

snap-8

An octapeptide to express yourself at ease

Maximal efficacy against expression wrinkles

Demonstrated mechanism

Reduces wrinkle depth up to 63%

anti-wrinkles

Description

Octapeptide that is an elongation of the hexapeptide argireline®, therefore it reduces expression wrinkles topically with an alternative mechanism to Botulinum Toxin.

Appearance

Transparent solution containing
0.05% active ingredient.

INCI

Water (Aqua), Acetyl Octapeptide-3.

Please contact us for information on the preservative system.

Properties

snap-8 reduces the depth of wrinkles caused by the contraction of muscles of facial expression, decreasing neuronal excitability by SNARE complex destabilisation.

Applications

snap-8 can be incorporated in cosmetic formulations where removal of the deep lines and wrinkles in the forehead or around the eyes area is desired.

Science

Muscles responsible for the facial expression are contracted when they receive neurotransmitters released at the neuromuscular synapsis. An over-stimulation of the facial muscles, due to an excess of these chemical signals, leads to a greater skin strain. After the age of 30, first wrinkles start to appear as a consequence of such muscle contractions.

The study of the basic biochemical mechanism of anti-wrinkle activity led to the revolutionary hexapeptide argireline®, which has taken the cosmetic world by storm. Continuous research on the treatment of such wrinkles has driven Lipotec to snap-8. This peptide is a new analogue of the N-terminal end of SNAP-25, that competes with the native protein for a position in the SNARE complex, essential for the muscle contraction.

Dosage 3-10%

Solubility

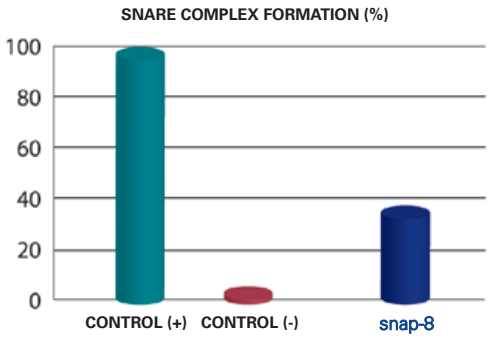
Water soluble.

snap-8

In vitro efficacy

1. INHIBITION OF SNARE COMPLEX FORMATION

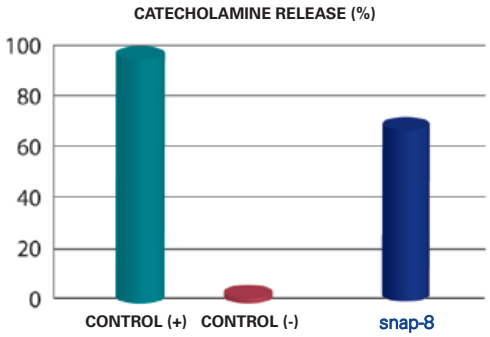
To evaluate the antagonistic competitive efficacy of the peptide patterned after the SNAP-25 N-terminal domain compared to the native SNAP-25 (positive control), snap-8 capacity to assemble with syntaxin and synaptobrevin forming the SNARE complex was measured.
Heat and the consequent thermal decomposition was used as the negative control.



snap-8 blocks the formation of the SNARE complex
The lower the formation of the SNARE complex in vitro, the higher is the efficacy of the anti-wrinkle active.

2. MODULATION OF CATECHOLAMINE RELEASE IN CHROMAFFIN CELLS

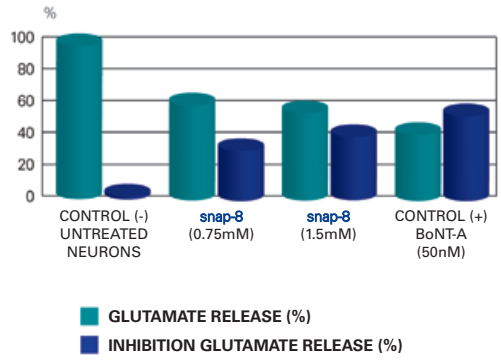
Inhibition in the release of catecholamines was determined by monitoring the neurotransmitters Adrenaline and Noradrenaline, by liquid scintillation counting. Chromaffin cells were incubated with these tritiated neurotransmitters and snap-8 (100 µM).



The significant modulation at µM concentrations is a clear indicator of the potent anti-wrinkle activity of snap-8

3. MODULATION OF GLUTAMATE RELEASE IN A NEURON CELL CULTURE

Glutamate is the most excitatory abundant neurotransmitter in the nervous system and its release is used as a validated assay to determine the release of acetylcholine.
The release of glutamate in a primary cell culture of neurons was measured to compare the in vitro activities of snap-8 and Botulinum Toxin A (positive control).

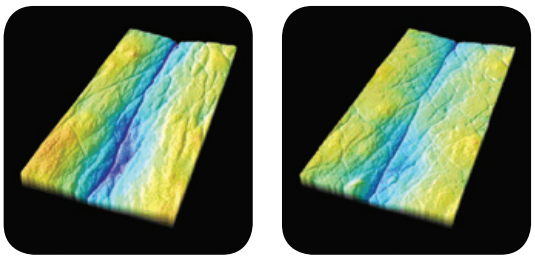


snap-8 inhibits glutamate release in a dose-dependent manner

In vivo efficacy

ANTI-WRINKLE EFFICACY EVALUATION

Skin topography analysis were performed to measure the effectiveness of a cream containing 10% snap-8 Solution, applied twice a day.
Silicon imprints were obtained from around the eyes of 17 women volunteers pre-test and after the 28 day treatment. Analyses of the imprints were performed by confocal profilometry.



The maximum reduction value of wrinkle depth was 63%

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