

Argireline (acetyl hexapeptide-8)

Argireline is a cosmetic ingredient, acetyl hexapeptide-8 (formerly acetyl hexapeptide-3), a six-residue peptide modeled on the N-terminal region of the SNARE protein SNAP-25. It has been studied in vitro and in small cosmetic trials of expression lines.



■ Hydrophobic ■ Acidic ■ Basic ■ Polar ■ Gly, Pro, Cys ■ Non-standard

Length	6 residues
Formula	C ₃₄ H ₆₀ N ₁₄ O ₁₂ S
Average mass	888.99 g/mol
Monoisotopic mass	888.4236 Da
Evidence	Preclinical (animal and cell studies)
US status	Cosmetic ingredient; not a drug
WADA	Check the current Prohibited List

Acetyl hexapeptide-8 (formerly -3): N-terminal fragment of SNAP-25.

Expected ions (monoisotopic)

[M+H] ⁺	[M+2H] ²⁺	[M+3H] ³⁺	[M+4H] ⁴⁺
889.4309	445.2191	297.1485	223.1132

What the COA should show

A certificate of analysis should confirm identity by mass spectrometry, with the observed mass matching the expected mass shown on this page for the acetylated and amidated hexapeptide, and report HPLC purity with the chromatogram. Compound-specific checks include methionine oxidation, which adds about 16 Da, deamidation of the glutamine residue, and the presence of the correct acetyl and amide termini. Because cosmetic raw material is often supplied as a solution in a carrier, the COA should state peptide concentration as well as purity. Confusion with acetyl octapeptide-3 (Snap-8) is possible and is resolved by mass.

Storage and stability

Store lyophilized argireline sealed at -20 °C or in refrigerated conditions as indicated on its documentation, protected from light and moisture, and let containers reach room temperature before opening. The methionine residue is prone to oxidation, so limit air exposure, avoid oxidizing excipients and consider inert-gas overlay for stock solutions. It dissolves readily in water. Aliquot solutions for lab use, store them cold, and avoid repeated freeze-thaw cycles.