

Epidermal Growth Factor

Human, Recombinant (rHuEGF)

Expressed in *E. coli*

Cat. No. CRP0819

Lot. No. (See product label)

PRODUCT INFORMATION

Description: Epidermal growth factor (EGF) is a small mitogenic protein that is thought to be involved in mechanisms such as normal cell growth, oncogenesis, and wound healing. This protein shows both strong sequential and functional homology with human type-alpha transforming growth factor (hTGF alpha), which is a competitor for EGF receptor sites. EGF is a small 53 amino acid residue long protein that contains three disulfide bridges.

Amino-Acid Sequence: 53aa.(The sequence of the first fifteen N-terminal amino acids was determined and was found to be Asn-Ser-Asp-Ser-Glu-Cys-Pro-Leu-Ser-His-Asp-Gly-Tyr- Cys-Leu.), non-glycosylated

M. W. : 6,200 Da

Recombinant: Expressed in *E. coli*

Purity: >95% as determined by SDS-PAGE and SEC-HPLC.

Formulation: The protein was lyophilized from a concentrated (1mg/ml) solution with no additives.

Specific Activity: The ED50, calculated by the dose-dependant proliferation of murine BALB/c 3T3 cells is less than 2 ng/ml, corresponding to a specific activity of 5.0×10^5 IU/ mg.

Endotoxin: Less than 0.3ng/μg (0.3IEU/μg) determined by LAL test.

Reconstitution: It is recommended to reconstitute the lyophilized rHuEGF in sterile 18MQ-cm H₂O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

Storage: Lyophilized rHuEGF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rHuEGF should be stored at 4°C between 2-7 days and for future use below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Aliquot to avoid repeated freeze-thaw cycles.

FOR RESEARCH USE ONLY



[PDB](#) rendering based on 1ivo.

GENE INFORMATION

Gene Name: [EGF](#)

Gene Alias: HOMG4, URG

Gene Type: protein coding

mRNA Refseq: [NM_001963](#)

Protein Refseq: [NP_001954](#)

MIM: [131530](#)

GeneID: [1950](#)

Chromosome Location: 4q25

Pathway: Cytokine-cytokine receptor interaction; Endometrial cancer; ErbB signaling pathway; Focal adhesion; Gap junction; Glioma; MAPK signaling pathway; Melanoma; Non-small cell lung cancer; Pancreatic cancer; Prostate cancer; Regulation of actin cytoskeleton; Hemostasis; Signaling by EGFR

Function: calcium ion binding; epidermal growth factor receptor activating ligand activity; growth factor activity; protein binding

REFERENCES

- 1.Carpenter G, and Cohen S. Epidermal growth factor. J. Biol. Chem. 1990; 265 (14): 7709–7712
- 2.Fallon J H, Seroogy K B.et al. Epidermal growth factor immunoreactive material in the central nervous system: location and development. Science. 1984; 224 (4653): 1107–1109
- 3.Dreux A C, Lamb D J. et al. The epidermal growth factor receptors and their family of ligands: their putative role in atherogenesis. Atherosclerosis. 2006; 186 (1): 38–53

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