

Frankincense Boswellic Acid Extract





What is it?

Where does it come from?

What can it be used for?

How to put it into different
Products

What is it and Where does it come from?

It is the aftermass, after boil or biomass that is at the bottom of the still, once the essential oil and hydrosol is removed. Inside this biomass is the Boswellic Acid Extract Chemical. It is too heavy a molecule to pass through into the essential oil and Hydrosol.



What is Boswellic Acid made up of.

The BA does not pass through distillation is due to the low volatility. Volatility being the affinity for molecules with their environment and their propension to turn from solid/liquid to gas phase. This loosely correlates with polarity and molecular weight. This is why an essential oil has mainly low molecular weight, non polar molecules

Polarity is a concept similar to magnetism, molecule will have electron going in their structure and depending on how the atoms are arranged some will pull more, thus creating a higher density electron pool

This acts like small magnet that can fit one into another like fridge magnet (with a positive and negative pole)

Water is very polar, the electron pooling around the oxygen atom.

Boswellic acid is not very polar, the large triterpenic part being like a desert since carbon tend to be more or less "meh" on electron pulling.

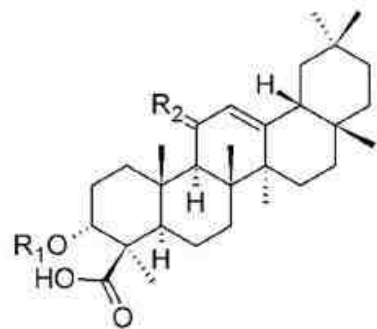
The few oxygen atoms there and here have little impact on the large pool of neutrality

This is why we say the molecule is mainly non polar

So a non polar molecules (BA) will have poor solubility in a polar solvents (water) but a better solubility in a non-polar solvent (carrier oil)



What BA Looks like in Molecules



ursane structures

α -boswellic acid

3 α -O-acetyl α -boswellic acid

11-keto- α -boswellic acid

3 α -O-acetyl-11-keto- α -boswellic acid

R₁

H

Ac

H

Ac

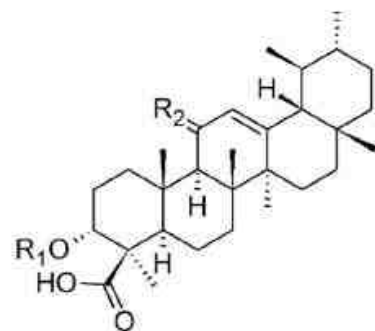
R₂

H₂

H₂

O

O



oleanane structures

β -boswellic acid

3 α -O-acetyl- β -boswellic acid

11-keto- β -boswellic acid

3 α -O-acetyl-11-keto- β -boswellic acid

Compound	Result (% m/m, \pm standard deviation)
11-Keto- β -boswellic acid (KBA)	1.85 \pm 0.11
3-O-Acetyl-11-keto- β -boswellic acid (AKBA)	9.55 \pm 0.74
α -Boswellic acid	2.61 \pm 0.24
β -Boswellic acid	7.08 \pm 0.74
3-O-Acetyl- α -boswellic acid	3.50 \pm 0.36
3-O-Acetyl- β -boswellic acid	9.75 \pm 0.96

BA

A study entitled “Comparative Analysis of Pentacyclic Triterpenic Acid Compositions in Oleogum Resins of Different *Boswellia* Species and their In-Vitro Cytotoxicity against Treatment-Resistant Human Breast Cancer Cells” was conducted to determine which resins have Boswellic acid in them. The focus was primarily to determine if these resins can kill some forms of cancer cells and which resins have the highest percentage of Boswellic acid.¹²

<i>Boswellia dalzielii</i>	19.7%	— The highest percentage
<i>Boswellia carteri</i>	16.3%	
<i>Boswellia sacra</i>	15.2%	
<i>Boswellia papyrifera</i>	12.9%	
<i>Boswellia serrata</i>	13.0%	
<i>Boswellia neglecta</i>	9.8%	
<i>Boswellia rivaie</i>01%	
<i>Boswellia frereana</i>	0%.17	

This was only one study; much more research still needs to be done. I want to stress that this study on breast cancer cells was only done in a petri dish; more studies must be done to determine if it will work on humans

Studies

Anti-inflammatory and anti-cancer activities of frankincense: Targets, treatments and toxicities

<https://pubmed.ncbi.nlm.nih.gov/32027979/>

They conducted a systematic review on the anti-inflammatory and anti-cancer activities of Boswellia species and their chemical ingredients (e.g. 3-O-acetyl-11-keto- β boswellic acid, α - and β -boswellic acids, 11-keto- β -boswellic acid).

Acetyl-11-keto- β -boswellic acid (AKBA) has therapeutic effects on a range of diseases

<https://pubmed.ncbi.nlm.nih.gov/32273767/>

How to use it:



1 teaspoon of powder to 4 oz of simple lotion
Mix it up and let it sit one day- then remix

1 teaspoon of powder to 6 oz of a carrier oil
Shake the Ball Jar (make sure you put plastic on the top before closing)
Allow it to infuse for 2 weeks then strain. It will be thick.

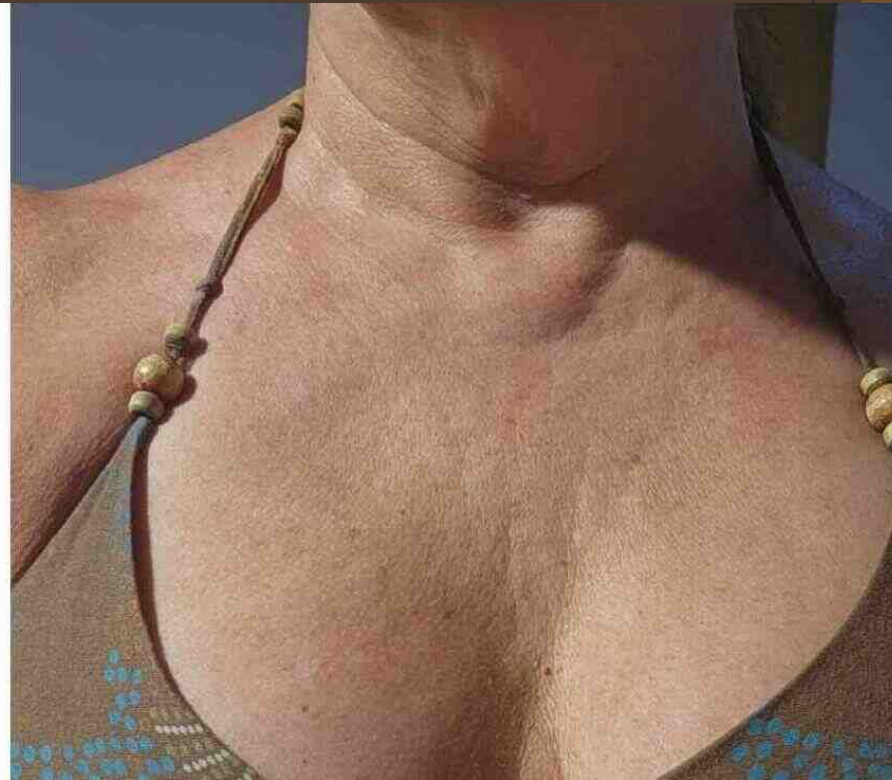
In a 00 vegetable capsule

Testimonials

Before using the BA lotion



After using the BA lotion for 3 months



My Website and Contact Info for Wholesale

This is the wholesale page info

[`https://www.robinsresinsplus.com/wholesale.html#/
/`](https://www.robinsresinsplus.com/wholesale.html#/)

This is where you can purchase the powder retail:

[`https://www.robinsresinsplus.com/store/p276/boswellicacid_extract.html#/
/`](https://www.robinsresinsplus.com/store/p276/boswellicacid_extract.html#/)

This will go up on my website as a pdf where the retail powder is and also on the wholesale page

RBK Aromatherapy LLC/Robins Resins Plus

<https://www.robinsresinsplus.com/#/>

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