

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

The image shows numerous pieces of dried, curled bark of Ilex rotunda, which is the source of Cortex Ilicis Rotundae. The bark is brownish-grey with a rough, fissured texture and is shown in various curved and broken pieces against a white background.

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 (2020 Edition) is “Ilicis Rotundae Cortex”.



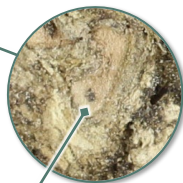
衛生署
Department of Health



Macroscopic Identification Features

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

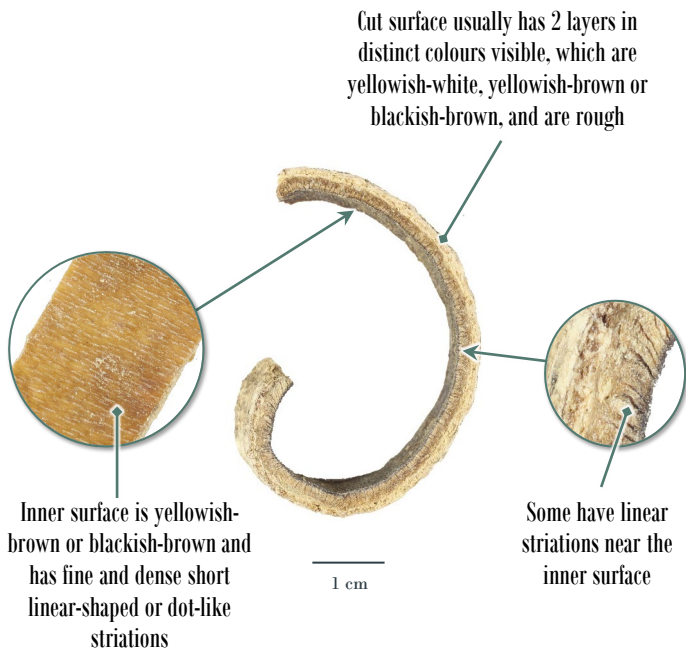
Outer surface is greyish-white or greyish-brown,
rough and has wrinkles



1 cm

Some with white macula-like lenticels





Texture Hard and fragile

Fracture Slightly granular



0.5 cm

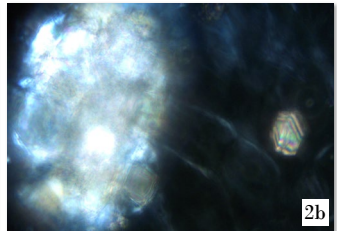
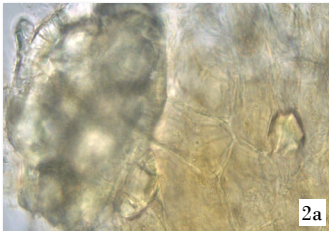
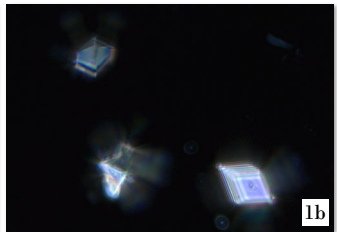
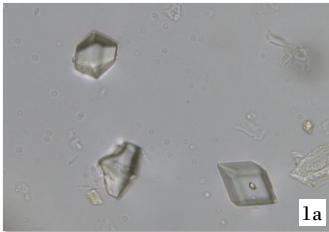
Odour Slight aroma



Features of Easy Powder Microscopic Identification

- Crystal -

Prism of calcium oxalate



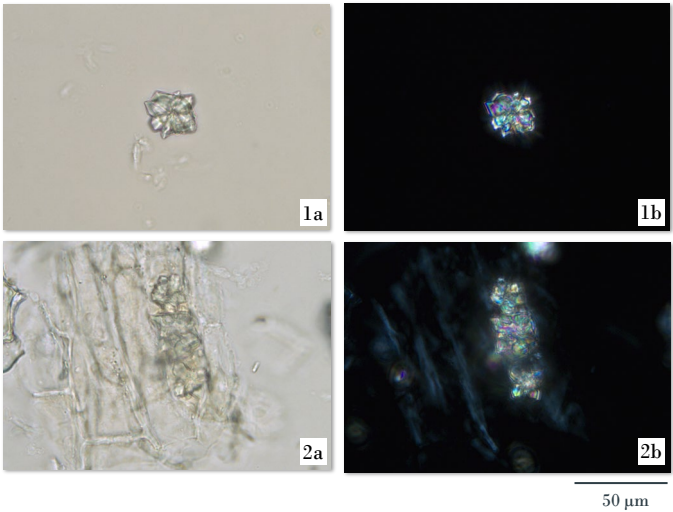
50 μ m

Frequently found, singly scattered (1) or present in parenchymatous cell 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



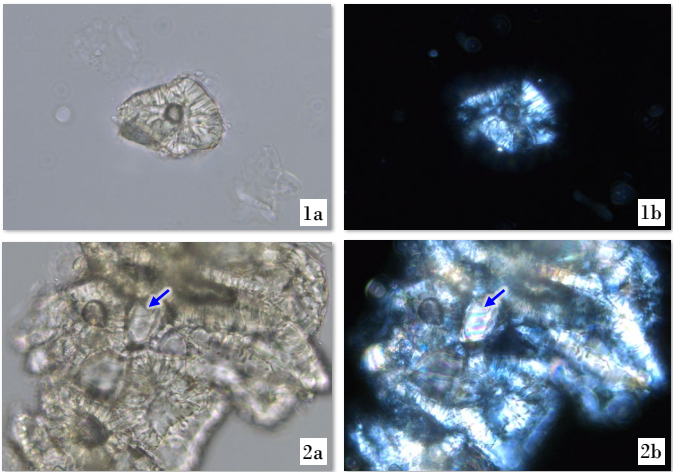
Singly scattered (1) or present in parenchymatous cell (2); polychromatic under polarized light microscope

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



- Sclerenchyma -

Stone cell



50 μm

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 (→) 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 μ 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 -

- ◇ 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](#):

Ilicis Rotundae Cortex — HKCMMS (Vol 7)

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