

Manufactured by  
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MICRONEEDLE THERAPY SYSTEM

1-877-KNOW-MTS  
5 6 6 9 6 8 7

## APGF (Advanced Peptide Growth Factor)

(Microneedling Essentials - Dual Ampoule System for Whitening)



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.

**Neolumbo 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, Neolumbo Nucifera Callus Culture Extract, Galloyl-tripeptide-35, Decapeptide-12, Vitis Vinifera (Grape) Vine Extract

**Powder (Lyophilized Powders-1000ppm):** TGF-beta-1 (Transforming Growth Factor-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 for Use:

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.

5 APPLICATIONS  
5 Activating Peptides  
5 Recombinant Powders



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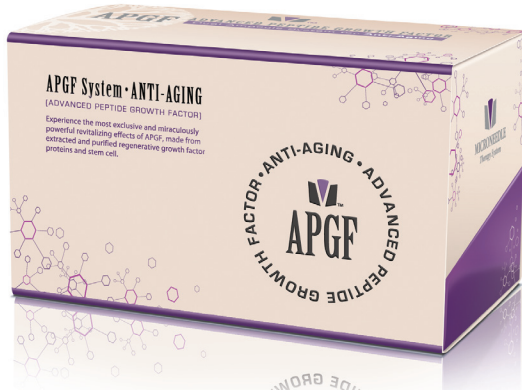


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## APGF (Advanced Peptide Growth Factor)

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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 matrixes 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- $\beta$ 1, 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, minimizes pores, activate collagen and elastin production, promotes cell density, and facilitates nutrient absorption.

**Vitis Vinifera (Grape) Callus Culture Extract:** Protects the skin's stem cells against UV stress, increases UV tolerance, and fights photo-aging 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 for Use:

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.

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### 5 APPLICATIONS

5 Activating Peptides  
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