

# Human Epidermal Growth Factor (EGF)

## Recombinant Protein

### Product Information

**Product No.:** 36001P

**Storage:** -20°C

### Product Description

#### Background:

Epidermal Growth Factor (EGF) is a 6-kDa protein consisting of 53 amino acid residues and 3 intramolecular disulfide linkages. Human tissues, such as platelets, the parotid gland, and the submandibular gland, are rich in EGF. EGF, which was first discovered in human urine and the submaxillary glands of mice, functions as a major modulator of cell proliferation by attaching to its receptor, EGFR, which is found on the cell membrane. EGF triggers autophosphorylation of transmembrane protein tyrosine kinase EGFR upon binding, hence initiating downstream signaling cascades through pathways such as phosphatidylinositol and ras. Beyond the cell membrane, EGF has a variety of roles as it also initiates cytoplasmic processes such as actin depolymerization and membrane ruffle formation. Studies indicate that EGF and its receptor might possibly be important components of the nucleus, highlighting the complexity of EGF-mediated cellular responses.

#### Known Reactivity Species:

Human

#### Expression Host:

E. coli

#### Formulation

EGF was lyophilized from a concentrated (1 mg/ml) solution containing PBS pH-7.4.

#### Purity

Greater than 98.0% as determined by SDS-PAGE

#### Solubility

It is recommended to reconstitute the lyophilized Epidermal Growth Factor in sterile 18MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

#### Storage and Stability

This lyophilized protein should be stored desiccated at -20°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for 2 - 7 days or at -20°C for longer term. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

#### Avoid Repeated Freeze Thaw Cycles.

#### Country of Origin

USA