ARGIRELINE®
THE COSMETIC ALTERNATIVE TO BOTULINUM TOXIN A

HOW DOES ARGIRELINE® WORK?

Muscles are contracted when they receive neurotransmitter that travels within a vesicle. The SNARE (SNAP Receptor) complex is essential for this neurotransmitter release at the synapsis (A. Ferrer Montiel et al, The Journal of Biological Chemistry, 1997, 272, 2634-2638). It is a ternary complex formed by the proteins VAMP, Syntaxin and SNAP-25. This complex is like a cellular hook which captures vesicles and fuses them with the membrane for the release of neurotransmitter.

ARGIRELINE® is a mimic of the N-terminal end of SNAP-25 which competes with the SNARE complex, thereby modulating its formation. If the SNARE complex is slightly destabilised, the vesicle cannot dock and release neurotransmitters efficiently and therefore muscle contraction is attenuated, preventing the formation of lines and wrinkles.

Cosmetic benefits

- **ARGIRELINE®** reduces the depth of expression wrinkles, specially in the forehead and around the eyes
- **ARGIRELINE®** is a safer, cheaper, and milder alternative to Botulinum Toxin, topically targeting the same wrinkle-formation mechanism in a very different way
**ANTI-WRINKLE TEST ON HEALTHY VOLUNTEERS**

**CREAM CONTAINING 10% ARGIRELINE® SOLUTION**

Skin topography analyses were performed by obtaining silicon imprints from around the eyes of 10 healthy women volunteers. Silicon imprints were obtained pre-tests and after 30 days of twice a day applications. Analyses of the imprints were performed by confocal laser scanning microscopy to assess the evolution of the skin surface before and after the treatment. Skin topography images from the three dimensional reconstruction of optical sections are shown in the figure (before treatment, left; after 30 days, right). The depth of the wrinkle decreased an average of 27%, with maximum values between 50 and 60%.

![Image](image1.png)

**CREAM CONTAINING 5% ARGIRELINE® SOLUTION**

The same in vivo test was performed on 14 healthy women volunteers with a different concentration of ARGIRELINE®. Silicon imprints were obtained pre-tests and after 28 days of twice a day applications. Skin topography images from the three dimensional reconstruction of optical sections are shown in the figure (before treatment, left; after 28 days, right). The depth of the wrinkle decreased an average of 17%, with a maximum value of 32%.

![Image](image2.png)

**ARGIRELINE®** is an inoffensive hexapeptide composed of natural amino acids.

- LD 50 determination
  - ✓ >2000 mg/kg orally (rat)

Cosmetic use is via topical application, applied in creams, lotions, serums, body milks, etc.

**Progressive**

**Topical**

ARGIRELINE® is a registered trademark of Lipotec S.A.