

Ginkgo biloba* L.*Ginkgo Leaf*****Folium Ginkgo******Ginkgoaceae***

The extract of ginkgo leaves is one of the most widely used and well researched of all herbal products worldwide. Numerous studies report on its ability to enhance peripheral circulation, improve mental acuity, and even slow the progression of Alzheimer's disease. Throughout most of the world, the proprietary ginkgo extract used in most studies—EGb 761 (Schwabe; Germany)—is an approved pharmaceutical. Ginkgo leaves are so widely cultivated and characteristic that no adulteration is expected.

Surface view: Cuticle is thick on both surfaces; upper epidermis consists of thin-walled cells with slightly sinuous anticlinal walls; cells may be thickened above vascular bundles, and stomata are absent; lower epidermal cells are similar in shape, only without sinuous anticlinal walls when found above vascular bundles; anomocytic stomata are slightly sunken, with subsidiary cells overlaying the guard cells.

Transverse section: Isobilateral; photosynthetic cells are irregularly shaped and often branched; schizogenous oil cavities occur between vascular bundles; cluster crystals of calcium oxalate are associated with vascular bundles.

Longitudinal section: Vascular tissue consists primarily of tracheids associated with fibers and reticulate sclereids; bordered-pitted tracheids may be reticulate or scalariform when found at the margin of a vascular bundle; vessels are rare, with helical or annular thickenings; small cluster crystals of calcium oxalate ~20 μm diameter occur in rows in vascular bundles; larger crystals ~80 μm diameter occur adjacent to vascular bundles.

Powder: Fragments of vascular bundles with fibers, reticulate sclereids, and associated small cluster crystals of calcium oxalate; parenchyma with large cluster crystals; epidermal layers with and without stomata; numerous cluster crystals. The schizogenous oil cavities fragment upon milling and are difficult to discern in powder.

