telangyn™ peptide

Takes out the thread of redness

Inhibition of the inflammatory effect of LL-37

Decrease of skin erythema

Improvement of skin redness disorders

anti-redness

sensitive skin

Description
Tetrapeptide that decreases the appearance of facial redness and telangiectasia caused by an exaggerated inflammatory response. telangyn™ peptide reduces the release of interleukins (IL-6 and IL-8) induced by 37-amino-acid peptide (LL-37), cathelicidin overexpressed in skin disorders with erythema.

Appearance
Translucent solution containing 0.05% Acetyl Tetrapeptide-40.

INCI
Water (Aqua), Acetyl Tetrapeptide-40, Caprylyl Glycol.

Properties
telangyn™ peptide fights the undesired effects caused by inflammation such as skin redness and dilated blood vessels, tissue degradation as well as post-inflammatory hyperpigmentation and dull skin.

Applications
telangyn™ peptide can be incorporated into formulations designed to reduce facial redness and telangiectasia, improving even skin tone, while providing additional firming and photoprotective effects.

Science
In the natural response of the immune system to potential harmful agents and conditions, kallikreins and antimicrobial compounds like cathelicidins have an important role. They induce the release of interleukines (ILs), which are among the increased molecules in facial skin redness and vascular alterations. In skin disorders with erythema and dilated blood vessels, like rosacea, LL-37 expression is found to be abnormally high, it is locally activated and a cascade of inflammatory reactions leads to an increase of pro-inflammatory metabolites, IL-6 and IL-8 among others.

The dermal connective tissue may be damaged as the proteolytic degradation of the extracellular matrix (ECM), mainly of collagen, is increased due to matrix metalloproteinases (MMPs) activation. Therefore, red areas become more visible as capillaries are fragile and permeable, and blood vessels can easily dilate due to inflammation.

telangyn™ peptide helps to decrease facial redness and other skin disorders caused by LL-37 activation and subsequent release of ILs. It also provides a photoprotective effect lowering cell damage and skin inflammation negative effects.

Dosage 2%

Solubility
Water soluble.

In vitro efficacy

1. INHIBITION OF LL-37-INDUCED IL RELEASE

The inhibition of the activity of LL-37 was measured by the release of the key pro-inflammatory cytokines IL-6 and IL-8 in human primary keratinocytes treated with LL-37 alone or with telangyn™ *peptide*. Quantification was performed by ELISA.

2. ANTI-COLLAGENASE ASSAY

The anti-collagenase effect of telangyn™ *peptide* was evaluated by measuring the fluorescence of the fluorescein conjugate (gelatine). Fluorescence intensity is proportional to proteolytic activity.
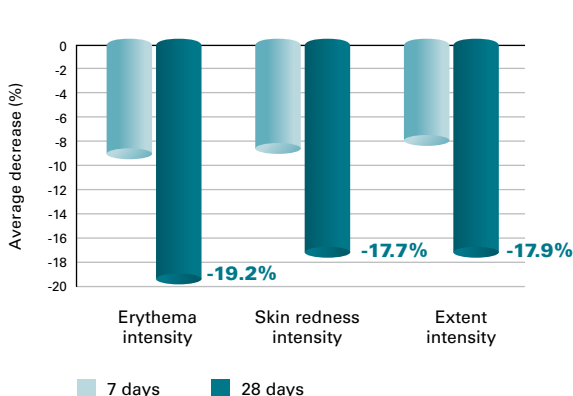
In vivo efficacy

SKIN REDNESS IMPROVEMENT

A group of 20 volunteers (aged between 25 and 65) with healthy skin but mild rosacea applied a cream containing 2% telangyn™ *peptide solution* twice a day for 28 days.

• Dermatological evaluation

A trained specialist evaluated erythema, skin redness and extent intensity as well as skin roughness using a scale from no intensity to maximum intensity, after 1 and 4 weeks.
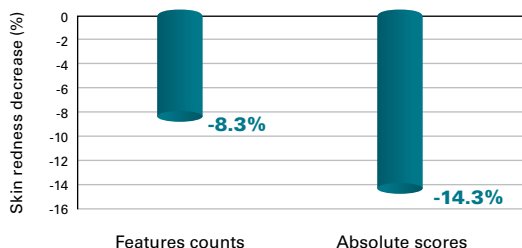

Average decrease (%) — Erythema intensity: -19.2%, Skin redness intensity: -17.7%, Extent intensity: -17.9%

7 days / 28 days

0 days   28 days

• Instrumental evaluation

Images of 5 volunteers were taken with a facial scanner and evaluated by an analysis software at the end of the treatment (4 weeks). Feature counts are the number of red areas and absolute scores are the size and intensity of the red areas.

Skin redness decrease (%) — Features counts: -8.3%, Absolute scores: -14.3%

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telangyn™ *peptide* lowers LL-37-mediated IL-6 and IL-8 release

IL-6 levels decreased by 24.2% and IL-8, by 22.8% with telangyn™ *peptide* at 0.5 mg/mL.

Connective tissue degradation is reduced by telangyn™ *peptide*

telangyn™ *peptide* demonstrated a statistically significant inhibitory effect on collagenase activity.

Erythema, redness and extent intensity are reduced with telangyn™ *peptide*

Skin roughness diminished as well, by 7.5% at the end of the treatment.

telangyn™ *peptide* decreases facial redness, reducing the number of red areas as well as their size and intensity

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