PRAKRUTI
PRODUCTS PVT LTD

# *Boswellia serrata* Extract

**General description**

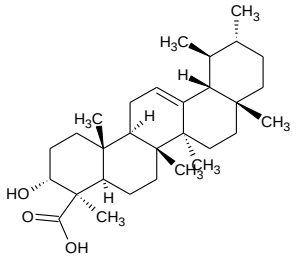
- Botanical Name : *Boswellia serrata*
- Family : Burseraceae
- Common Name : Salai guggal, frankincense
- Part used : oleo-gum-resin

*Boswellia serrata* is a moderate-to-large branching tree found in India, North Africa, and Middle East. These trees abundantly grow in dry hilly tracts. It is a deciduous medium size tree with ash colour bark. Peeling off thin flakes of this plant yields a gummy oleo-resin.

**Phytoconstituents:**

*B. serrata* contains 8-9 % essential oil, 20-23 % gum, and about 50 % resin.[1] Essential oil is mixture of monoterpenes, diterpenes and sesquiterpenes. Gum consists of pentose sugar, hexose sugars with some oxidizing and digestive enzymes. Resin is mainly composed of pentacyclic triterpene acid of which boswellic acid is the main active moiety.[2]

**Boswellic acid**




**Pharmacological activities:**

- Oleo-gum-resin of *B. serrata* has been used for variety of therapeutic purposes such as cancer, inflammation, arthritis, asthma, psoriasis, colitis, crohn's disease and hyperlipidemia. Alcoholic extract of Salai guggal was reported to possess anti-inflammatory and anti-arthritic activities; due to boswellic acids.[2]
- A randomized double blind placebo controlled crossover study in 30 osteoarthritis patients with *B. serrata* extract was reported to decrease knee pain, increased knee flexion and increased walking distance. Study recommended therapeutic use of *B. serrata* in arthritis patients.[3]
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- Another double-blind, placebo-controlled study was conducted among 40 patients (23 males and 17 females) in the age range of 18 - 75 years having mean duration of illness, bronchial asthma, were treated with a preparation of B. serrata gum resin during 6 weeks. Study showed a definite role in the treatment of bronchial asthma.[4]
- Azadmehr et al., (2014) reported that *B. serrata* gum resin could be used as a safe anti-oxidant, anti-hyperglycemic and anti-hyperlipidemic agent for type 2 diabetic patients. [5]

## ➢ Specifications

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| CAS No. | 97952-72-2 |
| Description | Off white to cream powder with characteristic odor |
| Identification | HPLC |
| Heavy metal | Not more than 20 ppm |
| Arsenic | Not more than 1 ppm |
| Lead | Not more than 10 ppm |
| Content of | Acetyl keto beta boswellic acids 5,10, 30, 90% w/w; Beta Boswellic acids: 20, 40, 65, 70, 80 % w/w |
| Microbiological profile | As per JPN Food Regulation |

## ➢ References


1. Ziyaurrahman and Patel. 2012. Anticonvulsant effect of *Boswellia serrata* by modulation of endogenous biomarkers. Der Pharmacia Lettre, 4 (4):1308-1325
2. Sharma et al., 2009. Phytochemical and Pharmacological investigations on *Boswellia serrata* Phcog Rev. 3(5): 206-215
3. Kimmatkar et al., 2003. Efficacy and tolerability of *Boswellia serrata* extract in treatment of osteoarthritis of knee-a randomized double blind placebo controlled trial. Phytomedicine. 10(1):3-7
4. Gupta et al., 1998. Effects of *Boswellia serrata* gum resin in patients with bronchial asthma: results of a double-blind, placebo-controlled, 6-week clinical study. Eur J Med Res. 3(11):511-514.
5. Azadmehr et al., 2014. A Randomized Clinical Trial Study: Anti-Oxidant, Anti-hyperglycemic and Anti-Hyperlipidemic Effects of Olibanum Gum in Type 2 Diabetic Patients. Iran J Pharm Res. 13(3): 1003–1009.