

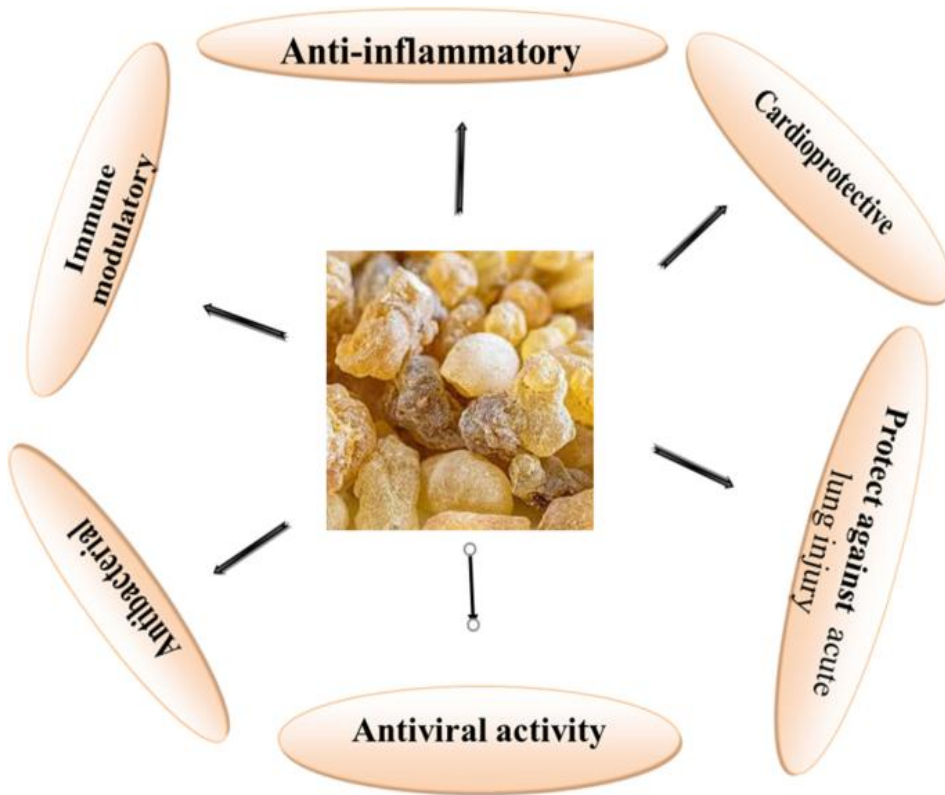
Boswellia serrata

- Boswellia serrata commonly known as Boswellia is a genus of trees that produce resin.
- The extract from Boswellia serrata, in particular, has been used in traditional medicine for centuries.
- Boswellia has been used in Ayurvedic medicine to treat conditions like arthritis and asthma.



❖ Active Compounds in Boswellia

- Boswellic Acids: The main active compounds, which are thought to inhibit pro-inflammatory enzymes.
- Types of Boswellic Acids: Include beta-boswellic acid, acetyl-11-keto-beta-boswellic acid (AKBA), etc.
- AKBA is considered the most potent for anti-inflammatory effects.



Boswellia serrata Extract

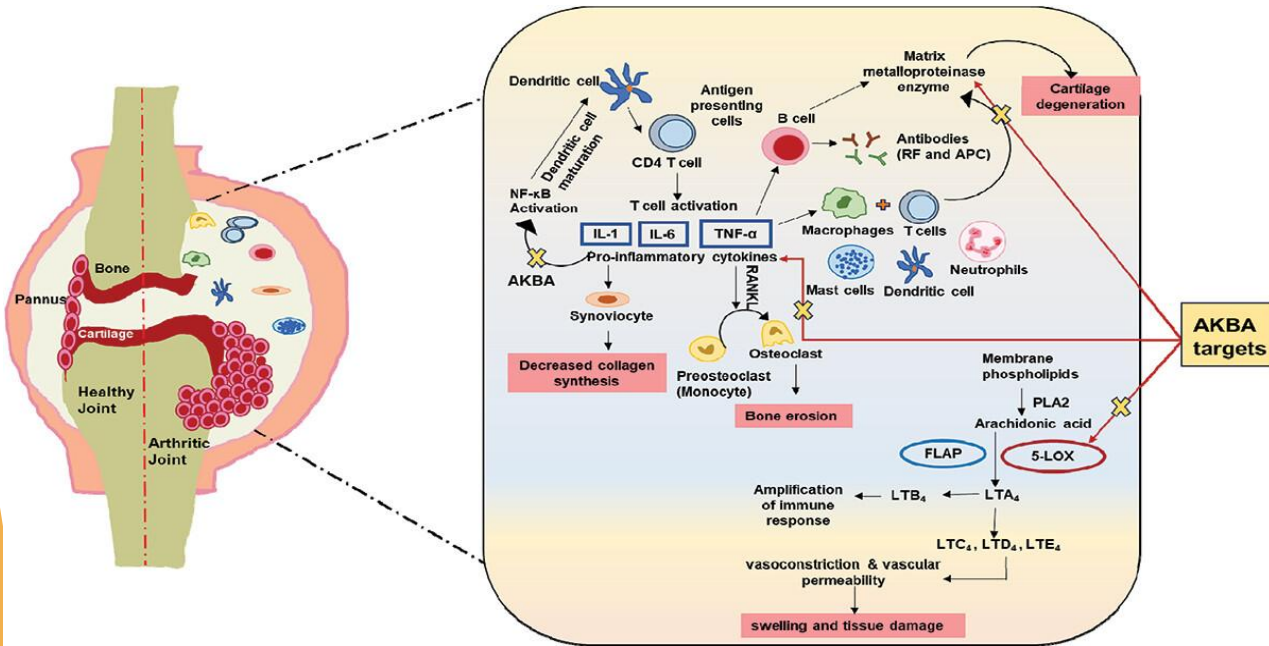


❖ Uses and Applications

Dietary Supplement, Topical Use, Cosmetic Products

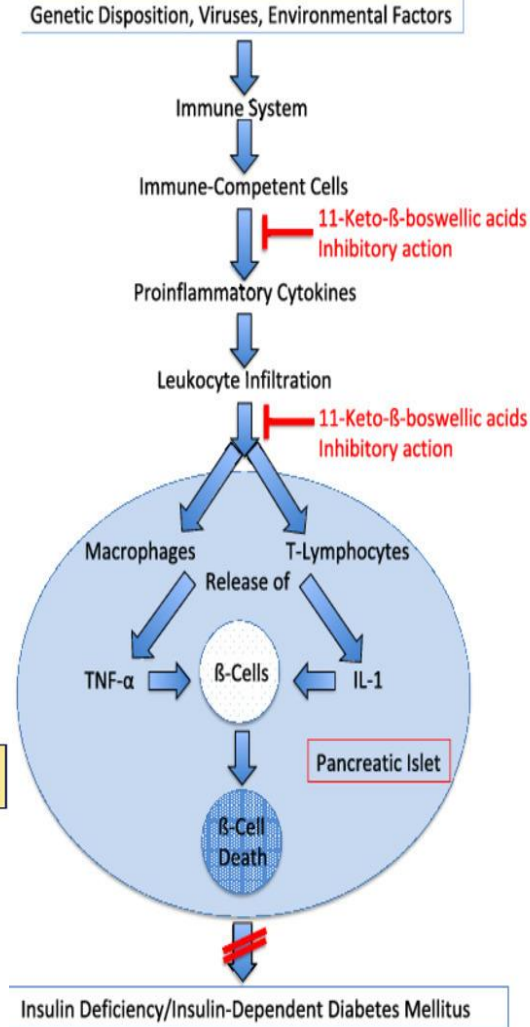
❖ Health Benefits of Boswellia Extract

Anti-inflammatory, Pain relief, Improved joint health, Supports respiratory health, Antioxidant effects



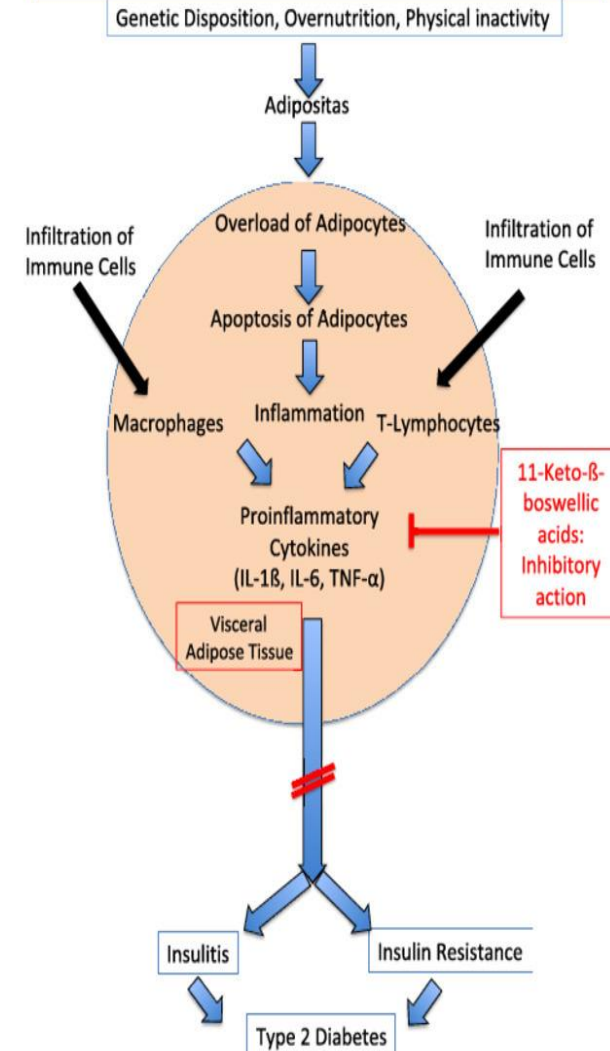
Anti-inflammatory and anti-arthritic potential of 3-Acetyl-11-keto-β-Boswellic Acid

Pathogenesis of Autoimmune Diabetes (Type 1, LADA) and Inhibitory Effects of Boswellic Extracts and 11-Keto-β-Boswellic Acids



Boswellic extracts and 11-keto-β-boswellic acids prevent type 1 and type 2 diabetes mellitus

Pathogenesis of Typ 2 Diabetes and inhibitory Effects of Boswellic Extracts and 11-Keto-β-Boswellic Acids



❖ **Dosage forms of Boswellia serrata:**

1. Capsules / Tablets

Dosage: Typically, the recommended dosage ranges from **300 mg to 500 mg**.

2. Powder

Dosage: Usually **500 mg to 1,000 mg** per day

3. Extract (Liquid or Tincture)

Dosage: Liquid extracts may be taken in doses of **1-2 teaspoons (5-10)**

4. Topical Creams and Gels

Dosage: Apply the cream or gel directly to the affected area, usually **2-3 times per day**.

5. Boswellia Resin

Dosage: If using raw resin, about **1-2 grams per day**

6. Softgels / Soft Capsules

Dosage: Similar to capsules, softgels typically contain around **300 mg to 500 mg**

7. Boswellia Tea

Dosage: Typically, **1-2 cups per day**



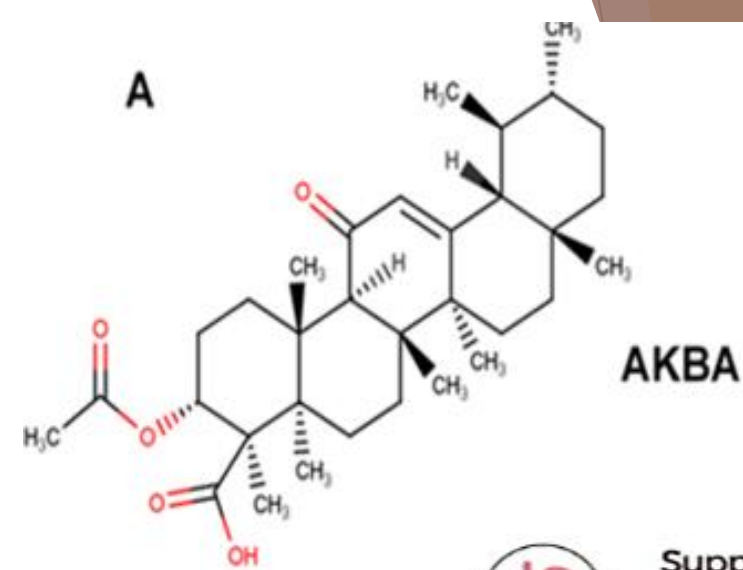
❖ Konark can provide

	Percentage	Method
Boswellia Serrata Extract	65% BA	Titration
	85% BA	
	85% BA + 10% BBA	HPLC
	AKBA 10%	
	AKBA 20%	
	AKBA 30%	
	AKBA 60%	

BA – Boswellic acid

BBA – Beta-boswellic acid

AKBA - Acetyl-11-keto-beta-boswellic acid



Supports digestive health, protects the digestive tract, soothes the gut and helps maintain the lining of the digestive tract



Supports joint flexibility and helps joints feel comfortable



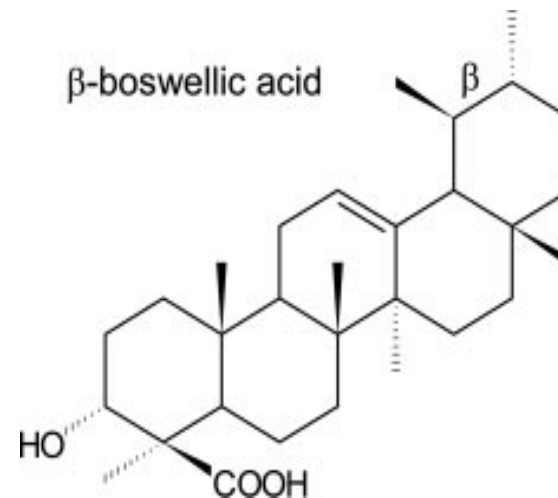
Supports lung health



Supports mental health

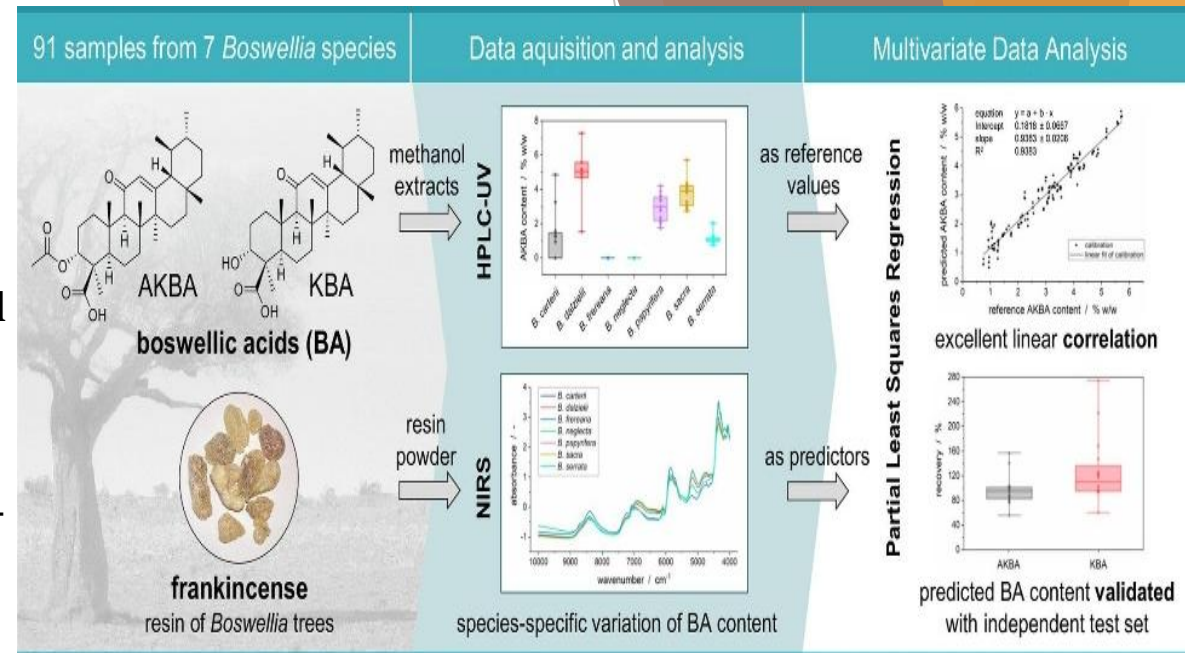


Supports heart function and helps maintain blood cholesterol levels at a healthy level

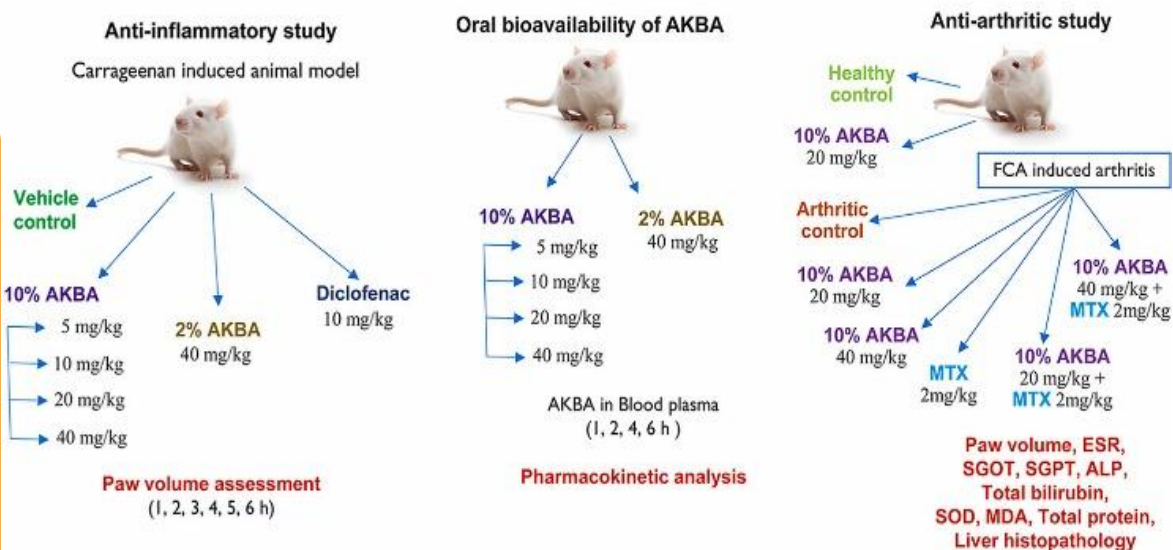


❖ Species-Specific quantification of bioactive boswellic acids in *Boswellia* resin using NIR spectroscopy, HPLC and Multivariate data analysis

- The bioactive compounds Acetyl-11-keto- β -boswellic acid (AKBA) and 11-keto- β -boswellic acid (KBA), found in the resin of the *Boswellia* tree, exhibit anti-inflammatory properties
- The study presents a comprehensive investigation into the boswellic acid content of seven *Boswellia* species and introduce a novel and non-destructive Near-Infrared spectroscopy method for predicting boswellic acid concentrations in solid resin samples and also using HPLC



Boswellia serrata extract vs Methotrexate and its combination in arthritic animal model



❖ Bioavailability, anti-inflammatory and anti-arthritic effect of Acetyl Keto Boswellic acid and its combination with methotrexate in an arthritic animal model

- Research on *Boswellia* extract based on Acetyl Keto Boswellic Acid (AKBA) content evaluating its efficacy and safety is necessary.
- The study aimed to find a suitable *Boswellia* extract rich in AKBA to evaluate its bioavailability, anti-inflammatory, and anti-arthritic effect. In addition, the synergistic action of AKBA extract with methotrexate (MTX) was also assessed on an animal model.

- **Reference :**

1. <https://doi.org/10.1016/j.saa.2024.124384>
2. <https://link.springer.com/article/10.1007/s10787-021-00841-8#citeas>
3. [https://doi.org/10.1016/S0944-7113\(96\)80019-5](https://doi.org/10.1016/S0944-7113(96)80019-5)
4. <https://bmcchem.biomedcentral.com/articles/10.1186/s13065-016-0194-8#citeas>
5. <https://bmcchem.biomedcentral.com/articles/10.1186/s13065-016-0194-8#citeas>
6. <https://doi.org/10.1080/13543784.2023.2269838>
7. <https://link.springer.com/article/10.1007/s43450-023-00405-7#citeas>

Certifications



National Programme for
Organic Production

