Dongkook 동국제약

De.HYVE™

SKIN BOOSTER

POWDER 280mg X SOLVENT 6ml

De.HYVE Solvent 6ml
Stable formula combining the transporter hyaluronic acid and exosome
Skin booster ampoule of maximum volume

De.HYVE 280 mg
Lactobacillus, stem cells, centella asiatica exosome and lactoferrin
Skin booster powder of maximum volume

Product Information

Product name	De.HYVE
Volume	Component 1 280g, Component 2 6ml
Spec	Component 1 + Component 2 (1 set), 1 box (5 sets)
Main ingredient	Lactobacillus exosome, stem cell-derived exosome, centella asiatica extract exosome, microbiome-derived exosome, hyaluronic acid
Administration	Take an appropriate amount of the product and gently and evenly apply it to the skin for good absorption.
Manufacturer	ABio materials Co., Ltd.

1) Overcome the barriers of the skin: exosome therapy(2021)
2) Adipose-derived Stem Cells and their Secretory Factors for Skin Aging, 2010
3) World's first Personal Care Products Council (PCPC) ingredient listing criteria

De.HYVE™

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All in one Exosome Skinbooster De.HYVE™

Lactoferrin and 3 types of exosome in a single bottle!

"Lactobacillus exosome De.HYVE patented in the US and South Korea"

Kefir grain lactobacillus exosome

3 types of exosome Exosome

- **Kefir grain lactobacillus exosome:** Anti-inflammatory activity, antibacterial activity
- **Centella asiatica extract CICA-derived exosome:** Regenerative effect
- **Human fat cell culture medium extract:** Regeneration, immunity regulation, whitening, anti-aging"

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Lactoferrin

Anti-inflammatory activity, antibacterial activity

Hyaluronic acid

Hydration, moisture maintenance, anti-aging, wound healing

Product information **[Product name]** De.HYVE **[Main ingredient]** Human fat cell culture medium, lactoferrin, centella asiatica leaf vesicle, Lactobacillus extracellular vesicle **[Labeled indication]** Cosmetics **[Volume]** Component 1 280g, Component 2 6ml **[Spec]** Component 1 + Component +2 (1 set) **[Packaging unit]** 1 box (5 sets)

For healthcare professionals

All in one Exosome Skinbooster

Strong 5-step synergistic care based on combination

Skin regeneration along with pore health improvement through supplying nutritients deep into the cells

De.HYVE™

De.HYVE is an ampoule for hospital procedures that is trusted and selected by global specialists for its use in skin anti-aging treatment.

Benefits of the product

The freeze-drying technique allows the product to fully supply nutrition to the skin without any irritating preservatives.
Also, it provides toning, wrinkle reduction, whitening, and pore health improvement effects that have been verified in clinical trials.
It is used as a mixture of a powder and ampoule that are rapidly dissolved for lower use fatigue.
It is provided in a maximum volume to provide the maximum possible nutritients, to allow skin care to just below the neck in one application.

Recommended if you...

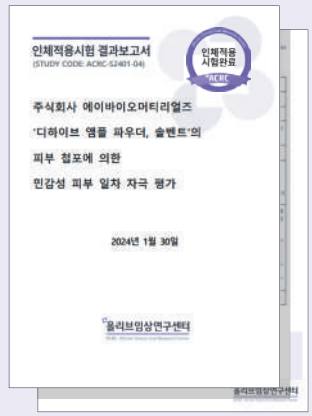
| Need fast recovery | Have sensitive skin* | Are worried about skin darkening | Are worried about acne and scars

Primary evaluation of the irritation to the sensitive skin completed

| **Test institution** | AllLive Clinical trial Research Center | **Subject** | 30 subjects | Test period | Jan-24

The test article, 'De.HYVE ampoule, powder and solvent' is determined to belong to the **'non-irritant'** category.

*Limited to the characteristics of raw materials



Efficacy and safety proven by studies

Representative thesis

Stem cell culture medium
Anti inflammatory effects of MSC_media

Lactoferrin
Effects of Lactoferrin on Subjective Skin Conditions in Winter: A Preliminary, Randomized, Double-Blinded, Placebo-Controlled Trial

Lactobacillus exosome
The Effect of *Lactobacillus plantarum* Extracellular Vesicles from Korean Women in Their 20s on Skin Aging

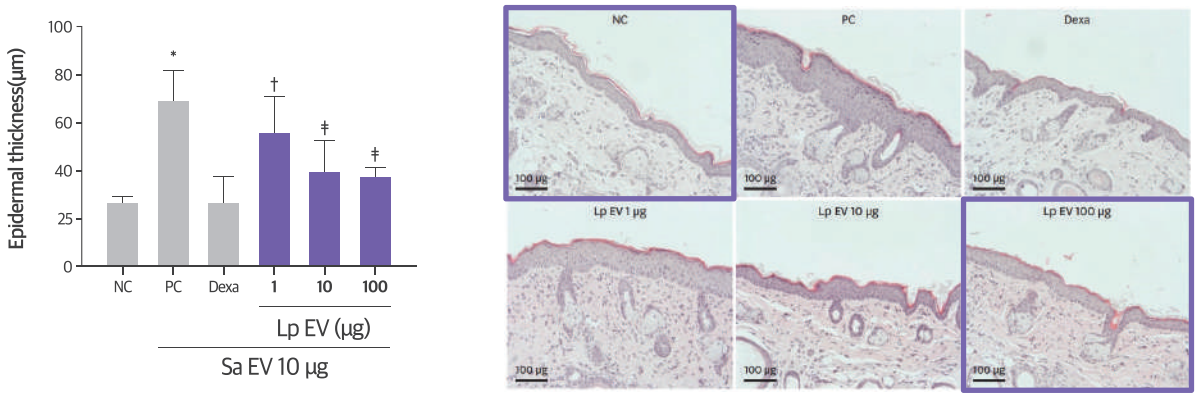
Centella asiatica exosome
Comparative analysis of the transcriptome and efficacy of bioactive Centella asiatica exosomes on skin cells

29 patents obtained

10 theses published

Study 1 Atopy improved by lactobacillus exosome

Lactobacillus plantarum-derived Extracellular Vesicles Protect Atopic Dermatitis Induced by Staphylococcus aureus-derived Extracellular Vesicles, 2018

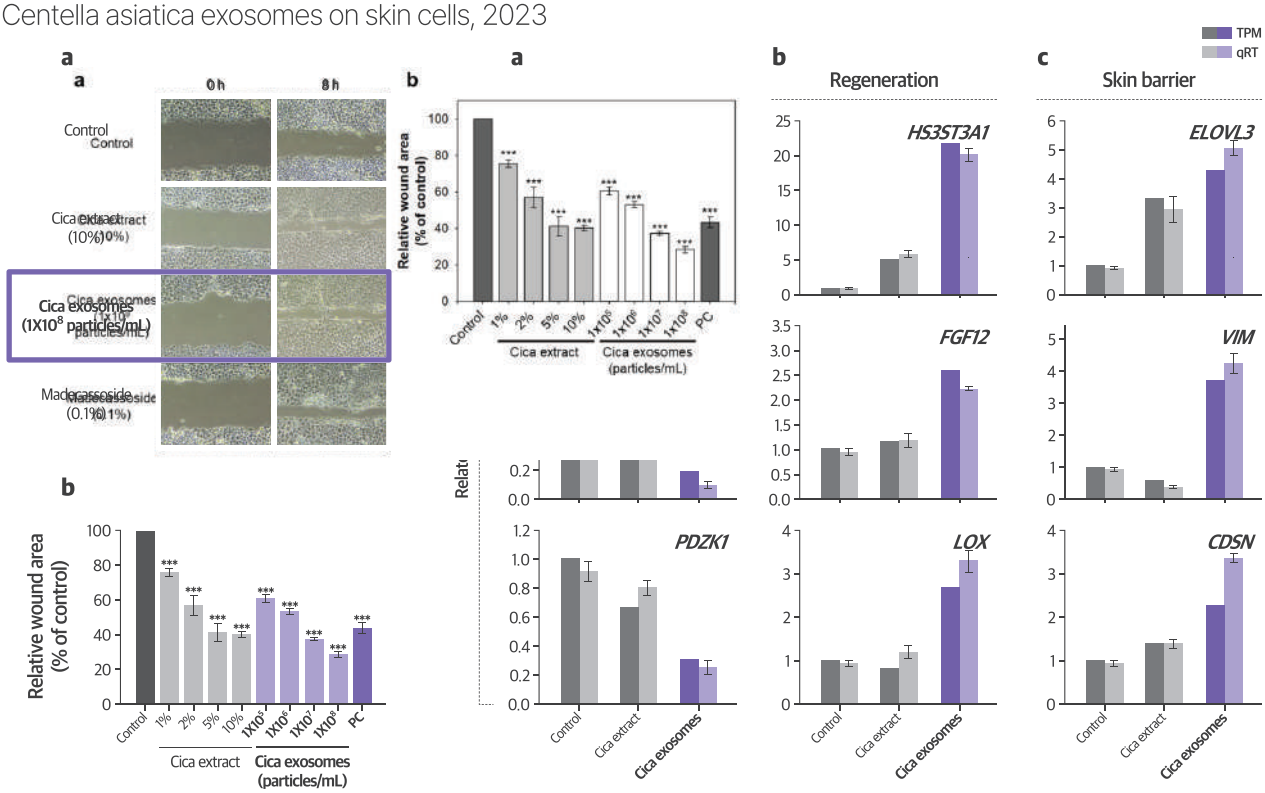


Lp EV, Lactobacillus plantarum-derived extracellular vesicle(유산균엑소좀); AD, atopic dermatitis; Sa EV, Staphylococcus aureus-induced extracellular vesicle(아토피유발원); H&E, hematoxylin and eosin; IL, interleukin; NC, negative control; PC, positive control. *P < 0.05 vs. NC; † P < 0.05 vs. PC; ‡ P < 0.01 vs. PC (Mann-Whitney U test).

When an atopy-like model of mouse was treated with lactobacillus exosome, **a skin thickness (atopic presentation) normalization to an extent similar to steroid (dexamethasone) was observed**.

Study 2 Wound healing and anti-aging by centella asiatica exosome

Comparative analysis of the transcriptome and efficacy of bioactive Centella asiatica exosomes on skin cells, 2023



Treatment with centella asiatica exosome was demonstrated to substantially reduce the scratched area to an extent similar to madecassoside, a major functional substance.

Treatment with centella asiatica exosome was demonstrated to improve the aging indices (MMP12, NOTCH3, PDZK1), regeneration indices (HS3STA1, FGF12, LOX) and skin barrier indices (ELOVL3, VIM, CDSM) to a degree comparable to centella asiatica extract.

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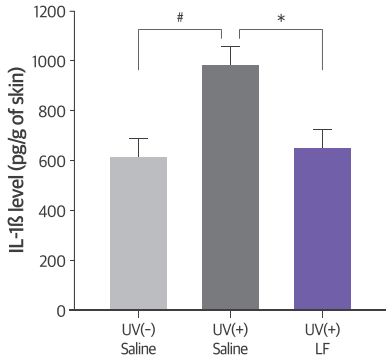
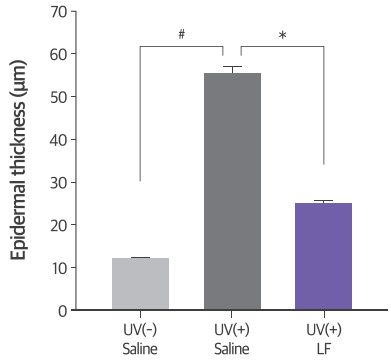
Study 3 Photogaging improvement and anti-inflammation by lactoferrin

Oral administration of bovine lactoferrin attenuates ultraviolet B-induced skin photodamage in hairless mice, 2014



Effect of oral administration of lactoferrin (LF) on IL-1β levels in mouse skin.



Epidermal thickness of UVB-irradiated skin in hairless mouse.

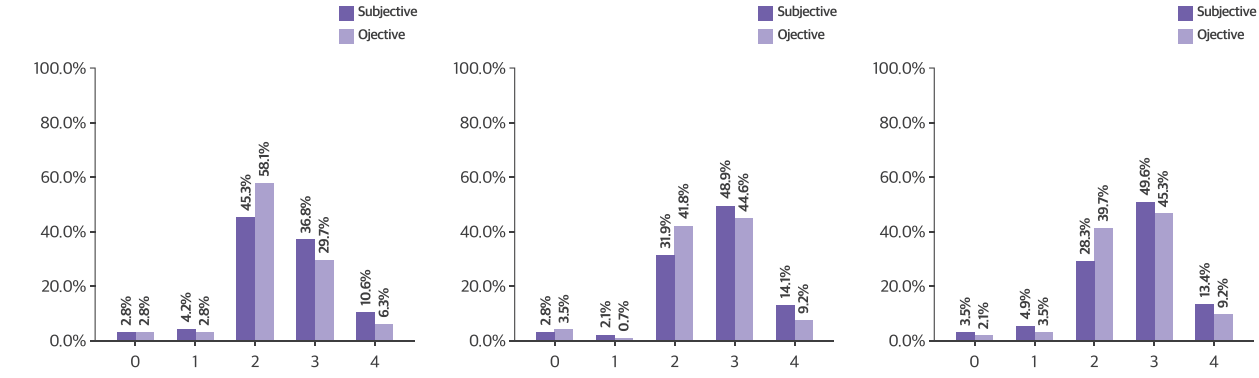
UV(−) Saline = nonirradiated group; UV(+) Saline = UVB-irradiated group; UV(+) LF, UVB+ irradiated and lactoferrin (LF)-administered group.

The amount of IL-1β, an inflammatory cytokine that increases under UV exposure, was demonstrated to be reduced in the **lactoferrin group** compared to baseline.

The increase in the thickness of the epidermis under UV exposure was demonstrated to be reduced in the **lactoferrin group** compared to the baseline.

Study 4 Wrinkle reduction, pore health improvement and whitening by stem cell exosome

Adipose-derived Stem Cells and their Secretory Factors for Skin Aging, 2010



Objective and subjective evaluation of the protein extracts from ADSC-CM in a large-scale (n = 235) pilot study in terms of: (a) wrinkles, (b) acquired pigmentary lesions, and (c) dilated pores. The evaluation score is based upon the following scales: 0 = poor/worsend; 1 = no change/no change; 2 = fair/mild improvement; 3 = good/moderate improvement; and 4 = excellent/marked improvement.

A large study of 235 Korean participants between the ages of 28 and 71 demonstrated reduction, pore health improvement and whitening effects.

*Limited to the characteristics of raw materials

Patented special formula combining exosome and lactoferrin

Tone-up skin booster De.HYVE

This is a skin booster with exceptionally fewer side effects and shorter downtime based on a 3-step safe process involving no use of preservatives, pharmaceutical-level raw materials, and sterile vacuuming.

1st
World's first stem cell culture medium*

Choice of world markets in
30 countries
Choice of world's doctors

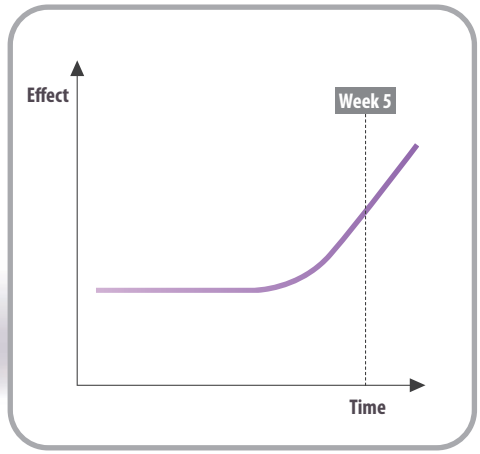
Various clinical cases based on choice by more than
3000 specialists

*Limited to the characteristics of raw materials

Concomitant use

You will achieve the ideal effect if you receive the procedure with De.HYVE 5 times in total with one procedure performed every 2 weeks, as this is in alignment with the skin regeneration cycle.

1 box consumed for total 5 procedures per person



MTS

MTS is a suitable technique for delivering substances deep enough, i.e., intradermally (skin layer, on which the skin booster primarily acts) rather than subcutaneously (under the skin).

PN injection

The PN injection, a Class IV medical device, gradually shows its effect after being subcutaneously injected at a high molecular weight. In contrast, De.HYVE gives you instant brightness upon injection or application because it shows its effect more quickly, thanks to the exosomes together with hyaluronic acid being directly delivered to 3 types of cells.

Ablative laser

An ablative laster, most commonly a CO2 laser, is used for a wide range of applications, e.g., for round-shaped recessed scars or box-shaped scars. It artificially cuts off the skin to induce normal skin regeneration. The application of De.HYVE can help with wound healing with its centella asiatica extract, an ingredient of Madecassol, as well as the regenerative factor.

Fractional Laser

Fractional laser, most commonly a Fraxel, creates an MTZ (Microthermal Treatment Zone) and promotes regeneration of the dermis along with wound healing.

It is helpful for recessed scars, acne scars and pore health improvement. The application of De.HYVE can create synergistic effects by supplying nutrition that is richer than that required for skin self-regeneration.

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