

***Panax pseudo ginseng* (Burkill) F. H. Chen ex C. Chow & W. G. Huang**

Tienchi Ginseng Root

Radix pseudo ginseng

Pinyin: San qi, tian qi

Araliaceae

Tienchi is a member of the ginseng (*Araliaceae*) family and a highly respected botanical of traditional Chinese medicine. It contains many of the same ginsenosides that occur in *Panax ginseng* but is specifically used to affect the viscosity of blood. It is used both internally and externally to dissolve blood clots and, paradoxically, to stop hemorrhaging. The roots (rhizomes) come in many different sizes in both processed and unprocessed forms. Prior to sectioning for microscopic examination, the crude botanical must be soaked in cold water for several hours to soften the tissue. For a comparison of the microscopy of tienchi ginseng, Asian ginseng (*P. ginseng*), and American ginseng (*P. quinquefolius*), see entry for *Panax ginseng*.

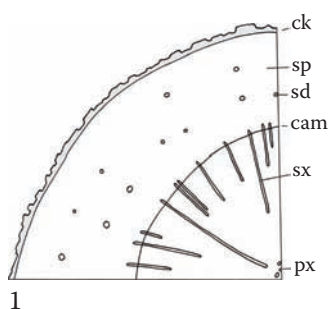
Transverse section: Cork consists of regularly arranged, thin-walled cells; narrow phelloderm of slightly thickened

cells; a layer of parenchyma without medullary rays is inside the phelloderm; secondary phloem contains secretory ducts, up to 80 μm diameter, arranged in concentric lines; cells surrounding the secretory ducts are filled with yellow-brown masses; calcium oxalate cluster crystals are infrequent or absent; secondary xylem consists mainly of parenchyma; vessels up to 45 μm diameter are arranged in very narrow radial rows.

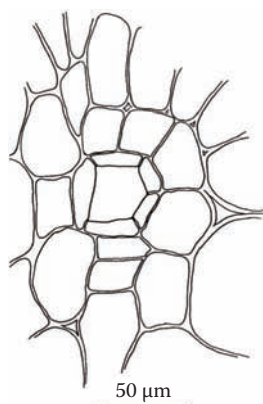
Longitudinal section: Roundish or elliptical secretory ducts, similar to transverse section; most vessels have reticulate walls.

Starch: Starch is abundant in all parenchyma cells; simple or compound granules, with individual granules roundish or slightly angular in outline and up to 20 μm diameter.

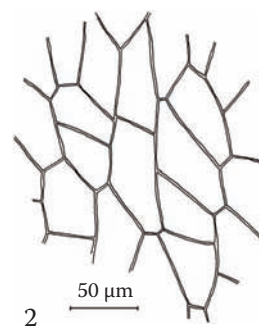
Powder: Light yellow-brown with dark brown fragments; cork in surface view; parenchyma cells, some with yellow-brown contents; calcium oxalate cluster crystals are rare or absent; secretory ducts in longitudinal view; reticulate vessels; starch.



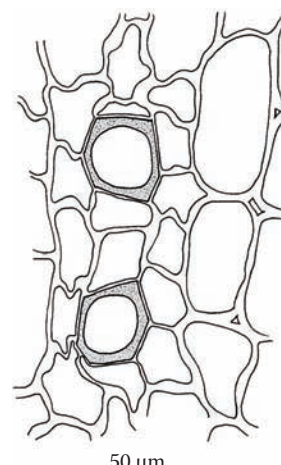
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