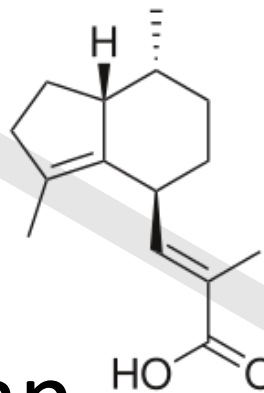




Plant of the Month

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The standard valerenic acid content of valerian root extract is 0.8%



Microscopy

Shown above parenchyma cells of the valerian root filled with granules of starch. Another differentiating feature of *Valeriana officinalis* root is its unicellular root hairs. Sclereids (structural cells) at the base of the stem are rectangular with moderately thick cell walls. The sclereids from the rhizome have much thicker walls.

History/Traditional Use

Valerian is a perennial plant that is native to Europe and Asia and naturalized in North America. In the times of ancient Rome, Galen (a physician and philosopher) prescribed it to treat insomnia. People also used it as a stress reliever in England during the air raids of World War II. Traditionally, the roots of valerian are eaten or steeped to make tea to aid with relaxation and sleep.

Valerian

Valeriana officinalis



Pharmacology

The main active ingredient of valerian is valerenic acid, which is concentrated in the oil of the roots. It binds to GABA-A receptors and makes neurons less responsive to stimulation, and therefore less likely to fire. This suppressive effect is similar to that of drugs called benzodiazepines, which are commonly prescribed to treat insomnia.

Botany/Preparation

Valerian plants grow two to four feet tall and have small white or pink flowers. The material can have a strong and distinct aroma when it gets old or is improperly dried. The roots and rhizomes are used to make herbal supplements. Dried roots and rhizomes are prepared as teas or tinctures. Extracts can be taken as tablets or capsules.



References

1. <https://ods.od.nih.gov/factsheets/Valerian-HealthProfessional/>
2. <https://examine.com/supplements/valeriana-officinalis/>
3. <https://www.ebmconsult.com/articles/valerian-valeriana-officinalis-treating-insomnia-sleep>
4. <http://www.herbal-ahp.org/documents/sample/valerian.pdf>