

## Gugulipid™

*Commiphora mukul* to regulate cholesterolemia and not only.  
The proven extract.

**G**ugulipid® is the extract from *Commiphora mukul* developed and launched by Sabinsa even before 1997. It's standardized in Guggulsterones E & Z at 2.5% or 7.5%. Clinical studies have shown improvement in the lipid profile in the blood, lipoprotein levels and markers of inflammation.

Preclinical studies have shown that all fractions of *C. mukul* lower serum cholesterol, but the steroid fraction (guggulsterones-E and guggulsterones-Z) is more effective. In addition, the extract is effective in reducing serum and liver lipid levels. These results are comparable to lipid-lowering agents (clofibrates) at the same dose.

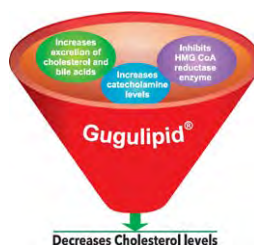
**Several studies by Sabinsa**, Gugulipid® vs placebo in hyperlipidemic patients have shown the following results:

- **Cholesterol, TG, VLDL: significant decrease**
- **HDL: significant increase**
- **Increase in α-lipoprotein**
- **Decrease in β-lipoprotein**
- **Decrease in hs-CRP protein (inflammation) and MDA (oxidative stress)**

Sabinsa also highlighted the mechanism of action of guggulsterones to improve the elimination of

cholesterol and the inhibition of its biosynthesis:

- Increased excretion of cholesterol and bile acids
- Increased level of catecholamine
- Inhibition of HMG CoA reductase enzymes



Other studies have also shown that guggul extract can stimulate thyroid function, which can also act on the regulation of cholesterol levels:

- Increased peroxidase and thyroid proteolytic activity (after 6 days)
- Increase in iodine concentration after 10 days

In Ayurvedic medicine guggul means: "that which protects from the disease".

In Sanskrit, guggulu means: "that which protects from disease", in ayurvedic medicine it is said that guggul releases the "subtle channels" which awaken consciousness and refine perceptions.

### Guggulsterones

The active ingredients responsible for the maintenance of healthy cholesterol levels are the guggulsterones, specifically guggulsterone-E and guggulsterone-Z. The study of the pharmacology of oleogum resin dates back to the 1960's in India, where the gum was evaluated for its potential in the treatment of elevated blood cholesterol.

Guggulsterones are postulated to enhance the elimination of cholesterol and to inhibit its biosynthesis. Several mechanisms of action have been proposed which directly or indirectly affect cholesterol metabolism.

The cardiovascular response for cholesterol regulation, reduction of stored fat, and inflammation.

Recommended dose: 12.5 to 25 mg guggulsterones 3 times / day

Grades at 2.5% or 7.5% guggulsterones by HPLC



### Clinical Studies

Various studies are available. Gugulipid® is supported by Phase I, Phase II and Phase III studies organized by the CDRI, India. Also a double-blind, cross-over study compared Gugulipid® to the lipid lowering drug Clofibrate.

In US : Randomized, Double-Blind, Placebo-Controlled Trial Evaluating the Safety and Efficacy of Gugulipid® in Americans with Hypercholesterolemia - University of Pennsylvania, and Serum lipid response during 12 weeks of Gugulipid® therapy in subjects with mild-to-moderate hyperlipidemia.

