

ACTIVE
INGREDIENTS

NEUTRAZEN™

SOOTHING NEUROCOSMETIC

3 amino acids
biomimetic lipopeptide

-

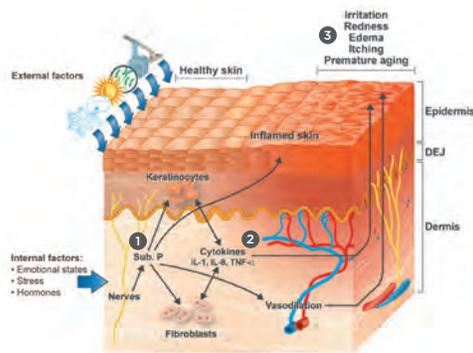
Prevents and reverses
signs of neurogenic
inflammation



NEUTRAZEN™ A NEUROCOSMETIC PEPTIDE THAT CALMS AND SOOTHES IRRITATED SKIN AND RESTORES A NORMAL SENSITIVITY THRESHOLD.

The field of neurocosmetics has recently emerged as a promising new way to address cosmetic problems through an action on the cutaneous nervous system. The skin is richly innervated and contacts have been described between nerve fibers, keratinocytes and melanocytes. Neuropeptides produced by nerve cells as well as skin cells and immune cells serve as preferential messengers to maintain skin homeostasis. Rupture of this equilibrium by external or internal aggressions leads to cosmetological disorders. Neurogenic inflammation, a cause of skin hypersensitivity and premature aging, is such a manifestation.

NEUROCOSMETIC INFLAMMATION MODULATION



1- Repetitive Aggressions

- Production of neuromediators (ex: substance P)

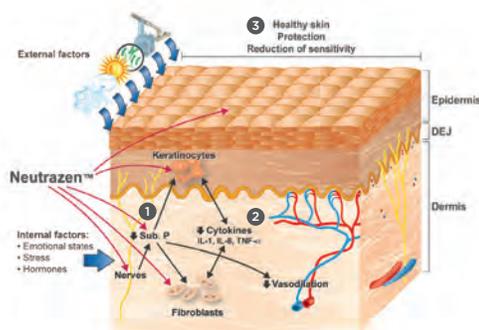
2- Pro-inflammatory Reactions

- Release of pro-inflammatory cytokines
- Vasodilation
- Edema
- Erythema

3- Consequences

- Short term: skin hypersensitivity, itching, stinging
- Long term: premature aging

Neutrazen™ is a true neurocosmetic specifically designed to prevent and reverse signs of neurogenic inflammation. Neutrazen™ is an innovative tri-peptide linked to a lipid for optimal penetration and efficacy. Neutrazen™ calms and soothes irritated skin and helps to maintain and restore a normal skin sensitivity threshold.



1- Repetitive Aggressions

- Reduction of the consequences of substance P release

2- Anti-inflammatory Reactions

- Reduction of pro-inflammatory cytokines
- Reduction of vasodilation, edema and erythema

3- Consequences

- Short term: prevention and reduction of irritation
- Long term: maintenance of a normal skin sensitivity threshold, healthy looking skin

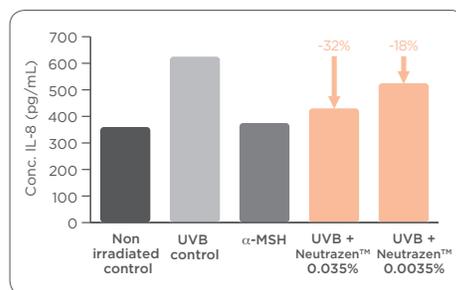
INFLAMMATION MEDIATORS MODULATION

In vitro experiments were done to demonstrate that Neutrazen™ is a potent modulator of cutaneous inflammation. In keratinocytes, Neutrazen™ reduces the production of UVB-induced inflammatory cytokines. In fibroblasts, Neutrazen™ inhibits the release of IL-1-induced IL-8 production.

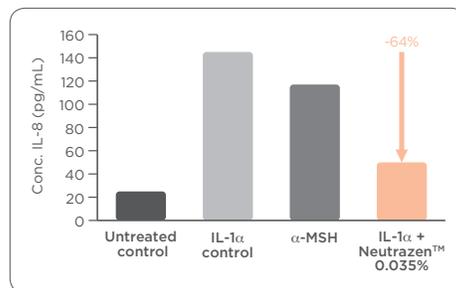
Neutrazen™ is thus considered as a unique candidate for improving skin inflammatory conditions and for protecting skin against UV adverse events.

Neutrazen™ dims the inflammatory cascade for optimal skin protection.

DOSAGE OF IL-8 INDUCED BY UVB

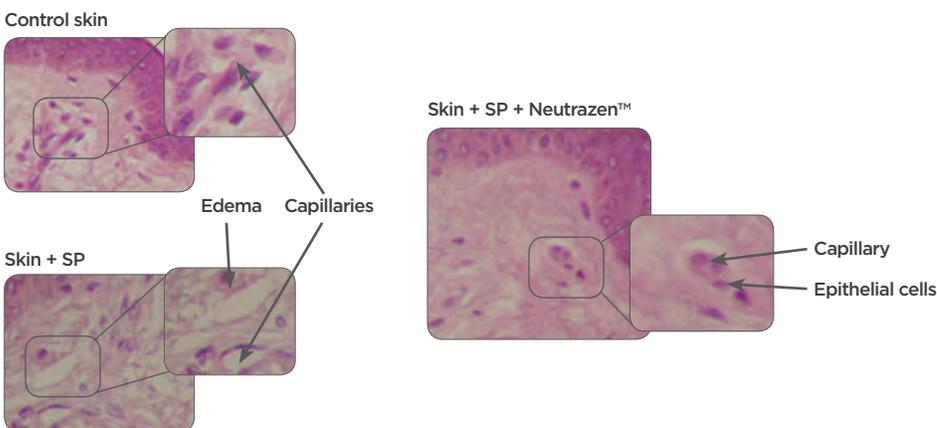


DOSAGE OF IL-8 INDUCED BY IL-1α

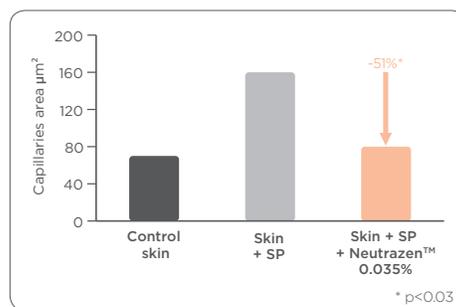


EFFECT ON THE VASCULAR CUTANEOUS SYSTEM

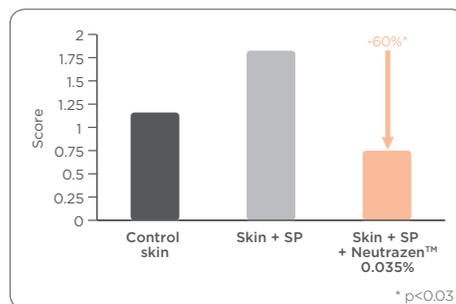
With the aim of evaluating the effect of Neutrazen™, human skin explants exposed to substance P were used as a model to reproduce neurogenic inflammation. The release of neuromediator such as substance P by sensory nerve endings triggers an inflammatory response that has important effect on the vascular cutaneous system. Among these effects are erythema (redness), vascular permeability and edema (swelling).



MODULATION OF THE CAPILLARIES SIZE



EVALUATION OF EDEMA



Neutrazen™ prevents and reverses signs of neurogenic inflammation: redness and swelling.

REDUCTION OF MECHANICAL IRRITATIONS

Neutrazen™ has already demonstrated its powerful efficacy on the reduction of UV-induced and immune-induced inflammation. It has also proven it can prevent and reduce neurogenic inflammation manifestations: redness and swelling. Now it's time to evaluate its potential to calm the skin after mechanical irritation.

Soothing after-shave test

Test protocol

57 male volunteers (50% with sensitive skin) applied a soothing lotion with 2% Neutrazen™ in the morning after shaving.

| BENEFITS | RESULTS AFTER 1 WEEK |
|--|----------------------|
| The skin feels more comfortable | 90% |
| The product reduces the irritating effect of shaving | 83% |
| The product soothes razor burn | 81% |
| The product calms skin tightness | 80% |
| The product provides immediate soothing sensation | 79% |
| The product improves skin redness | 69% |

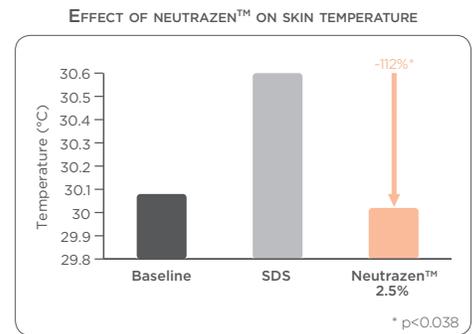
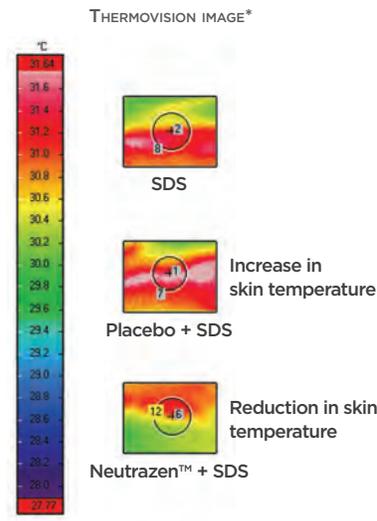
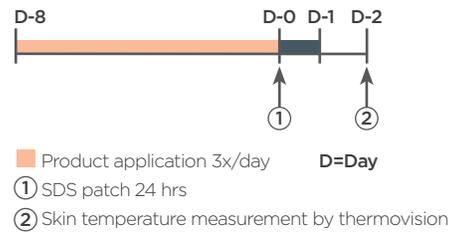
| BENEFITS | RESULTS AFTER 4 WEEKS |
|---|-----------------------|
| The product improves skin redness | 91% |
| The products soothes itching | 79% |
| The skin is better protected from shaving irritation | 79% |
| The product provides a refreshing sensation | 77% |
| The product reduces tingling sensation | 77% |
| The product reduces the severity of razor bumps | 77% |
| The skin looks revitalized | 71% |
| The product improves shaving comfort | 71% |
| The product protects the skin from mechanical stress of shaving | 64% |

NEUTRAZEN™, THE MULTIFUNCTIONAL ACTIVE THAT HELPS REDUCE IRRITATION CAUSED BY UV, IMMUNE REACTIONS, INTERNAL AND MECHANICAL STRESS!

REDUCTION OF SKIN IRRITATIONS

Preventive action

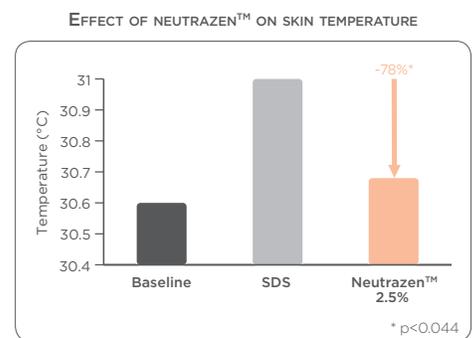
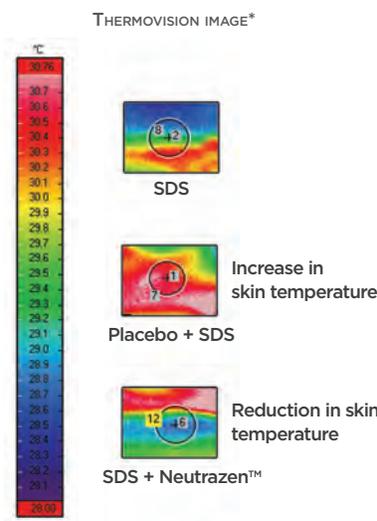
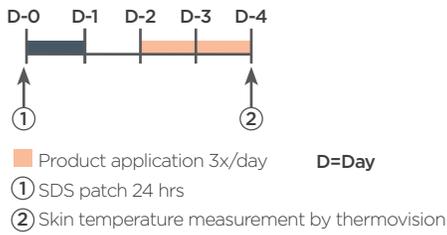
Test protocol



Neutrazen™ prevents irritation in SDS-challenged skin.

Soothing action

Test protocol



Neutrazen™ reduces irritation in SDS-challenged skin.

* Thermovision image reflects the skin temperature color changes as orange-red spots. Dark red reflects a high skin temperature, which indirectly measure skin inflammation.

NEUTRAZEN™ PREVENTS AND SOOTHES INFLAMMATION AND IRRITATIONS.

PRODUCT DESCRIPTION

INCI NAME

Water (1) (and) Butylene Glycol (2) (and) Dextran (3) (and) Palmitoyl Tripeptide-8 (4)

CAS

7732-18-5 (1), 107-88-0 (2), 9004-54-0 (3), 936544-53-5 (4)

EINECS

231-791-2 (1), 203-529-7 (2), 232-677-5 (3)

APPEARANCE

Aqueous limpid solution (may contain small particles in suspension). Colorless and odorless.

FORMULATION

Neutrazen™ should be incorporated at the end of the formulation at a temperature of <40°C.

DOSAGE

- Intensive treatment: 2.5%
- Preventive treatment: 1 to 2.5%
- Sensitive skin addition: 0.3 to 1%

OPTIMUM pH

5.2-7.2

APPLICATIONS

- Soothing and calming care
- Sensitive and intolerant skin formulations
- Baby care products
- Sun care and after-sun care
- Daily protective care
- Soothing care for atopic dermatitis, contact dermatitis, eczema, rosacea
- After-shave care
- Soothing care for skin stressed by dermatological procedures
- Post laser care
- Post depilatory care formulation
- Electrolysis care
- Peeling

FEATURES AND BENEFITS

| FEATURES | BENEFITS |
|--|--|
| Neuropeptide | Stable, easy to work with |
| Three amino acids linked to a lipid | Optimal skin penetration |
| High efficacy | Low dosage |
| Neurogenic inflammation modulator | Action on vasodilation and edema |
| Clinical efficacy when applied as preventive and soothing care | Healthy looking skin: no irritation, no redness, no swelling |
| Maintenance of normal skin sensitivity threshold | Perfect ingredient for sensitive and intolerant skin |

ANTI-INFLAMMATORY GEL-CREAM

| INGREDIENTS | INCI NAME | % | |
|-------------|--------------------------|--|-------|
| A | Demineralized Water | Water | 58.88 |
| | Carbopol Ultrez-21 | Acrylates/C10-30 Alkyl Acrylate Crosspolymer | 0.60 |
| B | Polyethylene Glycole 400 | PEG-8 | 5.00 |
| | Phenonip | Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Butylparaben (and) Propylparaben (and) Isobutylparaben | 0.80 |
| | | | |
| C | Cutina MD | Glyceryl Stearate | 5.00 |
| | Cetearyl Alcohol | Cetearyl Alcohol | 2.00 |
| | Cetiol CC | Carbonate Dicaprylyl | 3.00 |
| | Mineral Oil USP | Mineral Oil | 4.00 |
| D | Parfum No 6270 | Fragrance | 0.02 |
| | Triethanolamine 99 | Triethanolamine | 0.70 |
| | Demineralized Water | Water | 20.00 |
| | Neutrazen™ | Water (and) Butylene Glycol (and) Dextran (and) Palmitoyl Tripeptide-8 | 2.50 |

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