

# Acetyl Hexapeptide-39

<b>INCI</b>	Acetyl Hexapeptide-39
<b>Peptide Sequence:</b>	Acetyl Hexapeptide-39 is the synthetic peptide containing alanine, isoleucine, serine, threonine, tyrosine and valine
<b>Molecular Formula:</b>	$C_{32}H_{51}N_7O_{10}$
<b>Molecular weight:</b>	693.8
<b>Cas No.:</b>	1382088-38-1
<b>Synonym:</b>	Silusyne
<b>Application:</b>	Cosmetics - anti-cellulite slimming treatment complement in any type of body care formulation
<b>Packaging:</b>	bottle
<b>Filling quantity:</b>	1 g / bottle 5 g / bottle 10 g / bottle 100 g / bottle special packaging upon request
<b>Storage and shelf life:</b>	cool, dark and clean place -20°C shelf life 24 months 2 - 8 °C shelf life 12 months



# Product Specification

## Acetyl Hexapeptide-39

Test	Specification	Batch YS210801
Appearance	white or off-white powder	conforms
Identity by HPLC	the retention is same with the reference substance	conforms
Identity by MS	693.79±1	692.99
Solubility	insoluble in water	conforms
Peptide purity (by HPLC)	> 95 %	96.56 %
Water content (Karl Fischer)	< 8 %	5.45 %
TFA Content	< 15 %	0,12 %

### Characteristics

Cellulite is a persistent problem in modern society and it appears due to several factors such as genetics or gender but also because of unhealthy lifestyles. Visible fat modules volume and number that leads to greater fat depots that distort the connective tissue, affecting the lymphatic drainage system as well. Therefore, waste materials can't be removed and, together with collagen fibres, create an immobile network where fat cells are trapped. As a result, the dermo-hypodermal junction line becomes more irregular and cellulite manifests on skin surface.

PCG-1 $\alpha$  is involved in adipogenesis and by modulation its expression, adipocyte maturation rate can be regulated.

Acetyl Hexapeptide-39 is a peptide in a new and specific delivery system that decreases preadipocyte differentiation and hence lipid accumulation in the adipose tissue by reducing Gamma Coactivator 1 $\alpha$  (PCG-1 $\alpha$ ) expression.

Use level: 0.001 – 0.005 % (water insoluble, optimum pH 5-7)

It should be incorporated at the end of formulation at a temperature < 45 °C.

### Cosmetic benefits

Acetyl Hexapeptide-39 reduces adipogenesis by decreasing PCG-1 $\alpha$  expression. It helps to improve the appearance of visible cellulite as dermo-hypodermal junction irregularities are smoothed.

