



**Identification of
Tiny Seed and Fruit
Types of Chinese
Materia Medica**



Raphani Semen

Source

The dried ripe seed of *Raphanus sativus* L. in the family Cruciferae

Property and flavour

Neutral; pungent and sweet

Meridian affinity

Lung, spleen and stomach meridians

Actions

To promote digestion and relieve distention; to make qi descend and transform phlegm

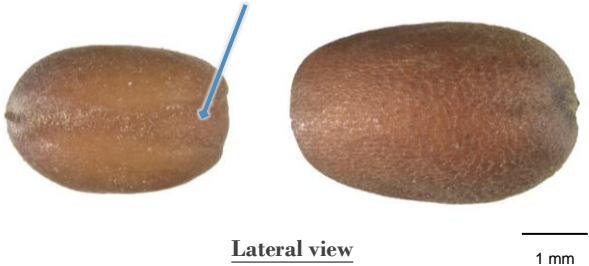
Micro-morphological features

Shape

Sub-ovoid or sub-triangular



With several longitudinal grooves on one side



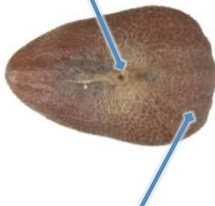
Lateral view



Surface view

1 mm

With slightly protruding round hilum at the base, appears yellowish-white, light yellow or deep brown



The side with longitudinal grooves is usually thicker

Bottom view

1 mm

Surface

Reddish-brown or yellowish-brown, with reticulate striations observable; with light brown and relatively dense striations (→), and areas with darker colour (←) around the hilum



0.5 mm

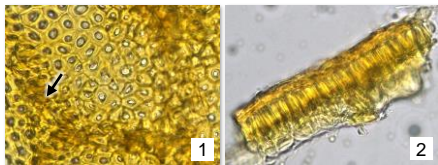


0.5 mm

Powder microscopic features

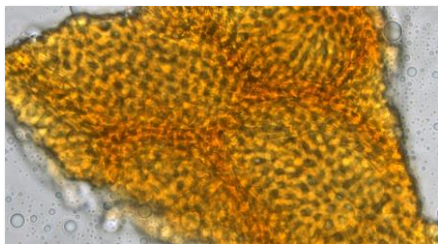
Testa

Palisade cell of testa



Present in groups, light yellow or yellowish-brown, appears sub-polygonal in surface view (1), usually adheres to hypodermal cell of testa which appears as sub-polygonal or flattened oblong shadow (\rightarrow); lateral side (2) is occasionally found, with slightly thick outer wall

Hypodermal cell of testa



Light yellow, appears sub-polygonal or flattened oblong in surface view, relatively large, intact ones are barely found; usually adheres to palisade cell of testa

Key identification features

Micro-morphology

- ⊙ Sub-ovoid or sub-triangular
- ⊙ With several longitudinal grooves on one side, and slightly protruding hilum at the base
- ⊙ Surface is reddish-brown or yellowish-brown, with reticulate striations observable; with light brown and relatively dense striations around the hilum

Powder microscopy

- ⊙ Palisade cell of testa: present in groups, appears sub-polygonal in surface view, usually adheres to hypodermal cell of testa; lateral side is occasionally found, with slightly thick outer wall
- ⊙ Hypodermal cell of testa: appears sub-polygonal or flattened oblong in surface view, relatively large

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