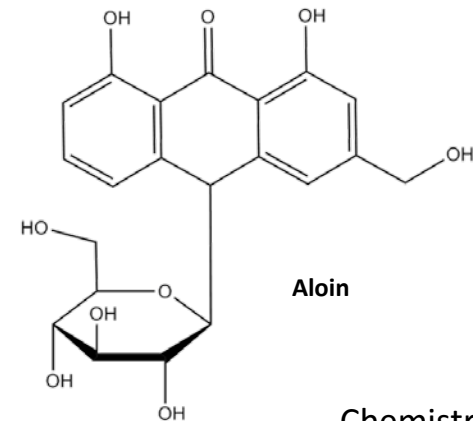
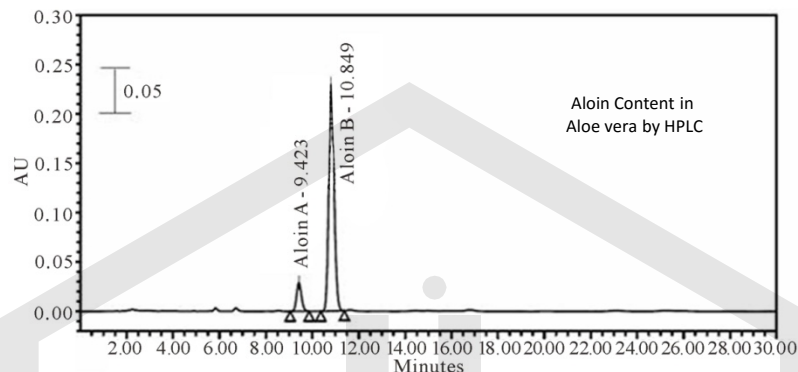




Plant of the Month

By Jonathan Crellin, Alkemist Labs



Chemistry

Aloe vera's active component is aloin, found in the leaves. This is a toxic substance in high concentrations that can lead to unwanted side effects such as diarrhea and abdominal cramps. When dried it can be used as a bittering agent in foods. Because of the toxicity, it must be used in the minimum quantity required for effect. The aloe gel contains about 99% water and 1% mesophyll cells (cell wall, microparticles, and liquid gel)

Aloe Vera

Aloe vera



Sales

Manufacturing: \$17,000,00 (11th)
 Consumer: \$13,700,00 (3rd)

Pharmacology

Applied topically, the aloe gel is beneficial to help with osteoarthritis, burns, sunburns, and psoriasis. Aloe vera gel can be found in hundreds of skin products, including lotions and sunblock. Aloin products were once regulated by the FDA as OTC laxatives. In 2002, they required that all these products be removed from the US market or reformulated because the manufacturers did not provide necessary safety data. Today the FDA has approved aloe vera as a natural food flavoring.

Botany/Preparation

Aloe is a succulent plant grows in arid and subtropical climates and contains two useful components. The leaves hold a clear gel that is often used as a topical ointment. The green part of the leaf that surrounds the gel can be used to produce a juice or a dried substance (called latex) that is taken by mouth. This is where the aloin comes from.



History/Traditional Use

Aloe vera's use can be traced back 6,000 years to early Egypt, where the plant was depicted on stone carvings. Known as the "plant of immortality," aloe was presented as a burial gift to deceased pharaohs. Historically, aloe was used topically to heal wounds and for various skin conditions, and orally as a laxative. Today, in addition to these uses, aloe is used as a folk or traditional remedy for a variety of conditions including diabetes, asthma, epilepsy, and osteoarthritis.



References

1. <https://nccih.nih.gov/health/aloevera>
2. <http://www.fda.gov/ohrms/dockets/98fr/050902a.htm>
3. <http://www.naturalmedicinejournal.com/journal/2012-09/aloevera-gel-research-review>