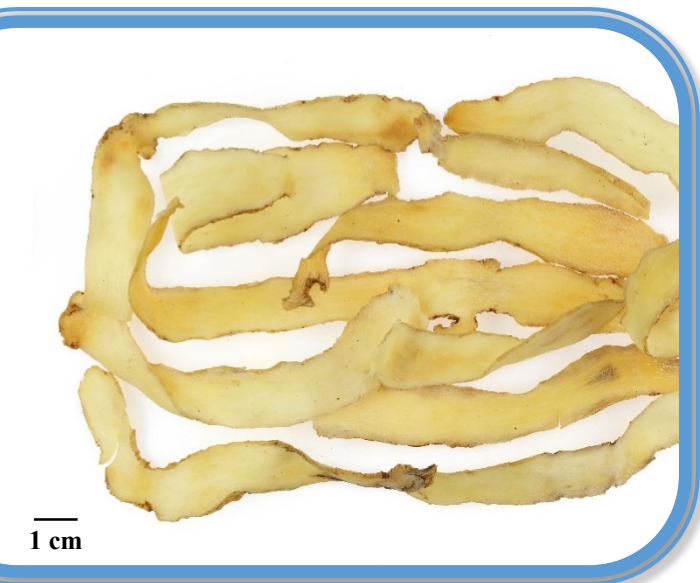


# Polygonati Odorati Rhizoma versus Rhizoma Polygonati



## Source

### Polygonati Odorati Rhizoma

is the dried rhizome of  
*Polygonatum odoratum* (Mill.) Druce  
in the family Liliaceae

### Rhizoma Polygonati\*

is the dried rhizome of  
*Polygonatum kingianum* Coll. et Hemsl.,  
*P. sibiricum* Red. or *P. cyrtonema* Hua  
in the family Liliaceae

## Overview

Polygonati Odorati Rhizoma and Rhizoma Polygonati are both listed in the Chinese Pharmacopoeia (2020), while Rhizoma Polygonati is also listed in Schedule 2 of the Chinese Medicine Ordinance. Both Chinese Materia Medica (CMM) are originated from plants of the *Polygonatum* genus in the family Liliaceae. The *Species Systematization and Quality Evaluation of Commonly Used Chinese Traditional Drugs* has described that rhizomes of the plants in *Polygonatum* genus share similar appearance, however, as they can be broadly grouped into the lump forms and the cylindrical forms, historically Materia Medica literatures have classified those with cylindrical rhizomes as “Yu zhu”, while those with lump rhizomes are used as “Huang jing”. According to the Chinese Pharmacopoeia, Polygonati Odorati Rhizoma can tonify yin and moisten dryness, engender fluid and relieve thirst; while Rhizoma Polygonati can tonify qi and yin, fortify the spleen, moisten the lung and replenish the kidney. As the efficacy of these two CMM differs, they should be used accordingly.

Note:

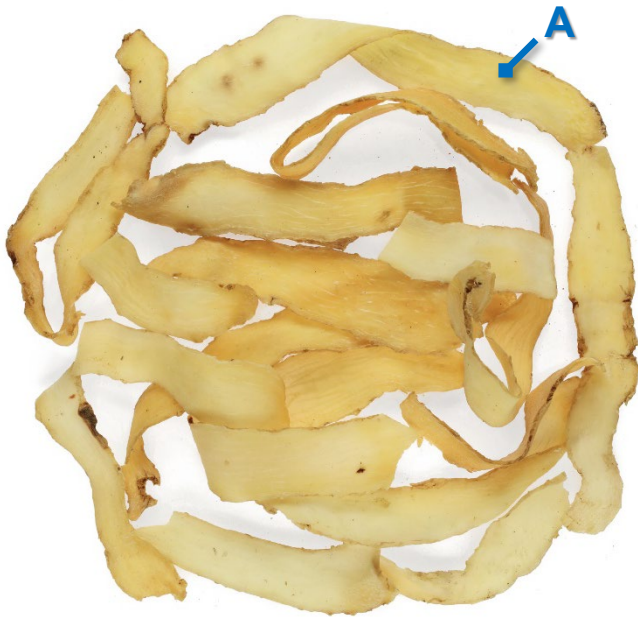
\*Its name in the Chinese Pharmacopoeia (2020) is “Polygonati Rhizoma”.

## Key identification features

### Macroscopic features of Polygonati Odorati Rhizoma decoction pieces



◆ Long strip-shaped thin slices



1 cm



1 cm

Yellowish-white, light yellowish-brown or brown outer epidermis

Cut surface is yellowish-white or light yellowish-brown and horny

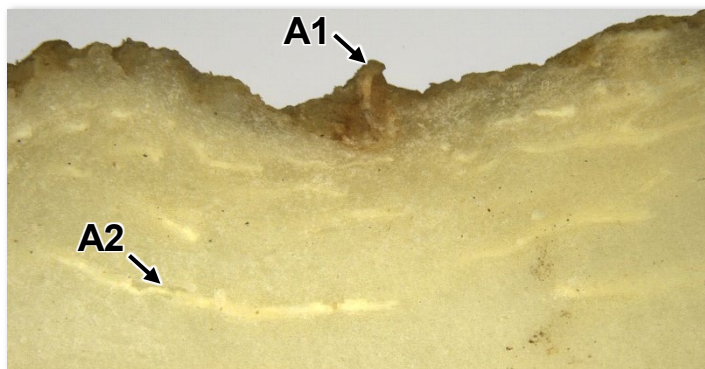
Slightly irregular margin

Some with branches

## Micro-morphological features

A1: Distinctly protruded node is frequently observable on the outer epidermis

A2: With vascular bundle which mostly appears as straight line observable in the cut surface



(Surface)

2 mm

## Macroscopic features of Rhizoma Polygonati decoction pieces



### ◆ Irregular thick slices



1 cm



Yellowish-white, light yellowish-brown or brown outer epidermis

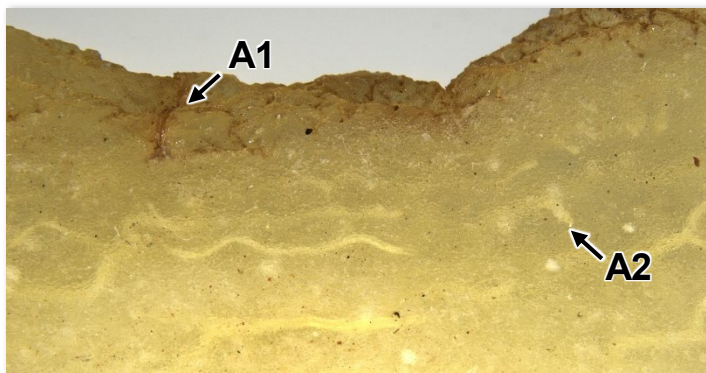
Cut surface is light yellowish-brown or yellowish-white and horny

1 cm

## Micro-morphological features

A1: Slightly protruded node is sometimes observable on the outer epidermis. Some are indistinct

A2: With vascular bundle which appears as dotted or irregular line observable in the cut surface



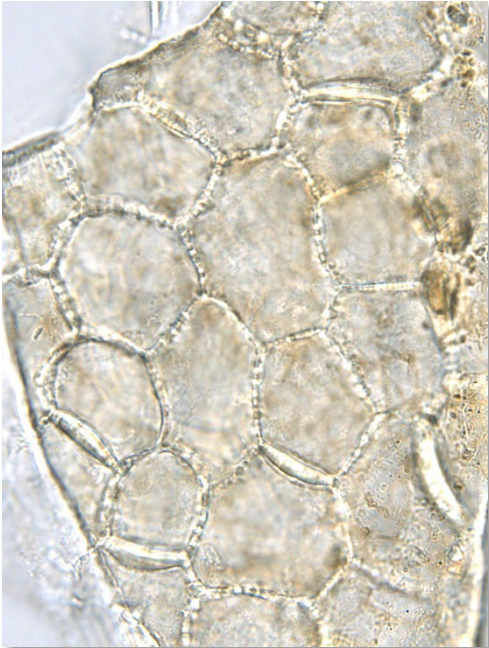
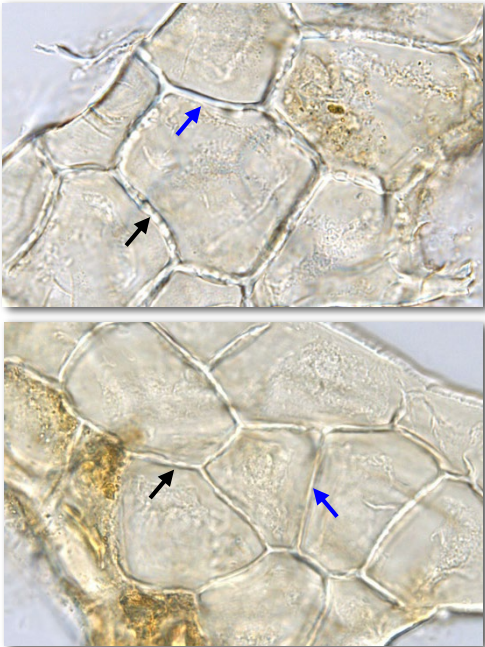
(Surface)

2 mm



Microscopic feature comparison of Polygonati Odorati Rhizoma decoction pieces and Rhizoma Polygonati decoction pieces powder<sup>#</sup>



	Polygonati Odorati Rhizoma decoction pieces	Rhizoma Polygonati decoction pieces
Epidermal cell	<div></div> <p>Sub-polygonal in surface view, anticlinal wall beaded-thickened, thickening is usually fine, dense and even</p>	<div></div> <p>Sub-polygonal in surface view, anticlinal wall slightly beaded-thickened (→) or straight (→), thickening is usually uneven</p>

50 μm

Note:  
<sup>#</sup>Features of Polygonati Odorati Rhizoma decoction pieces and Rhizoma Polygonati decoction pieces powders are very similar, only small differences in the shape of epidermal cell are observable.

## Summary

Major differences in the features between Polygonati Odorati Rhizoma decoction pieces and Rhizoma Polygonati decoction pieces :

		Polygonati Odorati Rhizoma decoction pieces	Rhizoma Polygonati decoction pieces
Macroscopic and micro-morphological features	Appearance	Long strip-shaped thin slices	Irregular thick slices
	Outer epidermis	Distinctly protruded node is frequently observable	Slightly protruded node is sometimes observable. Some are indistinct
Microscopic feature	Epidermal cell	Anticlinal wall beaded-thickened	Anticlinal wall slightly beaded-thickened or straight

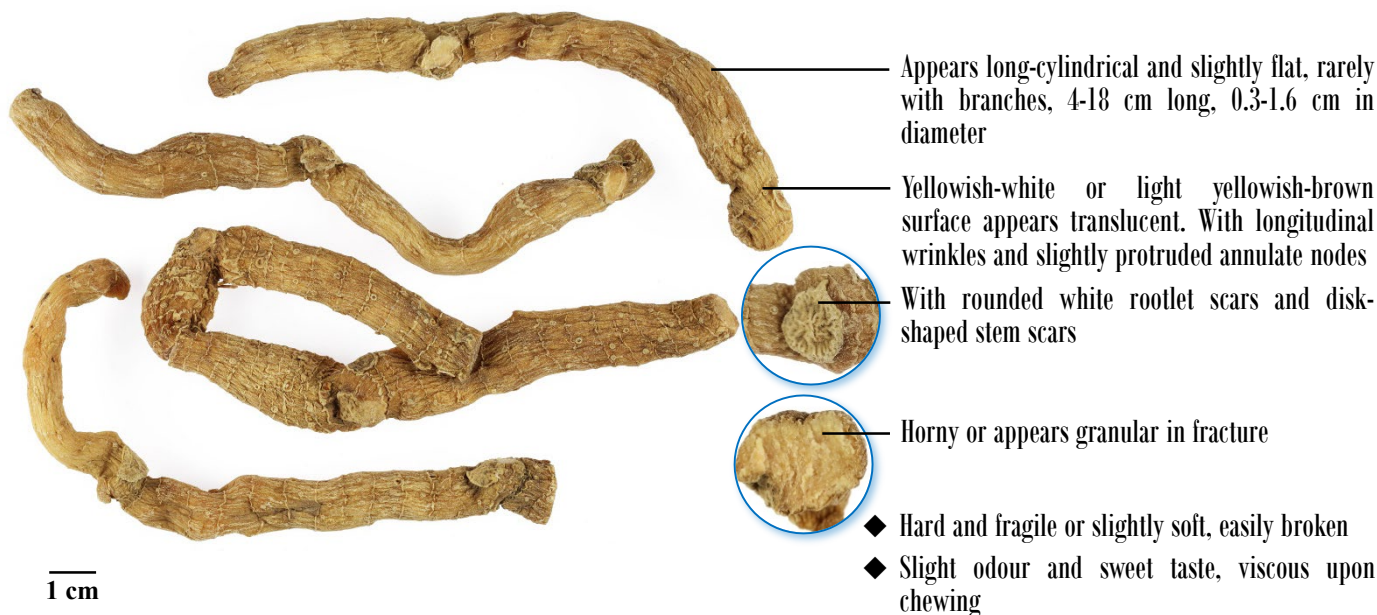
For more information, please refer to the [Hong Kong Chinese Materia Medica Standards website](#):



Polygonati Rhizoma - Hong Kong Chinese Materia Medica Standards (Volume 10)

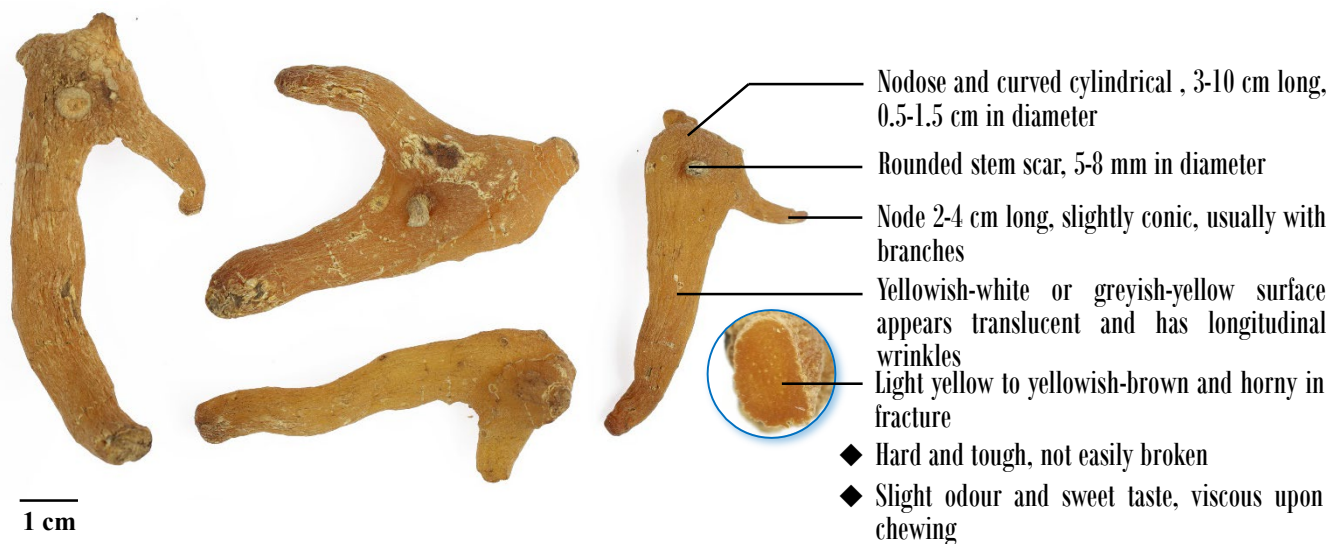
## Additional information

### Photo of crude Polygonati Odorati Rhizoma



*P. sibiricum*

### Photo of crude Rhizoma Polygonati



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