

# Active Recombinant Human Epidermal Growth Factor

Cat. No. EGF-556H Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	<p>A neurotrophic factor that promotes the survival of various neuronal cell types and may play an important role in the injury response in the nervous system.</p> <p>Recombinant Human Epidermal Growth Factor produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 53 amino acids and having a molecular mass of 6,222 Daltons.</p>
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	<p>Epidermal growth factor or EGF is a growth factor that plays an important role in the regulation of cell growth, proliferation, and differentiation by binding to its receptor EGFR. Human EGF is a 6045-Da protein with 53 amino acid residues and three intramolecular disulfide bonds.</p>
<b>Form</b>	Lyophilized with no additives.
<b>Purity</b>	Purity Greater than 95% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
<b>Bio-activity</b>	<p>Recombinant Human Epidermal Growth Factor is fully biologically active when compared to standards. The ED50, calculated by the dose-dependant proliferation of murine BALB/c 3T3 cells is less than 20.25pg/ml.</p>
<b>Physical Appearance</b>	Sterile Filtered white lyophilized (freeze-dried) powder.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Solubility</b>	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.
<b>Purity Greater than 95% as determined by</b>	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
<b>Protein Content determined by</b>	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
<b>Amino acid sequence</b>	NSDSECPLSH DGYCLHDGVC MYIEALDKYA CNCVVG YIGE RCQYRDLKWW ELR
<b>Storage</b>	Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.

## GENE INFORMATION

<b>Gene Name</b>	EGF epidermal growth factor [ Homo sapiens ]
<b>Official Symbol</b>	EGF
<b>Synonyms</b>	EGF; epidermal growth factor (beta-urogastrone); URG; HOMG4; epidermal growth factor; beta-urogastrone; Pro-epidermal growth factor; Epidermal growth factor; Urogastrone; OTTHUMP00000162922; OTTHUMP00000219721; OTTHUMP00000219722
<b>Gene ID</b>	1950

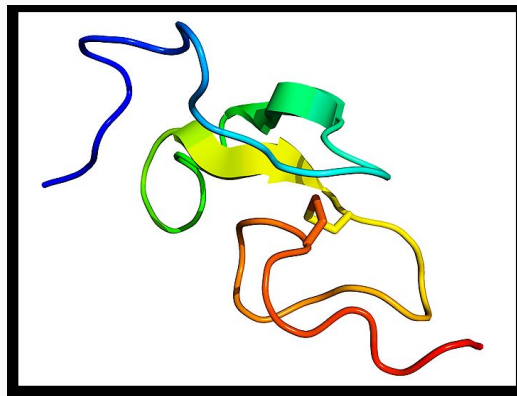
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<b>mRNA Refseq</b>	NM_001963
<b>Protein Refseq</b>	NP_001954
<b>MIM</b>	131530
<b>UniProt ID</b>	P01133
<b>Chromosome Location</b>	4q25
<b>Pathway</b>	Bladder cancer; Cytokine-cytokine receptor interaction; Endocytosis; Endometrial cancer; ErbB signaling pathway; Focal adhesion; Gap junction; Glioma; MAPK signaling pathway; Melanoma; Non-small cell lung cancer; Pancreatic cancer; Pathways in cancer; Prostate cancer; Regulation of actin cytoskeleton; Hemostasis; Signaling by EGFR
<b>Function</b>	calcium ion binding; epidermal growth factor receptor binding; growth factor activity; protein binding; transmembrane receptor protein tyrosine kinase activator activity

**RainbowcoloredNMR structure(N-terminus= blue, C-terminus=red) of the mouse epidermal growth factor.**



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