

XE`LHA SOLUTION

Next-generation peeling solution

XE-LHA Peel and XE-LHA (Y)

Next-generation peeling solution that
deeply nourishes the skin without irritation



A step closer to healthy skin

XE-LHA

XE-LHA Peel, the next-generation peeling that helps achieve youthful, clear, and radiant skin using the **patented Peel & Fill technology**

1 XE-LHA : Peel & Fill

2 XE-LHA : Technology

1. XE-LHA : Peel tech. – Natural Peeling
2. XE-LHA : Fill tech. – Microbiome
3. XE-LHA : LHA
4. XE-LHA : Rucinol - Whitening

3 XE-LHA : Benefits and Strengths of the Innovative Technology

4 XE-LHA : Reference

Deep and Gentle Without Irritation
Peel&Fill : XE-LHA



XE-LHA



Natural **Peel** tech.



Lactobacillus **Fill** tech.

Peeling :

Non-acidic & Natural Peeling Tech
Using Youth P-Sol™

Gentle peeling with no downtime

Patented technology | Youth P-Sol™ – Natural Peeling System Patent
Registration No. 10-2103140

Patented technology Youth P=Sol™ Natural Peeling System
A safe, fast-working anti-aging solution that helps transform dull, aged skin into clean and clear skin.



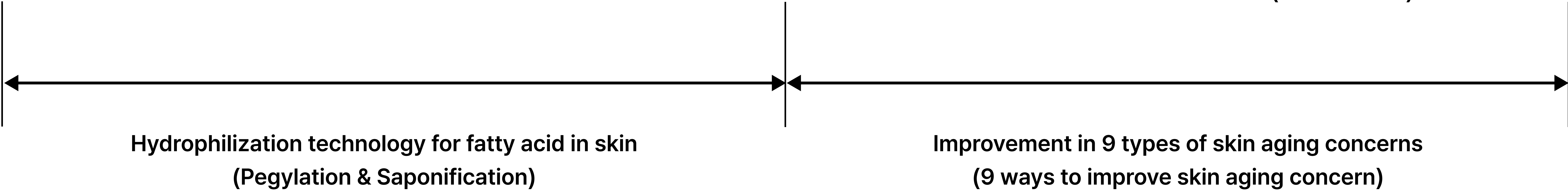
Oleic acid & Lauric acid



Youth P-Sol™ (patented ingredient)



Patent Certificate
(10-2103140)



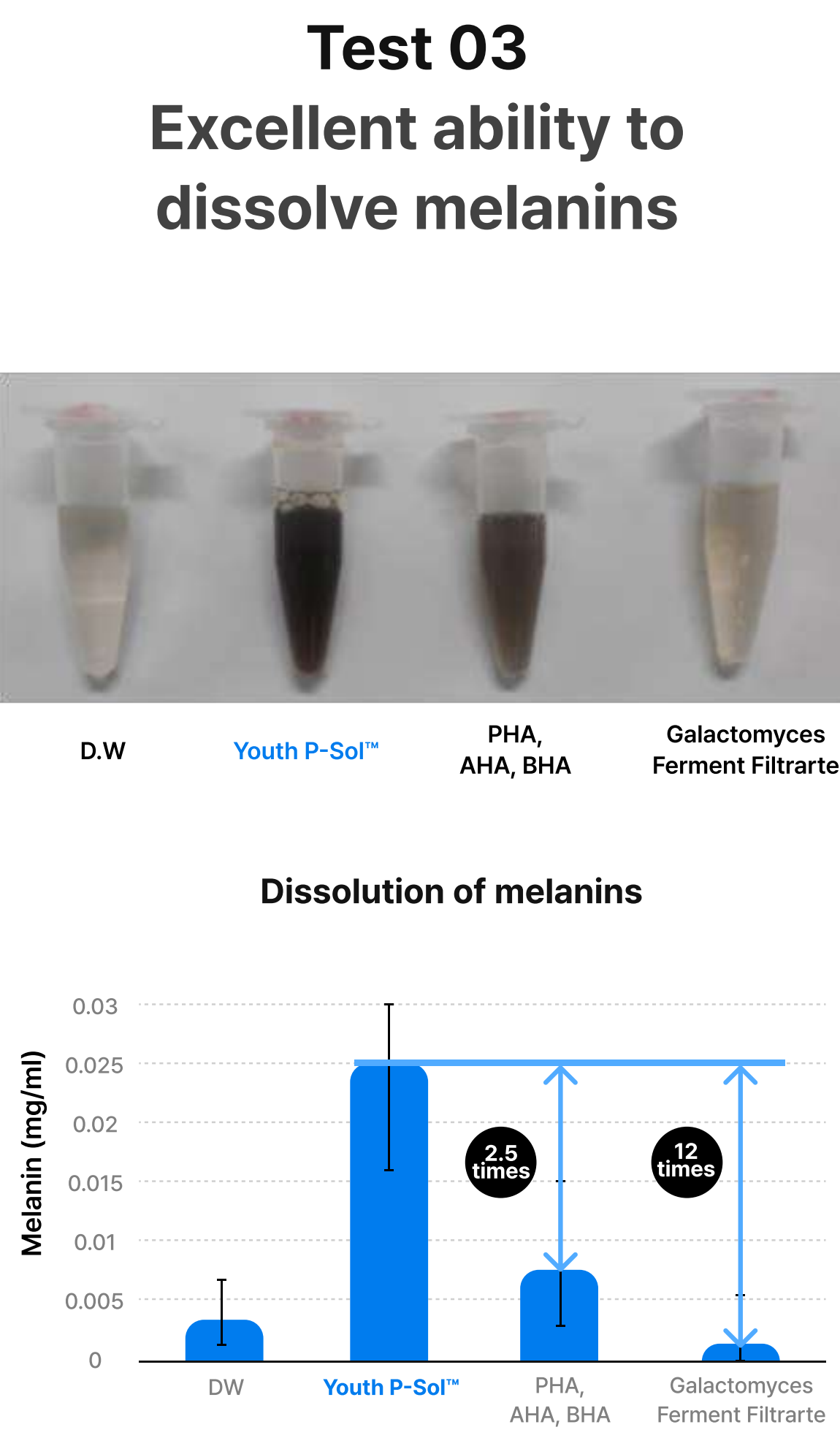
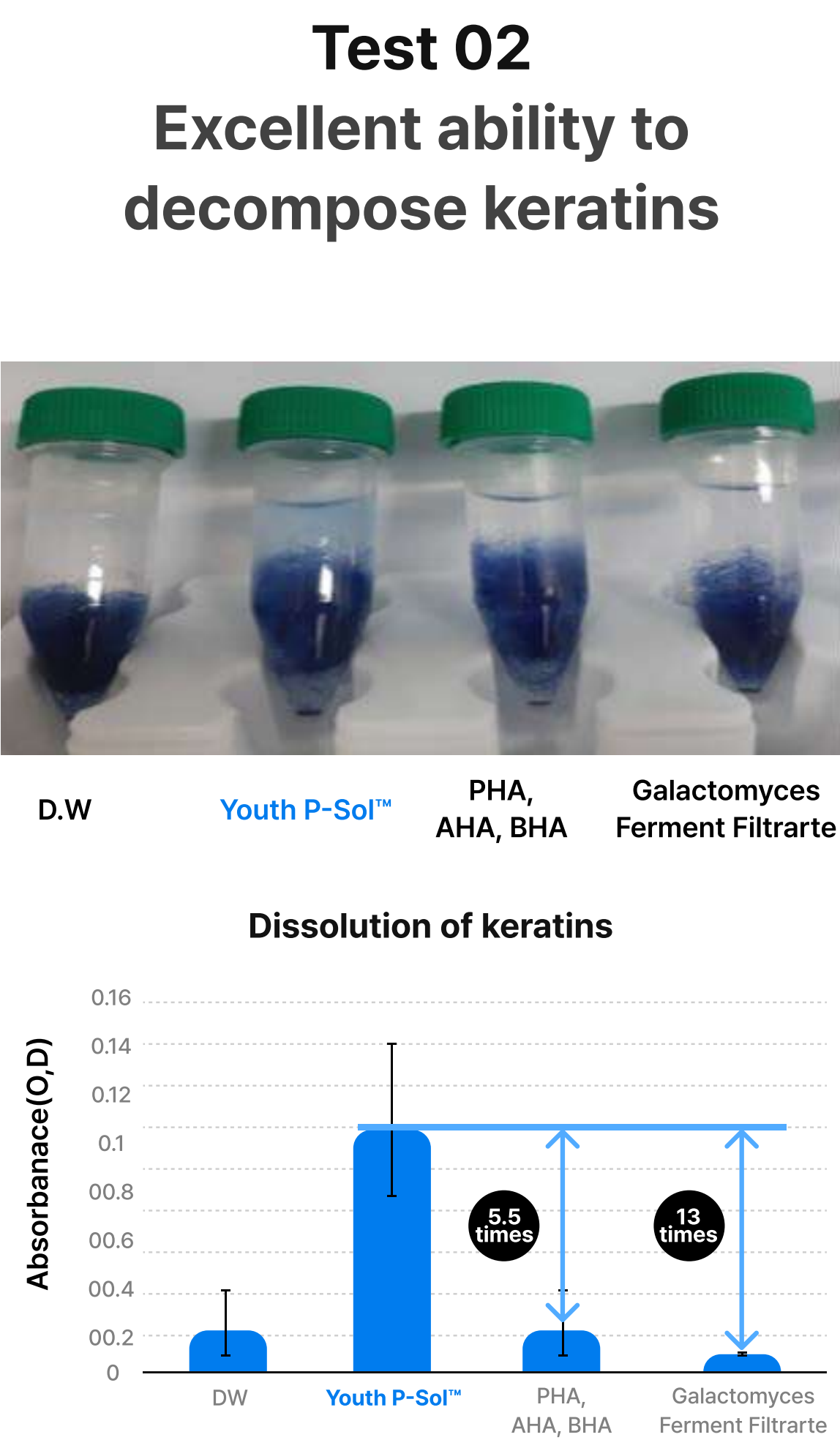
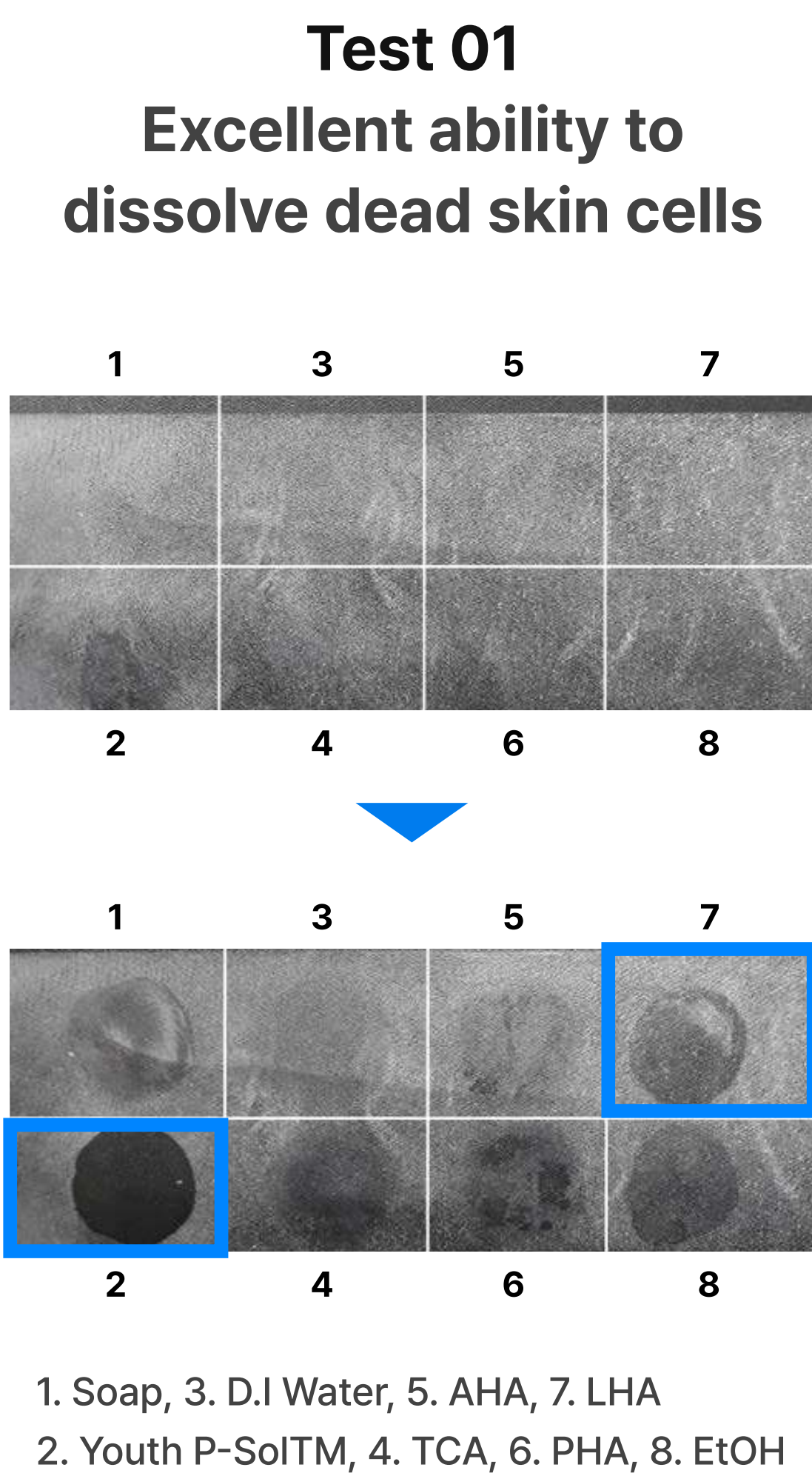
Peeling :

The powerful skin peeling effect of Youth P-Sol™ results in anti-aging effects Over 10 times more effective peeling effect than the conventional products

Reduced dead skin cells and improved hydration in 1 day : reduced pigmentation in 2 weeks : and reduced wrinkles in 4 weeks

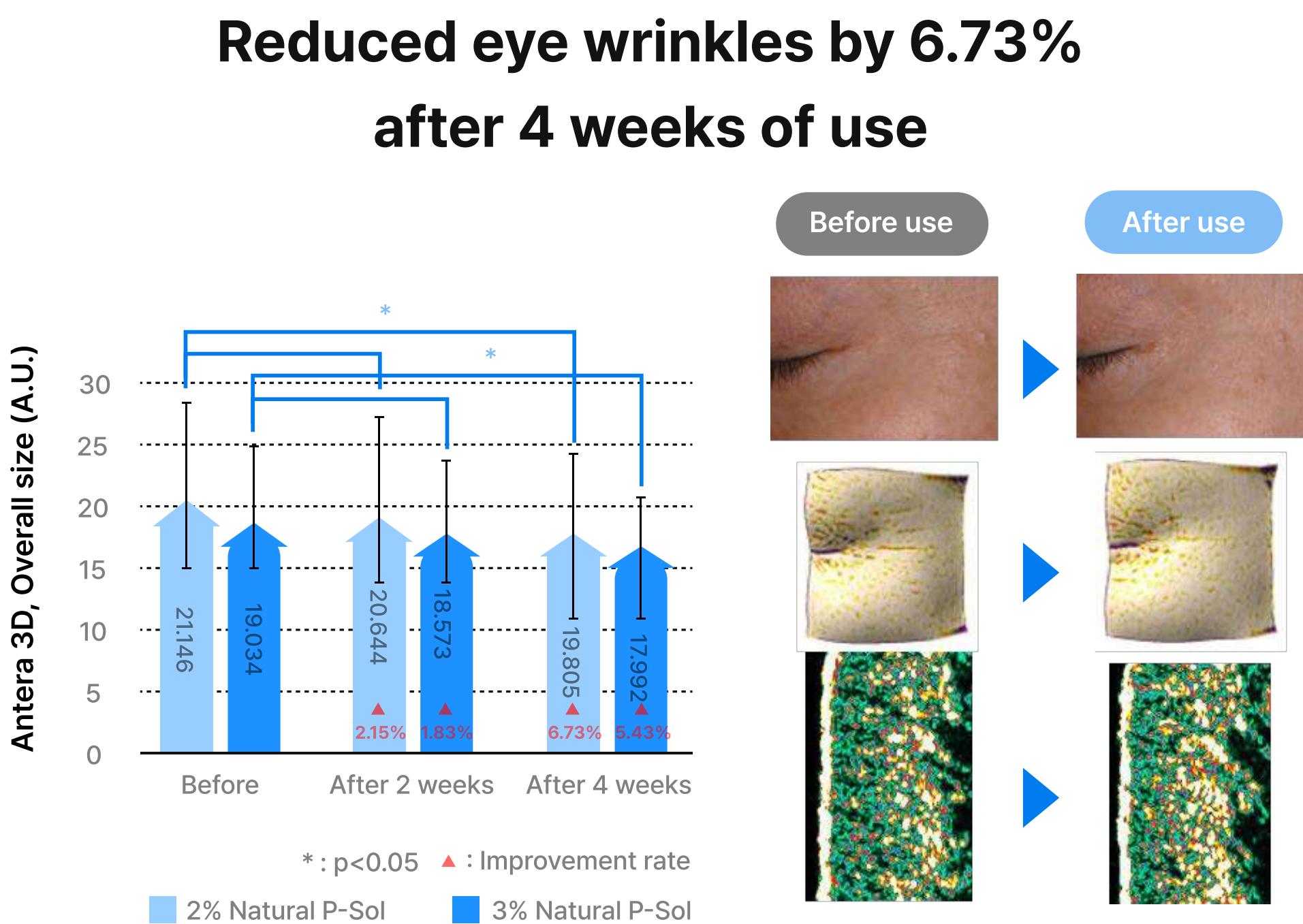
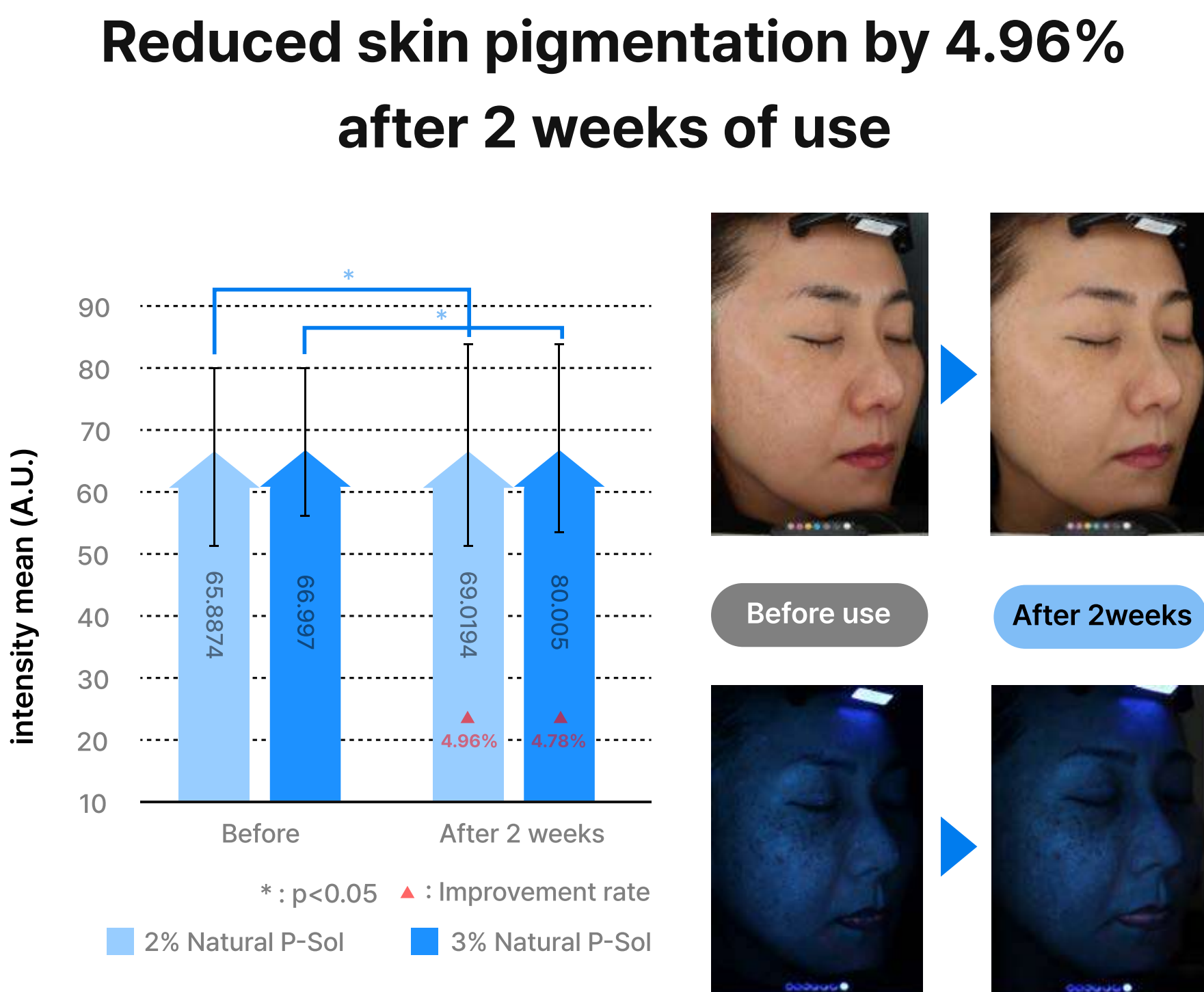
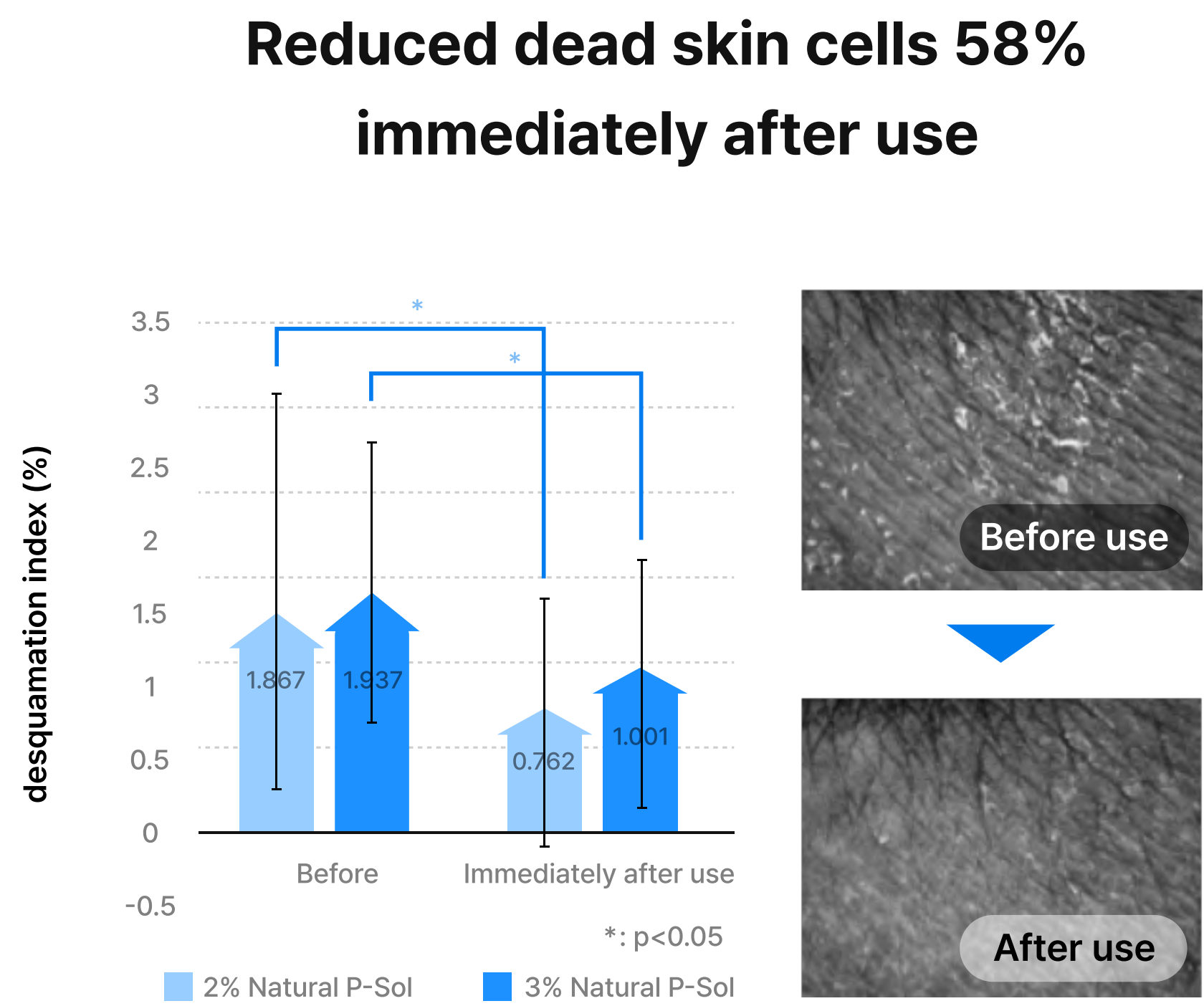
Comparison with the conventional products

Compared to the conventional chemical peelers, **5.5 to 13 times** more effective in decomposing dead skin cells (keratins), and **2.5 to 12 times** for skin pigments (melanins)



Skin anti-aging effects

After one use, reduced dead skin cells by **58%** and increased moisture content by **134%** after two weeks of use, reduced pigmentation by **4.96%** and reduced wrinkles by **6.73%**



* Tested on 113 men and women aged between 25 and 56 using a cosmetic formula containing Youth P-Sol™ by Semyung University Korean Medicine Bioindustry Clinical Trial Center from 2020.02.17–2020.09.11

Filling :

DactorTec™ KIS
Captain Probiotics Skin Microbiome Tech.

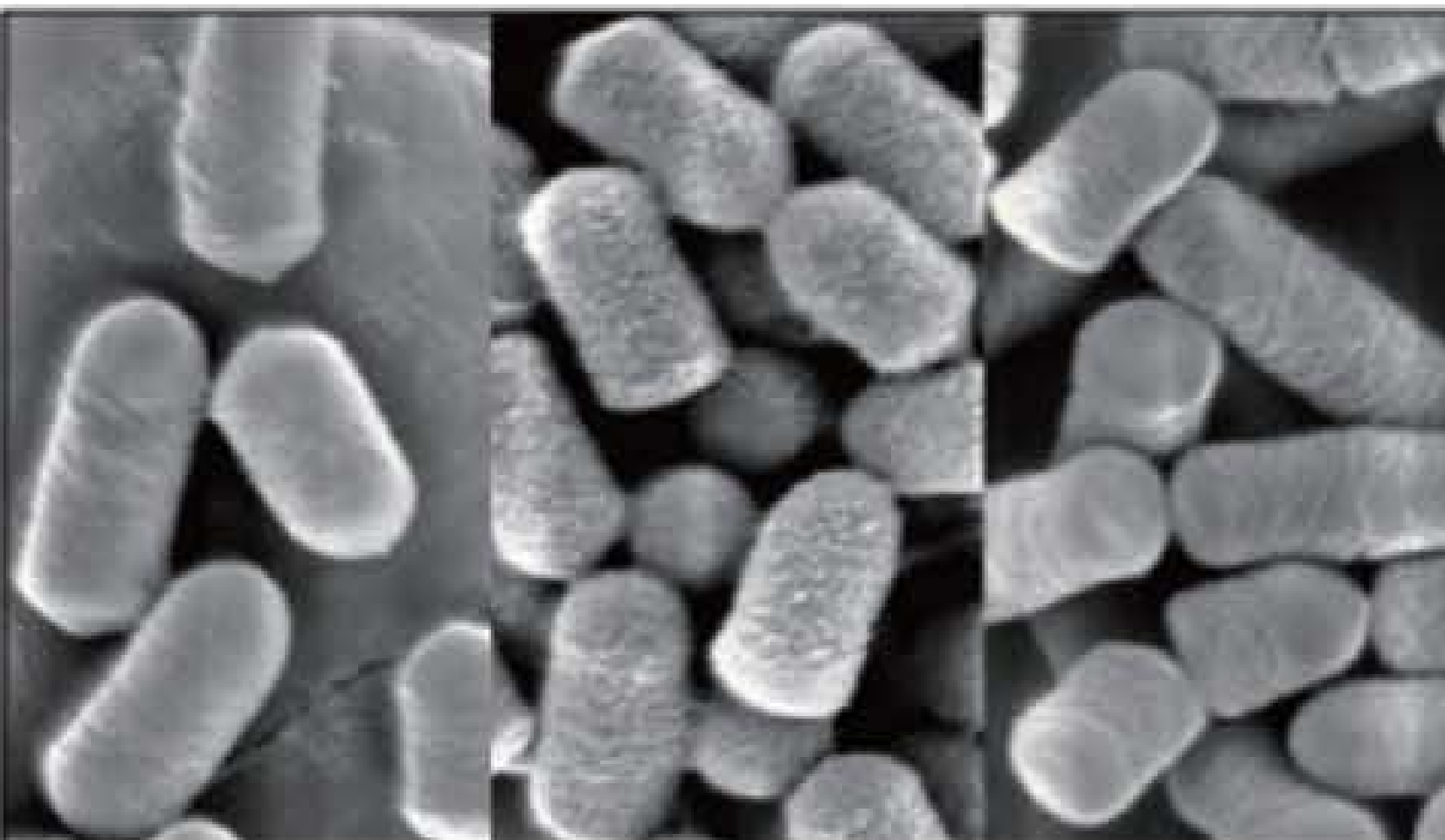
A new solution to improve skin affected by acne, atopic dermatitis, and aging

Patented Technology | DactorTec™ KIS – Lactobacillus Microbiome System
Patent Registration No. 10-2263479

Patented technology DactorTec™ KIS Lactobacillus Microbiome System
A skin immunity-boosting anti-aging solution that restores the skin microbiome balance for healthy and lively skin



Kinchi & Sauerkraut



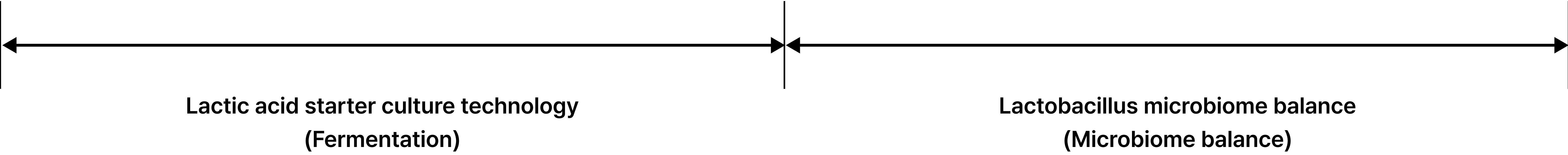
Separated 3 powerful Lactobacillus
starter cultures out of 104
(Wilkim 125, 126, 127)



Patent and research deposit certificate
(Dactor Tec™ KIS)



Boosts the skin immunity against
harmful environmental factors



Filling :

The powerful skin microbiome effect of DactorTec™ KIS improves skin problems

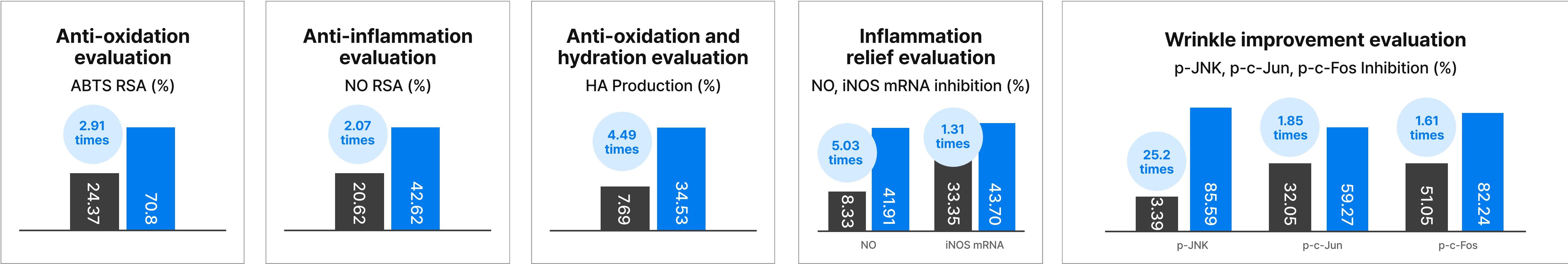
Over 40 times more effective microbiome effect than conventional products

Comparison with conventional products and microbiome effects

Compared to the standard Lactobacillus ferment products, 1.3 to 25.2 times greater skin improvement effects with 40 times more skin-beneficial bacteria and 1,507 times less of harmful bacteria

Test 01

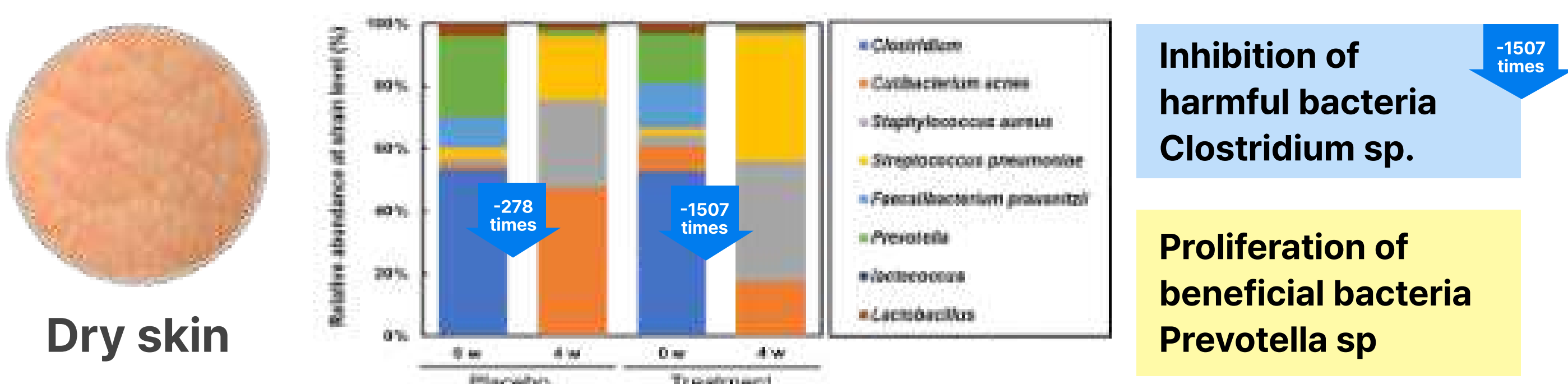
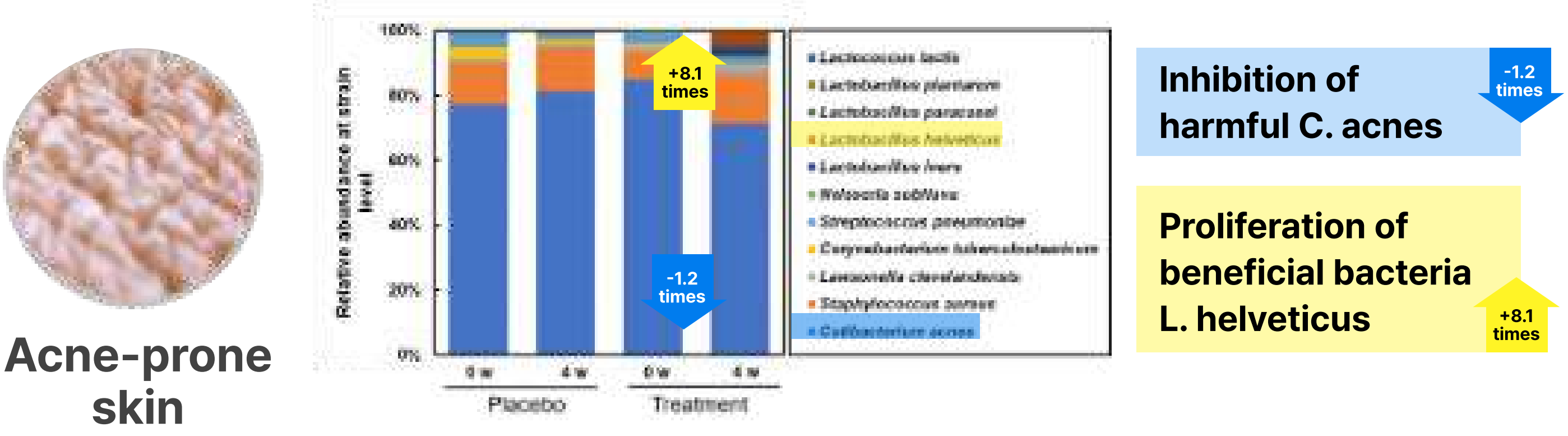
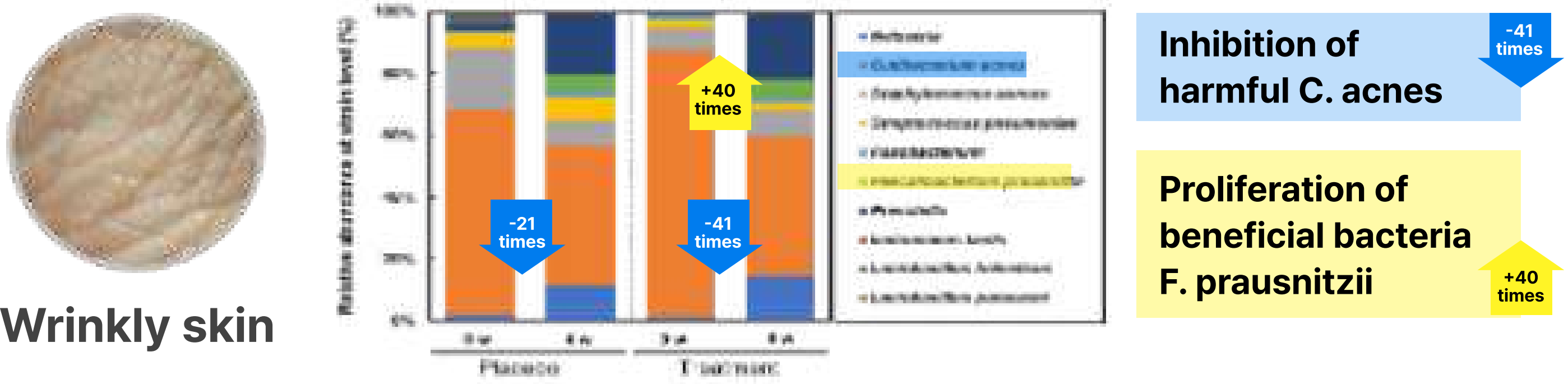
Excellent cell activation effects Standard Lactobacillus Ecoskin (Solabia) Lactic acid starter culture DoctorTec™ KIS



Test 02

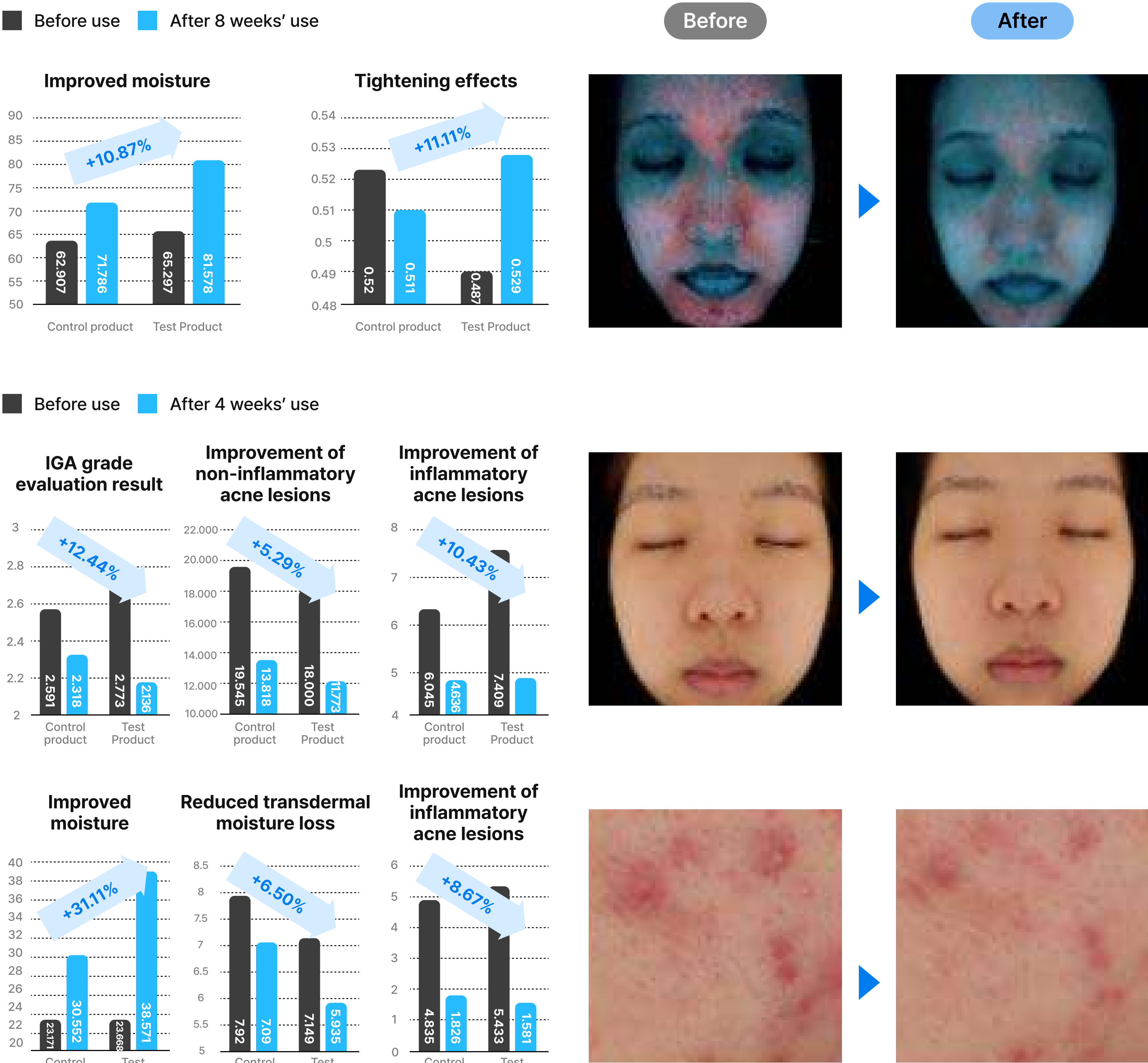
Excellent skin microbiome improvement effects
Change in the relative ratio in microbial community

Change in the relative ratio in microbial community



Test 03

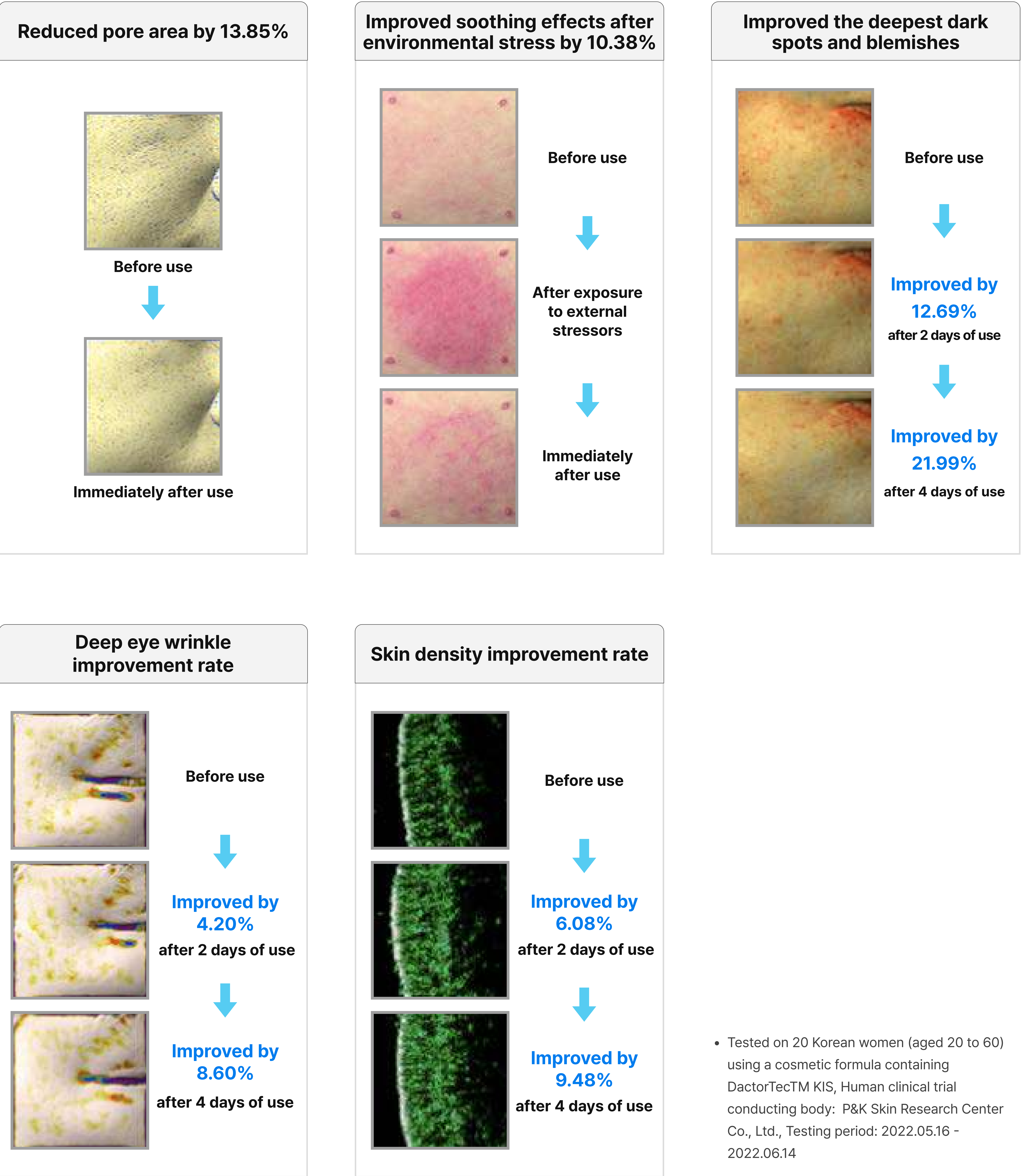
Excellent skin improvement effects



*Clinically tested on 134 Koreans and 150 Germans (aged 52 ± 4 years old, for 8 weeks) using a cosmetic formula containing DactorTec™ KIS
Clinical trial institution: P&K in South Korea; and Dermatest in Germany, Testing period: 2021.01 - 2022.12

Anti Wrinkle & Whitening

Improved pores by 13%, soothed skin by 10%, improved the most deeply rooted dark spots and blemishes by 21.99%, and improved the deepest wrinkles around the eyes by 8.60%



LHA is a new ingredient developed by the global company L'Oreal Corp.

LHA is a derivative of salicylic acid (SA), which is a component of BHA. It has a structure in which eight carbon fatty chains are bonded to a benzene ring. This fat-soluble material has a molecular weight of 264 mg/mmol. It has a large molecular structure like PHA and acts gently on the skin, which makes it suitable for sensitive skin. LHA is also lipophilic and has a pH of 5.5, which means it does not cause skin irritation and removes dead skin cells gently without damaging the lipid barrier of the skin. Thanks to these unique characteristics, LHA is widely used in hypoallergenic cosmetics.

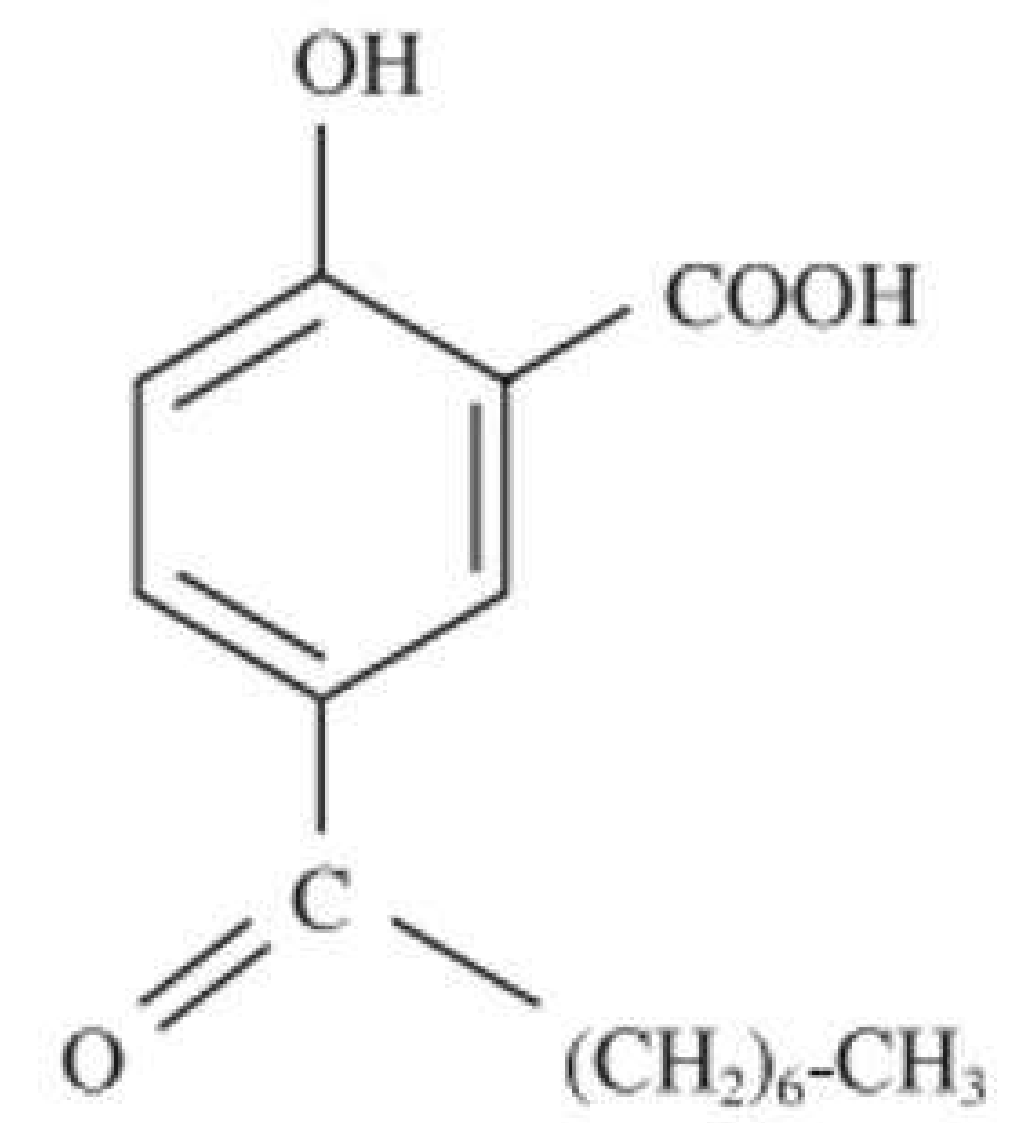
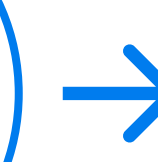


Figure 1. Chemical structure of C₈-lipohydroxy acid.

Reduces skin pigmentation



LHA 46% improvement,
AHA(GA) 34% improvement & wrinkle improvement



LHA 41% improvement,
AHA(GA) 30% improvement

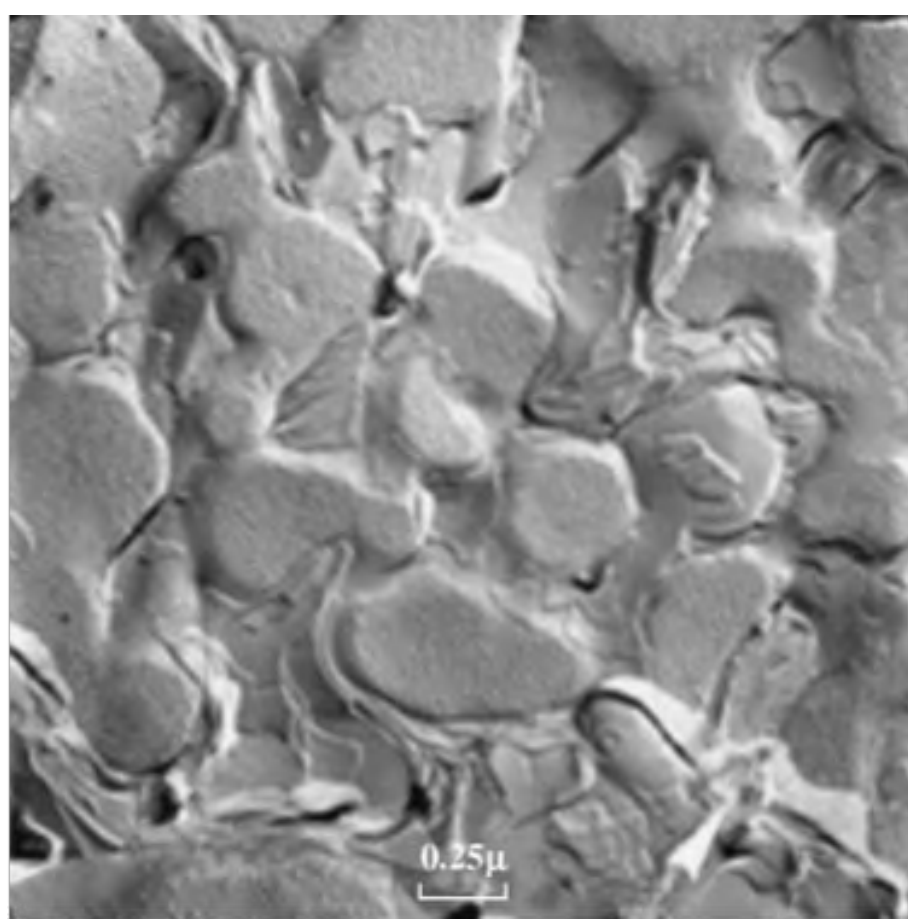


Figure 2. C₈-lipohydroxy acid induced desmosome fracture and corneocyte shedding

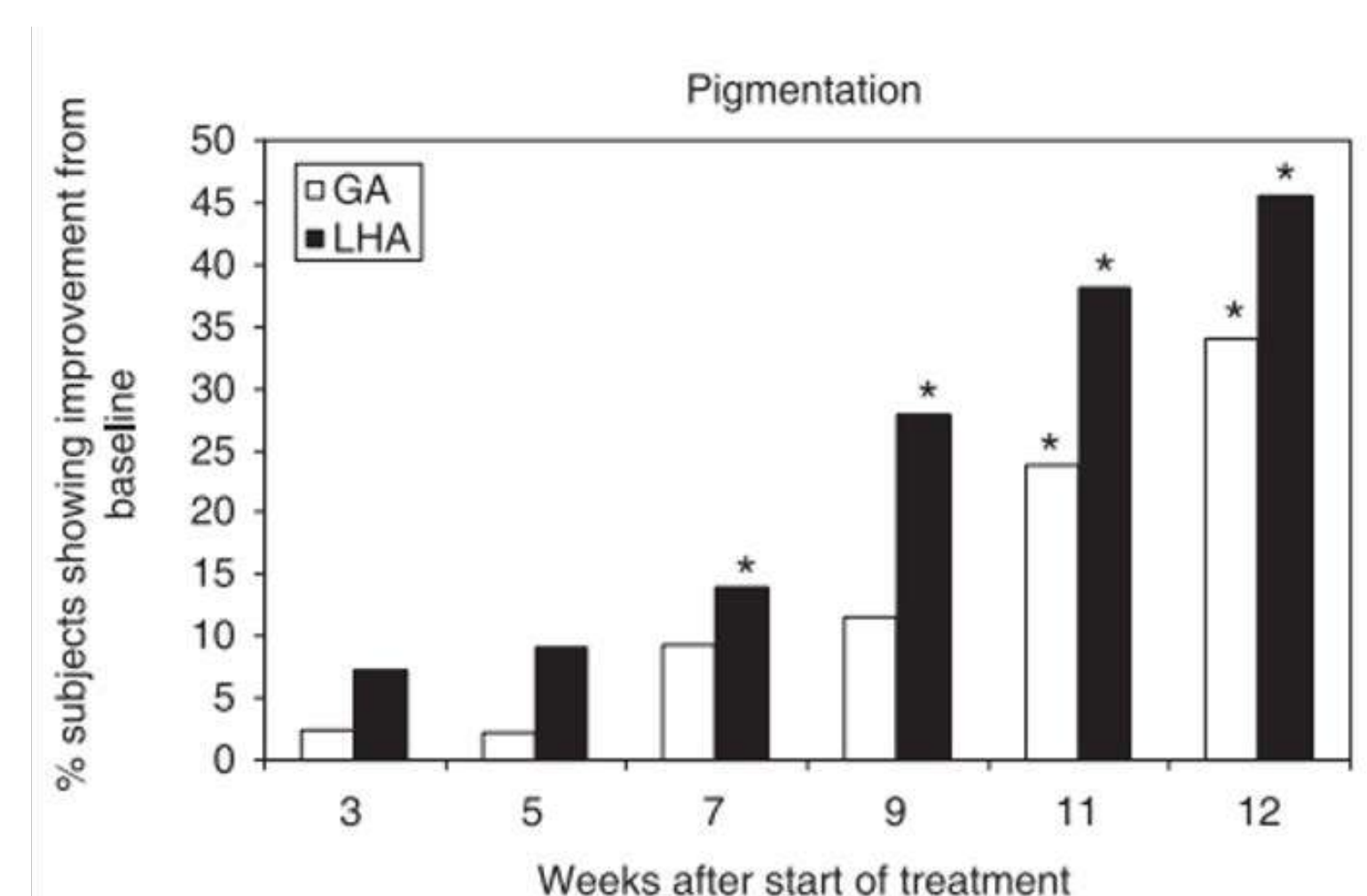


Figure 3. The effects of glycolic acid (GA) or capryloyl salicylic acid (LHA) on reducing hyperpigmentation.

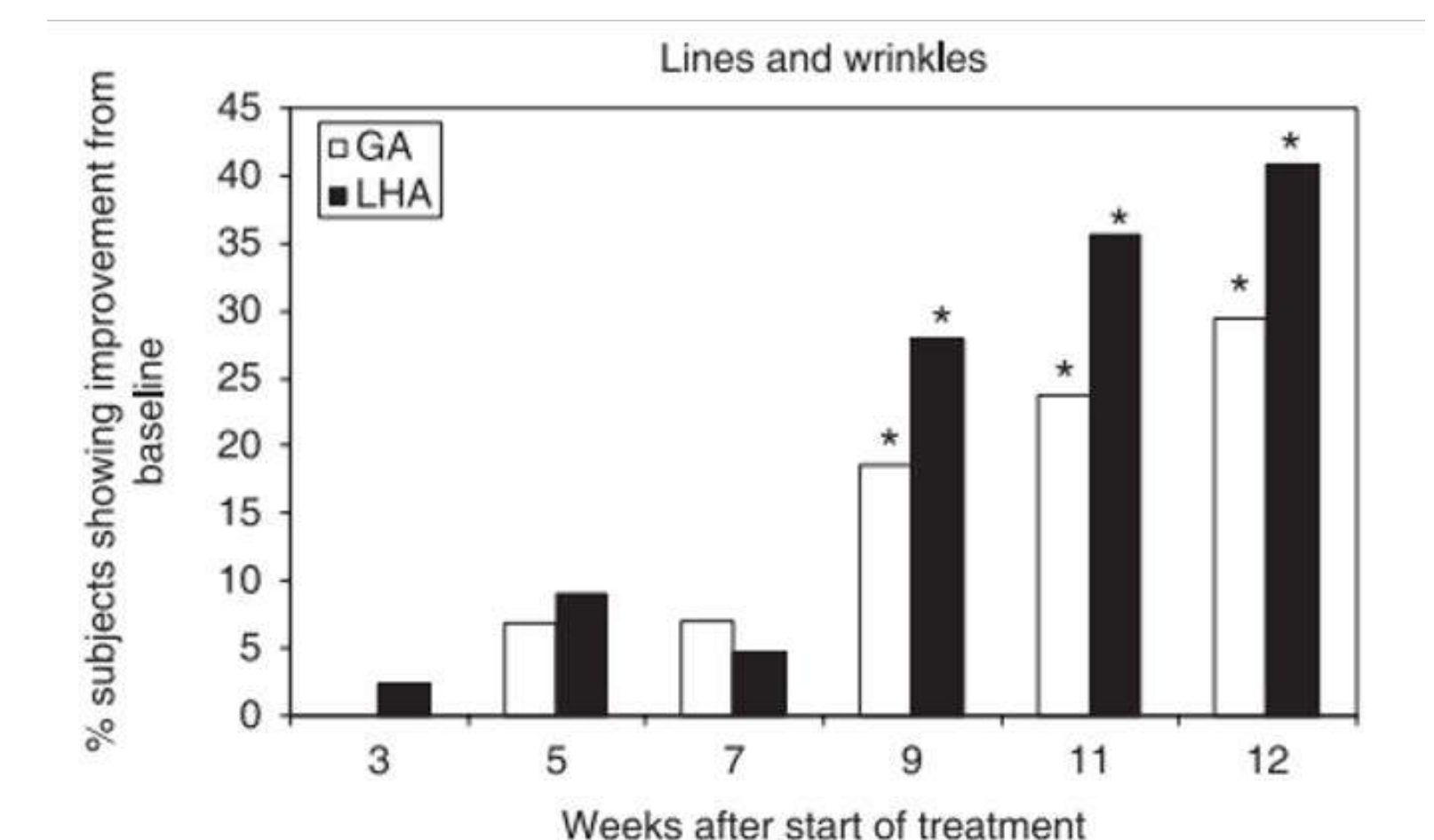


Figure 4. The effects of glycolic acid (GA) or capryloyl salicylic acid (LHA) peel in improving the appearance of lines and wrinkles.

LHA is effective on acne-prone skin

1. Activates regeneration of dead skin cells in pores

It does not penetrate into the skin as deeply as BHA, but dissolves more easily in skin lipids due to its high lipophilicity. This makes it ideal for acne-prone skin.

2. Removes dead skin cells and reduces excess sebum

It breaks down the protein bonds connecting the skin cells, removing dead skin cells accumulating on the skin surface and clogging pores. In addition, it regulates sebum production, normalizing the turnover cycle on the epidermis and preventing clogged pores.

3. Prevents skin damage by restoring skin balance

Compared to other ingredients commonly used in acne relief products, the formula has a moderate pH level, which helps it remove dead skin cells without damaging the skin.

4. Anti-inflammatory effects and improves pigmentation caused by inflammation

It has anti-inflammatory and anti-bacterial properties which soothes bacterial activity in pores and inflammatory reactions around acnes. It also quickly replaces discolored cells created while the tissues recover from inflammation and promote the growth of new cells, effectively improving postinflammatory hyperpigmentation (PIH).

5. Acts similarly as retinoids (vitamin A)

Similar to retinoids, it stimulates the regeneration of keratinocytes on the epidermis and extracellular matrix. It has a relatively mild effect, which makes it suitable for sensitive skin. It also helps improve acne without causing skin damage when used with benzoyl peroxide or topical antibiotics.



Figure 5. Patient with mild inflammatory acne before and after LHA peeling shown before (left) and after four sessions at two-week intervals (right). Photo courtesy of Joel L. Cohen, MD.

Figure 6. Patient with mild inflammatory acne treated with LHA peels shown before (left) and after four sessions at two-week intervals (right). Photo courtesy of Marta Rendon, MD.



Figure 7. Patient with inflammatory acne and postinflammatory hyperpigmentation shown before (left) and after four LHA peeling sessions at two-week intervals (right). Photo courtesy of Marta Rendon, MD.

XE-LHA is an innovative product created through a combination of Dr. JCOS’s original technology and global specialization technology.

Youth P-Sol™

+

DactorTec™ KIS

+

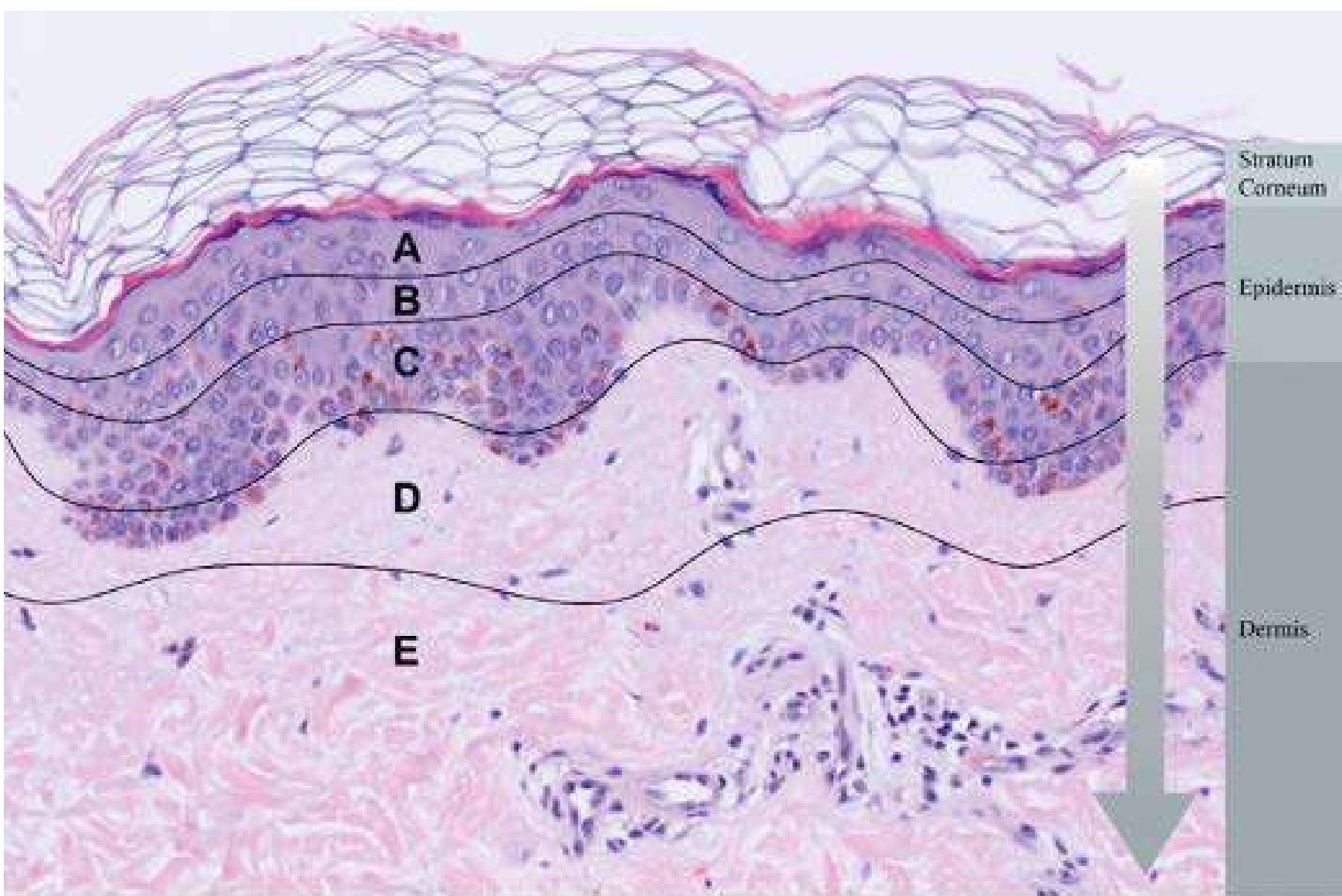
LHA + Rucinol

Youth P-Sol™, developed by the dermacosmetic company Dr. JCOS, is a fifth-generation peeling agent obtained by processing the essential fatty acids derived from natural olive oil and coconut oil through hydrophilization technology. It removes stubborn dead skin cells without causing skin irritation, stimulating skin regeneration for a youthful, clean, and clear skin.

DactorTec™ KIS, which was developed by the biomedical technology venture company Dr. JCOS, is a type of probiotic derived from a plant-based, vegan lactic acid starter culture. It helps improve skin problems and achieve healthy skin quickly by forming a healthy skin microbiome.

LHA is a new fourth-generation peeling agent developed by the global company L’Oreal, following the trends of AHA, BHA, and PHA. It is a lipophilic ingredient that penetrates into the skin slowly to improve acne-prone skin. Rucinol, a proprietary ingredient of the global company POLA Cosmetics, is a new fourth-generation skin-brightening agent that follows the trends of arbutin, kojic acid, and vitamin C. It improves skin affected by pigmentation quickly.

XE-LHA is a product that combines global medical biotechnology to overcome the limitations of traditional anti-aging and acne treatments, focusing on skin regeneration and whitening while minimizing irritation.

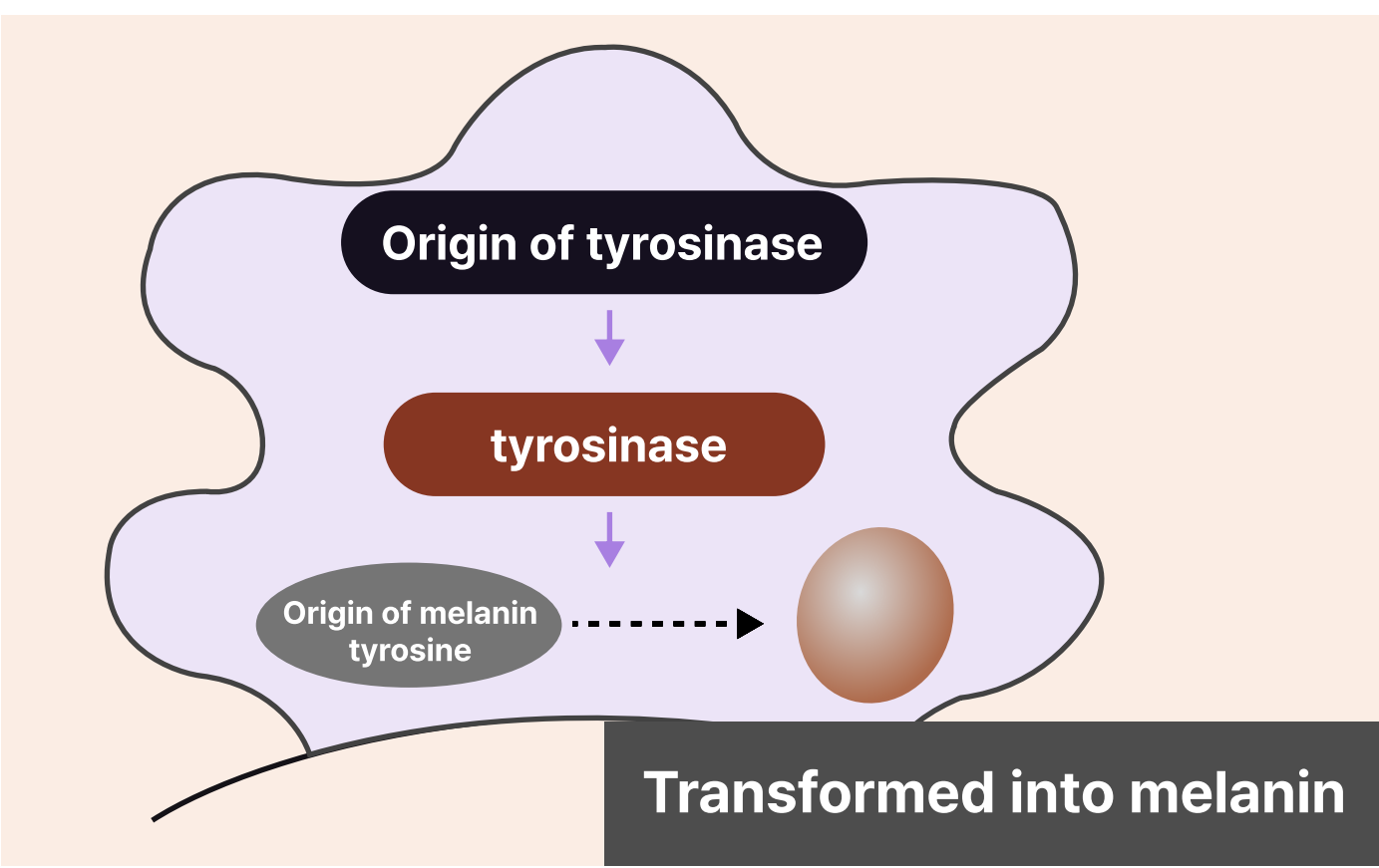


Rucinol

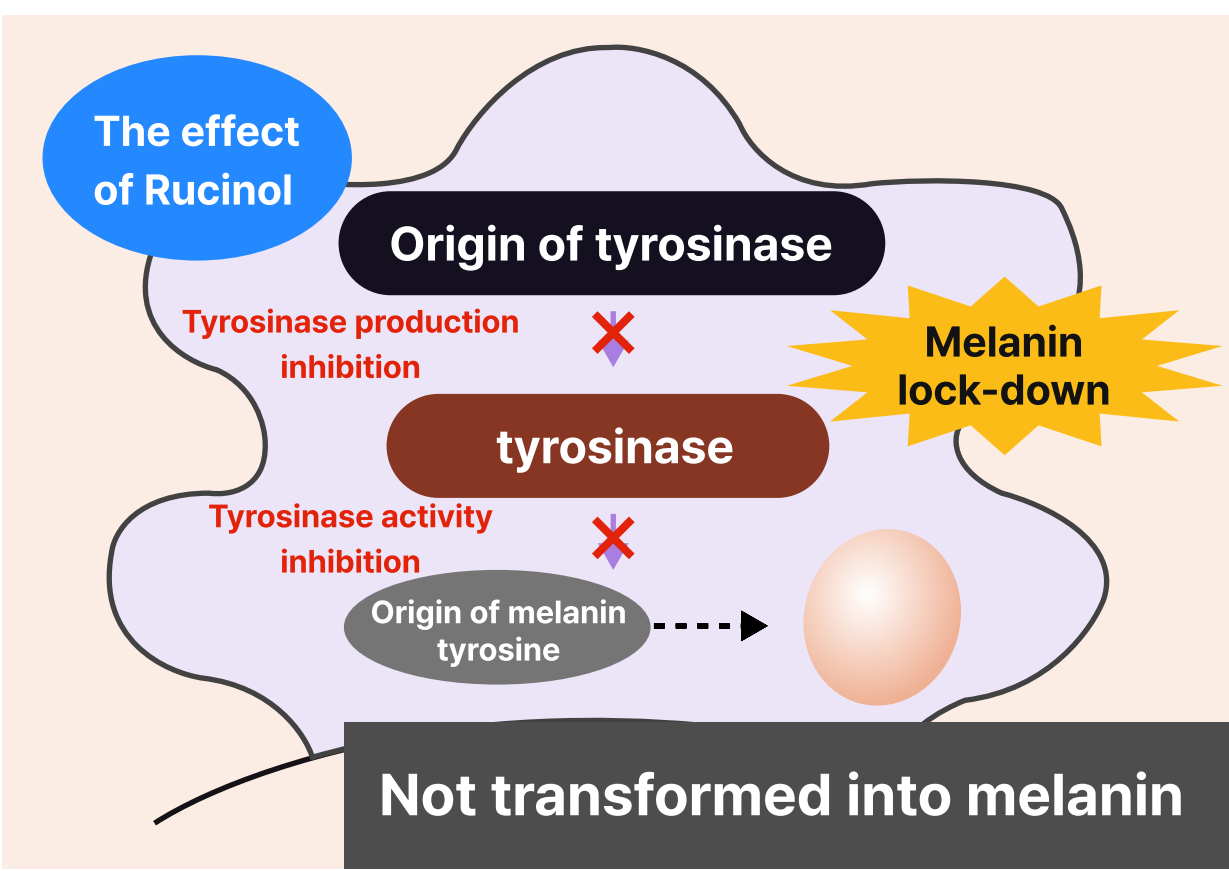
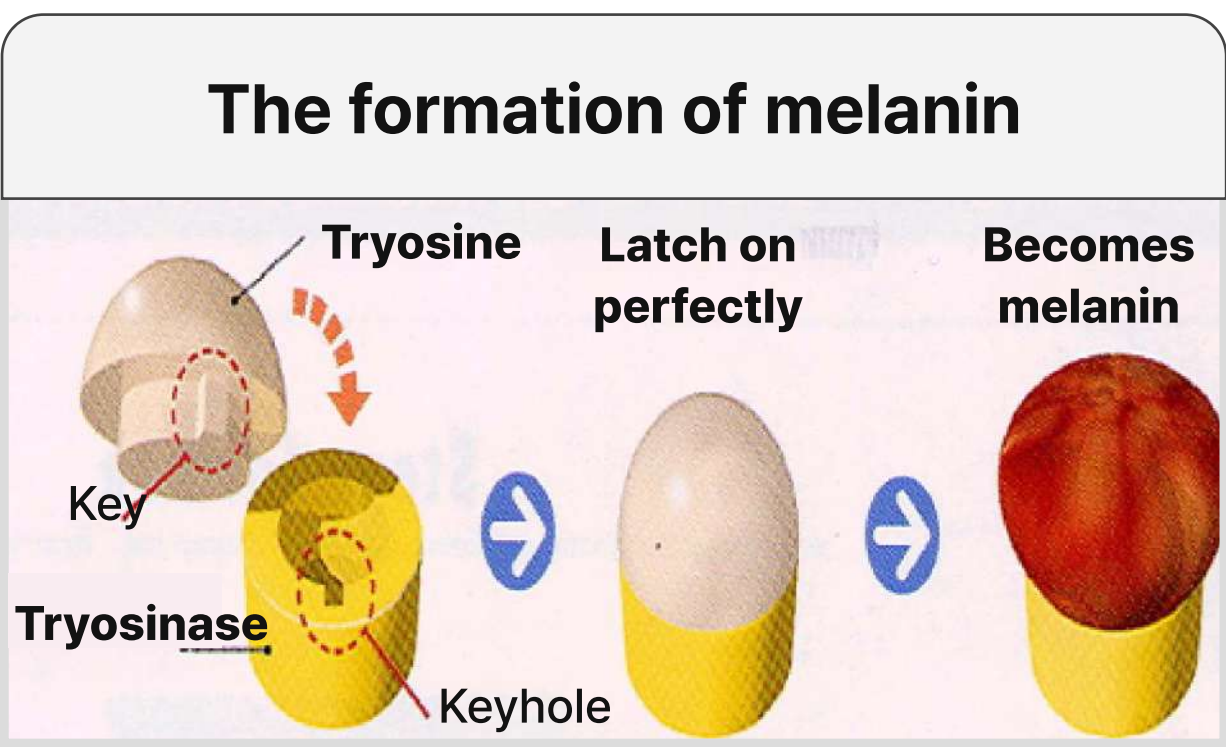
Rucinol, a new substance developed by the global company POLA Cosmetics INC., is combined with the ingredients of the existing XE-LHA Peel to maximize whitening effects. This allows for gentle exfoliation while brightening and evening out the skin tone.

*Applied with XE-LHA (Y) Peeling Solution

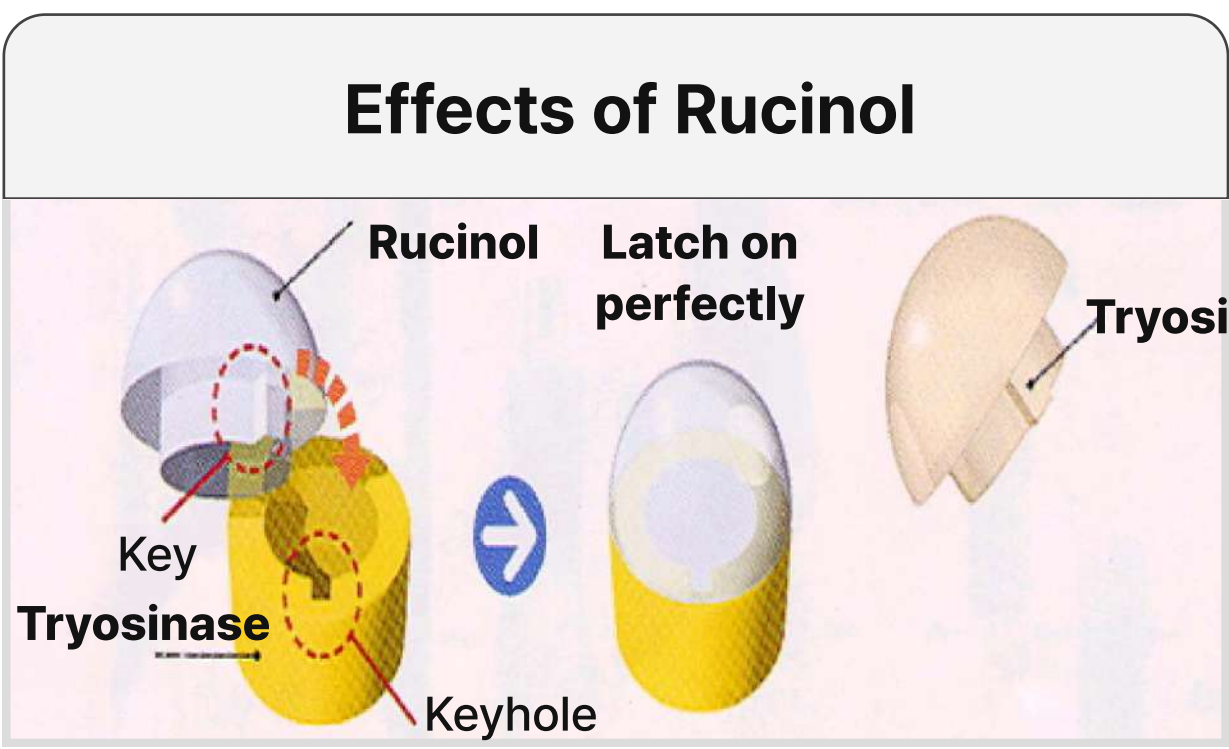
Rucinol’s melanin inhibition effects



The production of excess melanins cause skin freckles and pigmentation. Melanin is formed as a combination of tyrosine and tyrosinase (a type of enzyme).

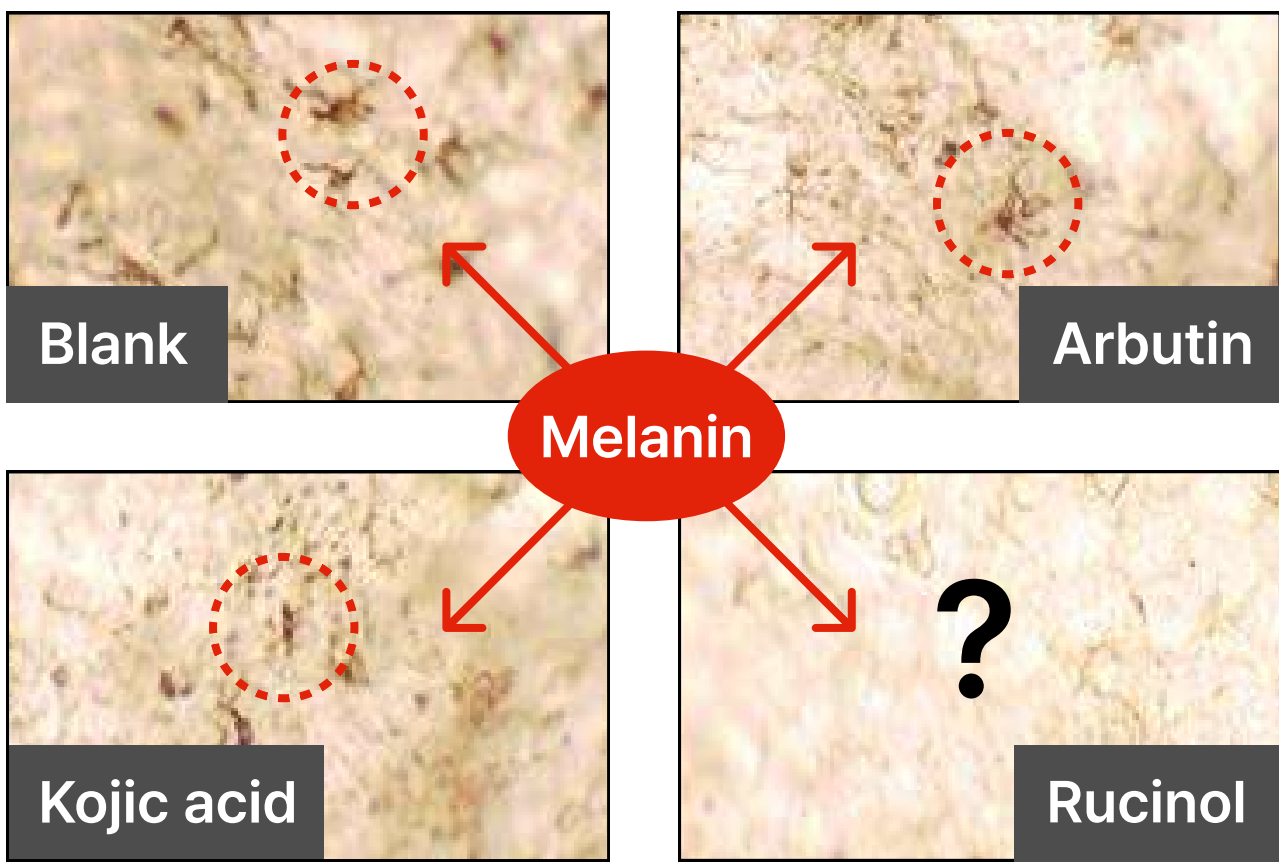


Prevents pigmentation and freckles. Rucinol binds to tyrosinase before it binds with tyrosine, preventing melanin from forming.

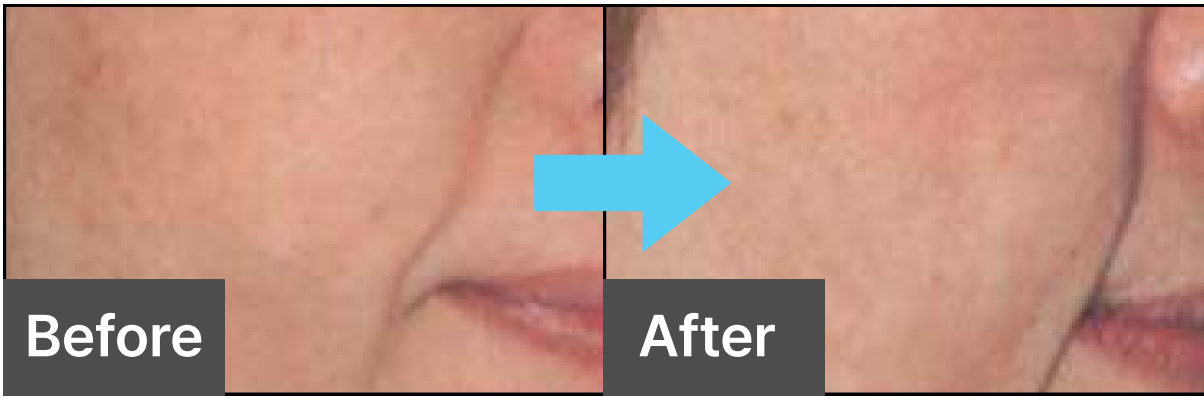
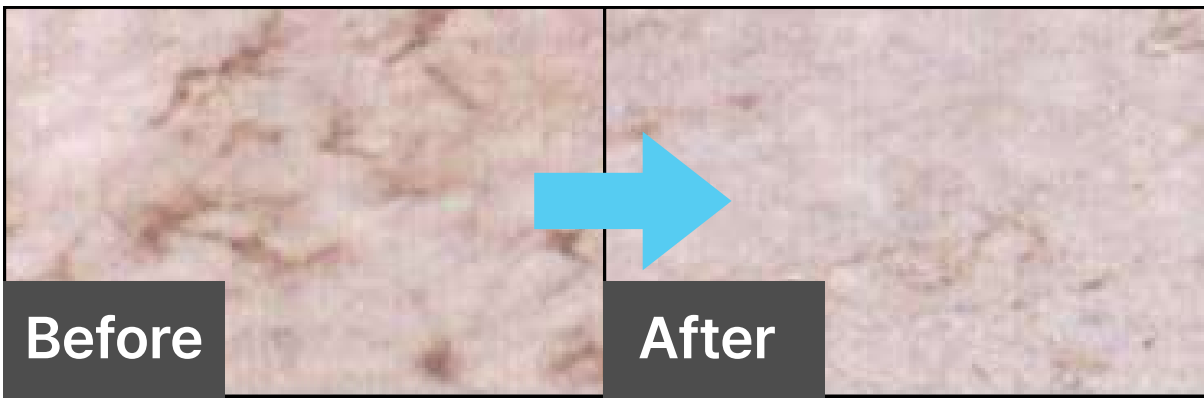
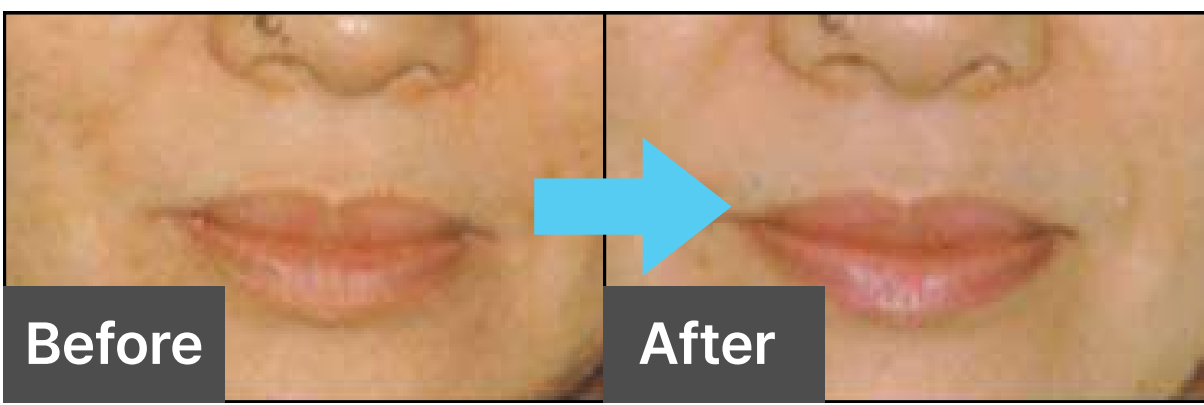


RUCINOL > Kojic acid > Vitamin C > Arbutin

Rucinol shows up to 2 to 6 times higher effectiveness in improving hyperpigmentation compared to whitening agents like Kojic acid, Vitamin C, and Arbutin.



①Blank ②Rucinol ③Arbutin ④DioscoreaComposita ⑤Ellagic acid



XE-LHA Peel



MTS

Recommended Before Treatment

Basic Only

Provides pore tightening and enhances ampoule penetration.

+

Pigmentation laser

Recommended Before Treatment

Basic + Ultra

Refines the keratin layer and smooths the skin surface, allowing the laser to be evenly distributed to the pigment. Dissolves melanin cells and maximizes the effect of pigmentation lasers.

+

Lifting Procedure

Recommended Before Treatment

Basic + Ultra

Evens out the skin surface for consistent energy distribution, improves skin texture, and enhances lifting effects on the skin surface, leading to increased patient satisfaction.

XE-LHA (Y)



Skin Booster

Recommended Before Treatment

Dissolves melanin cells to provide brightening effects and prevents pigmentation caused by post-procedure irritation.

Post-Treatment Use (2 weeks after)

Enhances the whitening effect and provides additional pore tightening benefits, improving skin texture.

+

Pigmentation Laser

Recommended Before Treatment

Tightens the skin and prepares it for pigmentation laser treatments. Dissolves melanin cells in the deep layers of the skin to provide a brightening effect.

XE-LHA Peel & Fill Basic Cell Wakener		XE-LHA Peel & Fill Basic Cell Enhancer		XE-LHA Y Body Peeling Solution	
Composition	Youth P-Sol™ : 250,000ppm LHA : 500ppm DactorTec™ KIS : 10,000ppm	Composition	Youth P-Sol™ : 500,000ppm LHA : 1,000ppm DactorTec™ KIS : 10,000ppm	Composition	Youth P-Sol™ : 500,000ppm, LHA : 1,000ppm DactorTec™ KIS : 10,000ppm Body Melanin 4 Lock → Rucinol & Trexamic Acid & Niacinamide & Glutathion : 1,111ppm
Chemical expansion	Very Superficial, Superficial	Chemical expansion	Superficial, Superficial-medium	Chemical expansion	Superficial, Superficial-medium
Number of passes	2-5passes	Number of passes	2-3passes	Number of passes	2-3passes
Time of procedure	5-10mins	Time of procedure	5-10mins	Time of procedure	5-10mins
Operating mechanism	1. Removes stubborn dead skin cells (keratins) 2. Relieves skin pigmentation (melanins) 3. Improves skin clarity by stimulating cell regeneration 4. Creates a healthy skin environment through microbiomes	Operating mechanism	1. Removes stubborn dead skin cells (keratins) 2. Decomposes skin pigments (melanins) 3. Helps achieve clear and youthful skin through cell regeneration 4. Creates a healthy skin environment through microbiomes	Operating mechanism	1. Suppresses the production of melanins 2. Decomposes melanins produced 3. Improves skin clarity through cell regeneration 4. Creates a healthy skin environment through microbiomes



Reference

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XE-LHA Peel & Fill Basic Cell Wakener

Purified Water, Potassium Cocoate, Denatured Alcohol, Glycerin, Glycereth-26, Olive Oil PEG-8 Esters, 1,2-Hexanediol, Lactobacillus Ferment Lysate, Potassium Hydroxide, Disodium EDTA, Citrus Limon (Lemon) Peel Oil, Lemon Water, Ethylhexyl Glycerin, Capryloyl Salicylic Acid, EDTA, Candida Bombicola/Glucose/Methyl Rapeseedate Ferment, Butylene Glycol, Oryza Sativa (Rice) Germ Oil, Gardenia Florida Fruit Extract, Schisandra Chinensis Fruit Extract, Lithospermum Erythrorhizon Root Extract, Curcuma Longa (Turmeric) Root Extract, Hydrogenated Lecithin, Nelumbo Nucifera Leaf Extract, Crithmum Maritimum Callus Culture Filtrate, Lactobacillus, Limonene

XE-LHA Peel & Fill Ultra Cell Enhancer

Purified Water, Potassium Cocoate, Olive Oil PEG-8 Esters, Denatured Alcohol, Glycerin, Glycereth-26, 1,2-Hexanediol, Potassium Hydroxide, Butylene Glycol, Lactobacillus Ferment Lysate, Capryloyl Salicylic Acid, Disodium EDTA, Citrus Limon (Lemon) Peel Oil, Nelumbo Nucifera Leaf Extract, Ethylhexyl Glycerin, EDTA, Candida Bombicola/Glucose/Methyl Rapeseedate Ferment, Oryza Sativa (Rice) Germ Oil, Lemon Water, Schisandra Chinensis Fruit Extract, Gardenia Florida Fruit Extract, Lithospermum Erythrorhizon Root Extract, Curcuma Longa (Turmeric) Root Extract, Hydrogenated Lecithin, Lotus Leaf Extract, Crithmum Maritimum Callus Culture Filtrate, Lactobacillus, Limonene, Citral

XE-LHA(Y) Body Peeling Solution

Purified Water, Olive Oil PEG-8 Esters, Denatured Alcohol, Potassium Cocoate, Glycerin, Glycereth-26, 1,2-Hexanediol, Lactobacillus Ferment Lysate, Potassium Hydroxide, 4-Butylresorcinol, Niacinamide, Capryloyl Salicylic Acid, Disodium EDTA, Butylene Glycol, Citrus Limon (Lemon) Peel Oil, Ethylhexylglycerin, Tranexamic Acid, Nelumbo Nucifera Leaf Extract, EDTA, Glutathione, Sodium Hyaluronate, Lactobacillus, Limonene, Citral