

Radix Ilicis Asprellae

versus

Radix Rhodomyrti



Source

Radix Ilicis Asprellae

is the dried root of
Ilex asprella (Hook. et Arn.) Champ. ex Benth.
in the family Aquifoliaceae

Radix Rhodomyrti

is the dried root of
Rhodomyrtus tomentosa (Ait.) Hassk.
in the family Myrtaceae

Overview

Radix Ilicis Asprellae and Radix Rhodomyrti are both listed in Schedule 2 of the Chinese Medicine Ordinance. According to *Zhong hua ben cao*, the flower and leaf of the source plant of Radix Ilicis Asprellae have a similar appearance with “Mei shu”, and is frequently found in hills and thus named as Radix Ilicis Asprellae (“Gang mei gen”); while Radix Rhodomyrti was listed in the Chinese Pharmacopoeia (1977) as the sub-name but has been subsequently used by the *Chinese Materia Medica Standards in Guangdong Province* and listed as the formal name. According to *Zhong hua ben cao*, Radix Ilicis Asprellae can clear heat, engender fluid, dissipate stasis and detoxify; while Radix Rhodomyrti can regulate qi and relieve pain, drain dampness and check diarrhea, dispel stasis and stop bleeding, and tonify kidney and blood. Despite the names of the two Chinese Materia Medica only differ by one character, their efficacy and source vary significantly, thus should be used accordingly.

Key identification features

Macroscopic features of Radix Ilicis Asprellae

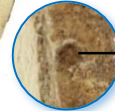


1 cm

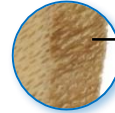


1 cm

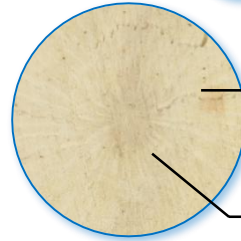
Brown or greyish-brown outer bark is rough and has wrinkles



Usually with lateral root scars on the surface, while remnants of the lateral root are barely observable



Appears light brown or yellowish-white and sometimes with relatively dense dotted or linear protuberances observable at the exfoliated area

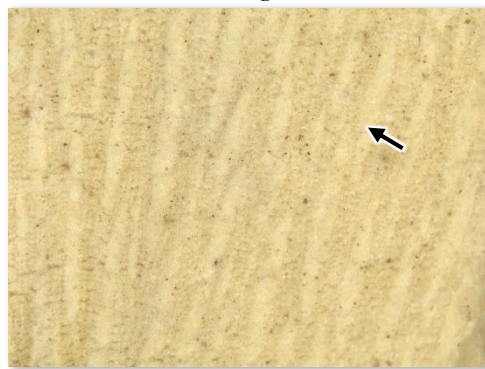


Cut surface of the wood is yellowish-white or light brownish-yellow. Some appear faintly light blue

Mostly with radial or irregular striations. Annulations are faintly observable occasionally

Micro-morphological feature

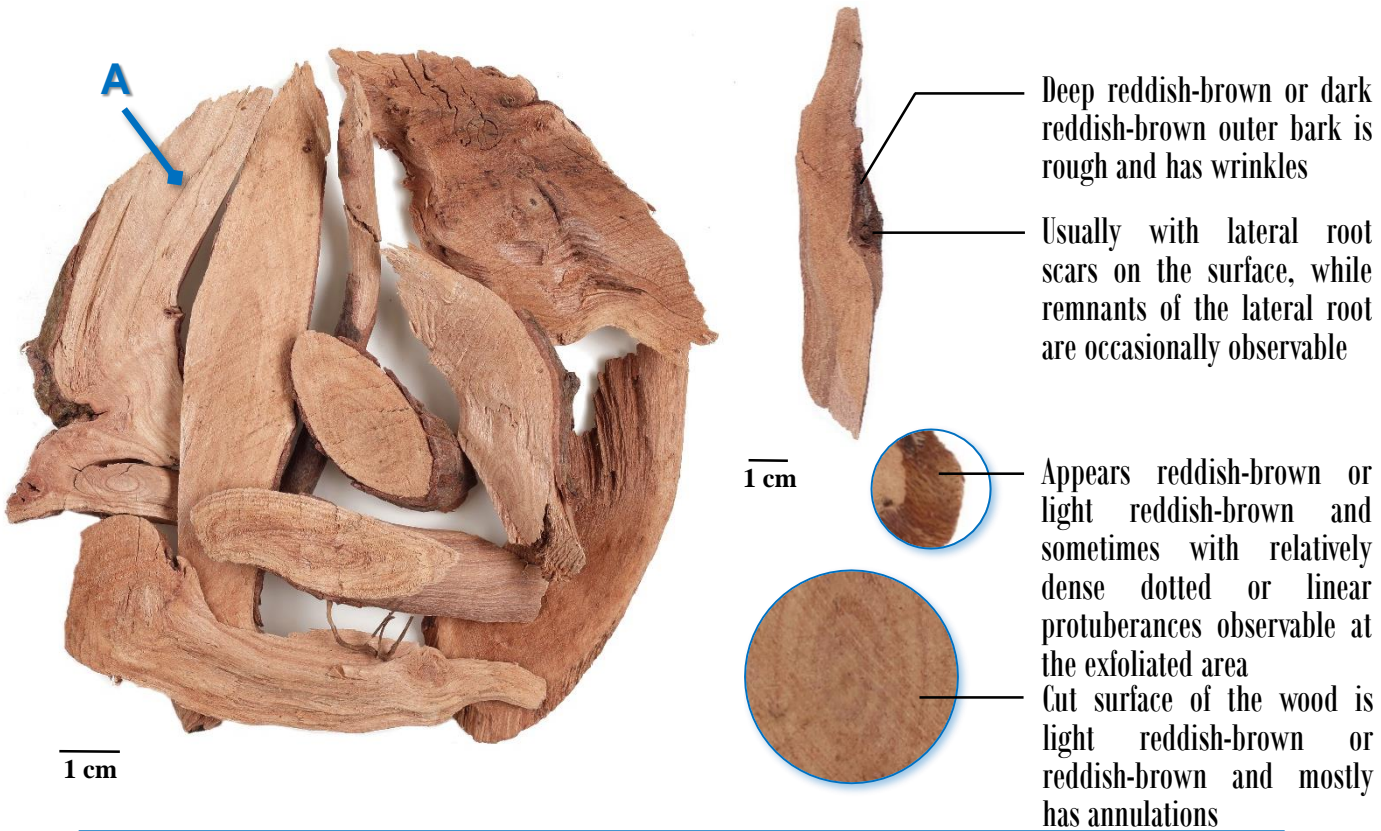
A: Usually with light yellowish-white linear striations interruptedly arranged



(Cut surface of the wood)

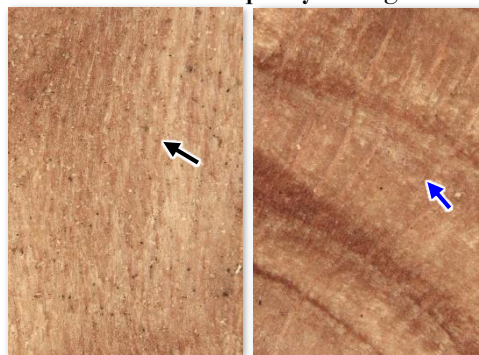
1 mm

Macroscopic features of Radix Rhodomyrti



Micro-morphological feature

A: Usually with reddish-brown(→) or light reddish-brown(→) linear striations interruptedly arranged

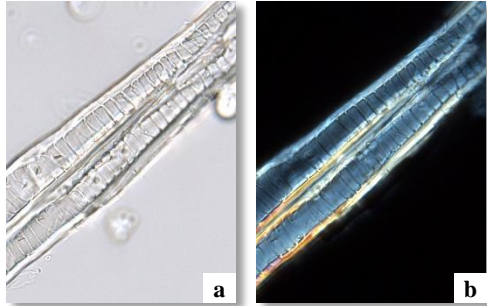



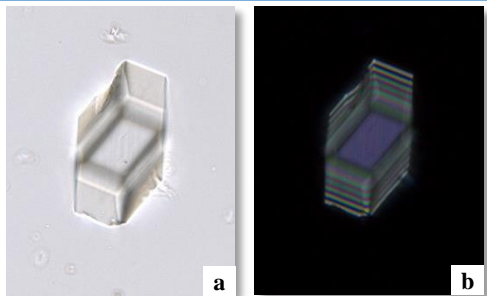
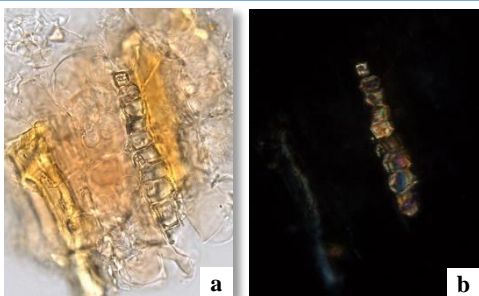


(Cut surface of the wood)

1 mm

Microscopic feature comparison of Radix Illicis Asprellae and Radix Rhodomyrti powder



	Radix Illicis Asprellae	Radix Rhodomyrti
Fibre tracheid	 <p>Frequently found, distinct lumina, sometimes bordered pits are observable, secondary wall is spirally thickened, some lumen contain light yellow substance; bright yellowish-white, bright white or polychromatic under the polarized light microscope</p>	 <p>Absent</p>
Secretory masses	 <p>Absent</p>	 <p>Light yellowish-brown, yellowish-brown or reddish-brown, irregular, scattered or present in parenchymatous cell, fibre or vessel</p>
Prism of calcium oxalate	 <p>Observable, relatively large, mostly singly scattered, appears sub-rectangular, sub-square or sub-double conical; polychromatic under the polarized light microscope</p>	 <p>Frequently found, relatively small, singly scattered or present in groups, appears sub-rectangular, sub-square or sub-double conical; polychromatic under the polarized light microscope</p>

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

50 μm

Summary

Major differences in the features between Radix Ilicis Asprellae and Radix Rhodomyrti:

		Radix Ilicis Asprellae	Radix Rhodomyrti
Macroscopic and micro-morphological features	Surface	Brown or greyish-brown outer bark appears light brown or yellowish-white at the exfoliated area	Deep reddish-brown or dark reddish-brown outer bark appears reddish-brown or light reddish-brown at the exfoliated area
	Cut surface of the wood	Yellowish-white or light brownish-yellow. Usually with light yellowish-white linear striations interruptedly arranged	Light reddish-brown or reddish-brown. Usually with reddish-brown or light reddish-brown linear striations interruptedly arranged
Microscopic features	Fibre tracheid	Present	Absent
	Secretory masses	Absent	Present
	Prism of calcium oxalate	Observable, relatively large	Frequently found, relatively small



Government Chinese Medicines Testing Institute
Department of Health
Enquiry Hotline: 3188 8079
Website: www.cmro.gov.hk

The information in this pamphlet may be re-disseminated or reproduced, provided that the Government Chinese Medicines Testing Institute (GCMTI), as the source of information, is acknowledged and that the re-dissemination or reproduction is for non-commercial use. Any other reproduction, adaptation, distribution, dissemination or making available of the information in this pamphlet for commercial use is strictly prohibited unless prior written authorization is obtained from the GCMTI.