Dermatein® EGF

Trade Name: Dermatein® EGF  
INCI: sH-Oligopeptide-1 (proposed)  
CAS#: 62253-63-8

Dermatein® EGF contains a powerful protein known as epidermal growth factor. This protein is produced via biotechnology and purified using proprietary chromatographic techniques (>95% pure). When applied to the skin, epidermal growth factor accelerates healing and increases the rate of skin renewal on aging skin. We have also noticed, the more aged the skin, the more dramatic the response.

- EGF ACCELERATES HEALING OF SKIN
- EGF INCREASES RATE OF SKIN RENEWAL
- EGF WILL HELP SLOW DOWN THINNING OF AGING SKIN

Background
Epidermal Growth Factor (EGF) works on the regulation of cell growth and development. This small protein (only 53 amino acids) has been found to enhance epidermal growth and keratinization. EGF acts directly to stimulate the proliferation of epidermal cells and does not depend on any other systemic or hormonal influences.

Cells that respond to EGF do so because they have receptors on the cell membrane that recognize the factor. Binding of Epidermal Growth Factor to the receptor initiates a cascade of molecular events involving the MAPK/ERK pathway that eventually leads to cell division. EGF only needs to be present at very low concentrations to effect major changes in the cell changes because it is a signal molecule. EGF starts by binding to receptors on the cell surface, is amplified through the MAPK/ERK pathway, and ends with nuclear DNA expressing proteins and producing changes in the cell, e.g. cell division.

EGF has been found to play a role in wound healing by antagonizing reactive nitrogen and reactive oxygen intermediate production by keratinocytes, and reversing the growth inhibitory actions of inflammatory mediators. EGF has also been shown to help with the healing of diabetic ulcers.

Technical Data
Composition: 442 ppm EGF suspended in an ammonium sulfate solution.
Handling: Use Dermatein® EGF at 0.1% in anti-ageing skin care formulations  
Avoid extremes of pH and alcohols in formulation  
Add Dermatein® EGF at end of formulation, when product has cooled (≤45°C).  
This product is not preserved; please handle with care.
Storage: Keep refrigerated; suspension is stable at 2-8 °C. Do not freeze.
Shelf Life: At least 24 months when refrigerated in unopened containers.