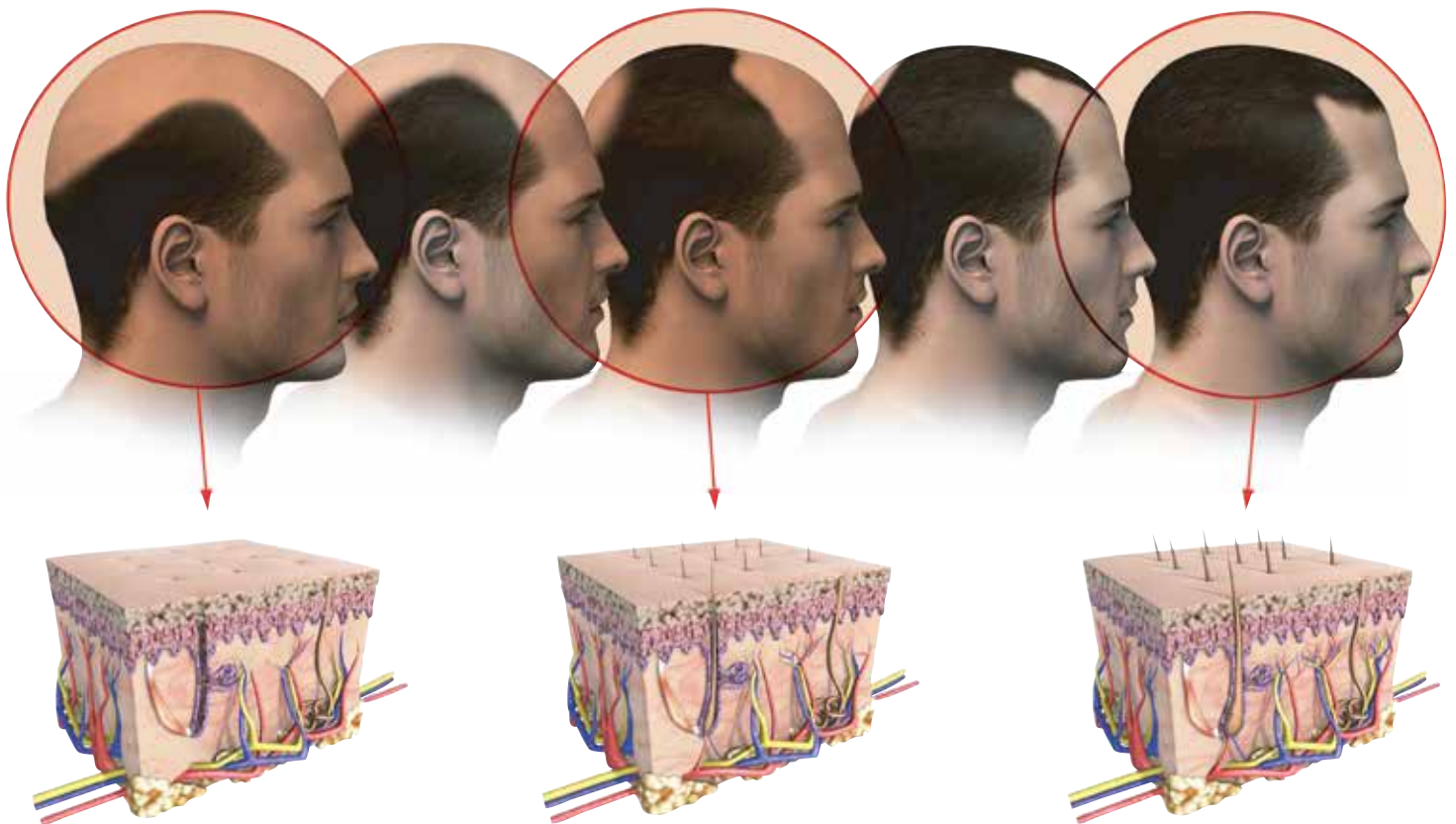


For Lush, Fuller and Lustrous Hair

RENOKIN Hair Revitalizing Program

Prevents Hair Loss, Re-growth of New Hair, No Side Effect



RENOKIN

For Lush, Fuller and Lustrous Hair

RENOKIN Hair Revitalizing Program

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Prevents Hair Loss, Re-growth of New Hair, No Side Effect

Active Ingredients Prevent Hair Loss and Promote Re-growth of New Hair with Innovatively High and Strong Efficacy.

RENOKIN Hair Revitalizing Program is a scientific hair care program proven by the sophisticated mechanism of active ingredients and 5 human clinical studies. 10 Active Ingredients include the world strongest and safest hair re-growth actives, CG-Nokkin, CG-Keramin2 and CG-WINT.

RENOKIN, Its Success Resides in Its Composition with 10 Active Ingredients.

3 BIOMIMETIC PEPTIDES

Oligopeptide-54 (CG-Nokkin) : Strong BMP Blocker, promotes hair growth and inhibits depigmentation of hair. Strengthens hair while stimulating hair follicles to produce healthier hair. Helps blood circulation in the scalp and revitalizes hair follicles.

Decapeptide-10 (CG-Keramin2) : DKK-1 Down Regulator, promotes new hair cell proliferation and migration which induce strong hair follicle and hair shaft.

Decapeptide-18 (CG-WINT) : Stimulator of hair placode formation, generates de novo hair through activated β -catenin signal which is a key mechanism of differentiating hair follicle epithelial stem cells into hair keratinocyte cells.

2 VITAMINS

Retinyl Palmitate : Provides nutrition to the cortex of hair and strong anti-oxidative effect for hair and scalp. Helps hair to recover its elasticity.

Biotin : Enables the blood flow to increase. Helps to make your hair and scalp become healthy.

5 NATURAL PLANT EXTRACTS

Serenoa Serrulata Fruit Extract : Blocks DHT (dihydrotestosterone), a stimulating factor of hair loss.

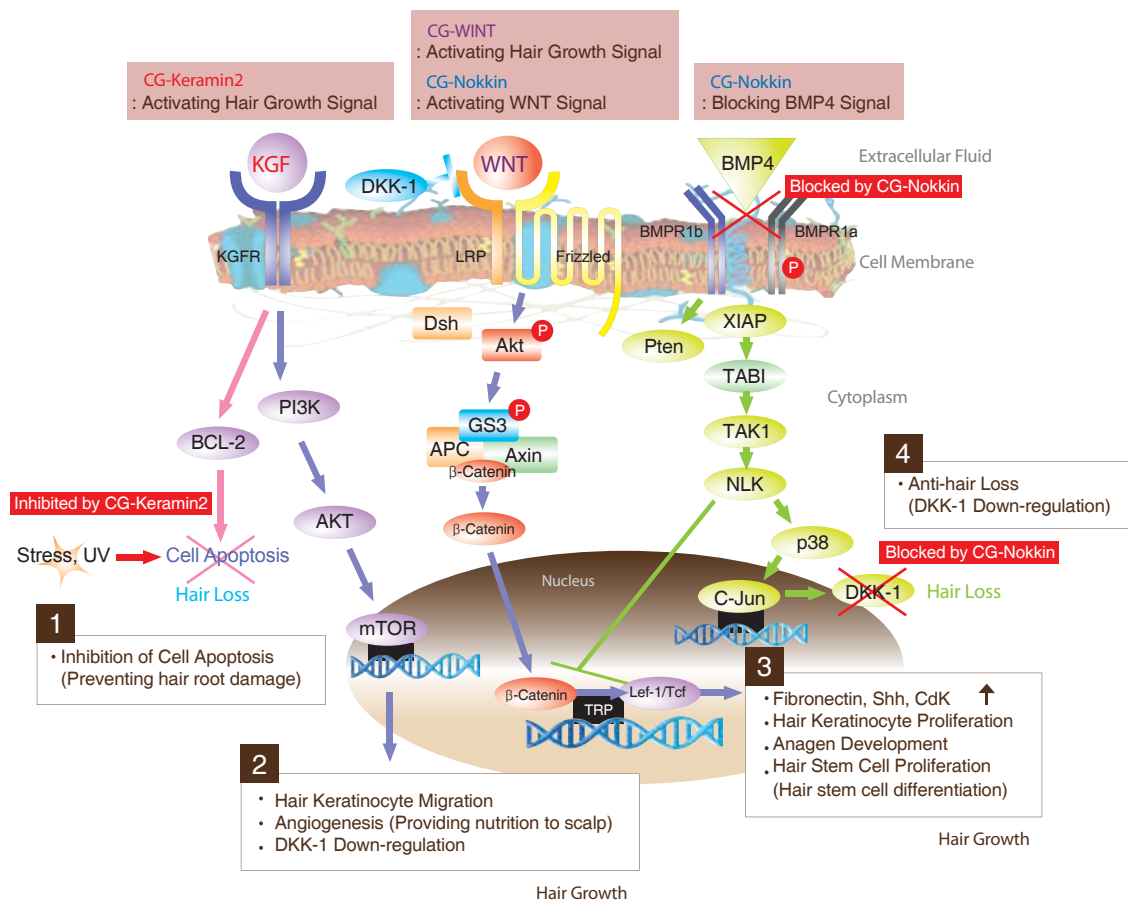
Polygala Tenuifolia Root Extract : Prevents hair loss process and stimulates new hair growth.

Portulaca Oleracea Extract : Keeps scalp clean and healthy. Protects scalp from a hostile environment.

Thuja Orientalis Extract : Prevents hair loss and strengthens hair follicle and helps your hair stiff and healthy.

Ginkgo Biloba Leaf Extract : Cleans and soothes scalp. Helps the blood circulation of scalp.

Mechanism of CG-Nokkin, CG-Keramin2 and CG-WINT



1 CG-Keramin2

Prevents hair cells damage by stress, UV exposure and other environmental factors.

2 CG-Keramin2

Provides nutrition to scalp and hair root for healthier and thicker hair shaft by stimulating Angiogenesis and down-regulation of DKK-1.

3 CG-WINT, CG-Nokkin

Stimulates new hair placode formation, generates new hair follicles through epithelial stem cell differentiation.

4 CG-Nokkin

Inhibits hair loss by down-regulation of BMP4 (Bone Morphological Protein) signal, decreases DKK-1 expression and restores WNT signal.

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What is RENOKIN?

1. Active ingredients

Patented biomimetic peptides, CG-Nokkin, CG-Keramin2 and CG-WINT, provide innovatively high efficacy in male and female.

2. Trans-dermal delivery system for enhancing penetration

Stabilized double-layered encapsulation system effectively delivers the active ingredients into hair follicles.

3. Strong clinical evidences of *in-vitro* and *in-vivo* test

What are the advantages of RENOKIN?

Universal use regardless of sex and age

Clinically proven active ingredients (3 peptide complex)

Applicable to any types of hair loss

Innovative skin penetration technology of active ingredients into scalp

RENOKIN Hair Revitalizing Program for 2months

RENOKIN Hair Revitalizing Solution 60ml

RENOKIN Hair & Scalp Restoring Solution (Female) 60ml

Patented cutting edge biomimetic peptides stimulate hair cells to keep scalp and hair follicle healthier. Active ingredients make your hair lush, fuller and lustrous.

Stabilized double-layered encapsulation system enables the active ingredients to be absorbed thoroughly into the scalp. For synergic anti-hair loss and hair regain, use RENOKIN Hair Revitalizing Shampoo and Conditioner together.



RENOKIN Hair & Scalp Restoring Solution (Female)



RENOKIN Hair Revitalizing Solution



RENOKIN Hair Revitalizing Shampoo 150ml

Clinically proven formula that helps promote longer, thicker and healthier hair. Designed to stimulate and fortify the hair and scalp condition, creating a healthy environment for hair restoration.



RENOKIN Hair Revitalizing Conditioner 110ml

Provides dry hair with intensive nutrition after shampooing. Hair conditioning effect for lustrous hair.

RENOKIN DAILY REGIMEN FOR HAIR GROWTH

Cleansing : Optimizes hair and scalp to absorb active ingredient thoroughly

1. Cleanse your hair with RENOKIN Hair Revitalizing Shampoo.

Nutrition : Provides hair and scalp with nutrition, Prevents the dryness of hair and balances pH level on scalp

2. After shampooing, apply RENOKIN Hair Revitalizing Conditioner on hair. Rinse it thoroughly.

Intensive care : Intensively protects scalp and hair follicle from hair loss and promotes hair regrowth

3. Apply RENOKIN Hair Revitalizing Solution on your scalp. Gently shake the solution. Spray to the target scalp area and lightly massage with fingertips. Do not wash off. Leave it at least 3 hrs. Use it every morning and night.

RENOKIN Hair Revitalizing Solution Works for Non-scarring Alopecia.

| Non-scarring Alopecia | Scarring Alopecia |
|------------------------------------------|---------------------------------|
| Telogen effluvium | Development defects |
| Anagen effluvium | Infection |
| Alopecia areata | Trauma |
| Androgenic alopecia | Neoplastic disorders |
| Hair shaft abnormalities | Lichen planus |
| Trauma | Keratinosis pilaris Atrophicans |
| Infectious disorders | Folliculitis decalvans |
| Systematic disorders | Dissecting cellulitis |
| Intoxications | Acne keloidals |
| Neutritional deficiencies (Zinc, Biotin) | Pseudopelade |
| Medication | Alopecia mucinosa |

Application

- Male and Female Alopecia
- Man and Woman who experiences general thinning of hair
- Man and Woman with excessive hair loss
- Consecutive treatment is necessary to achieve efficacy up to the expectation.

Shelf Life and Storage

- Shelf life: 3 years from production
- Period after opening: Stable for 1 year in room temperature
- Storage: Store between 2°C~25°C. Protect from sunlight.

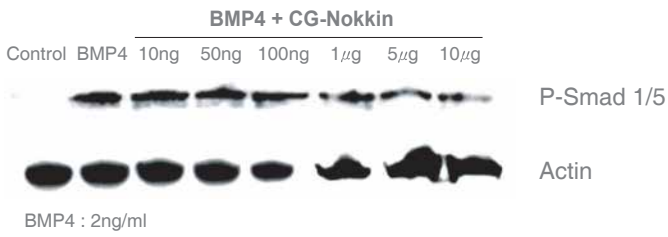
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in vitro Test Data

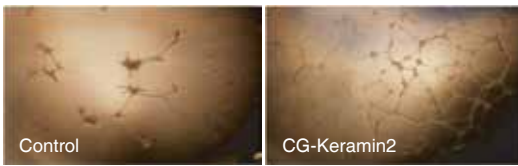
Interaction of BMP4 and CG-Nokkin



Blocking BMP4 Signal

Phospho-Smad 1/5, which is a signaling molecule of BMP4, has decreased by CG-Nokkin treatment.

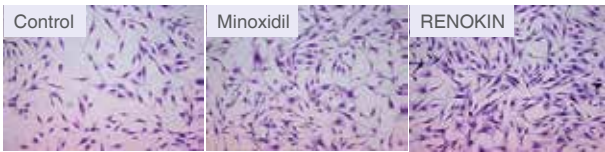
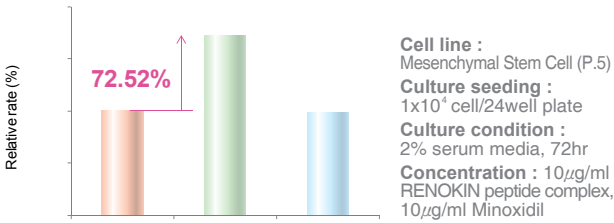
Angiogenesis



Providing Hair Nutrition

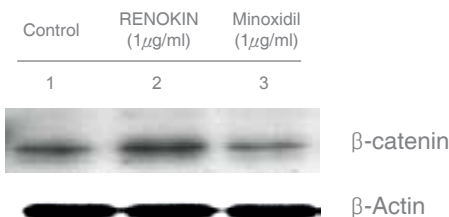
CG-Keramin2 (1μg/ml) has stimulated angiogenesis and hair cell proliferation on HUVEC resulting in anti-hair loss and hair re-growth.

Cell Proliferation of RENOKIN vs Minoxidil



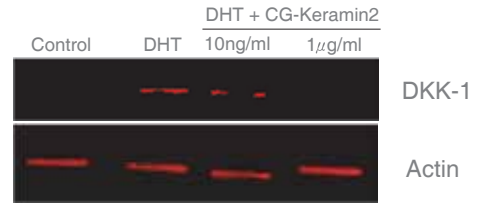
RENOKIN has increased MSC proliferation compare with Minoxidil by SRB assay.

β-catenin Expression of RENOKIN vs Minoxidil



We observed increased β-catenin expression by RENOKIN only.

Expression of DKK-1 in Primary Hair Cell



DHT (Dihydrotestosterone) : Stimulator of DKK-1, 5μM
DKK-1(Dickkopf-1) : Key molecule of Androgen-driven balding

Decreasing DKK-1 Expression

CG-Keramin2 has decreased the expression of DKK-1 which implied up-regulation of WNT Signaling, the hair growth cycle.

β-catenin Expression

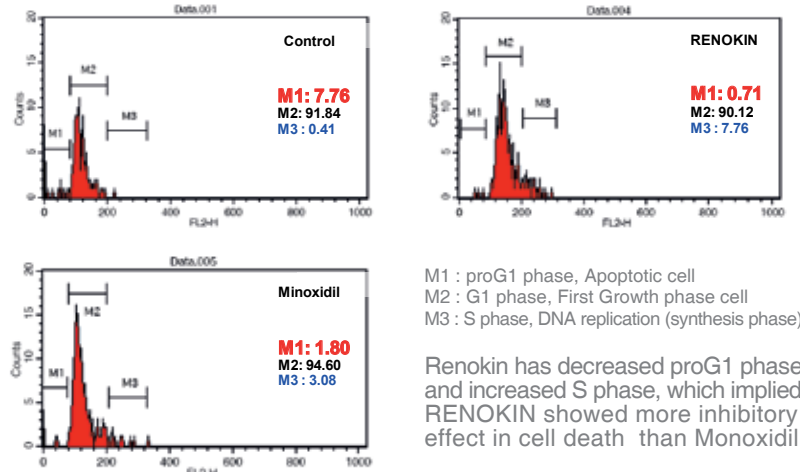


CG-Keramin2 : 1μg/ml, CG-Nokkin : 1μg/ml, CG-WINT : 1μg/ml

Activating WNT Signal

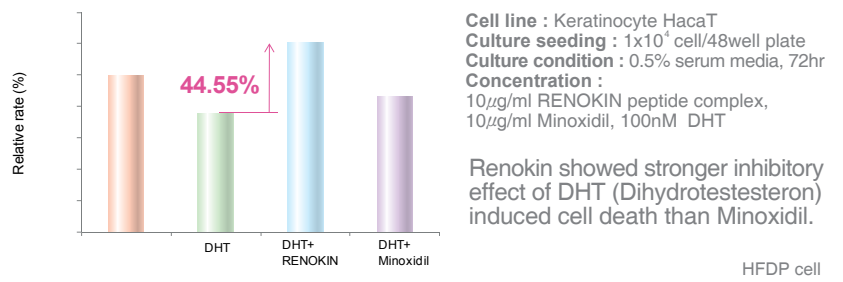
The peptide complex has induced upregulation of β-catenin expression which resulted in restoring WNT signal, the hair growth cycle.

Cell Apoptosis Inhibition Test of RENOKIN vs Minoxidil

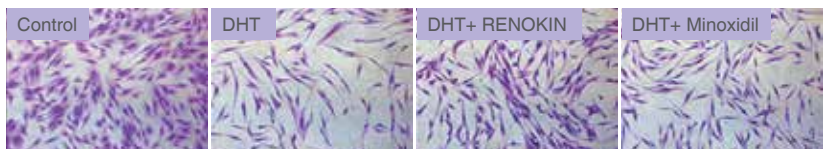


Renokin has decreased proG1 phase and increased S phase, which implied RENOKIN showed more inhibitory effect in cell death than Minoxidil.

Cell Apoptosis Inhibition Test of RENOKIN vs Minoxidil with DHT



Renokin showed stronger inhibitory effect of DHT (Dihydrotestosterone) induced cell death than Minoxidil.



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Human Hair Follicle Culture



Control
CG-Keramin2
CG-Nokkin
CG-WINT
RENOKIN

Peptide complex gives synergic effect

Hair shaft has become longer after 72hrs of human hair follicle culture in serum free condition. Additionally, CG-Keramin2 + CG-Nokkin + CG-WINT complex showed synergic effect compared with single ingredient treatment.

Concentration : 1 μ g/ml CG-Keramin2, 1 μ g/ml CG-Nokkin, 1 μ g/ml CG-WINT
1 μ g/ml RENOKIN peptide complex

Clinical Test Data BEFORE vs AFTER

3-Month Study

Study Design

- Randomized
- Double blind
- Intra-individual comparison
- Placebo-controlled

Inclusion Criteria

- Male with Hair Loss
- Male with Androgenic Alopecia
- Between 45 and 75 years of age
- Norwood-Hamilton Score 3 to 4

A : Caregen Peptide Complex
B : Placebo



A, Day 1st

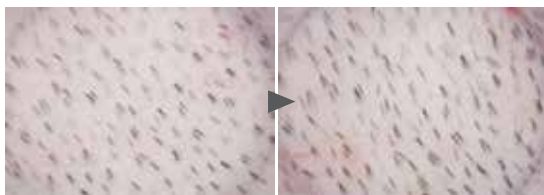
A, Day 85th



B, Day 1st

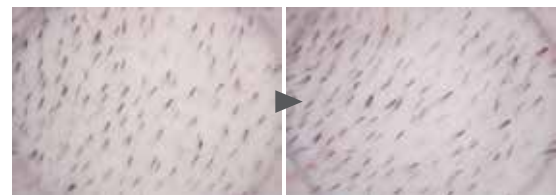
B, Day 85th

| Subject no.12 Male aged 45 | Percentage Change after 85 days | | | |
|----------------------------------|---------------------------------|---------------------|------------------|----------------|
| | Number of Hairs | Hair thickness (mm) | Hair growth rate | Rate of Anagen |
| A | 23.6 | 29.0 | 19.0 | 11.6 |
| B | -12.5 | -20.0 | -11.9 | -2.3 |



A, Day 1st

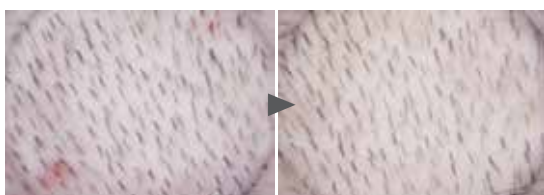
A, Day 85th



B, Day 1st

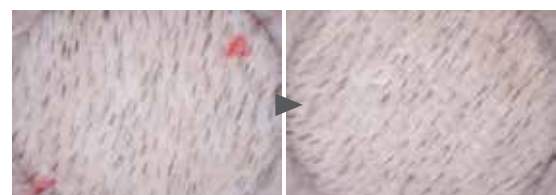
B, Day 85th

| Subject no.2 Male aged 68 | Percentage Change after 85 days | | | |
|---------------------------------|---------------------------------|---------------------|------------------|----------------|
| | Number of Hairs | Hair thickness (mm) | Hair growth rate | Rate of Anagen |
| A | 6.8 | 5.0 | 16.4 | 7.0 |
| B | 2.8 | 3.6 | 6.5 | -0.3 |



A, Day 1st

A, Day 85th



B, Day 1st

B, Day 85th

| Subject no.35 Male aged 46 | Percentage Change after 85 days | | | |
|----------------------------------|---------------------------------|---------------------|------------------|----------------|
| | Number of Hairs | Hair thickness (mm) | Hair growth rate | Rate of Anagen |
| A | 15.9 | 7.5 | 31.1 | 7.6 |
| B | 5.2 | -1.6 | -13.0 | -6.4 |

Clinical Test Data BEFORE vs AFTER

6-Month Study

Study Design

- Randomized
- Double blind
- Intra-individual comparison
- Placebo-controlled

Inclusion Criteria

- Male with Hair Loss
- Male with Androgenic Alopecia
- Between 45 and 75 years of age
- Norwood-Hamilton Score 3 to 4



A : A Concentration of Peptide complex
B : B Concentration of Peptide complex



A, Day 3rd



A, Day 171st



B, Day 3rd



B, Day 171st

| No. 16 | Total Hair Density (1/cm ²) | | | | Cumulative Hair Thickness (mm) | | Anagen Hair Density (1/cm ²) | |
|-------------|-----------------------------------------|--------|---------------|----------|--------------------------------|----------|------------------------------------------|----------|
| | Day3 | Day171 | Diff. to Day3 | % Change | Diff. to Day3 | % Change | Diff. to Day3 | % Change |
| Age : 49 yr | | | | | | | | |
| A | 108.50 | 110.71 | 2.21 | 2.04 % | 0.85 | 8.31% | 8.93 | 10.22% |
| B | 126.77 | 153.06 | 26.29 | 20.74% | 2.49 | 21.10% | 28.07 | 26.70% |



A, Day 3rd



A, Day 171st



B, Day 3rd



B, Day 171st

| No. 30 | Total Hair Density (1/cm ²) | | | | Cumulative Hair Thickness (mm) | | Anagen Hair Density (1/cm ²) | |
|-------------|-----------------------------------------|--------|---------------|----------|--------------------------------|----------|------------------------------------------|----------|
| | Day3 | Day171 | Diff. to Day3 | % Change | Diff. to Day3 | % Change | Diff. to Day3 | % Change |
| Age : 52 yr | | | | | | | | |
| A | 260.17 | 270.13 | 9.96 | 3.83% | 0.28 | 1.13% | 25.5 | 13.13% |
| B | 190.15 | 236.37 | 46.22 | 24.31% | 2.30 | 11.50% | 20.54 | 12.90% |



A, Day 3rd



A, Day 171st



B, Day 3rd



B, Day 171st

| No. 22 | Total Hair Density (1/cm ²) | | | | Cumulative Hair Thickness (mm) | | Anagen Hair Density (1/cm ²) | |
|-------------|-----------------------------------------|--------|---------------|----------|--------------------------------|----------|------------------------------------------|----------|
| | Day3 | Day171 | Diff. to Day3 | % Change | Diff. to Day3 | % Change | Diff. to Day3 | % Change |
| Age : 52 yr | | | | | | | | |
| A | 262.39 | 274.01 | 11.62 | 4.43% | 2.05 | 7.35% | 7.39 | 3.26% |
| B | 263.22 | 317.47 | 54.25 | 20.61% | 6.22 | 22.40% | 23.97 | 10.50% |

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Clinical Test Data BEFORE vs AFTER



3-Month Study

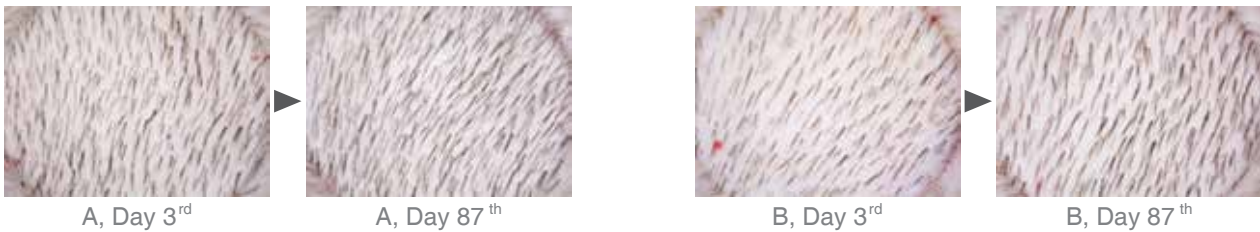
Study Design

- Randomized
- Double blind
- Intra-individual comparison
- Placebo-controlled

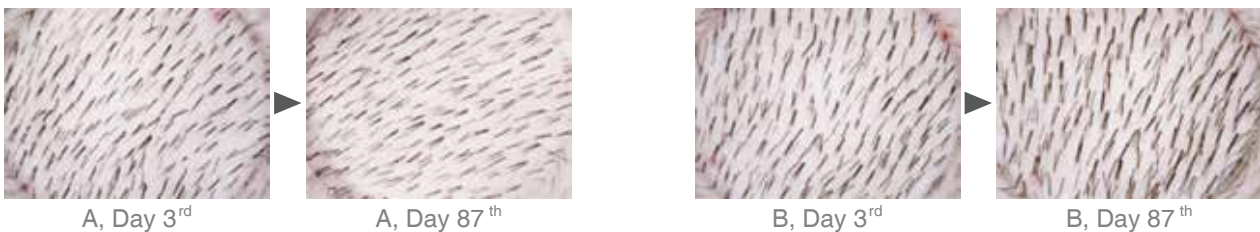
Inclusion Criteria

- Female with Hair Loss
- Female with diffuse Alopecia
- Between 45 and 75 years of age
- SAVIN Score 2 to 4

A : A Concentration of Peptide complex
B : B Concentration of Peptide complex



| No. 15 | Number of Hairs | | | | Cumulative Hair Thickness(mm) | | Anagen Hair Density (1/cm ²) | |
|-------------|-----------------|--------|---------------|----------|-------------------------------|----------|------------------------------------------|----------|
| | Day3 | Day87 | Diff. to Day3 | % Change | Diff. to Day3 | % Change | Diff. to Day3 | % Change |
| Age : 62 yr | | | | | | | | |
| A | 316.50 | 390.50 | 74.00 | 23.38% | 3.53 | 22.41% | 60.34 | 43.14% |
| B | 397.50 | 447.50 | 50.00 | 12.58% | 1.99 | 10.51% | 33.21 | 18.13% |



| No. 20 | Number of Hairs | | | | Cumulative Hair Thickness(mm) | | Anagen Hair Density (1/cm ²) | |
|-------------|-----------------|--------|---------------|----------|-------------------------------|----------|------------------------------------------|----------|
| | Day3 | Day87 | Diff. to Day3 | % Change | Diff. to Day3 | % Change | Diff. to Day3 | % Change |
| Age : 45 yr | | | | | | | | |
| A | 258.50 | 303.50 | 45.00 | 17.41% | 1.62 | 10.26% | 26.99 | 20.46% |
| B | 290.00 | 311.00 | 21.00 | 7.24% | 1.57 | 9.10% | 14.44 | 9.88% |

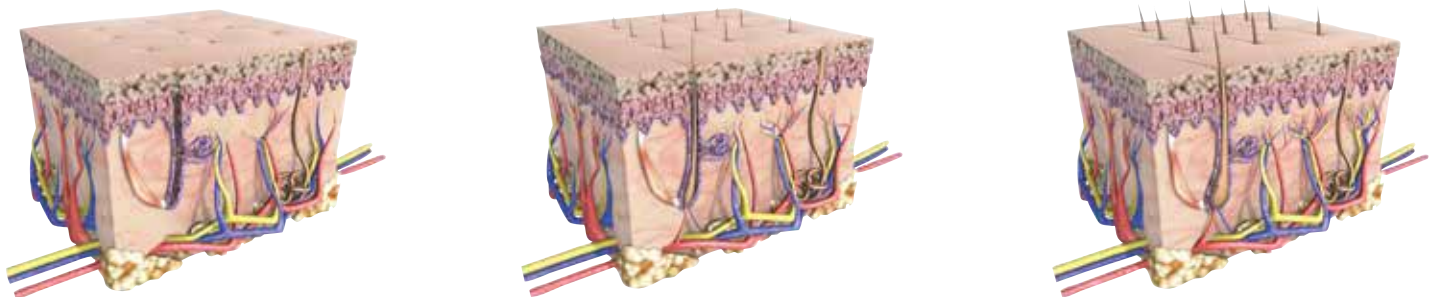


| No. 26 | Number of Hairs | | | | Cumulative Hair Thickness(mm) | | Anagen Hair Density (1/cm ²) | |
|-------------|-----------------|--------|---------------|----------|-------------------------------|----------|------------------------------------------|----------|
| | Day3 | Day87 | Diff. to Day3 | % Change | Diff. to Day3 | % Change | Diff. to Day3 | % Change |
| Age : 68 yr | | | | | | | | |
| A | 279.00 | 322.50 | 43.50 | 15.59% | 1.80 | 11.04% | 36.20 | 26.88% |
| B | 267.00 | 284.00 | 17.00 | 6.37% | 1.01 | 6.76% | 13.81 | 10.40% |

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