

Hexanoyl Dipeptide-3 Norleucine Acetate

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| INCI | Hexanoyl Dipeptide-3 Norleucine Acetate |
| Peptide Sequence: | - |
| Molecular Formula: | C ₂₁ H ₄₁ N ₇ O ₄ |
| Molecular weight: | 455.32 |
| Cas No.: | 860627-90-3 |
| Synonym: | Perfection Peptide P3 |
| Application: | cosmetics – speeds up cell renewal for a fresher and more vibrant skin / smoothes the skin micro-relief / hydrates the skin intensely / refines skin texture and reduces wrinkle depth / for a more uniform skin that reflects light with new radiance |
| Packaging: | bottle |
| Filling quantity: | 1 g / bottle 5 g / bottle 10 g / bottle 100 g / bottle special packaging upon request |
| Storage and shelf life: | cool, dark and clean place -20°C shelf life 24 months 2 – 8 °C shelf life 12 months |



Product Specification

Hexanoyl Dipeptide-3 Norleucine Acetate

| Test | Specification | Batch YS161218H3 |
|------------------------------|--|------------------|
| Appearance | white powder | conforms |
| Identity by HPLC | the retention is same with the reference substance | conforms |
| Identity by MS | 456±1 | 456.5 |
| Solubility | soluble in water or 1 % acetic acid | conforms |
| Peptide purity (by HPLC) | ≥ 95 % by area integration | 96.3 % |
| Water content (Karl Fischer) | ≤ 8 % | 2.07 % |
| Ph value | 3.5 - 6.5 | 6.12 |
| Amino acid composition | ±10 % of theoretical | Conforms |
| Acetate content | ≤ 15 % | 7.52 % |

Characteristics

The uppermost layer of the epidermis called stratum corneum constitutes a protective barrier for our body against the environment. The stratum corneum is constantly renewed. It consists of dead cells called corneocytes which result from the proliferation and differentiation process of keratinocytes, initiated in deeper layers of the epidermis. To maintain the integrity and a constant thickness of the stratum corneum, the arrival of new cells is balanced by shedding the uppermost corneocytes at the skin surface, a natural process called desquamation.

Corneocytes are interconnected by modified desmosomes called corneodesmosomes. This connection is mainly assured by desmoglein and desmocollin, two proteins which constitute corneodesmosomes. These proteins have a complementary structure and bind together to form bridges adjacent corneocytes like a "key and lock".

In the outermost parts of the stratum corneum, these bridges are degraded by specific proteases, allowing the single corneocytes to shed invisibly at the skin surface. With age, the desquamation process becomes slow and irregular.

Use level: 0.0001 - 0.001 % (water soluble, optimum pH 3.5-8.0)

Cosmetic benefits

The skin barrier is weakened: it is more permeable and water loss occurs. The activity of the proteases is reduced. The turnover time of the epidermis starts increasing from the age of 30. All above lead to a reduced quality of skin barrier and to dry, rough and dull skin.

Hexanoyl Dipeptide-3 Norleucine Acetate restores the desquamation process as it occurs in young skin. Hexanoyl Dipeptide-3 Norleucine Acetate is based on a biomimetic tripeptide designed and vectorized to target the outmost stratum corneum, where desquamation takes place. Here, Hexanoyl Dipeptide-3 Norleucine Acetate specifically breaks the bonds between dead cells at the surface of the skin.

