

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



**Cortex Ilicis Rotundae\***

**Source** The dried bark of *Ilex rotunda* Thunb. in the family Aquifoliaceae

**Property  
and Flavour** Cold; bitter

**Meridian  
Affinity** Lung, stomach, large intestine and liver meridians

**Actions** To clear heat and remove toxins, drain dampness and relieve pain

**Production  
Area** Mainly produced in Guangdong, etc.

Note:

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



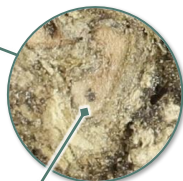
衛生署  
Department of Health



## Macroscopic Identification Features

**Shape** Quilled, semi-quilled or in flat slices, varies in length

Cork on the outer surface is greyish-white or greyish-brown, rough and has wrinkles



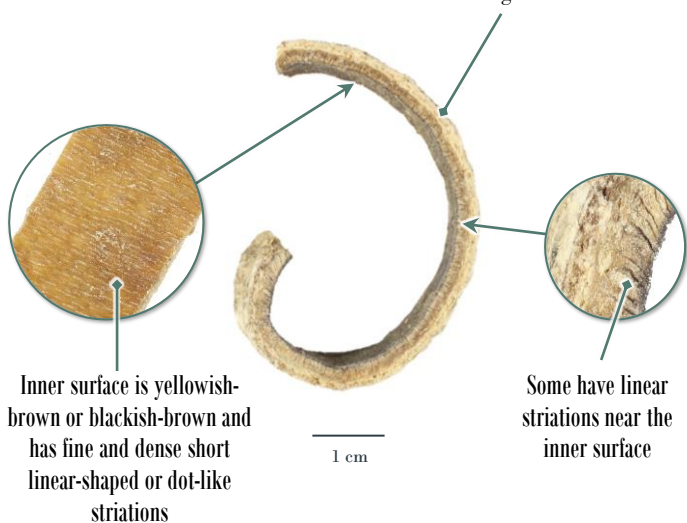
1 cm

Some with white macula-like lenticels



Cut surface usually has 2 layers of distinctly different colours visible, which are yellowish-white, yellowish-brown or blackish-brown, and are

rough



Inner surface is yellowish-brown or blackish-brown and has fine and dense short linear-shaped or dot-like striations

Some have linear striations near the inner surface



**Texture** Hard and fragile

**Fracture** Slightly granular



0.5 cm

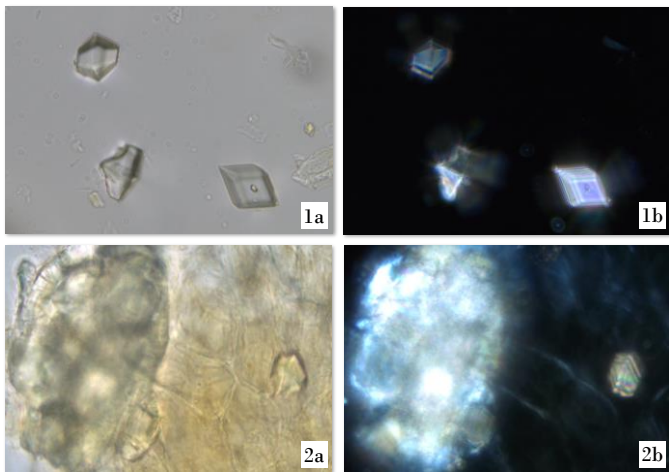
**Odour** Slight aroma



# Features of Simplified Powder Microscopic Identification

## - Crystal -

### Prism of calcium oxalate

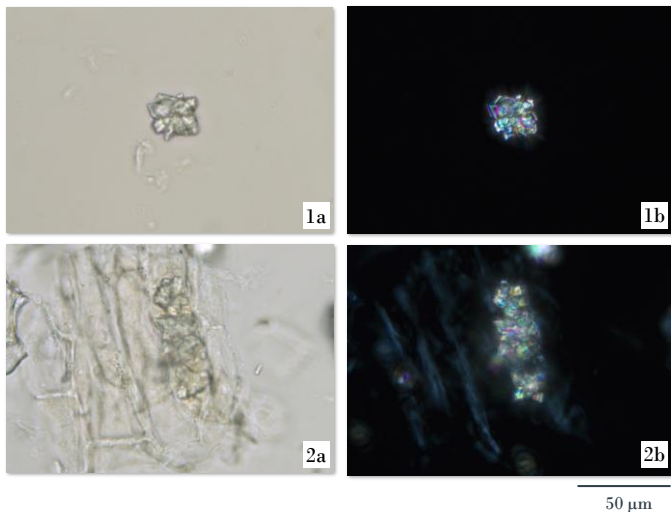
50  $\mu$ m

Frequently found, singly scattered (1) or present in parenchymatous cell (2) and stone cell, appears polygonal, rhombic or sub-double conical; bright white or polychromatic under polarized light microscope

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



## Cluster of calcium oxalate



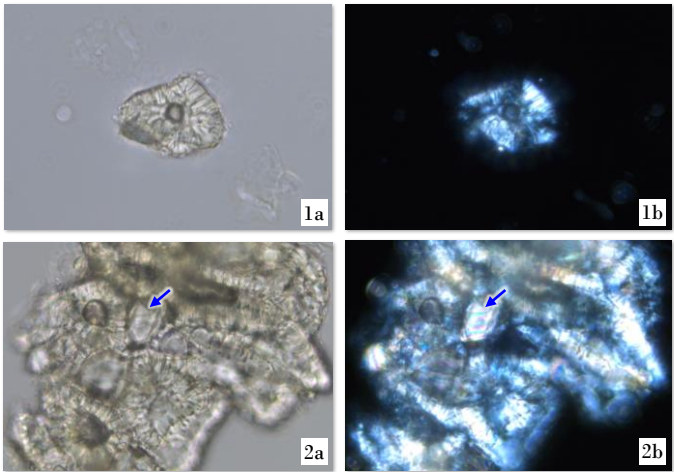
Singly scattered (1) or present in parenchymatous cell (2); polychromatic under polarized light microscope

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



## - Sclerenchyma -

### Stone cell



50  $\mu$ m

Frequently found, singly scattered (1) or present in groups (2), appears polygonal, sub-rectangular or irregular, wall is thick or extremely thick, pit canals distinct, some contain prism of calcium oxalate ( $\rightarrow$ ) in lumina; bright white or polychromatic under polarized light microscope

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



# ■ ■ ■ Additional Features of Powder ■ Microscopic Identification

## - Protective tissue -

### Cork cell



50  $\mu$ m

Colourless or light yellowish-brown, appears polygonal in surface view, wall is slightly thick, some have small pits

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





## Key Identification Features

### - Macroscopic features -

- ◇ Cork on the outer surface has wrinkles. Some have white macula-like lenticels
- ◇ Fracture appears slightly granular

### - Powder microscopic features -

- ◇ Prism of calcium oxalate appears polygonal, rhombic or sub-double conical
- ◇ Cluster of calcium oxalate is singly scattered or present in parenchymatous cell
- ◇ Stone cell has thick or extremely thick walls, and some contain prism of calcium oxalate in lumina

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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