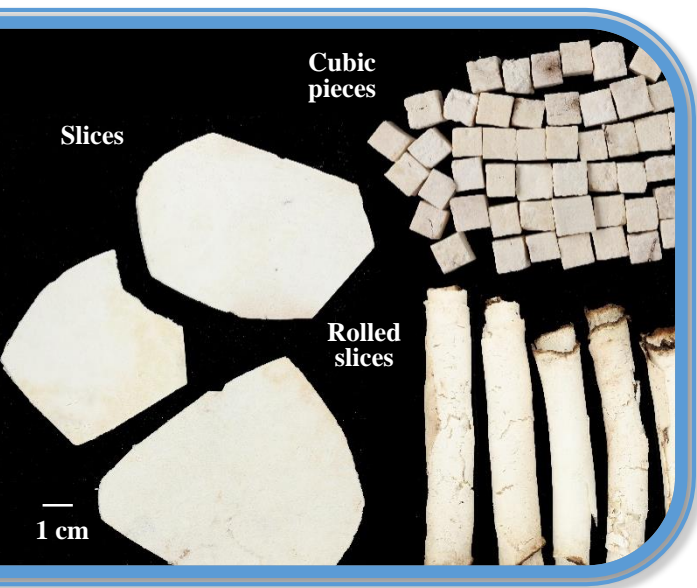


Poria versus Poria cum Radix Pini



Source

Poria
is the dried sclerotium of
Poria cocos (Schw.) Wolf
in the family Polyporaceae

Poria cum Radix Pini
is the dried sclerotium of
Poria cocos (Schw.) Wolf
in the family Polyporaceae
with embedding pine root

Overview

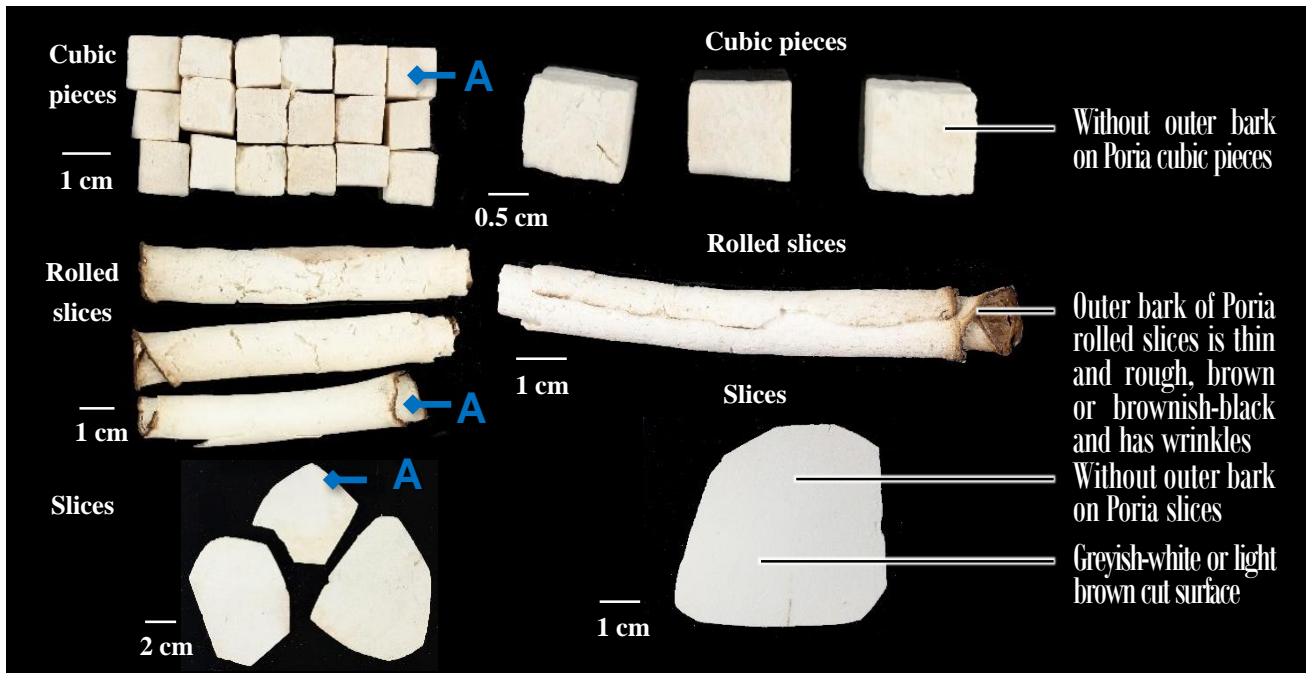
Both Poria and Poria cum Radix Pini have not been listed in the schedules of the Chinese Medicine Ordinance, while only Poria has been listed in the Chinese Pharmacopoeia (2020). According to *Zhong hua ben cao*, Poria was initially named as “*Fu ling*” and listed in the *Wu shi er bing fang* under the Han dynasty. According to *Ben cao gang mu*, “*Fu shen*” was initially used as an alternative name to Poria in *Records of the Grand Historian*, which was later confirmed in *Ming yi bie lu* that its source is Poria with embedding pine root. According to the Chinese Pharmacopoeia, Poria can induce diuresis to drain dampness, fortify the spleen and disquiet the heart; according to *Zhong hua ben cao*, Poria cum Radix Pini can disquiet the heart, tranquilize and drain water. As the origin and efficacy of the two Chinese Materia Medica differ, they should be used accordingly.

Key identification features

Macroscopic features of Poria decoction pieces



- ◆ Cubic, roll-like or irregular thick slices



Micro-morphological feature

A: White or light yellow, with light brown striations



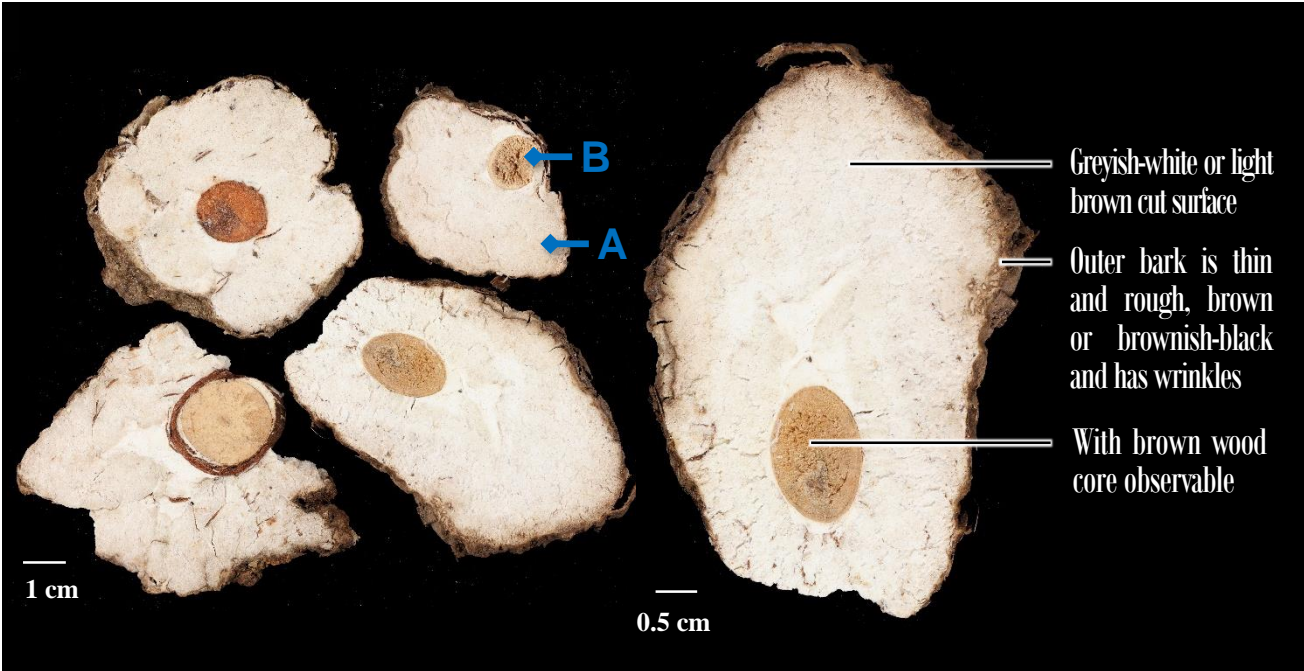
(Cut surface)

500 μm

Macroscopic features of Poria cum Radix Pini decoction pieces



◆ Irregular thick slices



Micro-morphological features

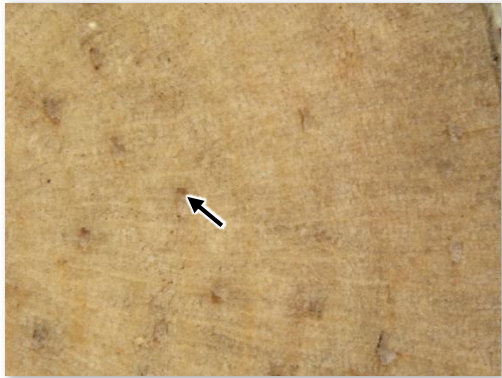
A: White or light yellow, with light brown striations

B: With dotted secretory canals observable



(Cut surface)

500 μm


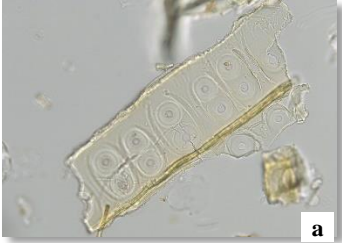


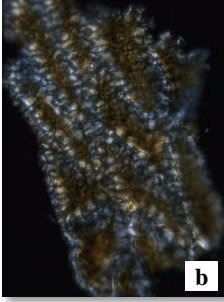
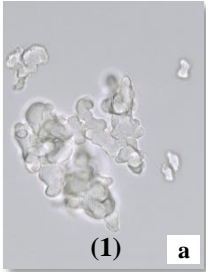





(Cut surface of the wood core)

1 mm

Microscopic feature comparison of Poria decoction pieces and Poria cum Radix Pini decoction pieces powder



	Poria decoction pieces	Poria cum Radix Pini decoction pieces
Tracheid	 Absent	 <p>Numerous, mostly broken. Bordered pits are arranged in pairs of two rows or singly in one row</p>
Stone cell	 Absent	  <p>Barely found. Several tightly arranged. Light yellowish-brown, sub-polygonal, thick wall. With distinct pit canals and pits; orange yellow under the polarized light microscope</p>
Hyphea*	  <p>Accounted for the majority of the powder, with 2 forms. One type is colourless and irregularly granular or like masses which obtusely branched at the end(1); another type is colourless, white or light brown, slender and slightly curved, some with branches(2)</p>	  <p>2 forms. One type is colourless and irregularly granular or like masses which obtusely branched at the end(1); another type is colourless, white or light brown, slender and slightly curved, some with branches(2)</p>

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

50 μm

Note:

*Prepare the slide by adding glycerol acetic acid test solution without heating and observe.

Summary

Major differences in the features between Poria decoction pieces and Poria cum Radix Pini decoction pieces:

		Poria decoction pieces	Poria cum Radix Pini decoction pieces
Macroscopic and micro-morphological features	Shape	Cubic, roll-like or irregular thick slices	Irregular thick slices
	Wood core	Absent	With brown wood core observable
Microscopic features	Tracheid	Absent	Numerous
	Stone cell	Absent	Barely found
	Hypha	Accounted for the majority of the powder	Observable

Additional information

Photo of crude Poria

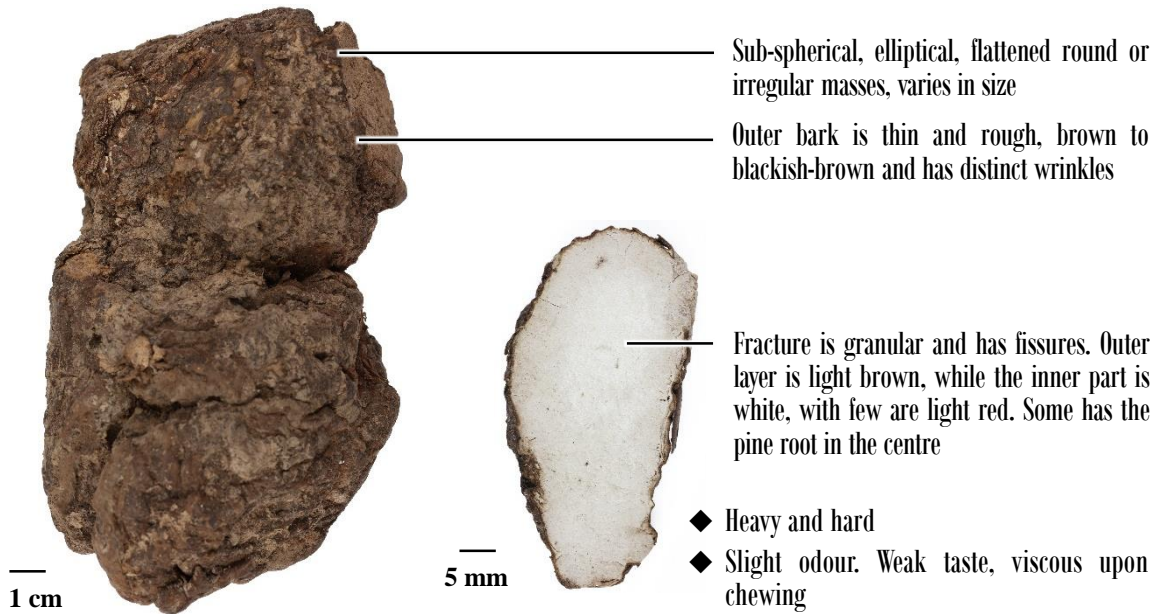
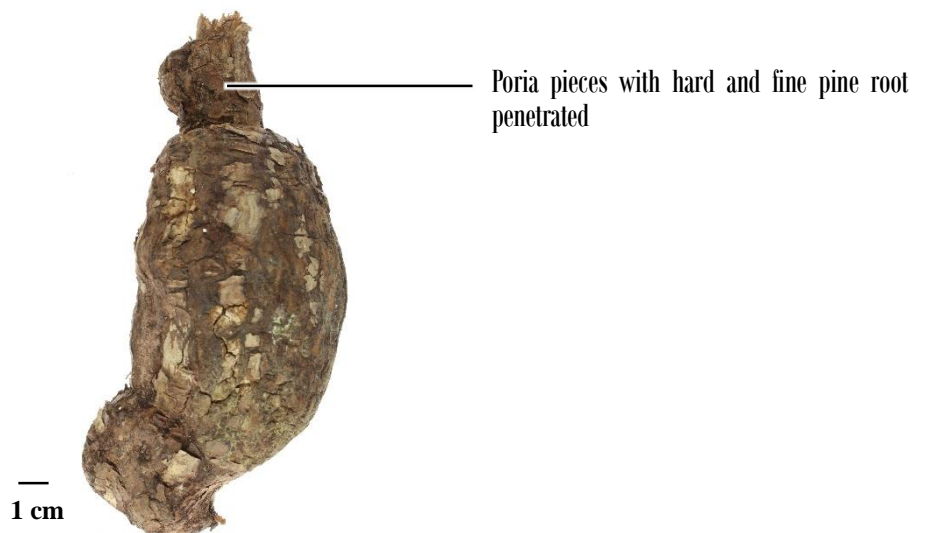


Photo of crude Poria cum Radix Pini



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

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