

Ocimum sanctum Extract

General description:

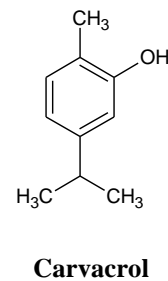
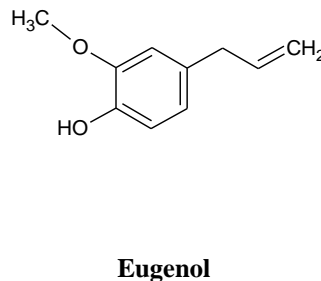
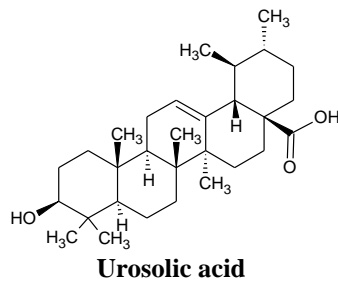
- Botanical Name : *Ocimum sanctum* L.
- Family : Lamiaceae
- Common Name : Holy basil, Tulsi
- Part used : Leaves

Holy basil is being used for its important role in the traditional Ayurvedic and Unani system of holistic health and herbal medicine from ancient time. It is an erect soft aromatic herb. Holy basil is considered to be an adaptogen, balancing different processes in the body, and helpful for adapting to stress. In Ayurveda, it referred as a kind of 'elixir of life' and believed to promote longevity.[1]



Phytochemistry

The volatile oil of *O. sanctum* leaves contains urosolic acid, eugenol, carvacrol, linalool, limatrol and caryophyllene.[1] The aqueous extract of *O. sanctum* leaves revealed alkaloids, flavonoids, tannins and carbohydrates.[2]



Pharmacological activities:

Scientific studies on *O. sanctum* have shown it's potent antiinflammatory, analgesic, antipyretic, antidiabetic, hepatoprotective, hypolipidemic, antistress and immunomodulatory activities.[3] Hydroalcoholic extract of *O. Sanctum* restored superoxide dismutase and catalase activity.

Clinical Study:

- Effect of *O. sanctum* crude extract was studied to evaluate its impact on life span, thermotolerance and reactive oxygen species (ROS) scavenging activities in *C. elegans*. The results revealed that extract significantly extended the life span of *Caenorhabditis elegans*. The extract also proved to be a strong free radical scavenger and increased resistance against thermal stress. ^[4]
- A preclinical study report indicated that *O. sanctum* possess significant anti-stress activity. ^[5]
- In 2014, a triple blind randomized control trial was conducted in India. Results indicated that *O. sanctum* mouth rinse was proved to be an effective mouthwash owing to its ability in decreasing periodontal indices by reducing plaque accumulation, gingival inflammation and bleeding. No side effect has been observed. ^[6]
- A double-blind randomized controlled cross-over trial was conducted to evaluate the immunomodulatory potential of Tulsi on volunteers. 300 mg capsules of ethanolic leave extracts of leaves of Tulsi or placebo were administered to 24 healthy volunteers on empty stomach. Results clearly ascertain the immunomodulatory role of Tulsi leaves extract. ^[7]

Specifications

Botanical/ Scientific name	<i>Ocimum sanctum</i>
CAS No.	91845-35-1
Description	Greenish brown to brown powder
Identification	HPLC
Heavy metal	Not more than 20 ppm
Arsenic	Not more than 1 ppm
Lead	Not more than 10 ppm
Content of Ursolic acid	2%
Microbiological profile	As per JPN Food Regulation

References:

1. Pattanayak et al., 2010. *Ocimum sanctum* Linn. A reservoir plant for therapeutic applications: An overview. *Pharmacogn Rev.* 4(7): 95–105.
2. Kumar et al., 2013. *Ocimum sanctum* (Tulsi): a miracle herb and boon to medical science – A Review. *Int J of Agronomy and Plant Production.* 4 (7), 1580-1589.
3. Baliga et al., 2013. *Ocimum sanctum* L (holy basil or tulsi) and its phytochemicals in the prevention and treatment of cancer. *Nutr Cancer.* 65(1):26-35.
4. Pandey et al., 2013. Antiaging, antistress and ROS scavenging activity of crude extract of *Ocimum sanctum* (L.) in *Caenorhabditis elegans* (Maupas, 1900). *Indian J Exp Biol.* 51(7):515-21.
5. Bathala et al., 2012. Efficacy of *Ocimum sanctum* for relieving stress: a preclinical study. *J Contemp Dent Pract.* 13(6):782-6.
6. Gupta et al., 2014. A randomized controlled clinical trial of *Ocimum sanctum* and chlorhexidine mouthwash on dental plaque and gingival inflammation. *J Ayurveda Integr Med.* 5(2):109-16.
7. Mondal et al., 2011. Double-blinded randomized controlled trial for immunomodulatory effects of Tulsi (*Ocimum sanctum* Linn.) leaf extract on healthy volunteers. *J Ethnopharmacol.* 14;136(3):452-6

