

# REJUBEAU EXO SB & HB 100%

## 1,000,000 ppm

100% Concentrated and  
Purified Exosome Booster  
for Skin and Hair

More Powerful

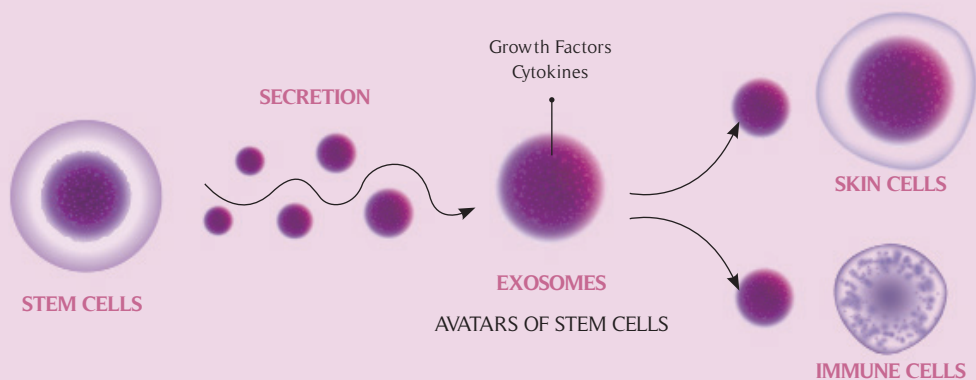
More Pluripotent

Clear-Cut Effect



100% Concentrated and Purified Exosome Booster for Skin and Hair

# SCIENCE & TECHNOLOGY of EXOSOME



## UNDERSTANDING EXOSOMES

Exosomes might be tiny, but their role in the world of aesthetics is anything but small. These minuscule vesicles, ranging from 30 to 150 nanometers in size, are produced by various cells in our body and serve as essential messengers of communication. They carry powerful ingredients, including genetic material, proteins, and other molecules, and travel throughout the body, delivering these precious cargoes to target cells.

One of the interesting features of exosomes is their ability to transfer genetic material, particularly microRNAs, which are like tiny conductors of a genetic orchestra. These microRNAs can tune up or down the expression of genes within the recipient cells, regulating their behavior and encouraging them to act in a more youthful and vibrant manner. According to studies, *Exosomes may have the power to turn back the clock on aging cells, prompting them to behave like they did when we were younger. This means they can boost collagen and elastin production, improve skin texture, reduce the appearance of wrinkles, and even promote hair growth.*

## INTERCELLULAR COMMUNICATION

Exosomes act as messengers in the intercellular communication network of the body. They are secreted by various cell types, including stem cells, and are released into the extracellular environment. These exosomes carry a diverse payload of molecules, including microRNAs, mRNAs, proteins, and lipids. These molecular components are selectively packaged within the exosomes, allowing them to target specific cells and influence cellular behavior.

## CELLULAR UPTAKE

Upon reaching the target tissue, exosomes interact with recipient cells by binding to their surface receptors. This interaction facilitates the internalization of exosomes into the target cells, where the encapsulated bioactive molecules are released and begin to exert their effects.

## GENETIC REGULATION

One of the most significant contributions of exosomes in aesthetics is their ability to transfer genetic material, specifically microRNAs, to recipient cells. MicroRNAs are short, non-coding RNA molecules that play a vital role in regulating gene expression. By delivering specific microRNAs to the target cells, exosomes can modulate the expression of genes involved in cell growth, tissue repair, and collagen synthesis.

## STIMULATION OF CELL PROLIFERATION AND DIFFERENTIATION

Exosomes promote the proliferation and differentiation of target cells, thereby encouraging tissue regeneration. For instance, in facial rejuvenation procedures, exosomes delivered into the skin can stimulate the proliferation of fibroblasts. The fibroblast cells are responsible for producing collagen and elastin. This increase in collagen and elastin production leads to improved skin elasticity, reduced wrinkles, and an overall more youthful appearance.

## SUPPRESSION OF INFLAMMATION

Inflammation is a common response to tissue damage or injury, but excessive or chronic inflammation can be detrimental to the skin. Exosomes have demonstrated anti-inflammatory properties, which can help reduce skin redness, irritation, and swelling. By modulating the inflammatory response, exosomes promote a calmer and more balanced environment in the treated tissues.

## COLLAGEN AND ELASTIN REMODELING

Exosomes play a role in collagen and elastin remodeling, which is vital in maintaining skin structure and elasticity. Collagen and elastin production declines with age, causing the skin to sag and wrinkle. By boosting the synthesis of fresh collagen and elastin fibers and their appropriate alignment within the skin matrix, exosomes can reverse this process in its tracks.

Incomparable

## REJUBEAU EXO SB & HB 100%

100% Concentrated and Purified Exosome Booster for Skin and Hair

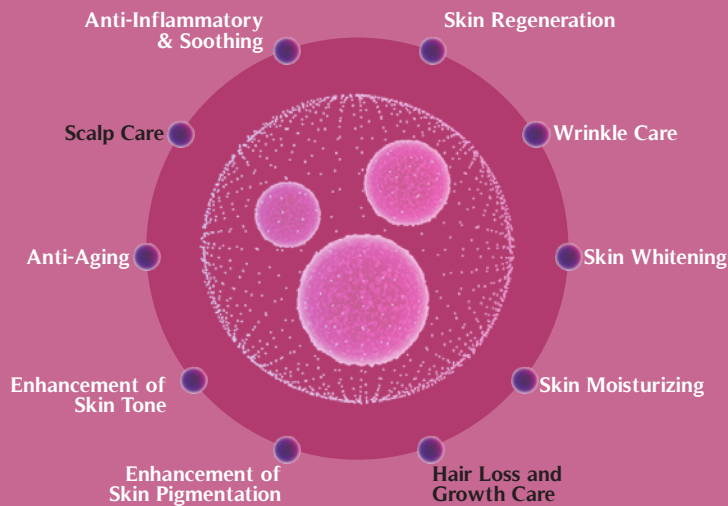
Customizing stem cells for intended purpose with priming factor iPSC (induced pluripotent stem cell)-derived MSCs (mesenchymal stem cells) represent a type of stem cell that is generated by reprogramming umbilical cord blood into pluripotent stem cells and then differentiated into mesenchymal stem cells. It is called iMSC (induced mesenchymal stem cell).

### Merit of Human Cord Blood Induced Mesenchymal Stem Cell (iMSC) Exosome

Main Ingredient	Human Cord Blood Induced Pluripotent Cell Exosomes	Particle / vial	More than 10 Billion
Cell Origin	Human Cord Blood	Particle Size	20 ~ 150 nm
Cell Type	Induced Pluripotent Stem Cell	Main Distribution Size	125.4 nm
Cell Line	No need for modification	Particle Size Standardization	More than 90%
Concentration	100 % (1,000,000 ppm)	Pore-to-Size	1 / 1700
Protein / ml	8 mg	Growth Factor & Protein for Skin	650 types
Protein / vial	36 mg	Growth Factor & Protein for Hair	650 types
Particle / ml	2.30E+09	Customization for intended purpose	Available



### Differentiated Effect of REJUBEAU EXO SB & HB 100%





## REJUBEAU EXO SB 100% Concentrated and Purified Exosome Booster for Skin

Product Name	Composition	Remarks
REJUBEAU EXO SB 100%	<b>SB 100 Stem Cell : 300 mg x 5 vial</b> <b>Activating Solution : 5 ml x 5 vial</b>	

• Applied for CPNP & FDA OTC



### Alleviate Inflammation

Relieve Dermatitis: skin spot / acne prone skin / problematic skin

### Activate skin cell and thicken dermis layer

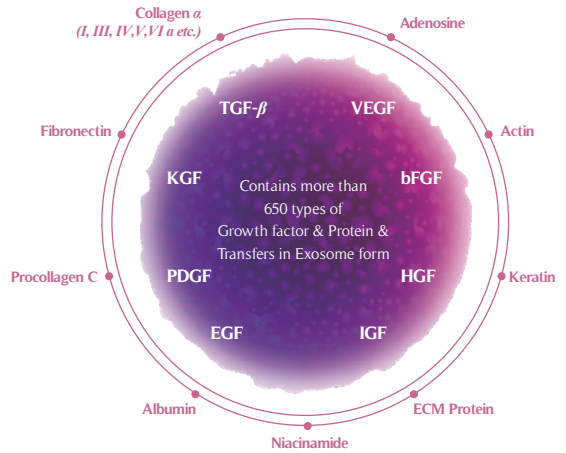
Improve skin elasticity, fine & deep wrinkles, sagging pores and rejuvenates skin

### Regenerate skin cell and antiaging

Promote the proliferation of Elastin, Collagen, Hyaluronic Acid

### Improve skin tone

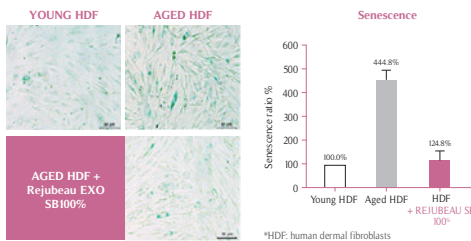
Promote more radiant and young toned complexion



## REJUBEAU EXO SB 100% in vitro

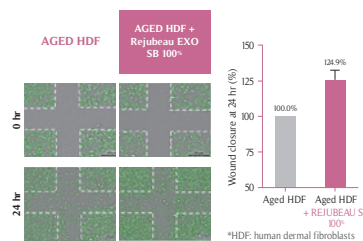
### Enhancement of Skin Rejuvenation

By reducing cell aging biomarker, REJUBEAU stimulates skin cell rejuvenation into Young HDF level



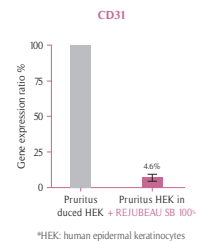
### Support for Skin Wound Healing

Compare to non treated area, REJUBEAU improves the movement rate skin cell and stimulates wound and skin cycle healing



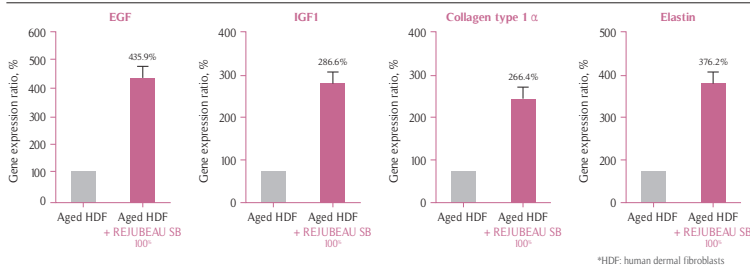
### Decreasing Pruritis

Reduces itching biomarker, shows effect on Atopic skin



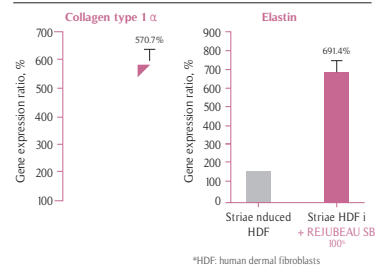
### Enhancement of Skin Regeneration

By increasing expression of growth factor involving skin regeneration, REJUBEAU stimulates anti-wrinkle and regeneration



### Improvement Stretch marks (striae)

REJUBEAU Stimulates collagen synthesis and elasticity production on stretch mark and thin skin



# PROTOCOL

## General Guidance

1. Mix EXO SB 100% Exosome powder (300mg) with EXO SB 100% Activating solution (5ml).
2. Cleanse the area to be treated thoroughly
3. Apply the mixture to the skin and allow it to be absorbed thoroughly into the skin by MTS device like a Derma roller or a Derma pen.
4. After the treatment, gently massage the residue to allow it to be absorbed into the skin and apply calming mask
5. Apply calming and regenerating serum as a post-care.
6. Number of treatment sessions:
  - 1) Intensive phase: 1 treatment a week for 5 weeks for skin.  
(It can be different depending on patient status)
  - 2) Maintenance phase: 1 treatment a month or if necessary
    - ▶ In case the blended solution causes any trouble to sensitive patients, the alternative guidance is recommended.

## Full Hydration

1. After mixing EXO's Exosome powder (300mg) with EXO's Activating solution (5ml), shake it sufficiently and leave it for 2 or 3 minutes for full hydration
2. The mixed solution should be used within 3 hours and stored in a refrigerator.

## Alternative Guidance for Sensitive Skin

1. Mix EXO's Exosome powder (300mg) with Normal Saline (4 or 5 ml).
2. Apply the mixed solution to the skin after treating with an MTS device like derma roller or Derma pen. After the treatment, the patient can use the EXO's Activating solution (5ml) at home topically.

## Alternative Guidance [Japan only]

1. Blend EXO's Exosome powder (300mg) with Normal Saline (4 ml)
2. Treat by using MTS Injector
  - ▶ After the treatment, the patient can use the EXO's Activating solution (5ml) at home topically.
  - ▶ This guidance is suggested for the Japanese market only.

## Storage

- ▶ EXO's Exosome powder should be stored in the refrigerator (2~6°C )
- ▶ Check the Exosome powder condition before hydration.  
White is normal. If the Exosome powder shows browning, do not use it and discard it.

## Before & After Treatment

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## REJUBEAU EXO HB 100% Concentrated and Purified Exosome Booster for Hair

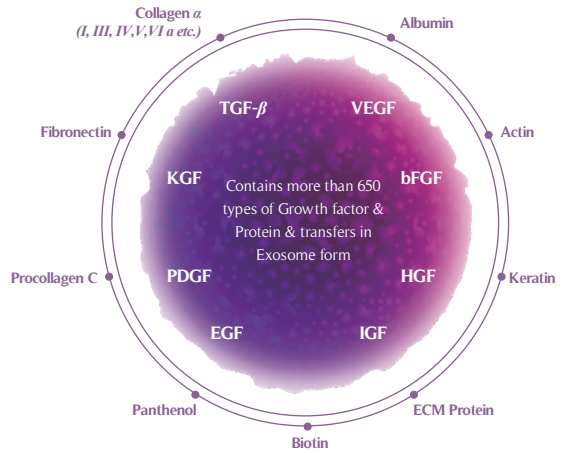
Product Name	Composition	Remarks
REJUBEAU EXO HB 100%	HB 100 Stem Cell : 300 mg x 5 vial Activating Solution : 5 ml x 5 vial	

• Applied for CPNP & FDA OTC



### SCALP

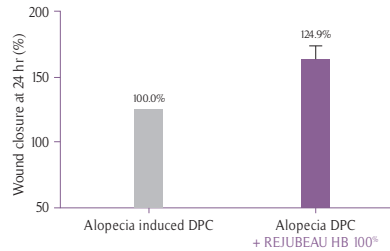
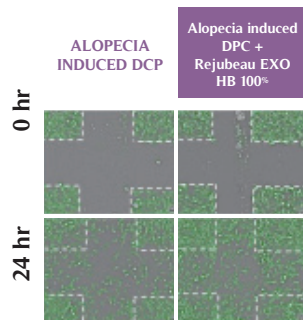
- Hydrate and nourish the scalp
- Promote a healthy hair growth cycle
- Noticeably reduce hair loss
- Visibly make hair look and feel soft, shiny, and full



### REJUBEAU EXO HB 100% in vitro

#### Stimulation of Hair Follicle Proliferation

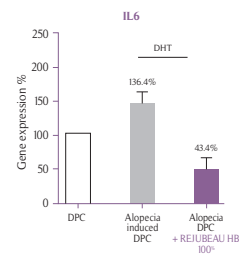
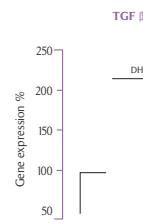
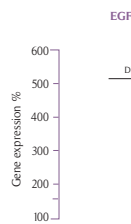
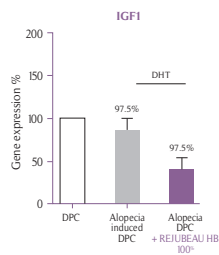
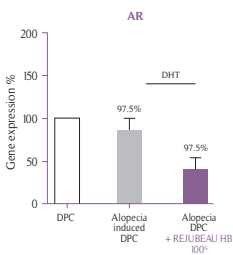
REJUBEAU inhibits alopecia progress by enhancing growth and increasing proliferation of DPC



\* DPC: human follicle dermal papilla cells

#### Enhancement of Skin Regeneration

REJUBEAU Prevents hair loss and promotes hair growth by reducing the expression of hair loss cause receptors and related factors in dermal papilla cells in the hair loss environment and increasing the expression of hair growth growth promoting factors



\* DPC: human follicle dermal papilla cells

# PROTOCOL

## General Guidance

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2. Cleanse the area to be treated thoroughly.
3. Apply the mixture to the scalp and allow it to be absorbed thoroughly into the skin by MTS device like a Derma roller or a Derma pen.
4. After the treatment, gently massage the residue to allow it to be absorbed into the skin.
5. Number of treatment sessions:
  - 1) Intensive phase: 1 treatment a week for 10 weeks for hair.  
(It can be different depending on patient status)
  - 2) Maintenance phase: 1 treatment a month or if necessary.
    - ▶ In case the blended solution causes any trouble to sensitive patients, the alternative guidance is recommended.

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## Before & After Treatment





**TRACLE INC.**

RM 801, Samyoong Tower, 1090, Gyeongui-Ro, Paju-Si, Gyeonggi-Do 10908, Republic of Korea  
E. [info@tracle.kr](mailto:info@tracle.kr) / T. + 82 (0)70 4696 5346 / F. + 82 (0)31 943 8183 / [www.tracle.kr](http://www.tracle.kr) & [www.rejubeau.kr](http://www.rejubeau.kr)