Clinical Resolution Lab offers the most advanced recombinant protein technologies for high level protein expression. Recombinant proteins, such as cytokines and growth factors, are proven to have high efficacy and superior functions on skin cell regeneration. These proteins have been recently spotlighted as some of the most innovative and scientific cosmetic ingredients. APGF, composed of carefully screened advanced peptides and high concentrations of lyophilized human-derived growth factors, delivers flawless skin restoration that is safe and effective.

**Key Ingredients and Features:**

**TGF-beta-1:** (Transforming Growth Factor-beta-1): Helps stimulate epidermal cell growth, cell proliferation, cell differentiation, and apoptosis, thereby resulting in anti-aging, cell protection, and wound healing benefits.

**PmGF (Placenta Mimicking Growth Factor, sh-Polypeptide-16, rh-Polypeptide-4, sh-Polypeptide-22):** Comprised of Placenta Growth Factor, Stem Cell Growth Factor, and Transforming Growth Factor-beta. It stimulates epidermal cell growth, cell proliferation, collagen synthesis, wrinkle recovery, and cell differentiation.

**Adipocyte Conditioned Media Extract:** A combination of various kinds of biologically compatible proteins such as PDGF, bFGF, KGF, TGF-b1, VEGF, and SOD, that work towards cell proliferation and thickening of the dermal layer.

**Tissue Inhibitor of Metallo Proteinase (rh-Polypeptide-58):** As a natural inhibitor of the matrix metalloproteinases, it decreases collagenase activity, thereby increasing collagen and elastin in the skin, while promoting cell proliferation and anti-apoptotic function.

**Niacinamide:** A potent, cell-communicating ingredient, that stimulates microcirculation in the dermis, and offers multiple benefits for the skin. This ingredient improves skin elasticity, enhances its barrier function, helps minimize discoloration and wrinkles, and revives the skin’s healthy tone and texture. Niacinamide has a reputation for being able to treat uneven skin tone, and to mitigate acne and breakouts.

**Nelumbo Nucifera Callus Culture Extract:** A plant stem cell with excellent antioxidant and anti-inflammatory benefits, that brightens, soothes, stimulates, and regenerates the skin, as well as fight the signs of aging.

**Galloyl-Tripeptide-35:** Utilizes gallic acid (phytochemical bioactive organic acid), conjugated with alpha-ECG, which is a strong antioxidant tripeptide. It provides strong skin-lightening effects on dark under-eye circles and brown spots. It also improves skin health, while inhibiting melanin synthesis and melanin transfer, especially on darker areas of the skin.

**Decapeptide-12:** A synthetic peptide, consisting of arginine, lysine, serine, tryptophan, and tyrosine, and is the only peptide shown to measurably aid the skin in restraining tyrosinase, which is the enzyme responsible for initiating the overproduction of melanin, that leads to uneven pigmentation and dark spots.

**Vitis Vinifera (Grape) Vine Extract:** Also known as Resveratrol, it is a natural polyphenol and powerful antioxidant, that is more effective than L-Ascorbic Acid and Kojic Acid to lighten the skin.

**Superoxide Dismutase (rh-Polypeptide-60):** The most powerful intracellular antioxidant, that protects cells from free radicals and increases the cellular lifespan.

**Ingredients:**

**Activator (3ml):** Water, Niacinamide, Nelumbo Nucifera Callus Culture Extract, Galloyl-Tripeptide-35, Decapeptide-12, Vitis Vinifera (Grape) Vine Extract

**Powder (Lyophilized Powders-1000ppm):** TGF-beta-1, PmGF, TGF-beta-1, PmGF (Placenta Mimicking Growth Factor, sh-Polypeptide-16, rh-Polypeptide-4, sh-Polypeptide-22), Adipocyte Conditioned Media Extract, Superoxide Dismutase (rh-Polypeptide-60), Tissue Inhibitor of Metallo Proteinase (rh-Polypeptide-58)

**Directions:**

Lift and pull off the clear plastic cap in the direction of the two arrows (↑) embossed on the foil wrap of the vial. Both the plastic cap and foil wrapping should peel off together. Remove the rubber cap from both vials. Pour the activator into the vial containing the powder. Place the rubber cap back on, then gently turn the vial upside down, back and forth, several times to dissolve the powder. Be sure no bubbles are formed while mixing. Set aside, and let it stand for 5–10 minutes to complete the activation. Apply solution evenly on the skin. Use the solution immediately after mixing for best results.

**Storage:**

Refrigerate prior to use.
APGF (Advanced Peptide Growth Factor)
(Microneedling Essentials - Dual Ampoule System for Anti-Aging)

Clinical Resolution Lab offers the most advanced recombinant protein technologies for high level protein expression. Recombinant proteins, such as cytokines and growth factors, are proven to have high efficacy and superior functions on skin cell regeneration. These proteins have been recently spotlighted as some of the most innovative and scientific cosmetic ingredients. APGF, composed of carefully screened advanced peptides and high concentrations of lyophilized human-derived growth factors, delivers flawless skin restoration that is safe and effective.

**Key Ingredients and Features:**

- **EGF (Epidermal Growth Factor):** Helps stimulate keratinocyte proliferation and survival, fibroblast proliferation, and collagen synthesis, while recovering wounds. In combination with other growth factors, the purity of EGF is over 95%.

- **bFGF (Basic Fibroblast Growth Factor):** Helps stimulate fibroblast and collagen synthesis. Also helps proliferate epidermal cell growth, especially in aged skin, while stimulating elastin, fibronectin, and other extracellular matrices in wrinkle recovery.

- **IGF-1 (Insulin-like Growth Factor):** Helps to stimulate cell growth and recover wounded skin, in structure and function, while stimulating ECM production.

- **Adipocyte Conditioned Media Extract:** A combination of various kinds of biologically compatible proteins, such as PDGF, bFGF, KGF, TGF-b1, VEGF, and SOD, that work towards cell proliferation and thickening of the dermal layer.

- **PGF (Placenta Growth Factor):** A member of the VEGF (vascular endothelial growth factor) sub-family - a key molecule in angiogenesis and vasculogenesis, in particular during embryogenesis. It helps stimulate epidermal cell growth, cell proliferation, and cell differentiation, while assisting collagen synthesis and wrinkle recovery.

- **Caffeoyl-sh-Octapeptide-4:** Provides strong antioxidant and anti-inflammatory benefits, also clinically proven for high efficacy in relieving atopic dermatitis.

- **Caffeoyl Tripeptide-1:** Skin cell stimulating tripeptide (GHK) coagulated with caffeic acid, which provides strong antioxidant and anti-inflammatory benefits, while rejuvenating aged or damaged skin.

- **sh-Decapeptide-9:** A powerful, synthetically produced neuropeptide that consists of amino acids: arginine, glycine, leucine, lysine, phenylalanine, proline, and tyrosine. It helps to improve fine lines, minimize pores, activate collagen and elastin production, promote cell density, and facilitate nutrient absorption.

- **Vitis Vinifera (Grape) Callus Culture Extract:** Protects the skin's stem cells against UV stress, increases UV tolerance, and fights photoaging for vital and healthy-looking skin.

- **Nicotinoyl Tripeptide-1:** Nano-encapsulated solution with strong antioxidant, anti-inflammatory, and cell detoxifying benefits, which is comprised of a skin cell stimulating tripeptide (GHK) conjugated with Vitamin B3 (Nicotinoic Acid).

**Ingredients:**

- **Activator (3ml):** Water, Caffeoyl Tripeptide-1, sh-Decapeptide-9, Vitis Vinifera (Grape) Callus Culture Extract, Nicotinoyl Tripeptide-1, Caffeoyl-sh-Octapeptide-4

- **Powder (Lyophilized Powders-1000ppm):** Mimicking peptides of EGF (Epidermal Growth Factor), bFGF (Basic Fibroblast Growth Factor), IGF-1 (Insulin-like Growth Factor), Adipocyte Conditioned Media Extract, PGF (Placenta Growth Factor)

**Directions:**

Lift and pull off the clear plastic cap in the direction of the two arrows (▏▏) embossed on the foil wrap of the vial. Both the plastic cap and foil wrapping should peel off together. Remove the rubber cap from both vials. Pour the activator into the vial containing the powder. Place the rubber cap back on, then gently turn the vial upside down, back and forth, several times to dissolve the powder. Be sure no bubbles are formed while mixing. Set aside, and let it stand for 5-10 minutes to complete the activation. Apply solution evenly on the skin. Use the solution immediately after mixing for best results.

**Storage:**

Refrigerate prior to use.

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5 APPLICATIONS

5 Activating Peptides
5 Recombinant Powders
StemPep Serum
(1 fl. oz e 30 ml)

A profound combination of patent pending stem cell technology combined with innovative active ingredients for the most natural and powerful anti-aging, wound healing, and skin brightening therapy.

StemPep Serum provides high concentrations of plant-derived stem cells and proteins to slow down the aging process by promoting healthy cell functions, synthesizing the cell renewal process, and by relinking the broken chains of amino acid bundles that make up collagen. It is highly recommended for post-procedure application following laser, IPL, microdermabrasion, and microneedling treatments.

Key Features:
• Ideal for normal to oily and sensitive skin
• Combats the signs of aging by protecting natural stem cells and delaying the aging of essential cells
• Reduces the appearance of fine lines and wrinkles, while offering maximum hydration
• Protects the vitality and youthful appearance of the skin
• Nourishes and renews cells, thus keeping the skin firm and supple
• Naturally boosts collagen production
• Visibly younger looking skin in 2 weeks - 15% improvement after 30 days with continued use
• Liposomal delivery transports plant stem cells to aging cells of the skin
• Releases powerful antioxidants to fight free radicals

Key Ingredients:

Malus Domestica Fruit Cell Culture Extract: Swiss apple stem cells are encapsulated in liposomes prepared from soy-phospholipids, which protects the longevity of the skin's stem cells by delaying senescence of essential cells, combating chronological aging, and preserving the youthful look and vitality of the skin.

Hydrolyzed Pea Protein: Nano-sized liposomized peptides (~150nm) and stem cells extracted from peas help activate collagen production and fibroblast proliferation, while activating collagenase.

Human Oligopeptide-1: Highly effective for anti-aging, epidermal growth promotion, and wound healing.

Myristoyl Pentapeptide-8, Myristoyl Pentapeptide-11, Myristoyl Hexapeptide-4: Fibroblast growth factor gene stimulation for an anti-aging and whitening effect. These peptides show immune stimulation in vitro by upregulating primary defensin-B in human dermal keratinocytes. These polypeptides help promote protein stimulation (Collagen I) with minimal irritation (low matrix metalloproteinase, MMP1) and without elevating pro-inflammatory cytokines. Also, it stimulates Platelet-Derived Growth Factors (PDGF) and Vascular Endothelial Growth Factors (VEGF).

Herb Extracts: Provides an antioxidant, anti-inflammatory, and immunomodulatory effect which is effective in targeting atopic dermatitis, seborrhea, skin irritation, and whitening.


Directions: Apply one to two pump(s) of StemPep Serum to cleansed skin, AM and PM. Follow with StemPep Moisturizer.
* Due to the presence of restorative stem cells and proteins, it is best to use at night.

Caution: Avoid contact with eyes and mucous membranes. For external use only.
StemPep Moisturizer
(1 fl. oz e 30 g)

A profound combination of patent pending stem cell technology combined with innovative active ingredients for the most natural and powerful anti-aging, wound healing, and skin brightening therapy.

StemPep Moisturizer provides high concentrations of plant-derived stem cells and proteins to slow down the aging process by promoting healthy cell functions, synthesizing the cell renewal process, and by relinking the broken chains of amino acid bundles that make up collagen. It is highly recommended for post-procedure application following laser, IPL, microdermabrasion, and microneedling treatments.

Key Features:
- Ideal for normal to dry and sensitive skin
- Combats the signs of aging by protecting natural stem cells and delaying the aging of essential cells
- Reduces the appearance of fine lines and wrinkles, while offering maximum hydration
- Protects the vitality and youthful appearance of the skin
- Nourishes and renews cells, thus keeping the skin firm and supple
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