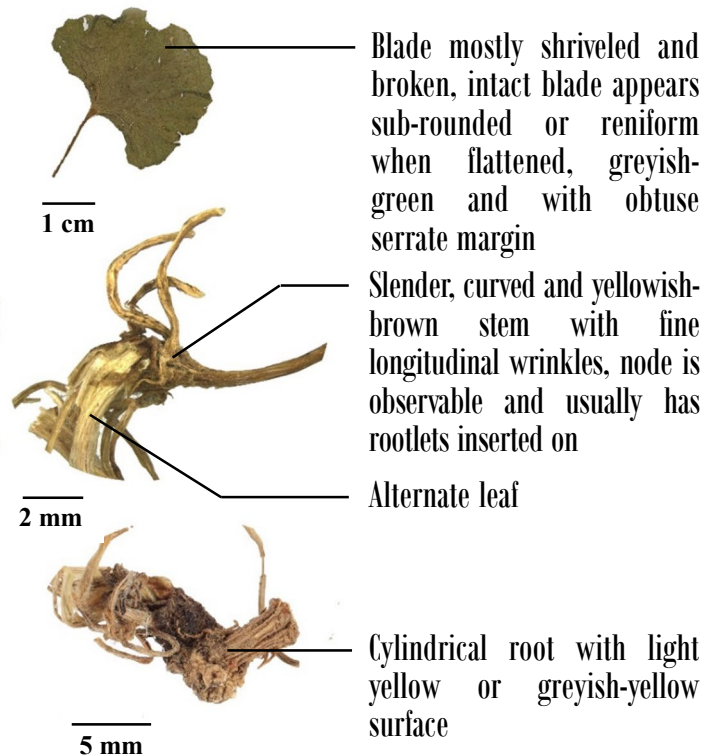
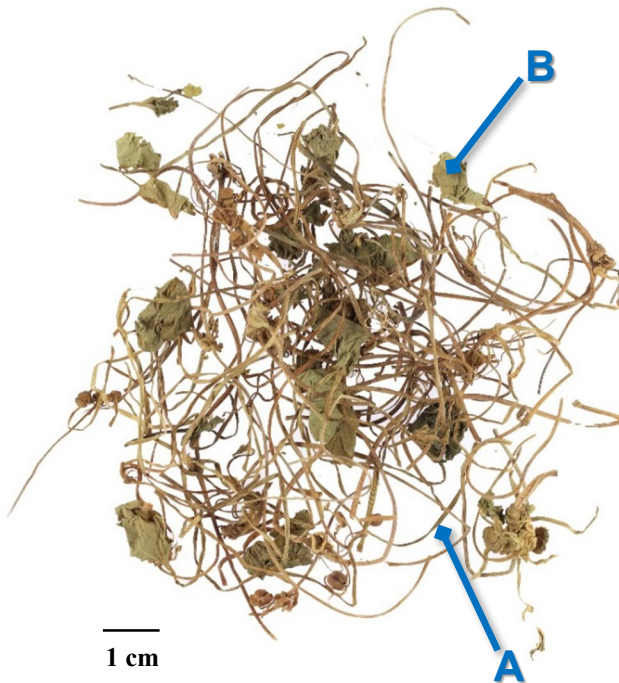


(Lower surface of the leaf)

Macroscopic features of Herba Centellae



◆ Usually curled and shriveled to masses



Micro-morphological features

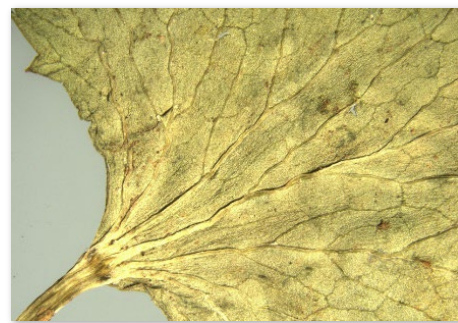
A: Glabrous or occasionally with hairs



(Surface of the stem)

1 mm

B: Glabrous on the vein






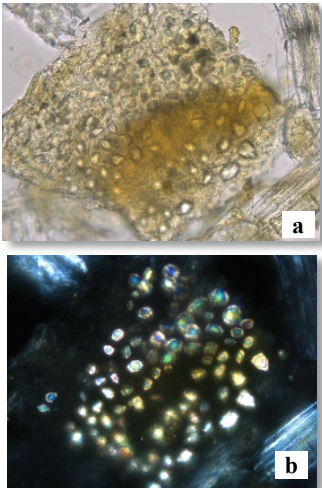


(Lower surface of the leaf)

2 mm

Microscopic feature comparison of Herba Glechomae
and Herba Centellae powder



| | Herba Glechomae | Herba Centellae |
|--------------------------|--|--|
| Glandular scale | <div> Sub-spherical or oblate, head consists of 8 cells arranged radially, some filled with brownish-yellow substance</div> | <div> Absent</div> |
| Secretory canal | <div> Absent</div> | <div> Contains yellow secretions</div> |
| Prism of calcium oxalate | <div> Absent</div> | <div> Numerous; polychromatic under the polarized light microscope</div> |

a. features under bright field; b. features under polarized light

50 μm

Summary

Major differences in the features between Herba Glechomae and Herba Centellae:

| | | Herba Glechomae | Herba Centellae |
|--|----------------------------------|--|-------------------------------------|
| Macroscopic and micro-morphological features | Appearance of the stem | Square-cylindrical | Cylindrical |
| | Surface of the stem | Densely covered with pubescences | Glabrous or occasionally with hairs |
| | Lower surface of the leaf | Densely covered with pubescences on the vein | Glabrous on the vein |
| Microscopic features | Glandular scale | Present | Absent |
| | Secretory canal | Absent | Present |
| | Prism of calcium oxalate | Absent | Present |

For more information, please refer to the [Hong Kong Chinese Materia Medica Standards website](#):



Glechomae Herba - Hong Kong Chinese Materia Medica Standards (Volume 9)

Centellae Herba - Hong Kong Chinese Materia Medica Standards (Volume 7)



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