

Peptidox[®] P

Description

Peptidox[®] P, or acetyl hexapeptide-8, describes a synthesized, acetylated oligopeptide, also known under the synonym acetyl hexapeptide-3. It consists of a sequence of six (hexa) amino acids in L-form in the order of Ac-Glu-Glu-Met-Gln-Arg-Arg-NH₂ (glutamic acid-glutamic acid-methionine-glutamine-arginine-arginine, where the glutamic end is acetylated (Ac-EEMQRR- NH₂).

Peptidox[®] P is a non-toxic molecule that mimics the action of BoNTs (Botulinum neurotoxins), revolutionary neurotoxins with remarkable anti-wrinkle activity. In 1994 it has been shown that cell communication is due to messenger substances, whereby acetylcholine (ACh) is responsible for muscle contraction. Analysis of the mechanism of action showed that acetyl hexapeptide-8 significantly inhibited this neurotransmitter release with a potency similar to that of BoNT A. This inhibition was due to the interference of the hexapeptide with the formation and/or stability of the protein complex that is required to drive Ca²⁺ - dependent exocytosis, namely the vesicular fusion (known as SNARE) complex. Notably, this peptide did not exhibit in vivo oral toxicity nor primary irritation at high doses. Acetyl hexapeptide-8 therefore, represents a medically safe, topical and painless alternative to BoNTs in cosmetics. In anti-aging treatments it reduces the appearance and development of wrinkles at the areas of forehead and eyes locally and reversable without rigid mask effect of the mimics.

Efficacy

- reduces wrinkles: 0.001 % Peptidox[®] P (cream) decreased wrinkle volume up to of 34.28 % after 56 days, wrinkle area up to 32.61 % and wrinkle ratio up to 33.35 % (overall >30.2 % more effective than benchmark)
- improves skin elasticity: 0.001 % Peptidox[®] P (cream) increased skin elasticity up to 10.03 % after 56 days (similar to benchmark)
- decreases wrinkle progression

Appearance

white powder

INCI

Acetyl Hexapeptide-8

Registration

CAS-No.....616204-22-9

EC-No.....801-648-4

Preservatives / Stabilizers

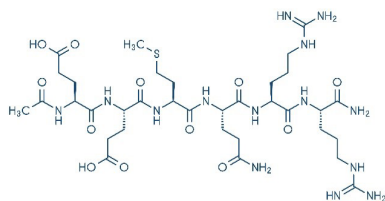
none

Nature needs no cosmetics,
but cosmetics need nature

Peptidox[®] P

Characteristics

water content (K.Fischer).....<= 7.0 %
 peptide content.....>= 80 %
 purity (HPLC).....>= 98.0 %



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molecular formula.....C₃₄H₆₀N₁₄O₁₂S
 molecular weight.....889.0 g/mol
 synonym:
 acetyl hexapeptide-8, acetyl-hexapeptide-3

Application

in high quality cosmetic products
 creams and lotions
 face masks
 gels and ampoules

Application concentration

skin care formulations.....0.001 - 0.05 %

Incorporation

Peptidox[®] P should be blended into the water phase below 40°C. For formulation we recommend a pH of 4.5 - 7.0.

Toxicology

non hazardous in normal use concentration

Storage & Shelf life

Peptidox[®] P should be stored in sealed containers at a dry, cool place at 2 - 8°C. For long time storage -20°C is recommended.

In closed original containers the shelf life is 24 months.