

CAP solution

The name of Capretto's product "CAP" is a short for CAPTURE and refers to: "Capture the microbe"

Capretto has developed 100% naturally occurring bioactive product that is active in low concentrations. This product is able to treat:

- Skin infections (including outer ear infections), caused by various encapsulated bacteria, fungi or enveloped viruses.
- Tinea pedis (Athlete's foot), caused by various fungi and encapsulated bacteria.
- Cold sores caused by enveloped Herpes Simplex 1 and 2 viruses.

The active ingredients are mononcaprin and monolaurin, lipids that are abundant in human breast milk.

These compounds are results from years of research at the university of Iceland. This work is the foundation for the CAP products and are based on numerous *in vitro* experiments and clinical trials.

Capretto's Clinical Trials

Clinical trial was carried out on the CAP solution, showing that the formulation is highly effective and robust against microorganisms that cause various skin infections, including intertrigo, athlete's foot (Tinea pedis) and general bacterial and fungal infections in wounds.



Figure 1a: Wound on a head before treatment with CAP solution. The wound had been open for months. The wound has a lot of pus and a bad smell.



Figure 1b: The same wound on a head after 7 days treatment with CAP solution. The wound is almost completely closed and there is no pus and the smell has completely gone.



Figure 2a: Infection (Tinea pedis) on little toe before treatment with CAP solution. The infection has been a persistent problem for the participant for months. The skin is cracked, and the infection is very itchy and is causing a great discomfort for the participant. A large number and variety of bacteria and fungi was cultivated from the wound.



Figure 2b: Infection (Tinea pedis) on little toe after 14 days treatment with CAP solution. The wound is completely closed and does not itch or cause discomfort anymore. The wound closed after only few days of treatment. Almost all of the previously cultivated bacteria were eliminated. All of the previous cultivated fungi were eliminated after treatment.

In vitro studies

In addition to the results from the clinical trials, in vitro studies on the CAP product has shown that the formulation is active against various bacteria, including *Haemophilus influenzae*, *Streptococcus pneumoniae* and *Staphylococcus aureus* which are the most common bacteria that causes external ear infection and many skin-related infections.

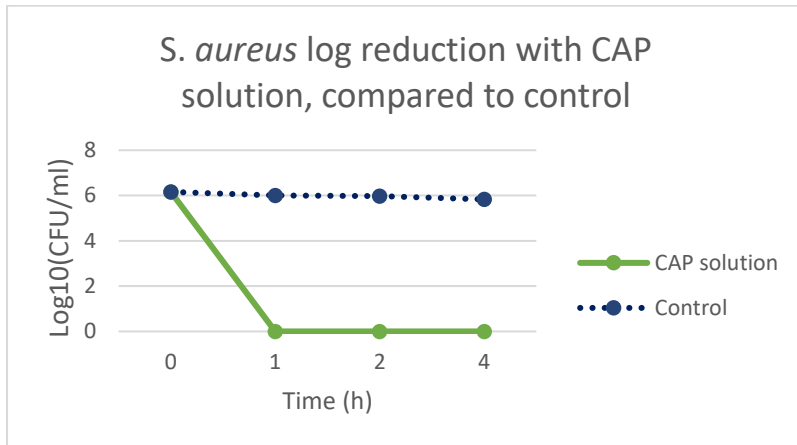


Figure 1: Log reduction of *Staphylococcus Aureus* after, 0, 1, 2, and 4 hours.

Other studies on the active ingredients

Previous clinical studies conducted few years ago showed that the active ingredients monocaprin and monolaurin were very effective against enveloped viruses, including Herpes Simplex infections (Cold sores). Mono-glycerides kill it by disrupting the envelope that codes the virus.

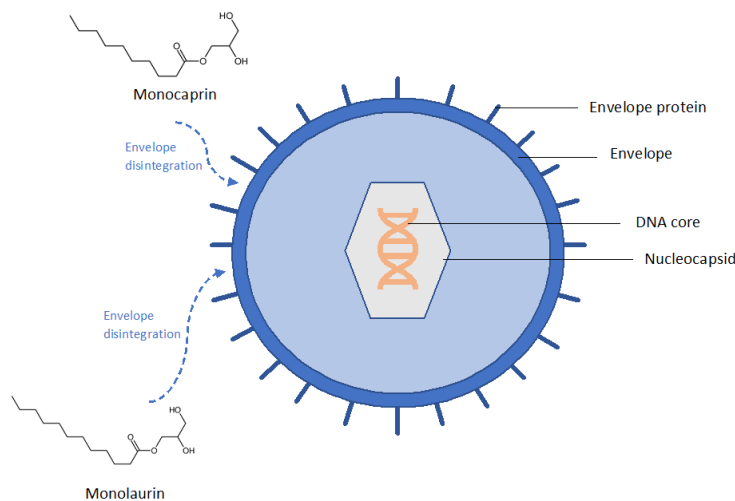


Figure 2: Diagram of the action for monocaprin and monolaurin (and other mono-glycerides) on enveloped viruses

Safety for use

Many *in vitro* and *in vivo* studies on the safety of the active ingredients have been conducted by our researchers and colleagues showing that the monoglycerides cause no irritation to skin or mucosa and are completely safe to use. They are considered safe (GRAS) by the Food and Drug Administration (FDA) and are allowed as a food additive by the European Union. Monocaprin and monolaurin among other mono-glycerides are also widely used in cosmetics, mainly to serve as emulsifiers.



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