

ninaveli®

Novaleen
bio



ninaveli®
Polynucleotides



FOR INTERNAL TRAINING ONLY

Dermatologically tested

1 DESCRIPTION

The Future of Advanced Skincare: Polynucleotides (PN)

Beyond Traditional Hydration

The landscape of premium skincare is experiencing a profound shift towards advanced, skin-mimicking nourishment. At the forefront of this cosmetic evolution are Polynucleotides (PN). Derived from highly purified, rigorously filtered **DNA fractions of Salmon**, PNs act as exceptional skin conditioners. When applied, these powerful complexes provide a profound surge of moisture and vitality, reinforcing the skin's natural barrier and promoting a visibly firmer, plumper, and more resilient-looking complexion.

The Ultimate "Glass Skin" Trend

This advanced conditioning mechanism is exactly why **Polynucleotides have become the most sought-after ingredient in modern beauty**. Today's consumers demand a natural, lit-from-within radiance—a flawless finish that looks inherently healthy rather than artificially altered. PNs deliver the ultimate cosmetic support, intensely hydrating the skin to visibly smooth the appearance of fine lines, refine uneven texture, and restore a brilliant, energized glow to tired or weathered-looking skin.

Pioneered by South Korean Innovation

This global trend owes its incredible momentum directly to the advanced skincare laboratories of South Korea. Long recognized as the epicenter of beauty innovation and the creators of the coveted "glass skin" ideal, **South Korea pioneered the widespread use of highly purified Polynucleotides**.

Backed by advanced extraction technologies that ensure unparalleled purity and cosmetic efficacy, South Korean formulators have set a new worldwide benchmark, making topical PNs an indispensable pillar in any premium aesthetic routine.

- ✓ **Salmon DNA**
- ✓ **Intensely hydrates and visibly plumps the skin**
- ✓ **Enhances the natural feeling of firmness and elasticity**
- ✓ **Visibly smooths the appearance of fine lines and texture**
- ✓ **Promotes a brilliant, luminous "glass skin" glow**
- ✓ **CPNP & SCPN Certified & Dermatologically tested**

2 ACTIVE INGREDIENTS

Our product range includes the below main active ingredients

Polynucleotides (PN)

PN is a highly advanced, deeply nourishing ingredient that supports the skin's natural vitality. This potent concentration helps to visibly improve skin texture and elasticity, promoting a firmer, more supple, and rejuvenated appearance. It is the ultimate secret to achieving a plump, youthful-looking "glass skin" glow.



Hyaluronic Acid (HA)

A skincare staple for intense hydration, Hyaluronic Acid acts like a sponge, drawing moisture into the surface of the skin. It instantly quenches thirst, helping to smooth out the look of fine, dehydration lines and leaving the complexion looking exceptionally dewy and refreshed.



Advanced topical nourishment and deep hydration for a visibly firmer, flawlessly luminous complexion.

3 PRODUCT LINEUP



2% PN

20mg/ml Polynucleotides

2.5ml syringe

Sterile, single use



1% PN + 1% HA

10mg/ml Polynucleotides

10mg/ml Hyaluronic Acid

2.5ml syringe

Sterile, single use



2% PN PRO

20mg/ml Polynucleotides

2ml syringe

Sterile, single use

KFDA



FOR EXPORT

4 PRODUCT LINEUP



2% PN

20mg/ml Polynucleotides
5ml vial
Sterile, single use



1% PN + 1% HA

10mg/ml Polynucleotides
10mg/ml Hyaluronic Acid
5ml sterile single use vial
Sterile, single use



5 INDICATIONS



Severe Surface Dehydration

Instantly quenches dry, depleted skin, restoring a visibly plump and dewy appearance (especially ideal for the PN + HA blends).

Visible Loss of Firmness

Supports the skin's structural feeling, enhancing natural bounce, elasticity, and suppleness.

Uneven Skin Texture

Smooths and refines the look of rough or uneven surface texture for a flawlessly silky finish.

Fine Lines and Wrinkles

Softens the appearance of superficial expression lines and minimizes the look of skin creping.

Dullness and Lackluster Tone

Revives a tired, stressed complexion to achieve that coveted, brilliant "glass skin" radiance.

Environmental Skin Fatigue

Acts as a daily cosmetic defense to visibly refresh and energize skin subjected to harsh environmental stressors.

6 BENEFITS & EFFECTS

Benefits

Delivers profound, long-lasting moisture to the skin's surface layers

Enhances the skin's natural feeling of structural bounce, resilience, and elasticity

Provides advanced cosmetic nourishment to visibly support and condition the skin barrier

Revitalizes the overall look of tired, stressed, and environmentally weathered skin

Acts as a premium daily defense against visible dullness and dehydration

Effects

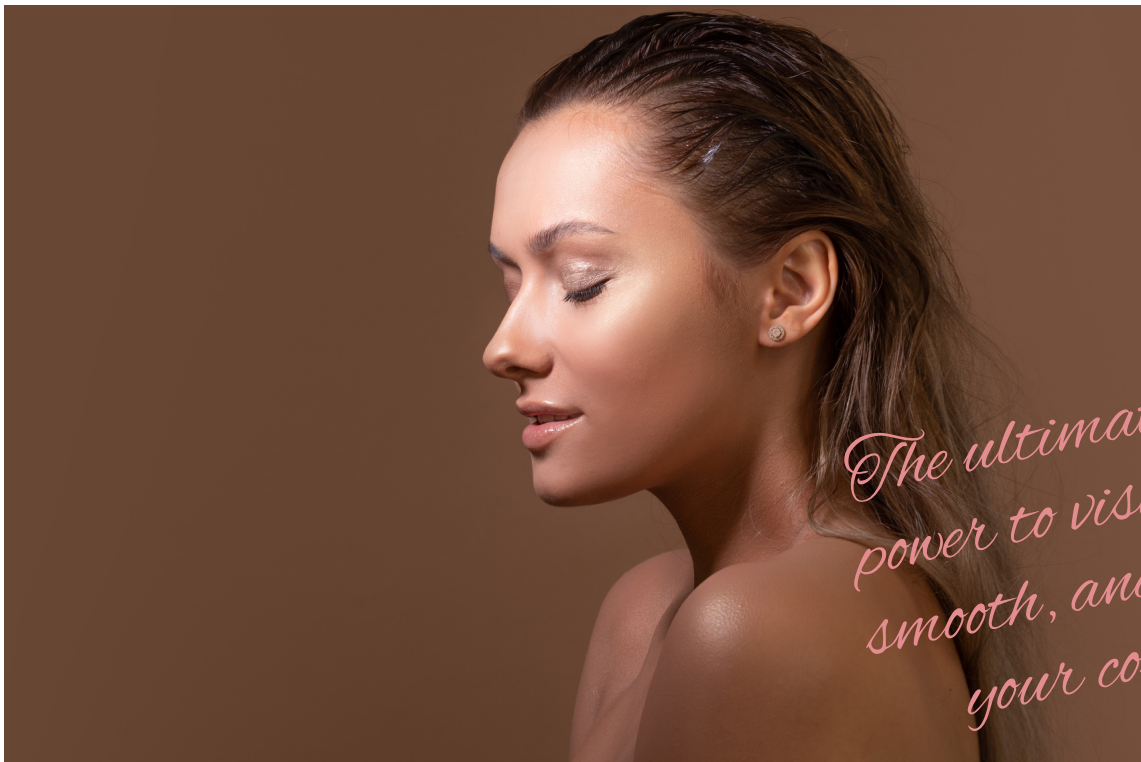
Visibly plumps the skin to soften the appearance of fine lines and surface wrinkles

Imparts an immediate, coveted "glass-like" luminous glow

Noticeably smooths and refines uneven or rough surface texture

Reduces the look of dry, crepey skin for a flawlessly silky, supple finish

Restores a fresh, energized, and visibly youthful radiance from the very first application



7 CLINICAL STUDIES

Below are several published clinical studies that were performed on the active ingredients stated below.

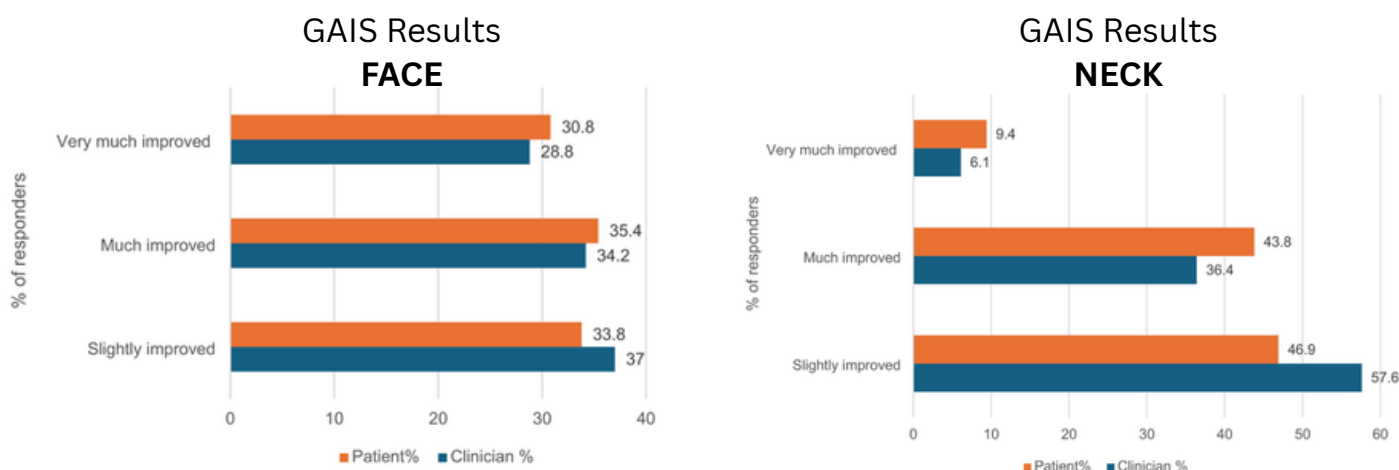
Ingredient: Polynucleotides

Study Title: A Real-Life Assessment of Injectable Polynucleotides High Purification Technology in Aesthetic Medicine for Skin Rejuvenation

Date: January 2026

Summary: *This extensive observational study evaluated the cosmetic performance of highly purified Polynucleotides on the face, neck, and décolleté. The clinical data demonstrated that PN application significantly enhanced the skin's visible moisture retention, feeling of elasticity, and overall surface quality. Over 93% of targeted cases showed moderate to significant improvements in refining the appearance of skin roughness and fine lines, resulting in a noticeably revitalized, youthful-looking complexion.*

Reference: Eliana L, Anna P, Stefania B, Concetta S, Luisa C, Agnieszka D, Andrea B, Laura B, Carolina P, Simone S. A Real-Life Assessment of Injectable Polynucleotides High Purification Technology in Aesthetic Medicine for Skin Rejuvenation. J Cosmet Dermatol. 2026 Jan;25(1):e70532. doi: 10.1111/jocd.70532. PMID: 41482668; PMCID: PMC12759169.



Reference: Lanza Eliana, et al. Journal of Cosmetic Dermatology, 2026. PMCID: PMC12759169. DOI: 10.1111/jocd.70532. PMID: 41482668.

Understanding the Clinical Results (GAIS)

The Global Aesthetic Improvement Scale (GAIS) charts visually represent the professional clinical grading of the skin's appearance post-treatment compared to its initial baseline. **The GAIS Results FACE chart illustrates that 100% of observed patients experienced a visible enhancement in facial skin quality**, with over 53% achieving "marked" or "excellent" cosmetic improvements such as profound hydration and a visibly smoother surface texture. Similarly, the GAIS Results Neck chart demonstrates the formula's targeted effectiveness on notoriously delicate tissue, **proving that over 93% of cases experienced moderate to significant visible improvements in the neck area**, including a noticeable reduction in surface creping and an enhanced feeling of natural elasticity. **Together, these charts provide quantifiable clinical proof of the complex's exceptional revitalizing power.**

8 CLINICAL STUDIES

Below are several published clinical studies that were performed on the active ingredients stated below.

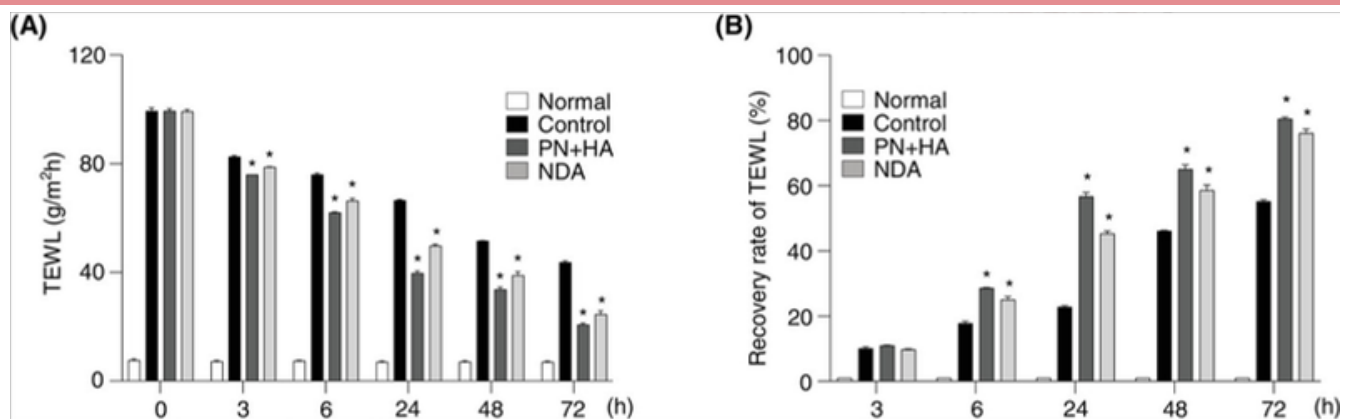
Ingredient: Polynucleotides and Hyaluronic Acid

Study Title: The Effect of Polynucleotide-Hyaluronic Acid Hydrogel in the Recovery After Mechanical Skin Barrier Disruption

Date: September 2024

Summary: This study specifically explored the synergistic cosmetic effects of combining Polynucleotides (PN) with Hyaluronic Acid (HA). The clinical findings proved that the PN + HA complex acts as an exceptional conditioning agent for the skin. It significantly reduced trans-epidermal water loss (TEWL) and profoundly fortified the skin's natural moisture barrier, leaving the skin visibly calmer, smoother, and intensely hydrated.

Reference: Ha YJ, Tak KH, Jung JM, Lee JL, Kim CW, Ah YC, Kim SS, Moon IJ, Yoon YS. The Effect of Polynucleotide-Hyaluronic Acid Hydrogel in the Recovery After Mechanical Skin Barrier Disruption. Skin Res Technol. 2024 Sep;30(9):e70068. doi: 10.1111/srt.70068. PMID: 39300806; PMCID: PMC11413333.



Effect of PN+HA on TS-induced TEWL. TEWL was measured on the backs of the mice as described in the methods. TEWL values were measured at 0, 3, 6, 12, 24, 48, and 72 h. (A) TEWL. (B) The rate of barrier recovery. Data were presented as mean $\pm$ SD (n = 6). *p < 0.05 compared with the control group. Normal: non-TS group; Control: TS stimulated and saline-treated group; PN+HA: TS stimulated and PN+HA treated group; NDA: TS stimulated and NDA PLUS treated group. PN+HA, polynucleotide and hyaluronic acid; SD, Standard deviation; TEWL, trans-epidermal water loss; TS, tape stripping.

Reference: Ye Jin Ha et al. Int J Mol Sci. 2024 Sep; PMCID: PMC11413333

The above in this study provides compelling visual proof of the **formula's ability to lock in moisture and support the skin's surface barrier**. The graphs track Trans-Epidermal Water Loss (TEWL) and the rate of barrier recovery over a 72-hour period following mechanical disruption of the skin. **They clearly demonstrate that the application of the Polynucleotide and Hyaluronic Acid (PN + HA) complex significantly halts water loss and accelerates moisture barrier recovery compared to untreated skin.** This serves as undeniable scientific evidence that the complex acts as an exceptional hydrating shield, instantly quenching depleted skin and restoring a healthy, resilient, and deeply conditioned surface.

9 CLINICAL STUDIES

Below are several published clinical studies that were performed on the active ingredients stated below.

Ingredient: Polynucleotides and Hyaluronic Acid

Study Title: Clinical **efficacy and safety** of polynucleotides highly purified technology (PN-HPT®) and cross-linked hyaluronic acid for moderate to severe nasolabial folds: A prospective, randomized, exploratory study

Date: May 2022

Summary: *This split-face clinical trial demonstrated the profound aesthetic benefits of Polynucleotides in targeted facial zones. The application of PN provided excellent viscoelastic support to the skin's surface. Participants experienced a significantly smoother and plumper appearance, with the Polynucleotides beautifully enhancing the skin's natural feeling of firmness while softening the look of deep surface creping.*

Reference: Araco A, Araco F, Raichi M. Clinical efficacy and safety of polynucleotides highly purified technology (PN-HPT®) and cross-linked hyaluronic acid for moderate to severe nasolabial folds: A prospective, randomized, exploratory study. J Cosmet Dermatol. 2023 Jan;22(1):146-155. doi: 10.1111/jocd.15064. Epub 2022 May 26. PMID: 35531796; PMCID: PMC10084116.

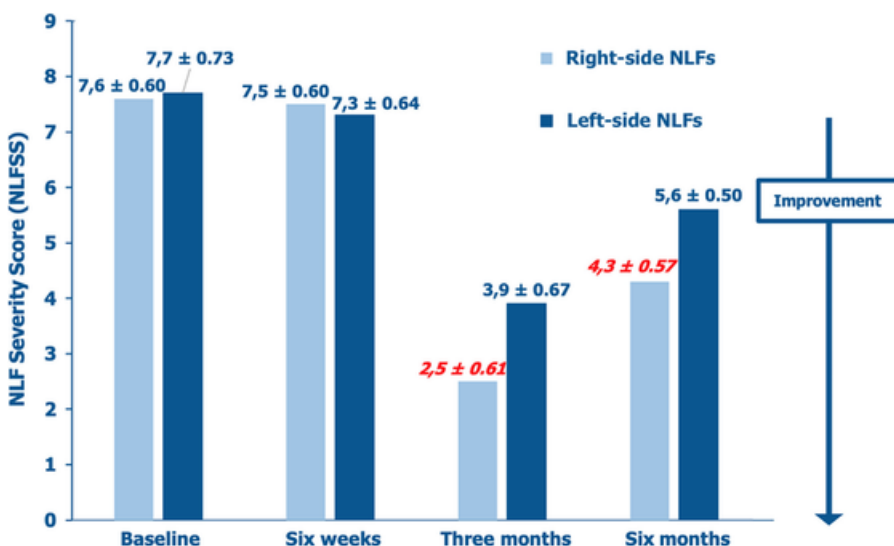


Figure 2: Comparison of NLF severity scores (NLFSS) levels in treated right- and left-side NLFs at baseline (T0) and after 6 weeks (T1—PN-HPT® vs saline placebo monotherapy) and 3 and 6 months (T2 and T3, respectively—PN-HPT® priming + HA consolidation); outcomes in red and Italics: $p < 0.05$ vs baseline

Understanding the Clinical Results (Figure 2)

This chart visually **proves how effectively the Polynucleotide (PN) and Hyaluronic Acid (HA) combination visibly smooths the appearance of deep smile lines (nasolabial folds) over a six-month period**. At the 6-week mark (T1), the side of the face receiving the pure PN formula showed a noticeable cosmetic improvement in the skin's surface compared to the untreated side. By the 3- and 6-month marks (T2 and T3), after HA was added to complement the PN, the skin appeared significantly plumper, firmer, and more refined. The red text on the chart simply highlights that these **visible smoothing effects were scientifically proven to be a true, lasting enhancement compared to the skin's original condition at baseline**.

10 PACKAGING & STORAGE

Packaging

Vials:

5ml sterile single use vials in single packs.

15 vial packs in 1 outer packaging.

Syringes:

2.5ml single use sterile syringe for PN 2% and PN + HA models

2.0ml single use sterile syringe for PN Pro model

Storage

Temperature Control: Store all unopened products in a cool, dry environment between 2°C and 25°C (35°F to 77°F). Protect the formulations from extreme heat and ensure they are never frozen.

Light Protection: Polynucleotides and Hyaluronic Acid are sensitive to prolonged UV and light exposure. Keep the vials and syringes securely within their original outer packaging when not in immediate use to shield them from direct sunlight and ambient clinical lighting.

Strict Single-Use

Immediate Use: Once the protective seal is broken or the syringe is unsealed, the formulation must be utilized immediately or discarded.

Disposal: Under no circumstances should opened vials or syringes be stored, refrigerated, or reused for subsequent treatments. Any remaining product and all empty packaging must be safely and appropriately discarded.

11 CONTACT



Novaleen Bio Ltd.

Unit 608, 6th Floor, Geumjeong Stn. 2nd SK V1 Center,
555-2 Hoggie-dong, Dongan-gu, Anyang-si, Gyeonggi-do,
14118, Republic of Korea

경기도 안양시 동안구 호계동 555-2 금정역2차 에스케이브이1센터
제6층 제608호

Tel: +82 31 429 7389

Email: info@novaleen.com

<https://novaleen.co.kr>

Made in Korea

Novaleen
bio

CONFIDENTIALITY & COPYRIGHT This document and the information contained herein are proprietary and intended strictly for internal training use only. No part of this publication—including text, images, clinical summaries, and product specifications—may be reproduced, distributed, copied, or transmitted in any form without prior written authorization from the company.

PROFESSIONAL USE ONLY The products detailed within this document are strictly intended for professional application. They must solely be administered by qualified, licensed practitioners in strict accordance with applicable local, state, and national regulatory guidelines.

CLINICAL OUTCOMES & LIABILITY The information provided does not constitute medical advice. Clinical results, product efficacy, and duration of effects are not guaranteed and will vary per patient based on individual physiological conditions, age, lifestyle, and the practitioner's application technique. The manufacturer, brand owner and distributor assume no liability for adverse reactions, misuse, or off-label application of these products.