

klárdie

# klárdie D<sup>+</sup> & R<sup>+</sup>

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## Product Introduction

\*The proposal is for purpose of internal proposal only.

klárdie

## klar + radiance

As the shiny sunrise comes right after the dark dawn,  
the most brilliant moment is coming right after the darkest moment is over.

The beauty made by klardie awakes your skin radiance.  
The radiance has more shine when there is the darkness.  
The beauty what klardie dreams is to awake the most brilliant radiance in the darkness  
with the ultimate stem cell technology.



klárdie

## klardie Skin booster UPGRADE History



DermaSign E+ &  
Diamond Feel forte



Klardie Cellup  
Ruby&Dia Solution



Klardie D+&R+  
#QuickBooster

2024  
NEW

- ✓ HA cross linking added
- ✓ Modified the viscosity
- ✓ Improved pH level for less Pain

- ✓ Higher Main ingredients concentration
- ✓ LMW-HA → Quicker Diffusion
- ✓ Immediate Effect
- ✓ Improved in In vitro
- ✓ Improved quantity 3cc → 5cc

klárdie



*Klárdie*

Awake Your Skin Radiance  
with the Quick Booster, klárdie R+&D+



## klardie D<sup>+</sup> & R<sup>+</sup> Product Overview

### klardie D<sup>+</sup> Skin Rejuvenating Solution



5ml x 5vial

#### Key ingredient

- HA & PDRN
- Amino acids
- Vitamins
- Growth factors
- Peptides

Rejuvenating

Elasticity

Hydration

### klardie R<sup>+</sup> Skin Brightening Solution



5ml x 5vial

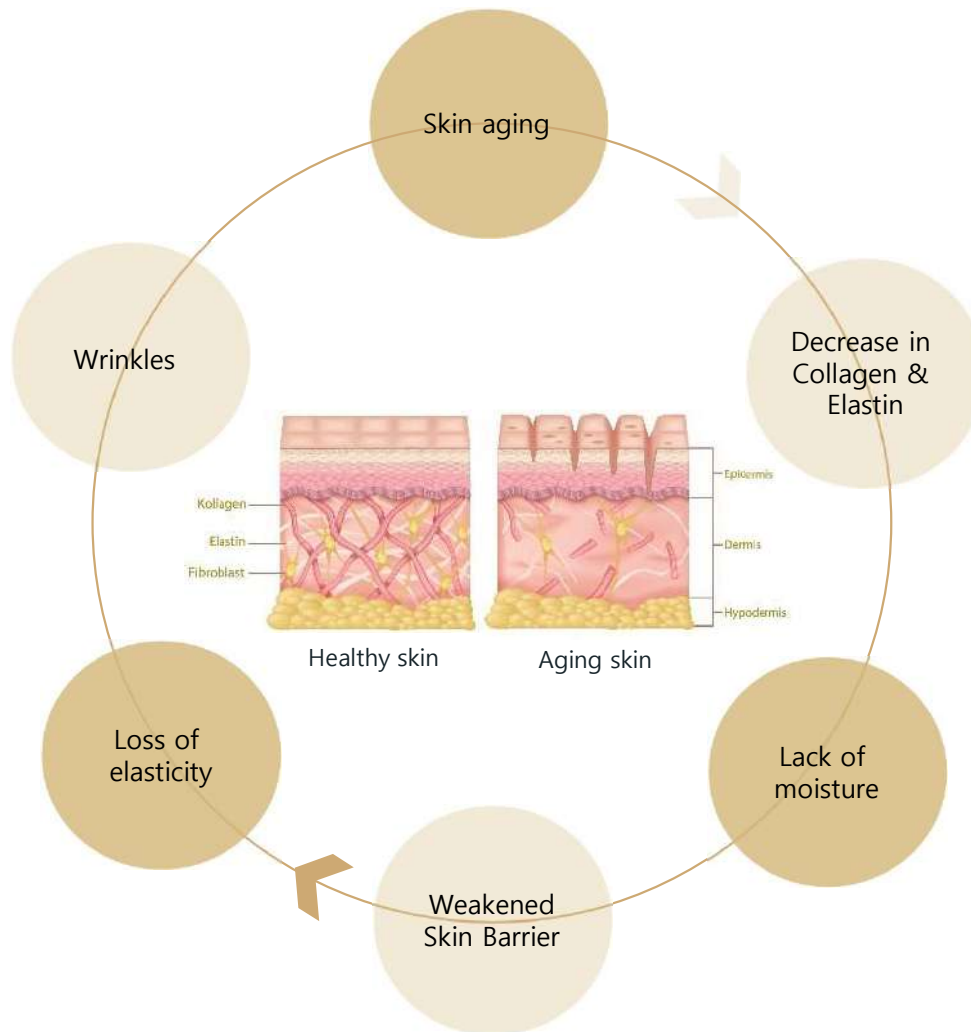
#### Key ingredient

- HA & PDRN
- Niacinamide
- Tranexamic acid
- Ascorbyl Glucoside
- Glutathione

Brightening

Anti-Pigmentation

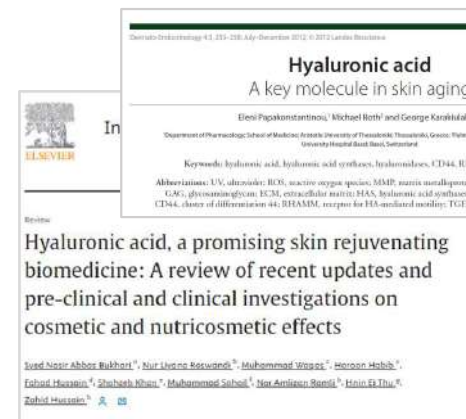
Tone-up Booster



## How Moisturization Affects Aging

Starting in your 20s, your skin slowly begins to age.

Aging skin loses its natural moisturizing ability, and as the amount of HA in the dermis decreases, the bonds between collagen and elastin in the dermis weaken, leading to signs of aging, such as wrinkles and reduced elasticity.



cell metabolism, play a major role in both processes.<sup>4</sup> ROS in extrinsic or intrinsic skin aging induce the transcription factor c-Jun via mitogen-activated protein kinases (MAPK), leading to overexpression of matrix metalloproteinase (MMP)-1, MMP-3 and MMP-9 and prevention of the expression of procollagen-1.<sup>5</sup> Therefore, elevated levels of degraded collagen and reduced collagen synthesis are pathologies occurring in intrinsically aged as well as photoaged skin.

Skin aging is also associated with loss of skin moisture. The key molecule involved in skin moisture is hyaluronan or hyaluronic acid (HA), a glycosaminoglycan (GAG) with a unique capacity to bind and retain water molecules.<sup>6</sup> HA belongs to the extracellular matrix (ECM) molecules. During the past decades the constituents of the skin have been well characterized. In the beginning, most of the studies focused on the cells that comprise the skin layers, such as the epidermis, the dermis and the underlying subcutis. Recently, it is appreciated that ECM molecules that lie between cells, in addition to providing a constructive framework, they exert major effects on cellular function. These ECM molecules, although they appear amorphous by light microscopy, they form a highly organized structure, comprising mainly of GAG, proteoglycans, growth factors and structural proteins such as collagens. Yet, the predominant component of the skin ECM is HA.

Recent reviews have described the involvement of HA with respect to its role in angiogenesis,<sup>7</sup> reactive oxygen species,<sup>8</sup> chondrocytes,<sup>9</sup> cancer,<sup>10,11</sup> lung injury,<sup>12,13</sup> immune regulation<sup>14,15</sup> and skin.<sup>16</sup> This review presents in brief recent knowledge in HA biology and function and focuses on its involvement in skin aging.

Ref. Hyaluronic acid A key molecule in skin aging

Ref. Hyaluronic acid, a promising skin rejuvenating biomedicine: A review of recent updates and pre-clinical and clinical investigations on cosmetic and nutraceutical effects



## HA & PDRN

## SYNERGY EFFECTS

LMW HA\* + HMW HA\*

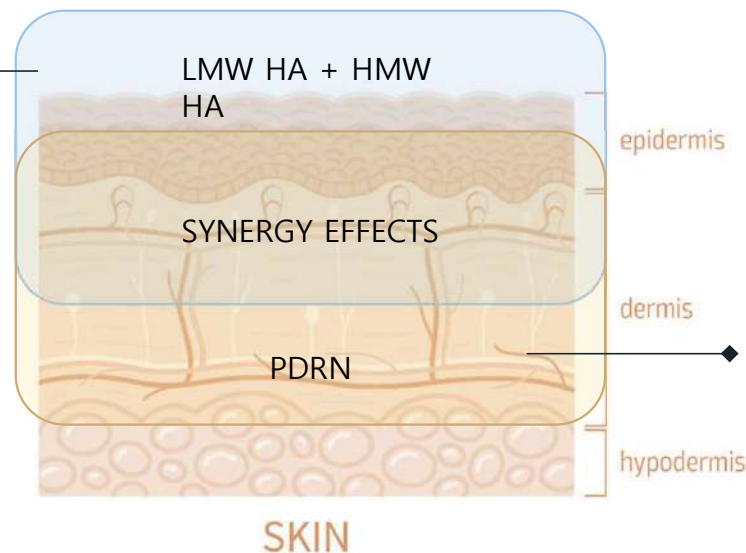
- Excellent skin penetration with a low molecular weight
- Moisturizes and supports the dermis
- Deeply hydrates the skin
- Formulated with HMW-HA for longer-lasting effects

#Moisturizing

#Elasticity

\*LMW HA : Low Molecular Weight HA

\*HMW HA: How Molecular Weight HA



PDRN

- Molecular structure similar to human skin for enhanced stability
- DNA fragments extracted from salmon
- Reduces inflammatory cytokines
- Stimulates growth factor secretion

#Regeneration

#Anti-inflammatory

klardie D+ & R+

contains a high concentration of low molecular weight HA, which boasts superior skin penetration, delivering moisture deep into the skin. Combined with active ingredients like PDRN, it both regenerates and soothes your skin, resulting in a plump, firm, and healthily glowing complexion.

## WHY LMW-HA?

**COSMETICS**  
HYALURONIC ACID

M. Farwick, P. Lersch, G. Strutz

**Low Molecular Weight Hyaluronic Acid: Its Effects on Epidermal Gene Expression & Skin Ageing**

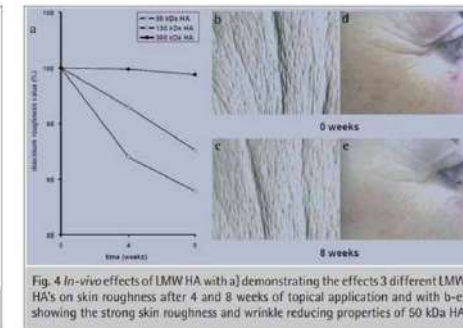
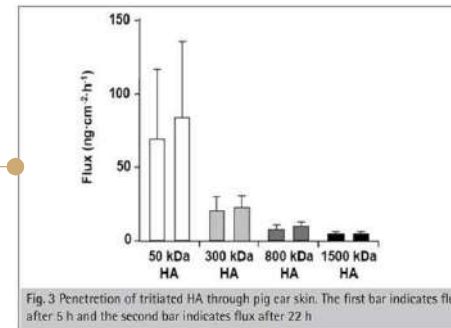
Keywords: LMW hyaluronan, penetration, anti-wrinkle effect, moisture

**Introduction**

Hyaluronic acid (HA) is a linear polysaccharide with repeating disaccharide units composed of glucuronic acid and N-acetylglucosamine. In contrast to other glycosaminoglycans such as dermatan sulphate or keratan sulphate it does not contain any sulphate. HA is one of the major matrix substances in which cells and fibrous constituents of the matrix such as collagen (1) and elastin (2) are embedded. Another unique characteristic of HA is its enormously high water binding capacity: in solutions HA exists in a flexible, coiled conformation that contains approximately 1000-fold more water than polymer (3). This special feature enables HA to contribute largely to the maintenance of the extracellular space and to control tissue hydration (4). Additionally, HA seems to play a pivotal role in tissue regeneration since recent studies suggest that the integrity and balance of matrix components themselves, which undergo degradation and reconstruction, assure normal tissue function and contribute to the regulation of wound healing (5, 6).

These outstanding properties predispose HA to be a valuable component of cosmetic applications where it could display its abilities resulting in anti-ageing and anti-wrinkle effects. However, this plethora of potential beneficial features is limited by the molecular size of HA, which can reach up to 2,200 kDa and thus interferes with efficient skin penetration. This issue could be addressed simply by fragmentation of high molecular weight HA. If recent studies had shown that HA fragments with a molecular weight less than 20 kDa were recognized by so-called toll-like receptors (TLRs) 2 and 4 resulting in activation of these cells and production of pro-inflammatory mediators (7-10), it was therefore the aim of the present study to identify a low molecular weight (LMW) sized HA molecule that combines strong anti-ageing and moisturizing abilities with efficient skin penetration but is devoid of the negative effects mediated by TLRs.

With the results of the present study it was clearly demonstrate that HA offers not only beneficial effects to the skin but also that these effects can be controlled by varying the molecular size. It was found that LMW HA provides better penetration abilities than larger sized HA and, accordingly, influenced the expression of many genes including those contributing to keratinocyte differentiation and formation of intercellular tight junction complexes which are reported to be reduced in aged and photodamaged skin. These different molecular properties of high and low MW HA generated different *in-vivo* effects with pronounced moisturization and elasticity properties shown for high MW HA and marked reduction of wrinkles demonstrated for LMW HA's. The increased activity at decreasing molecular weight can be explained by the more efficient skin penetration of the smaller HA molecules. These data show for the first time that topical application of LMW HA improves skin functioning and provides anti-ageing effects which could be achieved by strengthening its penetration abilities based on decreasing the molecular size.

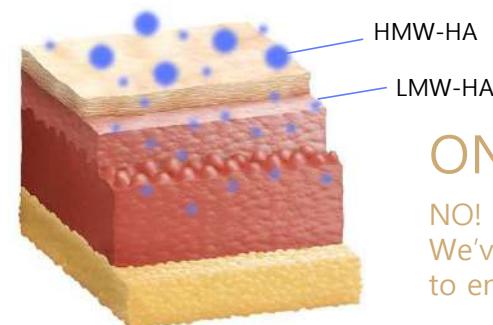


\*12 female volunteers, aged 30-60 years, applied the O/W cream two times daily for 60 days.

\*O/W cream = Oil in water cream

Low molecular weight HA has higher skin permeability compared to high molecular weight HA, allowing it to be quickly absorbed deep into the skin to significantly improve skin texture and prevent wrinkles

→ LMW-HA has been confirmed as effective in improving skin health and delaying the signs of aging



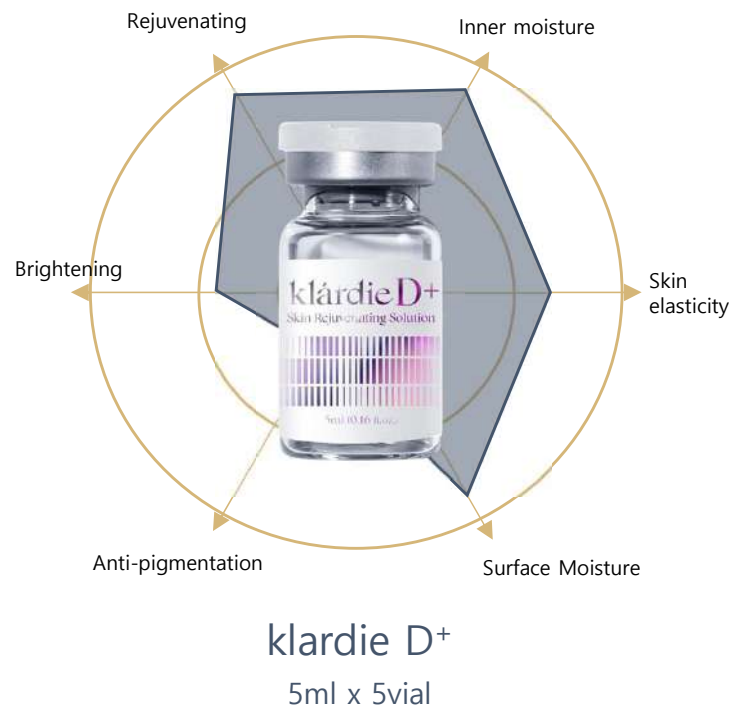
## ONLY LMW-HA?

NO!

We've combined it with HMW-HA to enhance moisture retention.



# klardie D<sup>+</sup> Skin Rejuvenating Solution



A rejuvenating solution that restores skin's vitality

klardie D+ offers firm hydration and an optimal vitality formula to address your skin concerns.

## Key Ingredients

- HA & PDRN
- Peptide complex, Growth factors, Vitamin, Amino acid etc.

## Recommend

- Dry and dull skin
- Skin whose health needs improvement
- Rough and weakened skin

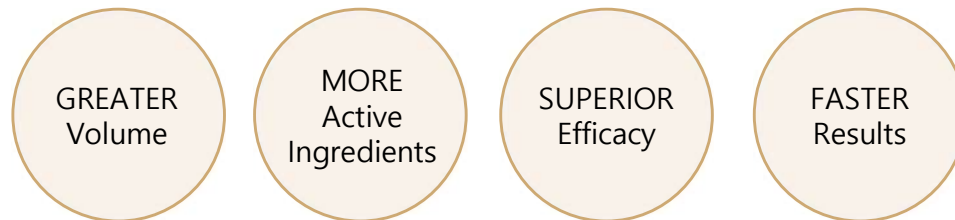
## Key Points

- A comprehensive nutrient boost for your skin, delivered by rich active ingredients
- Effects that are quickly noticeable on the skin
- Efficacy proven through in vitro tests

## klardie D<sup>+</sup> UPGRADE Point Check

klardie D+ is designed to enhance the benefits of the existing Dia Solution, providing shorter downtime and faster results.

With higher concentrations of the various active ingredients, including key ingredients HA and PDRN, as well as growth factors and peptides, this skin booster is optimized for skin regeneration and elasticity.



Product	Dia Solution	D+
Capacity	3 ml	5 ml
HA type	Semi cross-linked HA	HMW HA+ LMW HA
Key Ingredient content	-	233% UP
Active ingredient content	-	67% UP
Time to effects	Normal	Fast

PDRN



Pharmacological Activity and Clinical Use of PDRN

Francesco Squitiro<sup>1</sup>, Alessandro Ratto<sup>1</sup>, Mariachiara Ianni<sup>1</sup>, Gabriele Picano<sup>1</sup>, Giovanni Paoletti<sup>2</sup>, Lorenzo Adamioli<sup>3</sup> and Giancarlo Altarelli<sup>1</sup>

PDRN is a proprietary and registered drug that possesses several activities: tissue repairing, anti-ischemic, and anti-inflammatory. These therapeutic properties suggest its use in regenerative medicine and in diabetic foot ulcers. PDRN holds a mixture of deoxyribonucleotides with molecular weights ranging between 50 and 1,500 kDa. It is derived from a controlled purification and esterification process of *Chonochortus irakiss* (Saxoni) Toudor or *Chonochortus irakiss* (Chum-Salmon) sperm DNA. The procedure guarantees the absence of viral and prion contamination.

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INTRODUCTION

In the last decade, the pharmacological DNA derived drugs have emerged as a new class of drugs.

These drugs are derived from the DNA of various organisms.

They have been used in various clinical applications.

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They have been used in various clinical applications.

Promotes the secretion of GFs

Regeneration, wound healing

Cosmetic effects of PDRN

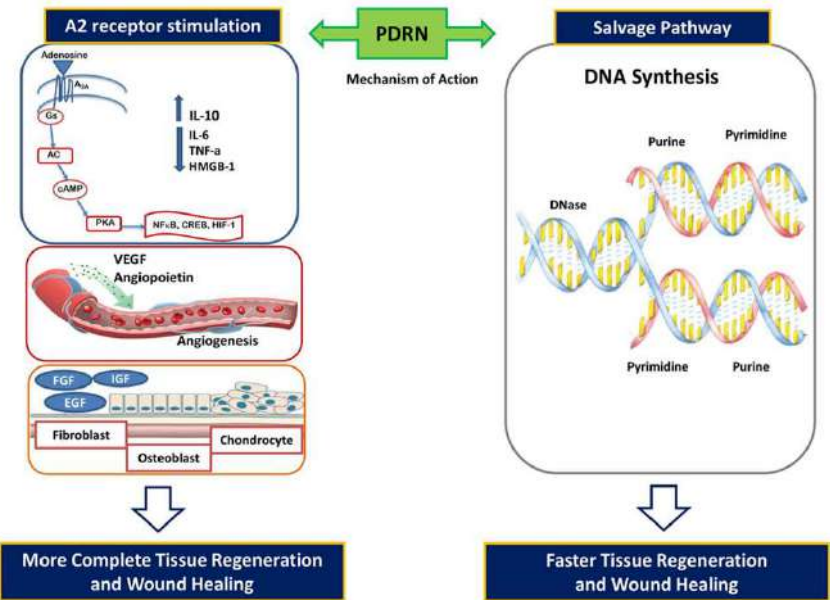


FIGURE 1 | PDRN mode of action: activation of adenosine A2 receptors and the "salvage pathway".

1. Angiogenesis
2. Promoting cell activity
3. Collagen synthesis
4. Hyperpigmentation treatment
5. Soft tissue regeneration
6. Skin priming
7. Skin revitalization
8. Anti-inflammation
9. Scar reduction
10. Anti-aging

- Younger skin
- Smoother skin texture
- Less scarring
- Reduced pores size
- Improved skin hydration
- Quicker recovery

Ref. Polydeoxyribonucleotide: A promising skin anti-aging agent  
Ref. Pharmacological Activity and Clinical Use of PDRN

## PDRN

ARTHRITIS & RHEUMATISM  
Vol. 63, No. 11, November 2011, pp 3364-3371  
DOI 10.1002/art.30538  
© 2011, American College of Rheumatology

### Polydeoxyribonucleotide Reduces Cytokine Production and the Severity of Collagen-Induced Arthritis by Stimulation of Adenosine A<sub>2A</sub> Receptor

Alessandra Bitto, Francesca Polito, Natasha Irrera, Angela D'Ascola, Angela Avenoso, Giancarlo Nastasi, Giuseppe M. Campo, Antonio Micali, Gianfilippo Bagnato, Letteria Minutoli, Herbert Marini, Maria Francesca Squadrito, and Domenica Altavilla

**Objective.** Broad antiinflammatory effects following adenosine A<sub>2A</sub> receptor stimulation have been demonstrated in acute inflammatory diseases, including arthritis. Polydeoxyribonucleotide (PDRN) activates the adenosine A<sub>2A</sub> receptor. This study was undertaken to investigate the effects of PDRN in collagen-induced arthritis (CIA) in mice.

**Methods.** Arthritis was induced in DBA/1 mice by an intradermal injection of 100  $\mu$ l of bovine type II collagen in Freund's complete adjuvant. Mice were immunized a second time 21 days later. Control animals received 100  $\mu$ l of a saline solution. Animals with CIA were randomized to receive one of the following: vehicle (1 ml/kg); PDRN (8 mg/kg intraperitoneally daily); 3,7-dimethyl-propargylxanthine (DMPX), a specific adenosine A<sub>2A</sub> receptor antagonist (0.1 mg/kg intraperitoneally daily); or PDRN plus DMPX. The treatment was initiated immediately after the second immunization and continued to day 45. Clinical evaluation of arthritis was performed throughout the study. On day 45, the animals were killed and the severity of arthritis was evaluated histologically. Cartilage expression and circulating levels of high mobility group box

chromosomal protein 1 (HMB-1) (TNF $\alpha$ ), interleukin-6 (IL-6), and IL-10 levels in human chondrocytes. Unstimulated articular chondrocytes showed low levels of proinflammatory cytokines and normal levels of IL-10 (Figure 5).

**Results.** PDRN treated clinical signs of arthritis, reduced the cartilage levels of HMB-1, TNF $\alpha$ , IL-6, and IL-10 expression. The co-treatment with DMPX and PDRN ablated the effect of PDRN on cytokine production from chondrocytes.

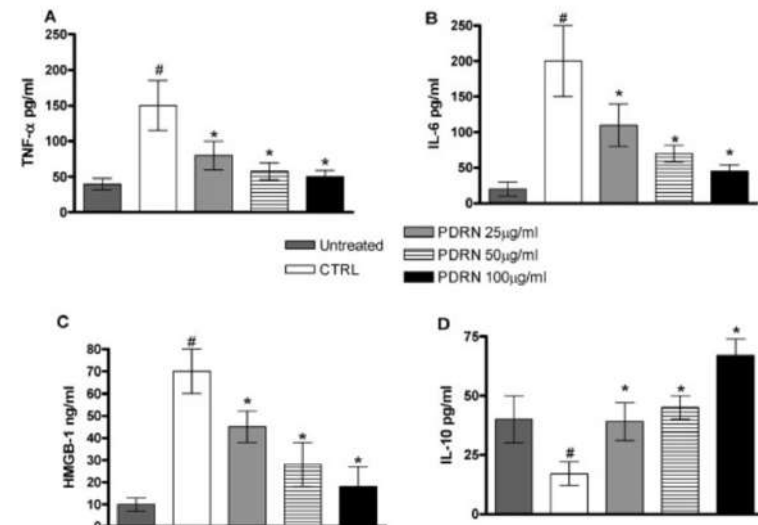
**Conclusion.** Our findings may represent a new alternative for the treatment of arthritis.

Rheumatoid arthritis (RA) is a common autoimmune disease characterized by chronic inflammation, which can lead to long-term damage to joints, resulting in chronic pain and disability (1). The pathogenic mechanisms of RA have not been fully elucidated, but inflammatory cells and cytokine networks play a pivotal role in synovitis, as well as cartilage and bone destruction, and are persistent factors in disease progression (2-6). Several cytokines are significantly elevated in the synovium and synovial fluid, including early proinflammatory factors (tumor necrosis factor  $\alpha$  [TNF $\alpha$ ], interleukin-1 [IL-1], and IL-6), late proinflammatory factors (e.g., high mobility group box chromosomal protein 1 [HMB-1]), and antiinflammatory molecules (e.g., IL-10, IL-1 receptor antagonist, and transforming growth factor  $\beta$ ). Proinflammatory factors reside in the

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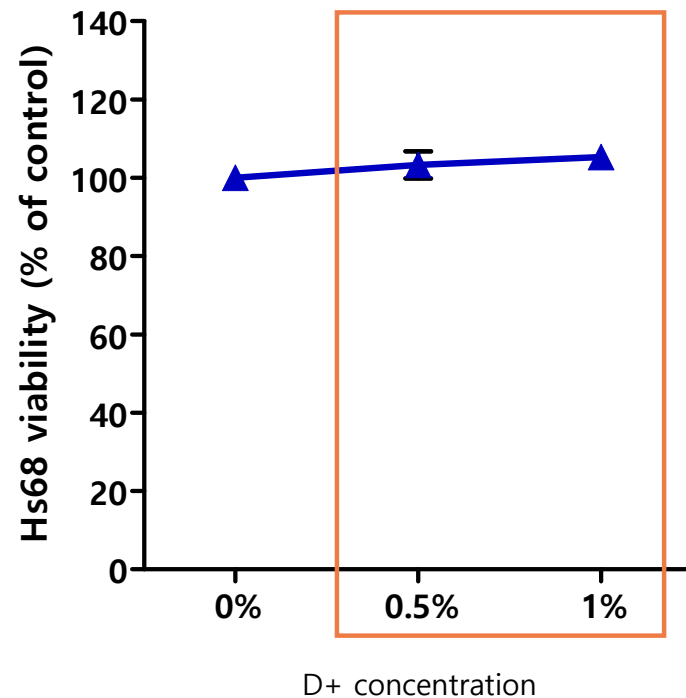
Submitted for publication October 20, 2010; accepted for publication June 30, 2011.

Skin soothing  
Anti-inflammation



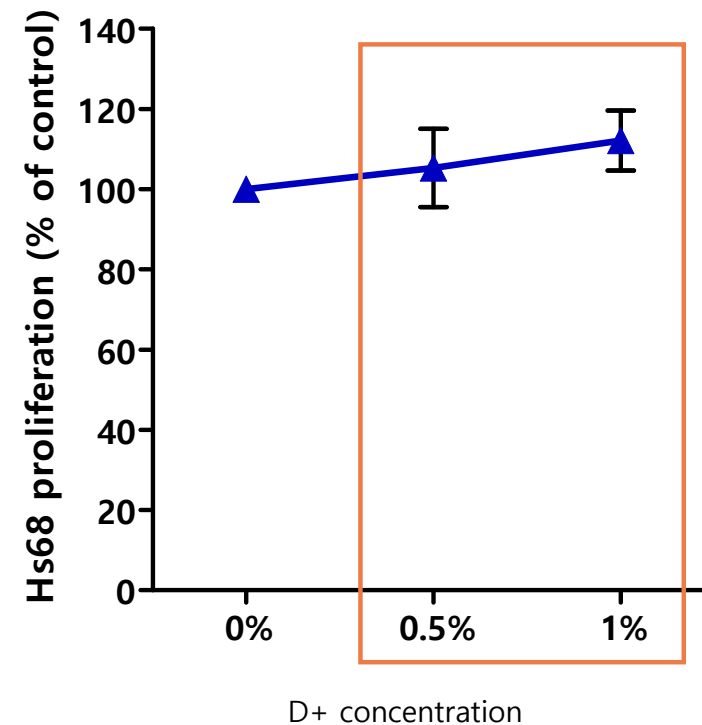
When PDRN was applied to human chondrocytes, a reduction in inflammatory cytokines (HMGB-1, TNF- $\alpha$ , IL-6) was observed, depending on the concentration.

## Cell Toxicity Test



No cell toxicity observed

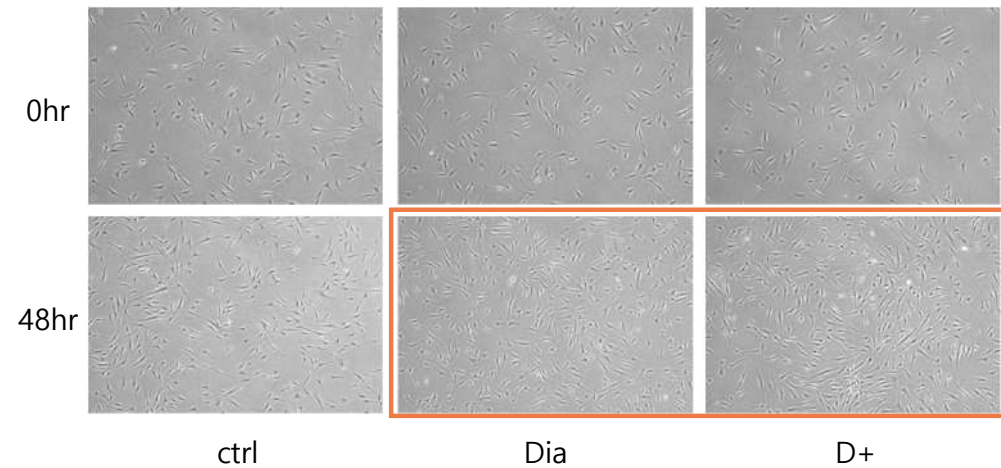
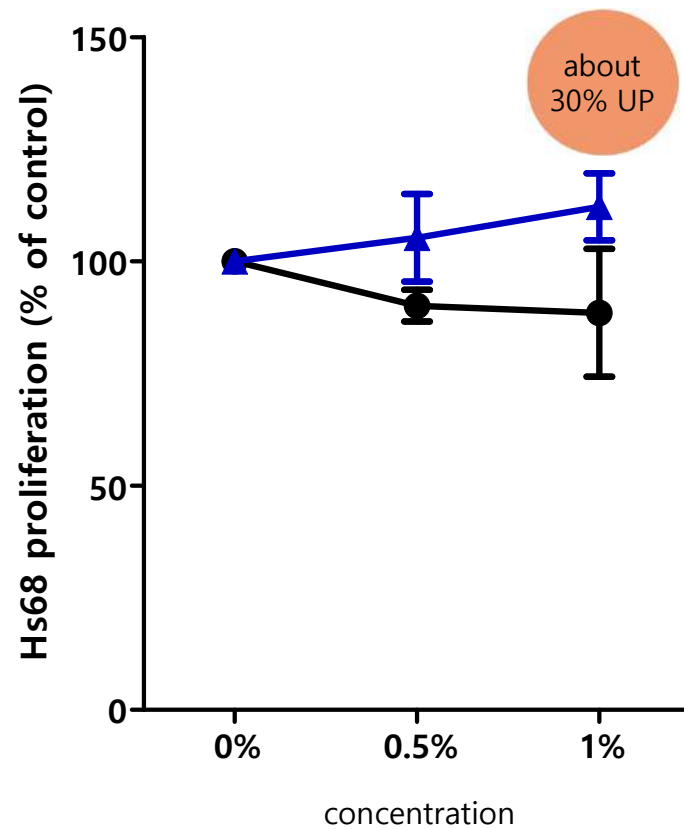
## Proliferation Test



Skin fibroblast proliferation confirmed



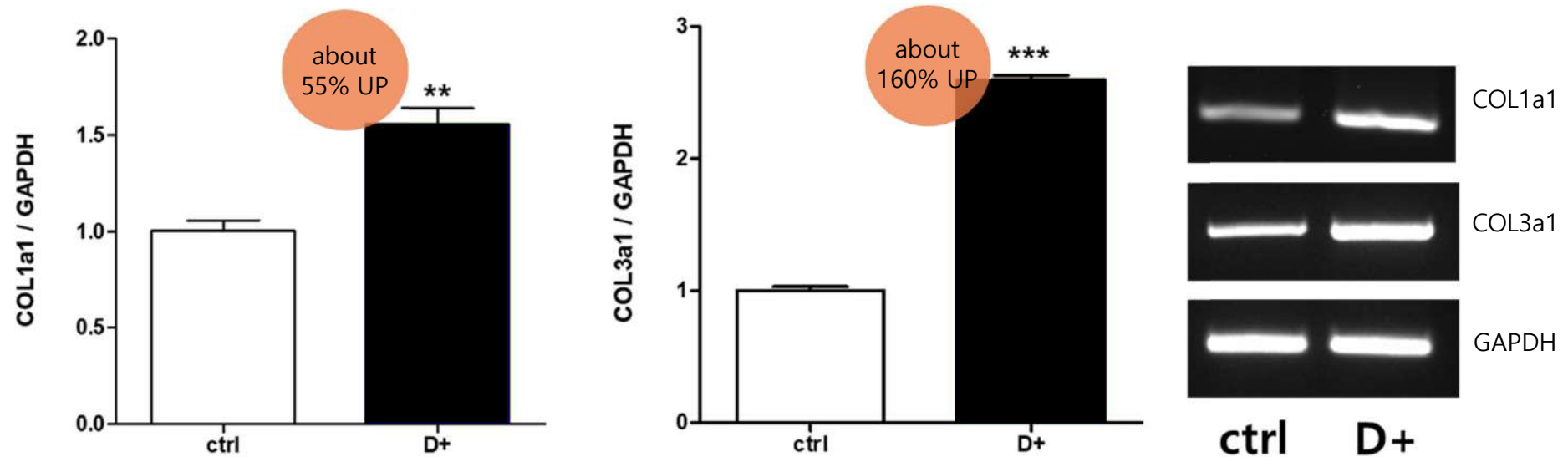
## Proliferation Test vs. Dia



Cell proliferation observed after treating skin fibroblasts with Cellup Dia Solution and D+

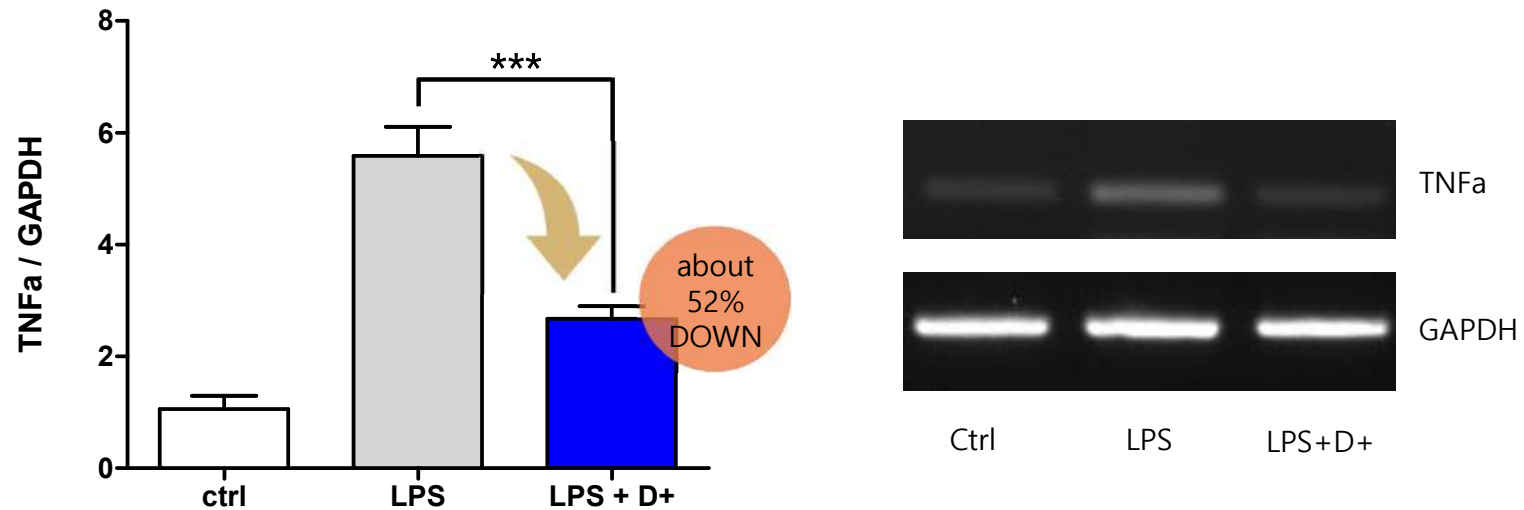
Fibroblast proliferation increased by approximately 30% compared to Cellup Dia Solution

## Skin Regeneration Test



Increased expression of collagen synthesis factors COL1a1 and COL3a1 confirmed after treating skin fibroblasts with D+

## Anti-inflammation test



Suppression of inflammatory cytokine (TNFα) expression confirmed after treating skin fibroblasts with LPS, an inflammatory agent, and D+

\*LPS : Outer membrane of bacteria

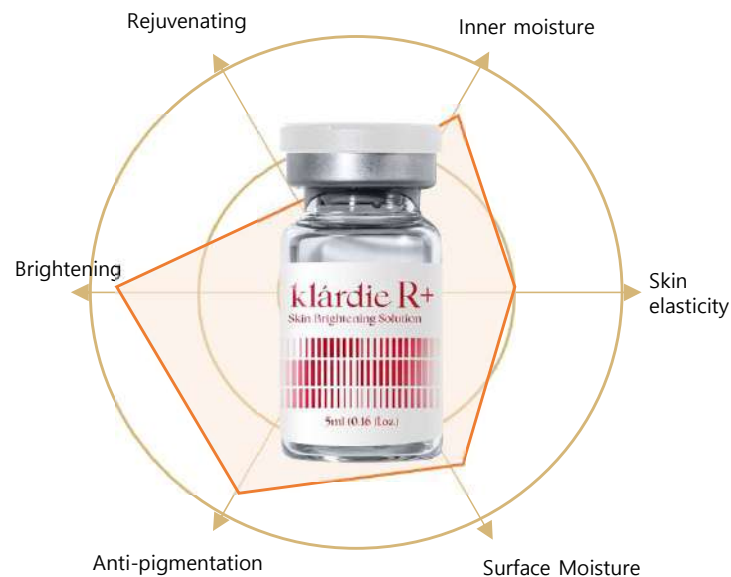
\*TNFα, IL-1b : Inflammatory Cytokines

\*Cell : Hs68 cell(Human skin fibroblast)

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Ref. Hanspharma R&D center

# klardie R<sup>+</sup> Skin Brightening Solution



klardie R<sup>+</sup>  
5ml x 5vial

A brightening solution for a clear and radiant skin tone

klardie R+ features an optimal brightening formula that addresses dull and uneven skin tone.

## Key Ingredients

- HA & PDRN
- Niacinamide, Tranexamic Acid, Ascorbyl Glucoside, Glutathione

## Recommend

- Dull skin with uneven skin tone
- Skin that needs both brightening and moisturizing
- Skin with blemishes

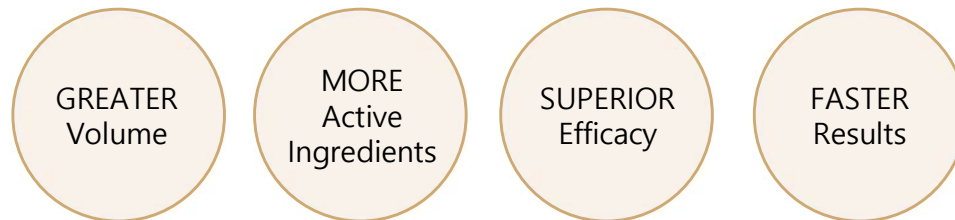
## Key Points

- An optimal formula combined to maximize brightening effects
- Effects that are quickly noticeable on the skin
- Efficacy proven through in vitro tests

## klardie R<sup>+</sup> UPGRADE Point Check

klardie R<sup>+</sup> is designed to enhance the benefits of the existing Ruby Solution, providing shorter downtime and faster results.

Featuring tranexamic acid, niacinamide, glutathione, and ascorbyl glucoside, this skin booster has been optimized to improve skin tone with its 4-step brightening complex.



Product	Ruby Solution	R <sup>+</sup>
Capacity	3 ml	5 ml
HA type	Semi cross-linked HA	HMW HA+ LMW HA
Key Ingredient content	-	233% UP
Active ingredient content	-	67% UP
Time to effects	Normal	Fast



## 4 Step Brightening Complex

klárdie R<sup>+</sup>

### 1 Step : Tranexamic Acid

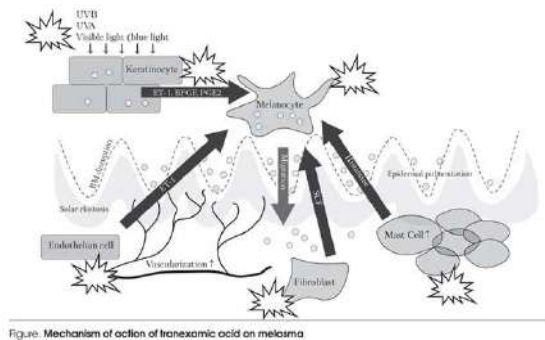


Figure: Mechanism of action of tranexamic acid on melasma

- Synthetic amino acids derived from lysine
- Helps inhibit melanin production by inhibiting tyrosine enzymes in the skin
- Great for improving the appearance of spots and discolorations

Ref. Use of tranexamic acid in melasma

### 2 Step : Ascorbyl Glucoside

**Abstract:** Ascorbic acid 2-glucoside (AA2G), glucosylated ascorbic acid (AA), has superior properties for bioavailability and stability compared to AA. Although AA2G has shown radioprotective properties similar to AA, effects for UV light, especially UVC and UVB, are not studied. AA2G was tested for cytotoxicity and protective effects against ionizing radiation, UVC, and broadband and narrowband UVB in Chinese hamster ovary (CHO) cells and compared to AA and dimethyl sulfoxide (DMSO). Pretreatment with DMSO, AA, and AA2G showed comparative protective effects in CHO wild type and radiosensitive xrs5 cells for cell death against ionizing radiation with reducing the number of radiation-induced DNA damages. Pretreatment with AA and AA2G protected CHO wild type and UV sensitive UV135 cells from UVC and broadband UV, but not from narrowband UVB. DMSO showed no protective effects against tested UV. The UV filtration effects of AA and AA2G were analyzed with a spectrometer and spectroradiometer. AA and AA2G blocked UVC and reduced short wavelengths of UVB, but had no effect on wavelengths above 300 nm. These results suggest that AA2G protects cells from radiation by acting as a radical scavenger to reduce initial DNA damage, as well as protecting cells from certain UVB wavelengths by filtration.

**Keywords:** ascorbic acid 2-glucoside; narrowband UVB; broadband UVB; ionizing radiation; CHO; DNA damage

- Vitamin C derivatives
- The stabilized form of vitamin C, with its antioxidant properties, helps improve skin tone by providing antioxidant effects upon absorption into the skin
- Ingredients with whitening effects approved by the MFDS

Ref.: Ascorbic Acid 2-Glucoside Pretreatment Protects Cells from Ionizing Radiation, UVC, and Short Wavelength of UVB,

## 4 Step Brightening Complex

klárdie R<sup>+</sup>

### 3 Step : Niacinamide

#### The effect of niacinamide on reducing cutaneous pigmentation and suppression of melanosome transfer

[Get access >](#)

T. Hakozaiki, L. Minwalla, J. Zhuang, M. Chhoa, A. Matsubara, K. Miyamoto, A. Greatens, G.G. Hillebrand, D.L. Bissett, R.E. Boissy

**Conclusions** The data suggest niacinamide is an effective skin lightening compound that works by inhibiting melanosome transfer from melanocytes to keratinocytes.

- Ingredients with whitening effects approved by the MFDS
- Water-soluble vitamin B3
- Helps suppress melanin production in the skin

Ref. The effect of niacinamide on reducing cutaneous pigmentation and suppression of melanosome transfer

### 4 Step : Glutathione

Clinical, Cosmetic and Investigational Dermatology

Dovepress

open access journals and medical research

Open Access Full Text Article

ORIGINAL RESEARCH

#### Glutathione and its antiaging and antimelanogenic effects

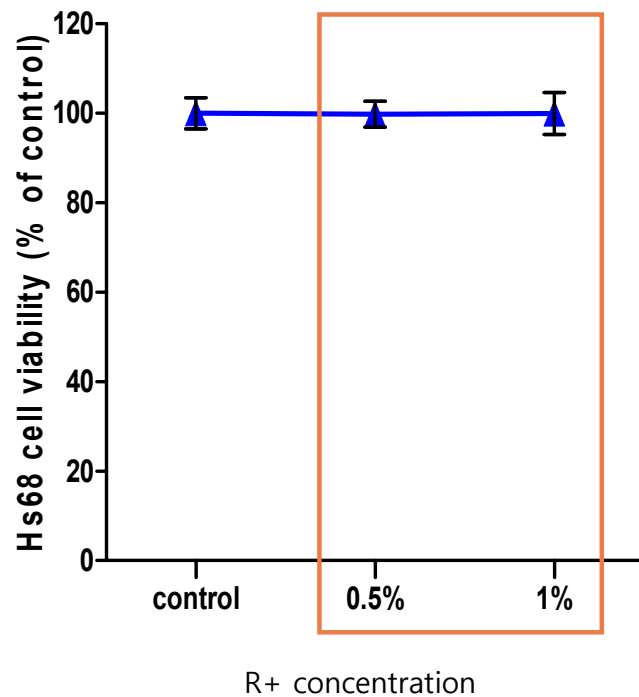
##### Results

In generalized estimating equation analyses, melanin index and ultraviolet spots of all sites including face and arm when given GSH and GSSG tended to be lower than placebo. At some sites evaluated, subjects who received GSH showed a significant reduction in wrinkles compared with those taking placebo. A tendency toward increased skin elasticity was observed in GSH and GSSG compared with placebo. There were no serious adverse effects throughout the study.

- Peptides with 3 amino acids linked together
- Powerful antioxidant properties help protect skin from oxidative stress
- Main Ingredients of the skin-brightening injection

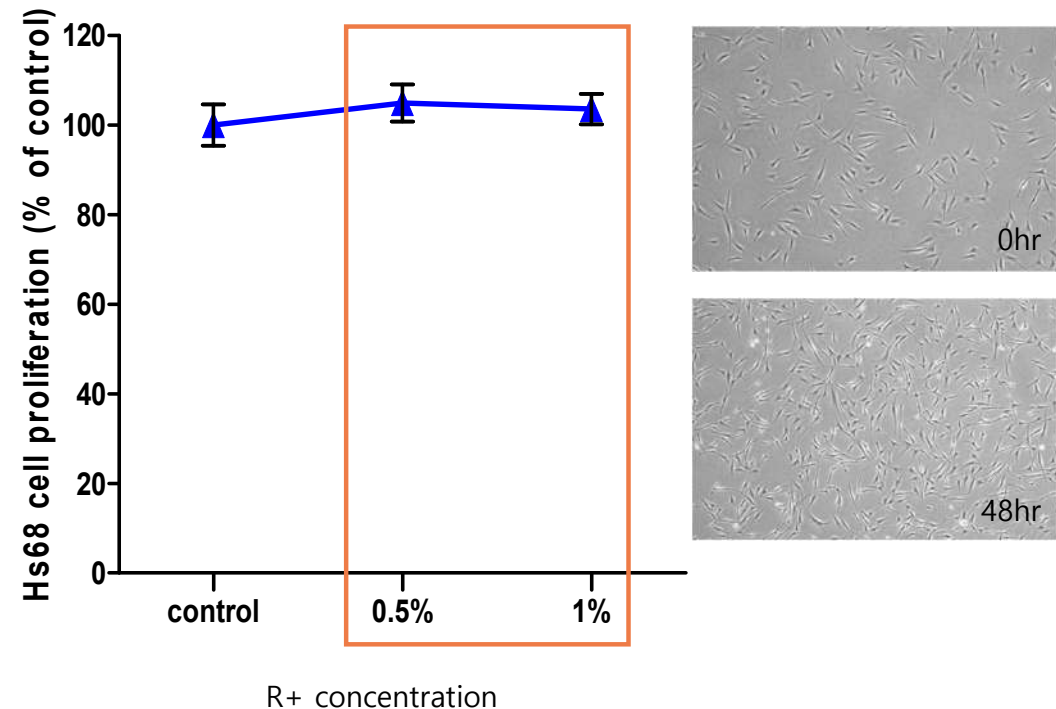
Ref. Glutathione and its antiaging and antimelanogenic effects

## Cell Toxicity Test



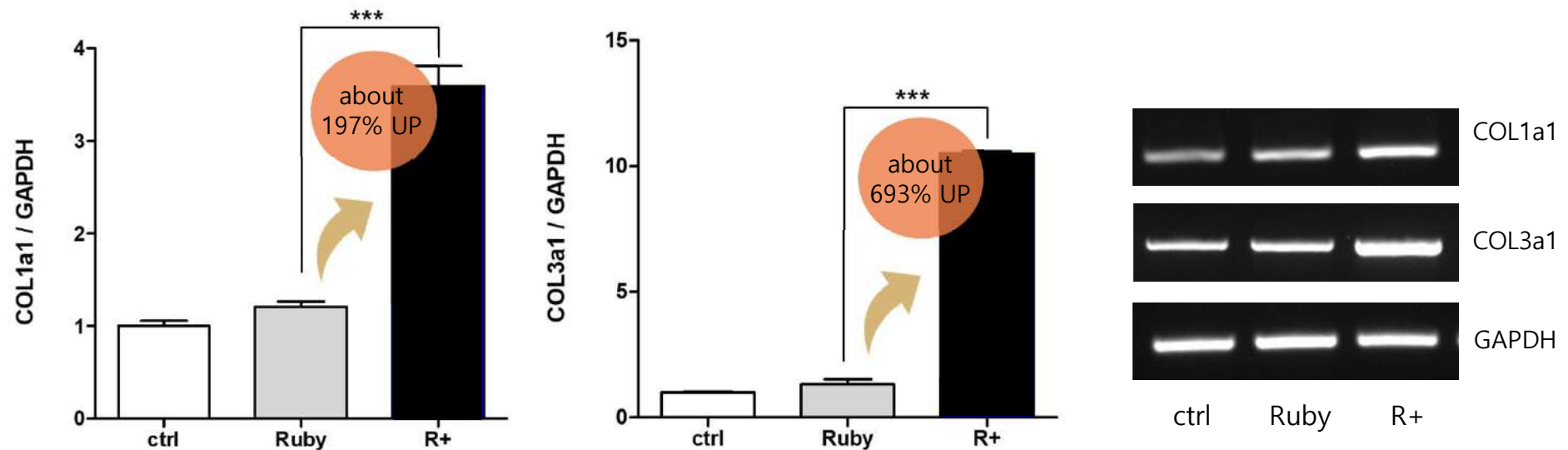
No cell toxicity observed

## Proliferation Test



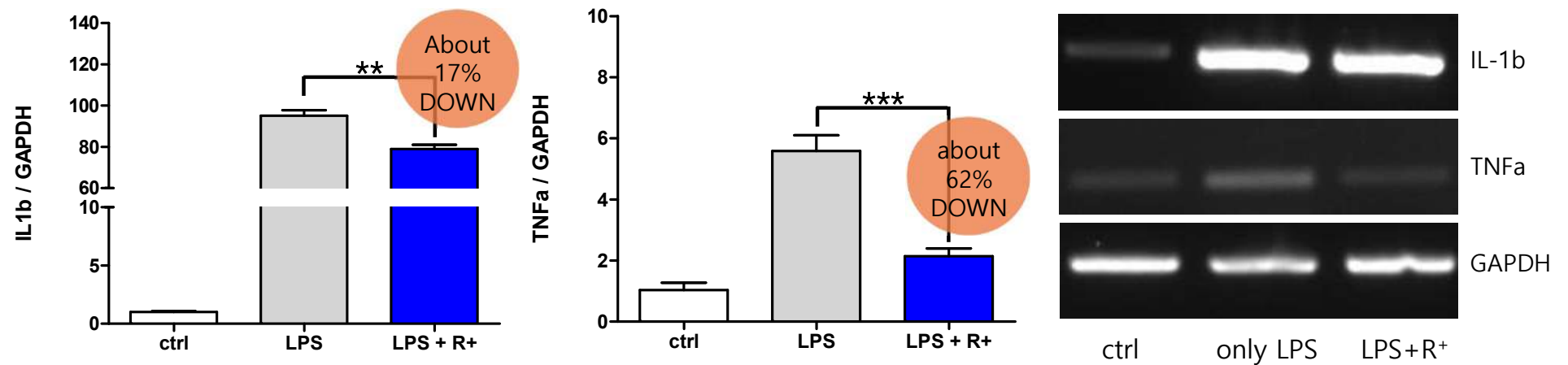
Skin fibroblast proliferation confirmed

## Skin Regeneration Test



Increased expression of collagen synthesis factors COL1a1 and COL3a1 confirmed  
after treating skin fibroblasts with Cellup Ruby Solution and R+

## Anti-inflammation test



Suppression of inflammatory cytokine (TNFa, IL-6b) expression confirmed after treating skin fibroblasts with LPS, an inflammatory agent, and R+

\*LPS : Outer membrane of bacteria

\*TNFa, IL-1b : Inflammatory Cytokines

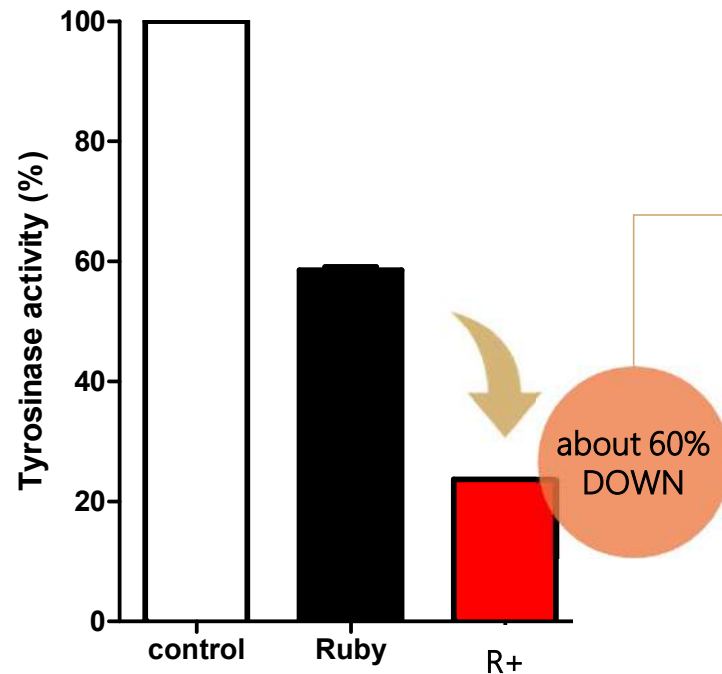
\*Cell : Hs68 cell(Human skin fibroblast)

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Ref. Hanspharma R&D center



## Tyrosinase Activity Test vs. Ruby



Suppression of tyrosinase,  
an enzyme involved in melanin production,  
confirmed through tyrosinase activity test

- Reduction of approximately 80% compared to the control
- Reduction of approximately 60% compared to the Cellup Ruby Solution

klardie R+ confirmed to be effective in skin brightening  
and suppressing melanin production  
through the inhibition of tyrosinase activity

\*Tyrosinase is an oxidase that is the rate-limiting enzyme for controlling the production of melanin

\*Cell : Hs68 cell(Human skin fibroblast)

Ref. Hanspharma R&D center



# klárdie

## Q&A

klardie D+



Name	klardie D+
Packing	5 ml X 5 vial
Recommended for	Rejuvenating, Skin elasticity, Moisturizing
Key Ingredients	HA 2% / PDRN 1% Rejuvenating Complex

klardie R+



Name	klardie R+
Packing	5 ml X 5 vial
Recommended for	Brightening, Anti-pigmentation
Key Ingredients	HA 1% Brightening Complex

## Basic Protocol

Step 1

Cleansing

To ensure that your skin is free from impurities or oils before the treatment.

Step 2

Anesthetic Cream

Apply anesthetic cream(20~30 mins) to the skin to make the treatment as comfortable as possible. Thereafter, the skin is cleaned and disinfected.

Step 3

Selecting a suitable medical device or MTS

Choose a medical device(laser, RF Needle, HIFU) that suits your skin type and condition.

Step 4

klardie R+/D+

The klardie R+/D+ is applied through the medical devices or MTS that can deliver the mixture evenly into the skin.

Step 5

Aftercare

Gently apply a face mask for about 15~20 mins to relax and soothe the skin

Step 6

Skincare Products

Ensure that regenerating cream and sunscreen are applied after the treatment.

- ✓ Moisturizing
- ✓ Bio-regenerating
- ✓ Lifting effect

Type	Device
RF Needle	Potenza, Sylfirm X
Fractional Laser	Fraxel
HIFU	Ulthera, SHURINK



- ✓ Brightening
- ✓ Anti-pigmentation

Type	Device
Laser Toning	RevLite, Fotona
Pico Toning	PICOSURE, PICOHI
IPL	Cellec V



\*MTS can be combined with laser and other device depending on skin condition and indication.

## Q. What is the difference between klardie D+ and R+?

You can use either product depending on what you're looking for, whether it's regeneration, firming, or brightening.



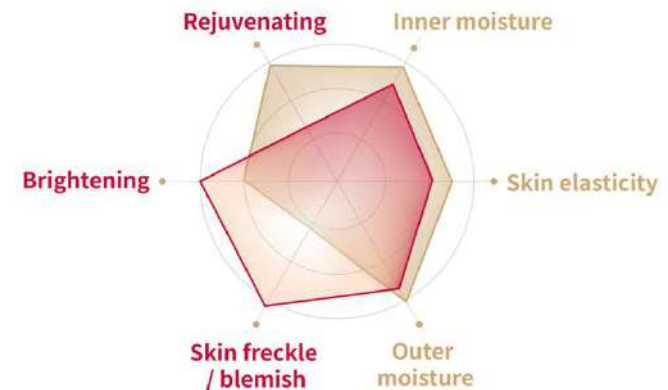
Product	klardie D+	klardie R+
Capacity	5 ml	5 ml
Packing	5 vial / 1 box	5 vial / 1 box
Key Ingredients	HA 2% PDRN 1%	HA 1% Niacinamide 2% / TA 1%
Active ingredients	Peptide complex Growth factors Vitamin Amino acids	Niacinamide Tranexamic Acid Ascorbyl Glucoside Glutathione
Key Efficacy	Skin elasticity, Moisturizing	Brightening, Anti-pigmentation
Recommend	Dry and dull skin Skin whose health needs improvement Rough and weakened skin	Dull skin with uneven skin tone Skin that needs brightening Skin with blemishes

## Q. How soon can the results of klardie D+/R+ be seen after use?

- klardie D+ and R+ are enhanced with a higher proportion of LMW-HA to deliver a rapid moisturizing effect.
- Within 2 to 3 days of application, you can feel a radiant glow and deep hydration.  
For extended results, it is advised to use the product 2 to 3 times at intervals of 1 to 3 weeks.

## Q. Can I mix klardie D+/R+ together to use?

- klardie D+/R+ can be used in mixed use and be tailored for target area of skin concerns so that it's satisfied skin elasticity and brightening at the same time.



## Q. How do I store the product?

- Recommended storage condition: keep at room temperature.

### Q. Is it okay to store the vial or use it in parts after opening?

- It is recommended to use Claudie D+ and R+ immediately after opening the vial.
- Storing leftover ampoules or using them on others is not advised.

### Q. Is it okay to use klardie D+/R+ with other aesthetic treatment?

- Yes, it's available to combine with other aesthetic treatment such as HIFU, Ionto phoresis, Laser and Lifting



### Q. How painful and how long is it swollen?

- Although the level of pain and swelling may be different case by case, based on the use of MTS, normally patients may return to their daily routine from the day after treatment.





# klárdie

B&A

# Clinical Case

- Protocol : Apply klardie R+ after using Needle RF / 1 time
- Patient Information : Female, 30s
- Improve overall skin tone, less dryness
- Dr. Kyung-hi choi, JUAN CLINIC



<Before>



<After 7 days>



<Before>



<After 7 days>

# Clinical Case

- Protocol : Apply klardie D+ after using Needle RF / 1 time
- Patient Information : Female, 20s
- Improve mild skin troubles and redness, and dryness.
- Dr. Kyung-hi choi, JUAN CLINIC



<Before>



<After 3 days>



<After 7 days>

# Clinical Case

- Protocol : Apply klardie D+ after using Needle RF / 1 time
- Patient Information : Male, 30s
- Improve skin dryness and condition
- Dr. Kyung-hi choi, JUAN CLINIC



<Before>



<After 3 days>



<After 7 days>



# Clinical Case

- Protocol : Apply klardie D+ after using Needle RF / 1 time
- Patient Information : Female, 30s
- Improve skin dryness and condition
- Dr. Kyung-hi choi, JUAN CLINIC



<Before>



<After 5 days>



A global bio company that creates a healthy,  
beautiful value of life through creative bio solutions

We are a global bio-convergence company  
that creates the value of life.



# Thank You