

# **Egyptian Herbal Monograph**

**Volume 3**

**Medicinal Plants used in Egypt**

**Egyptian Drug Authority (EDA)**

**2024**



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## Medicinal Plants Used in Egypt

***Boswellia serrata* Roxb.**

لبان داکار

### 1. Names & Synonyms (1).

***Boswellia serrata* Roxb.**

**Family:** Burseraceae

**Syns.:** *Boswellia glabra* Roxb., *Libanotus asiaticus* Stackh., *Libanus thurifer* Colebr., *Chloroxylon dupada* Buch.

**English:** Boswellia, Indian Frankincense, Indian Olibanum (2,3).

**Arabic:** Luban لبان (4), luban dhakar لبان داکار (5).

### 2. Parts used for medicinal purpose

Dried oleogum resin (5-7).

### 3. Major chemical constituents

The content and composition of the oleogum resin may vary depending upon age, geographical conditions and quality of resin (8-9).

- **Triterpenoic acids:**  $\alpha$ - and  $\beta$ -boswellic acids (BA), acetylated  $\alpha$ - and  $\beta$ -boswellic acids (ABA), 11-keto- $\beta$ -boswellic acid (KBA), and 3-*O*-acetyl-11-keto- $\beta$ -boswellic acid (AKBA) (8-10).
- **Essential oil:** mainly  $\alpha$ -pinene,  $\alpha$ -thujene, *trans*-verbenol,  $\beta$ -thujone, *p*-cymene, *m*-cymene and sabinene (11).
- **Carbohydrates:** disaccharides, oligo- and polysaccharides (9).

### 4. Medicinal uses (Indications) (5,6,12)

- A. Management of Inflammatory Bowel Disease (IBD) (ulcerative colitis and Crohn's disease).
- B. Management and treatment of rheumatism and arthritis.
- C. Management of bronchial asthma and cough.

## 5. Herbal preparations correlated to medicinal use

1. **Dried resin** (2,6,12).
2. **Resin extracts** (2,5,12) using suitable solvents such as isopropanol, alcohol, methanol, hexane or mixtures of these solvents. The ratio of starting plant material to extract is approximately 6:1 (7).

## 6. Posology and method of administration correlated to medicinal use

### Adolescence and Adults

#### Preparation 1

1-3 g daily (5,12).

#### Preparation 2

300-400 mg, 3 times daily (2,5,6) up to 1500 mg daily (13)

### Duration of Use:

**Indication 1:** 6 weeks (2).

**Indication 2:** 4-12 weeks (14).

**Indication 3:** 6 weeks (15).

### Method of administration: Oral use

It should be taken with meals because food intake can significantly increase the bioavailability of boswellic acids (3).

## 7. Contraindications

- Hypersensitivity to the active substances and to other plants of the same family.
- Pre-existing gastritis (6).

## 8. Special warnings and precautions for use

- If the symptoms worsen during the use of the medicinal product, a doctor or a pharmacist should be consulted.
- The use of the crude drug in children under the age of 12 years is not recommended (5).

## 9. Interactions with other medicinal products and other forms of interaction

Boswellia may interact with conventional drugs by inhibiting P-glycoprotein and/or cytochrome P450 isoenzymes (3).

## 10. Fertility, pregnancy and lactation

- Safety during pregnancy and lactation has not been established. In the absence of sufficient data, the use during pregnancy and lactation is not recommended.
- No Fertility data available.

## 11. Effects on ability to drive and use machines

No studies on the effect on the ability to drive and use machines have been performed.

## 12. Undesirable effects

- If adverse reactions occur, a doctor or a pharmacist should be consulted.
- Rare side effects may include retrosternal burning, nausea, abdominal fullness, epigastric pain, anorexia, dermatitis and skin rash (6,12).

## 13. Overdose

No case of overdose has been reported.

## 14. Relevant biological activities

Not required as per Egyptian guidelines for registration of herbal medicines.

## 15. Additional information

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## 16. Date of compilation/last revision

18/05/2023.

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