

Technical Data Sheet



Human Epidermal Growth Factor (rh-EGF)

General Information

Other name: Epidermal Growth Factor Protein, Human; HOMG4 Protein, Human; URG Protein, Human

Catalog Number: A11S

Formulation: Lyophilized from 2.5mM Na₂HPO₄, 2.5mM NaH₂PO₄, 2% Mannitol, pH6.8

Mol. Wt.: 6.2kDa

Theory pI: 4.78

Resources: *Escherichia coli* (*E. coli*)

Species: *human*

Purity: ≥95% by SDS-PAGE analysis

Test Activity: EC₅₀ ≤ 0.1ng/ml (BALB/c 3T3 Cell detection)

Biological Activity: Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 0.1 ng/ml, corresponding to a specific activity of > 1.0 × 10⁷ IU/mg.

Application : research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

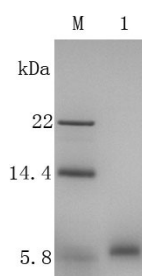
Product is stable for up to three years from date of receipt at -20°C to -80°C. Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Description

Mature human epidermal growth factor (HGF) is a single chain low molecular polypeptide composed of 53 amino acids, with a molecular weight of about 6.2kda. It contains 6 cysteine in the molecule and forms 3 pairs of disulfide bonds in the chain. It is stable for acid, alkali and heat, and can withstand the degradation of trypsin, chymotrypsin and pepsin. It is one of the most stable protein polypeptides. HGF can play a variety of biological functions by binding EGF receptor (EGFR) which is specific to cell surface. It can be used to treat surgical trauma, skin ulcer, gastrointestinal ulcer, corneal injury, tissue repair, etc.

HGF can automatically combine with EGFR on the cell membrane near the wound, activate protein kinase, accelerate the synthesis of DNA, RNA and protein, promote and regulate the growth and increment of epidermal cells, make the wound heal quickly and repair skin tissue. Therefore, adding HGF to cosmetics has the functions of removing spots, acne and acne. HGF also has protective effect on normal skin, mainly in delaying aging, increasing skin elasticity and luster.

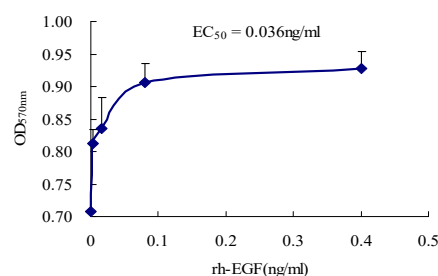
The recombinant human epidermal growth factor (RH EGF) was expressed by extracellular secretion. The amino acid sequence and molecular structure were consistent with the natural HGF, and it had complete biological activity.



16% Tricine-SDS-PAGE

M: Protein marker standard

Lane 1: rh-EGF



rh-EGF stimulate BALB/c 3T3 Cell proliferation test

Research use only or for further manufacturing