NEW COSMECEUTICAL WRINKLE CARE SOLUTION

PETIT

ALÈNE

NEW MICRONEEDLE PATCH
**WHY MICRONEEDLE TRANSDERMAL PATCH IS NEEDED?**

'PETIT ALENE ®' delivers nutrients more efficiently than serum & less painful and more convenient than filler treatment.

Serums only penetrate up to surface layer under the skin therefore it’s effectiveness is limited.

Filler Injection needs doctors surgical procedure and patients are afraid of it and sometimes occurs unnatural wrinkle recovery.

'PETIT ALENE 30 DAYS' penetrate directly into dermis layer without causing pain and delivers the necessary nutrients where it is most needed.

Video link for what about the microneedle patch
WHAT IS “DISSOLVING MICRONEEDLE”?

‘PETIT ALENE®’ is dissolving microneedle patch which delivery nutrients without causing pain conveniently

BULLET POINTS
✓ ‘NO’ SURGERY
✓ ‘NO’ PAIN
✓ ‘NO’ HAZARD MEDICAL WASTE

Hollow Microneedle
Solid and Coated Microneedle
Dissolvable (dissolving) Microneedle
WHAT 30DAYS AND 7DAYS?

'PETIT ALENE®' is divided 2 brands as per the effective days as 30days and 7days.

30DAYS

2times/week X 4weeks = last up to 30days

7DAYS

1time = last up to 7 days
PETIT ALÈNE

NEW MICRONEEDLE PATCH

30 DAYS

• HA + COLLAGEN + ADENOSINE + EGF
• HA+EGF
• HA 100%
• HA + ASCORBIC ACID
WHAT IS ‘PETIT ALENE 30 DAYS’?

‘PETIT ALENE 30 DAYS’ is manufactured by DAB (Droplet-born Air Blowing) manufacturing technology. DAB is an internationally-recognized technological method that applies a desired amount of polymer to form a single droplet into an individual microneedle using controlled air blowing. This particular method eliminates potential loss or distortion of the active ingredients.

✓ NO HEATING & NO-UV
✓ SHORT FABRICATION TIME
✓ PRECISE DOSAGE CONTROL
✓ EASY CHANGE OF PATTERN

‘PETIT ALENE 30 DAYS’®

MICRO MOLDING PRODUCTS

<Figure 1. Droplet-born air blowing>  
<Figure 2. Difference with micro-molding>

Video link for DAB tech
WHAT IS ‘PETIT ALENE 30 DAYS’?

‘PETIT ALENE 30 DAYS’ has 13 kinds of patents for manufacturing technology in US, EU, Korea, China and Japan.

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Country/Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A biodegradable solid type microneedle and methods for preparing it</td>
<td>KR</td>
</tr>
<tr>
<td>2</td>
<td>A biodegradable drug needle and methods for preparing it</td>
<td>KR</td>
</tr>
<tr>
<td>3</td>
<td>Process for Preparing Solid Microstructures</td>
<td>KR</td>
</tr>
<tr>
<td>4</td>
<td>Stent delivery devices using micro catheter</td>
<td>KR</td>
</tr>
<tr>
<td>5</td>
<td>Process for Preparing Solid Microstructures by Blowing and Solid Microstructures Prepared by the Same</td>
<td>KR</td>
</tr>
<tr>
<td>6</td>
<td>Multi-functional Hybrid Microstructure and Process for Preparing the Same</td>
<td>KR</td>
</tr>
<tr>
<td>8</td>
<td>Stent delivery device having stent wire conjugated with microstructure</td>
<td>KR</td>
</tr>
<tr>
<td>9</td>
<td>Microneedle producing apparatus</td>
<td>KR</td>
</tr>
<tr>
<td>10</td>
<td>Electro-microneedle assembly for cutaneous gene transfer in-situ and process for preparing the same</td>
<td>KR</td>
</tr>
<tr>
<td>11</td>
<td>Process for Preparing Solid Microstructures by Blowing and Solid Microstructures Prepared by the Same</td>
<td>KR</td>
</tr>
<tr>
<td>13</td>
<td>Biodegradable microneedle manufacturing method using sodium hyaluronic acid</td>
<td>KR</td>
</tr>
</tbody>
</table>
WHAT IS 'PETIT ALENE 30 DAYS'?

'PETIT ALENE 30 DAYS' manufactured in CGMP facility and ISO 22716:2007 was certified.

<Figure 3. GMP facilities and equipment>

<Figure 4. ISO 22716:2007>
**HOW 'PETIT ALENE 30 DAYS' REDUCES THE WRINKLES EFFECTIVELY?**

'PETIT ALENE 30 DAYS' proved its efficacy in the clinical study for skin wrinkle parameter variance according to the GCP.

Analysis of skin wrinkle parameters on nasolabial fold by 3D imaging system compared to before treatment, 'Average depth of wrinkle' was significantly decreased at 1, 2 and 4 weeks, and 4 weeks after stopping use. 'Mean depth biggest wrinkle', 'Max. depth biggest wrinkle' and 'Total wrinkle volume' were significantly decreased at 2, 4 weeks and 4 weeks after stopping use. 'Total wrinkle area' was significantly decreased at 4 weeks.

1) Clinical study of anti-wrinkle effect of Microstructure patch on human skin (Dermapro skin research center) (Mean±SEM, *p<0.05 vs. before treatment n=21)
**HOW 'PETIT ALENE 30 DAYS' REDUCES THE WRINKLES EFFECTIVELY?**

Self-questionnaire was conducted along with the clinical study and user felt the product is effective for decrease of wrinkle.

As a result of self-questionnaires for efficacy, approximately 48%~62% of subjects offered positive answers about 'Decrease of deep and fine wrinkle in crow's feet', 'Improvement of overall skin wrinkle condition', 'Improvement of skin roughness', 'Evenness of skin texture', 'Improvement of skin elasticity' and 'Improvement of skin firmness' at 4 weeks after treatment.

*Figure 6. Comparative sensorial profile of the test product for efficacy*
HOW TO USE?

1. Cleanse the area where you will attach the patch and remove moisture thoroughly.

2. Open the pouch with dry hands and take out the patch from the translucent container.

3. Take care not to touch the microstructure in the middle of the patch and remove the white protective film.

4. Position the patch center on the target area – do not slide on the patch but press down with your fingers several times to attach it.

5. Apply basic products on the parts of your face where the patch is not attached.

6. Remove the patch on the next day and finish off with a toner.

* 2 times a week x 3-4 weeks (Last up to 1 month)
Various non clinical study and clinical study was conducted to validate the efficacy and safety

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<th>ITEM</th>
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<th>RESULT</th>
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<tbody>
<tr>
<td>Acute dermal toxicity</td>
<td>Acute dermal toxicity study of microneedle patch in sprague-dawley rats</td>
<td>No observation of death and toxicological reaction in concentration of 180μg per head</td>
<td>F/M, each n=11</td>
</tr>
<tr>
<td>Primary Dermal Irritation</td>
<td>Primary Dermal Irritation Study of Microneedle patch in Rabbits</td>
<td>Microneedle patch application is to be decided non-irritation material</td>
<td>n=6</td>
</tr>
<tr>
<td>Skin Sensitization</td>
<td>Skin Sensitization Study of Microneedle patch in Hartley Guinea Pigs</td>
<td>Sensitization level is 0 % According to criteria of skin irritation test, this material is evaluated very weak 'Grade I'</td>
<td>n=20</td>
</tr>
<tr>
<td>Bacterial Reverse Mutation</td>
<td>Bacterial Reverse Mutation test of Microneedle patch Extracts</td>
<td>According to this test condition, this material is not induce bacterial reverse mutation.</td>
<td></td>
</tr>
<tr>
<td>Chromosome aberration test</td>
<td>In vitro Mammalian chromosome aberration test of disintegrated solution from Whitening Microneedle patch using cultured Chinese Hamster Ovary cells</td>
<td>According to this test condition, this material is not induce chromosome aberration.</td>
<td></td>
</tr>
<tr>
<td>Erythrocyte Micronucleus</td>
<td>Mammalian Erythrocyte Micronucleus Test of disintegrated solution from Whitening Microneedle patch in ICR mice</td>
<td>According to this test condition, this material is not induce Erythrocyte Micronucleus</td>
<td>Male, n=30</td>
</tr>
<tr>
<td>Transplantation of muscle</td>
<td>Irritation test of whitenning microneedle patch using muscle transplantation in rabbit for 4 weeks</td>
<td>According to this test condition, This material is not induce irritation after transplantation in rabbit. Irritation level is observed from 0.0 to 2.9.</td>
<td>n=3</td>
</tr>
<tr>
<td>Intradermal Test</td>
<td>Intradermal test of microneedle patch in rabbit</td>
<td>According to ISO 10993-10 : 2010, No response</td>
<td>Male, n=3</td>
</tr>
<tr>
<td>Pyrogenic Test</td>
<td>Pyrogenic test of whitening microneedle patch using muscle transplantation in rabbit</td>
<td>No pyrogenic response</td>
<td>1st: n=3 2nd: n=5</td>
</tr>
</tbody>
</table>

<FIGURE 7. NON-CLINICAL STUDY LIST AND RESULTS>
## HOW ‘PETIT ALENE 30 DAYS’ REDUCES THE WRINKLES EFFECTIVELY?

Various non clinical studies and clinical studies were conducted to validate the efficacy and safety.

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<tr>
<td>Whitening &amp; Safety</td>
<td>Evaluation and whitening efficacy test of Rucinol microneedle patch to hyperpigmentation in Human skin</td>
<td>[Efficacy] Melanin Index is decreased than control group at 4, 8 weeks (p&lt;0.05) ITA Value is increased whitening effect than control group at 4, 8 weeks (p&lt;0.05) [Safety] No Adverse Reaction</td>
<td>F, n=23</td>
</tr>
<tr>
<td>Whitening &amp; Safety</td>
<td>Evaluation and whitening efficacy test of Rucinol microneedle patch to hyperpigmentation in Human skin</td>
<td>[Efficacy] Melanin index is decreased than control group at 8 weeks (p&lt;0.05) ITA Value is increased whitening effect than control group at 4 weeks (p&lt;0.05) [Safety] No Adverse Reaction</td>
<td>F, n=22</td>
</tr>
<tr>
<td>Wrinkle &amp; Safety</td>
<td>Anti-wrinkle effect of EGF microneedle patch on human skin (Everyday use)</td>
<td>[Efficacy] Total wrinkle volume is decreased at 1,5,10 days after treatment (p&lt;0.05) Total wrinkle area is decreased at 5,10 days after treatment (p&lt;0.05) [Safety] No Adverse Reaction</td>
<td>F, n=23</td>
</tr>
<tr>
<td>Wrinkle &amp; Safety</td>
<td>Anti-wrinkle effect of EGF Microstructure patch on human skin (Every three days use)</td>
<td>[Efficacy] Avr. depth of wrinkle is decreased at 1,2,4 weeks after treatment (p&lt;0.05) Total wrinkle volume are decreased at 2,4 weeks after treatment (p&lt;0.05) [Safety] No Adverse Reaction</td>
<td>F, n=21</td>
</tr>
<tr>
<td>Wrinkle &amp; Safety</td>
<td>Anti-wrinkle effect of Vitamin C Microstructure patch on human skin</td>
<td>[Efficacy] Wrinkle is significantly decreased using Visiometer at 12 weeks (p&lt;0.05) [Safety] No Adverse Reaction</td>
<td>F, n=21</td>
</tr>
<tr>
<td>Wrinkle &amp; Safety</td>
<td>Anti-wrinkle effect of Vitamin C Microstructure patch on human skin</td>
<td>[Efficacy] Wrinkle is significantly decreased using Visiometer at 12 weeks (p&lt;0.05) [Safety] No Adverse Reaction</td>
<td>F, n=23</td>
</tr>
<tr>
<td>Safety</td>
<td>To evaluate the cumulative irritation and the sensitization potential test of Microstructure rucinol patch in Human skin</td>
<td>[Control group: HA patch] Induction phase: 2 subjects showed +1 skin reaction, but no tendency or specificity Challenge phase: No significant skin reaction [Test group: Rucinol patch] Induction phase: 4 subjects showed +1 skin reaction, but no tendency or specificity Challenge phase: No significant skin reaction</td>
<td>F, n=50</td>
</tr>
</tbody>
</table>

<FIGURE 8. CLINICAL STUDY LIST AND RESULTS>
WHERE IS IT LAUNCHED?

‘PETIT ALENE 30 DAYS’ has launched in various countries such as US, EU, China, Japan and LATAM countries.

- **US**
  - Launched in 2014

- **Brazil & Paraguay**
  - Launched in Jan., 2016
  - ANVISA certified

- **Japan**
  - Launched in 2015

- **FRANCE**
  - Launched in 2015

- **China**
  - Launched in 2015
  - CFDA certified

WHERE IS IT LAUNCHED?
REDEFINE®, popular US Brand, is well known and it was selected by Forbes as the ‘2014’s Most innovative Beauty product. “INTERSCIENCE magazine published the relevant journal about the product.
PETIT ALÈNE
NEW MICRONEEDLE PATCH

7 DAYS

- HA + EGF
- HA 100%
- HA + ASCORBIC ACID
**WHAT** is 'PETIT ALENE 7 DAYS'?

'PETIT ALENE 7 DAYS' uses the patented cross-linked hyaluronic acid technology for the prompt and long efficacy duration which is used in filler.

**BULLET POINTS**

✓ CROSS-LINKED HA
✓ HIGH DELIVERY RATE (UPTO 80%)
✓ FAST EFFICACY

PETIT ALENE 7DAYS's proprietary Needle-shaped Structure facilitate the highest efficacy of delivery rate over 80% of active ingredient.

The average delivery rate of the other products are less than 30% and needs long time and pain while it penetrate the skin directly.
'PETIT ALENE 7 DAYS' uses Cross-linked HA in order to maximize the resistance to Hyaluronidase. Longer lasting moisturizing filling effect. Also, cross-linked HA is difficult to make the microstructure and matchless superior technique of polymer homogenization and micro-size needles in patch.
WHAT IS 'PETIT ALENE 7 DAYS?
## WHAT IS THE DIFFERENCES BETWEEN 30 DAYS AND 7 DAYS?

<table>
<thead>
<tr>
<th>Product</th>
<th>Package</th>
<th>Bullet points</th>
<th>Direction</th>
<th>Image</th>
</tr>
</thead>
</table>
| 30 days | 2 patch/Box | 1. Evenly structured microneedles  
- Patented DAB dissolving microneedle  
2. Successful launch in US  
- 2014 Most innovative Beauty-product, selected by Forbes magazine.  
3. Reliable and various clinical study results | 2 times a week X 4 weeks (2H) last up to 30 days. | ![Image](image1.png) |
| 7 days  | 2 patches/Box 3 patches/Box 4 patches/Box | 1. Easy and simple to use  
2. Small but High delivery rate  
3. Quick use, Quick results  
- For those who needs wrinkle care results quickly. | 1 time use (4H)  
Last up to 7 days. | ![Image](image2.png) |
CONTACT US

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