

## Macroscopic and Microscopic Identification of Cortex type of Decoction Pieces Commonly Found in Hong Kong



# Cortex Magnoliae Officinalis\*

**Source** The dried stem bark, root bark or branch bark of *Magnolia officinalis* Rehd. et Wils. or *Magnolia officinalis* Rehd. et Wils. var. *biloba* Rehd. et Wils. in the family Magnoliaceae

**Property and Flavour** Warm; bitter and pungent

**Meridian Affinity** Spleen, stomach, lung and large intestine meridians

**Actions** To dry dampness and transform phlegm, direct qi downward, and disperse fullness

**Production Area** *Magnolia officinalis* mainly produced in Sichuan, Hubei, Shaanxi, Gansu, Guizhou, etc.; *Magnolia officinalis* var. *biloba* mainly produced in Anhui, Zhejiang, Jiangxi, Fujian, Hunan, Guangdong, Guangxi, etc.

Note:

\* Its name in Chinese Pharmacopoeia (2025 Edition) is “Magnoliae Officinalis Cortex”.



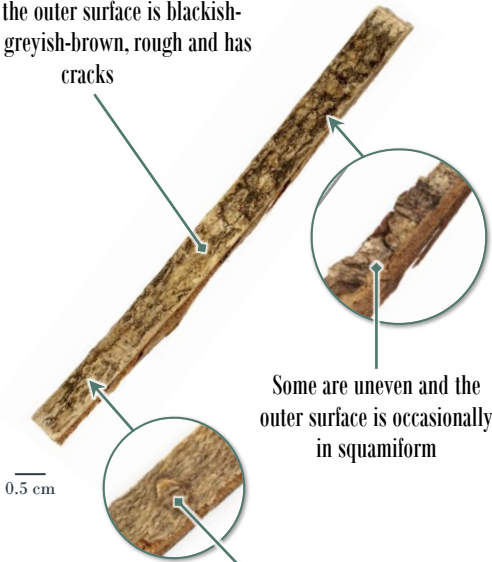


# Macroscopic Identification Features

## Cortex Magnoliae Officinalis (Slivers)

**Shape**    Appears strip-shaped, straight

Cork on the outer surface is blackish-brown or greyish-brown, rough and has cracks



Some are uneven and the outer surface is occasionally in squamiform

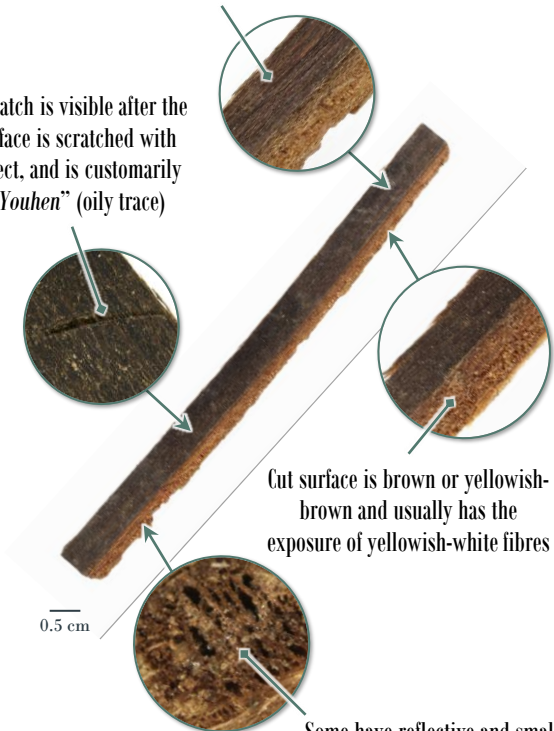
Lenticel is elliptical and barely found



## Cortex Magnoliae Officinalis

Inner surface is purplish-brown or blackish-brown, and has fine and straight striations

An oily scratch is visible after the inner surface is scratched with sharp object, and is customarily called “*Youhen*” (oily trace)



Cut surface is brown or yellowish-brown and usually has the exposure of yellowish-white fibres

Some have reflective and small crystals which are customarily called “*Xiaoliangxing*” (little bright star)



**Texture** Hard, not easily broken

**Fracture** Outer layer is granular, inner layer is fibrous



0.2 cm

**Odour** Aromatic



## Cortex Magnoliae Officinalis (Slices)

**Shape** In slices, usually curved in “U” shape

Cork on the outer surface is blackish-brown or greyish-brown, rough and has cracks

Some are uneven and the outer surface is occasionally in squamiform



Lenticel is elliptical and barely found

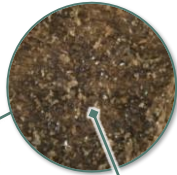


## Cortex Magnoliae Officinalis

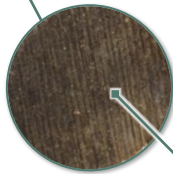
Cut surface is brown or yellowish-brown



0.5 cm



Some have reflective and small crystals which are customarily called “Xiaoliangxing” (little bright star)



Inner surface is purplish-brown or blackish-brown, and has fine and straight striations



An oily scratch is visible after the inner surface is scratched with sharp object, and is customarily called “Youhen” (oily trace)



**Texture** Hard, not easily broken

**Fracture** Outer layer is granular, inner layer is fibrous



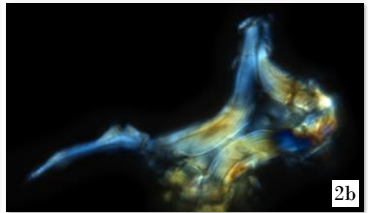
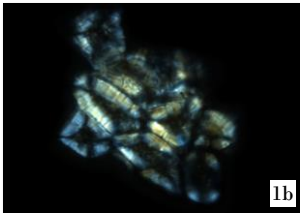
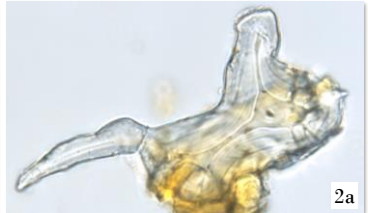
0.2 cm

**Odour** Aromatic



■ ■ ■ Feature of Simplified Powder  
■ Microscopic Identification  
- Sclerenchyma -

Stone cell



50  $\mu$ m

Mostly in groups, varies in size, smaller one (1) mostly appears sub-rectangular, sub-square or sub-polygonal, larger one (2) mostly appears irregular or branched; wall is thick or extremely thick, usually with pit canals, pits and striations, some contain yellowish-brown substances in lumina; orange-yellow or bright white under polarized light microscope

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

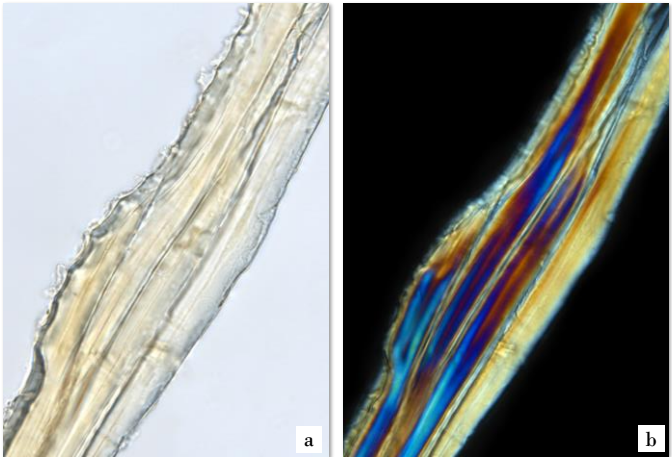




# Additional Features of Powder Microscopic Identification

## - Sclerenchyma -

### Fibre



50  $\mu\text{m}$

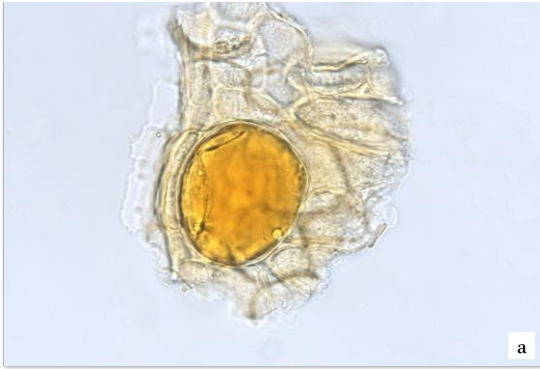
In bundles or singly scattered, wall is extremely thick, narrow lumen; bright white or polychromatic under polarized light microscope

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



- Secretory tissue -

Oil cell



50  $\mu$ m

Present in parenchyma or scattered, appears sub-rounded or sub-elliptical, usually contains yellowish-brown substances

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



- Protective tissue -

Cork cell



50  $\mu$ m

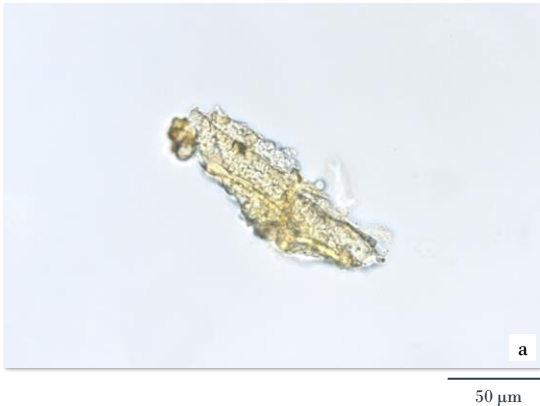
Light yellowish-brown or yellowish-brown, appears sub-polygonal in surface view

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



- Starch -

Starch granule



Mostly gelatinized, mostly filled in parenchymatous cell in masses

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





## Key Identification Features

### - Macroscopic features -

- ◇ Cork on the outer surface is rough and lenticel is barely found
- ◇ Outer layer of fracture is granular, while inner layer is fibrous
- ◇ Some cut surface have reflective and small crystals which are customarily called “Xiaoliangxing” (little bright star)

### - Powder microscopic feature -

- ◇ Stone cell varies in size. Smaller one mostly appears sub-rectangular, sub-square or sub-polygonal; larger one mostly appears irregular or branched

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

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Government Chinese Medicines Testing Institute

Department of Health

Enquiry hotline: 2509 5809

Website: [www.cmro.gov.hk](http://www.cmro.gov.hk)

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