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

Cortex Dictamni*

Source	The dried root bark of <i>Dictamnus dasycarpus</i> Turcz. in the family Rutaceae
Property and Flavour	Cold; bitter
Meridian Affinity	Spleen, stomach and bladder meridians
Actions	To clear heat and dry dampness, remove wind and remove toxins
Production Area	Mainly produced in Hebei, Liaoning, Heilongjiang, Jilin, Inner Mongolia, Shandong, etc.
	Note:
•	* Its name in Chinese Pharmacopoeia (2020 Edition) is "Dictamni Cortex".

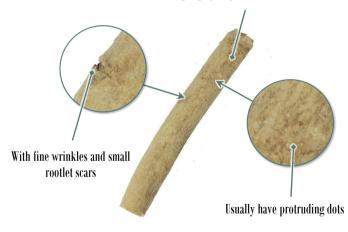


Macroscopic Identification Features

Cortex Dictamni (Sections)

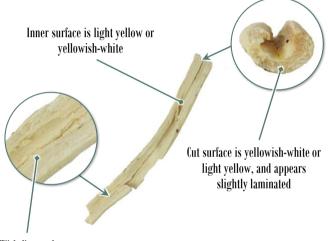
Shape Quilled or semi-quilled, varies in length

Outer surface is greyish-white, yellowish-white or light greyish-yellow. No lenticels



 $1 \mathrm{cm}$





With fine and straight striations

1 cm



Texture Fragile, easily broken, dust wafts when broken

Fracture Uneven, appears slightly laminated



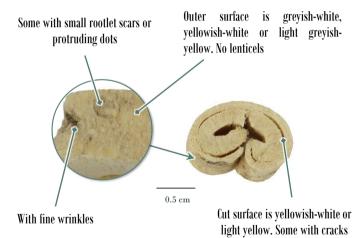
 $0.5~\mathrm{cm}$

Odour Muttony

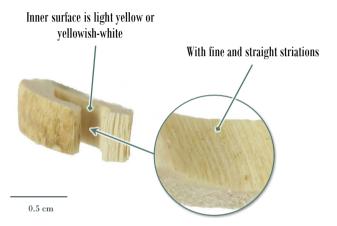


Cortex Dictamni (Slices)

Shape Round, sub-rounded or quilled thick slices, hollow, some are broken









Texture Fragile, easily broken, dust wafts when broken

Fracture Uneven, appears slightly laminated



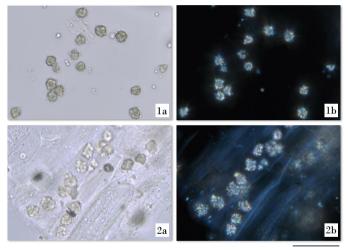
0.5 cm

Odour Muttony



Feature of Easy Powder Microscopic Identification - Crystal -

Cluster of calcium oxalate



 $50 \, \mu m$

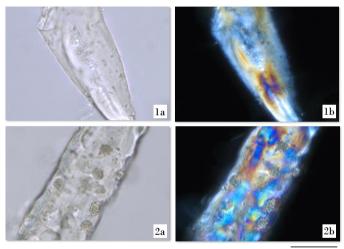
Frequently found, varies in size, scattered (1), or present in parenchymatous cell (2) and inlaid within fibre wall in groups; polychromatic under polarized light microscope



Additional Features of Powder Microscopic Identification

- Sclerenchyma -

Fibre



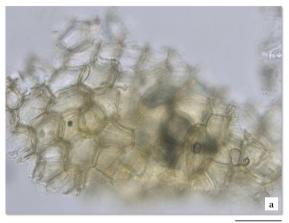
 $50 \, \mu m$

Frequently found, mostly singly scattered, mostly broken (1), intact ones appear fusiform, extremely long, wall is extremely thick, striations are fine, dense and distinct, some walls are inlaid with cluster of calcium oxalate (2); polychromatic under polarized light microscope



- Protective tissue -

Cork cell



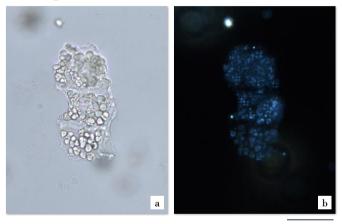
 $50 \, \mu m$

Barely found, colourless or light yellowish-brown, appears sub-square or polygonal in surface view



- Starch -

Starch granule



 $50 \, \mu m$

Mostly are simple granules, appears sub-rounded, hilum and striations mostly indistinct, compound granule consists of 2 to several units is barely found; black and cruciate-shaped under the polarized light microscope



Key Identification Features

- Macroscopic features -

- Outer surface is greyish-white, yellowish-white or light greyish-yellow and has fine wrinkles
- Fracture is uneven and appears slightly laminated

- Powder Microscopic features -

 Cluster of calcium oxalate is frequently found, and scattered or present in parenchymatous cell and inlaid within fibre wall in groups

For more information, please refer to website of the Hong Kong Chinese Materia Medica Standards:

Dictamni Cortex - HKCMMS (Vol 4)

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

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