



PURE COLLAGEN SERUM WITH HYALURONIC ACID



Clinically proven 30 ml Collagen Serum featuring Peptan® SR marine and Hyaluronic acid



- **Stimulation of collagen density**
After 8 days of treatment with Serum - Peptan® SR marine 1%, a significant difference of 8 % in collagen density was observed.
- **Stimulation of Glycosaminoglycans - GAGs**
After 8 days of treatment with Serum - Peptan® SR marine 1%, an increase in the neutral GAG's under the epidermal junction was observed.
- **Stimulation of Elastin**
After 8 days of treatment with Serum - Peptan® SR Marine 1%, a clear increase in the Elastin (Elaunin fibers) was observed.

Efficacy study - Peptan® SR marine anti-aging serum

Study of Anti ageing activity Topical test carried out on ex vivo skin explants over 8 days (Laboratoire BIOEC study, 2012). Products tested: Control serum (P2) and serum with 1 % Peptan SR marine (P3) Application: serum applied to skin explants on day 0, 2, 4 and 7. Measurement on Day 8: Collagen, Glucosaminoglycans (GAG's) and Elastin

Stimulation of collagen density

After 8 days of treatment with **Serum - Peptan® SR marine 1%**, a **significant** difference of **8 % in collagen density** was observed.

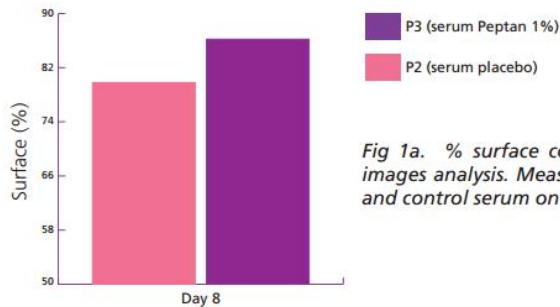
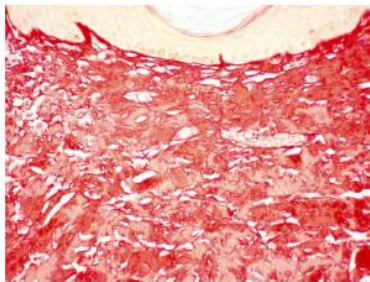
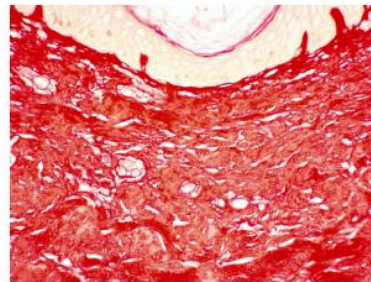


Fig 1a. % surface covered by collagen in the dermis determined by images analysis. Measurement of skin explants with Peptan 1 % serum and control serum on day 8.



Control sample at Day 8



Sample with Peptan 1% at Day 8

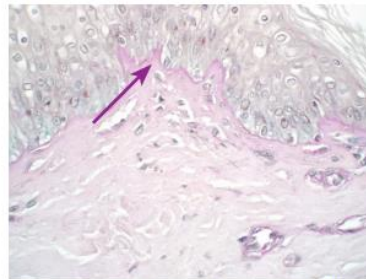
Fig 1b. Sirius red / Collagen Image analysis of the surface occupied by the collagen network in the dermis.

Stimulation of Glycosaminoglycans - GAGs

After 8 days of treatment with **Serum - Peptan® SR marine 1%**, an **increase in the neutral GAG's** under the epidermal junction was observed.



Control sample at Day 8



Sample with Peptan 1% at Day 8

Fig 2. Mowry stain / Image analysis of the neutral GAG's in the dermal epidermis.

Stimulation of Elastin

After 8 days of treatment with **Serum - Peptan® SR Marine 1%**, a clear increase in the **Elastin (Elaunin fibers)** was observed.

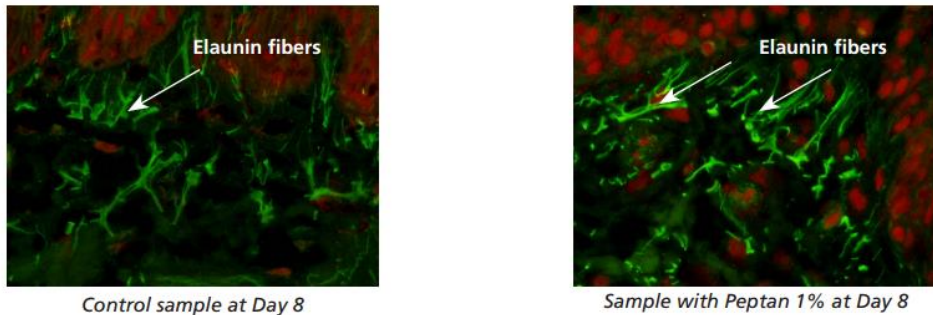


Fig 3. Elastin immunostaining / Image analysis of the elaunin and oxytalan fibers.

Key benefits of Peptan® SR marine

- Boosts collagen and stimulates elastin- ensuring skin structure, firmness and elasticity.
- Stimulates GAGs- promoting skin hydration and moisturization.

Peptan® SR marine, a natural collagen peptide, was shown in this study to have a positive effect on collagen, GAGs and elastin levels in the dermis after 8 days, when a serum was applied directly to ex vivo skin explants.

Serum with 1 % Peptan® SR marine significantly boosted collagen density and also increased the level of neutral GAG's and elastin in the skin samples.

These results confirm previous ex vivo studies where Peptan® SR marine was also shown to significantly stimulate fibroblast proliferation and collagen synthesis. The confirmation of this activity in two independent studies, further demonstrates the positive effect of Peptan® SR marine peptides as an active ingredient for use in cosmetic formulations.