

Active Recombinant Human Epidermal Growth Factor

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

SPECIFICATION

Product Overview	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. 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.
Species	Human
Source	E.coli
Description	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.
Form	Lyophilized with no additives.
Purity	Purity Greater than 95% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	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.
Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.

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Solubility	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.
Purity Greater than 95% as determined by	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Protein Content determined by	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
Amino acid sequence	NSDSECPLSH DGYCLHDGVC MYIEALDKYA CNCVVG YIGE RCQYRDLKWW ELR
Storage	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

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

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mRNA Refseq	NM_001963
Protein Refseq	NP_001954
MIM	131530
UniProt ID	P01133
Chromosome Location	4q25
Pathway	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
Function	calcium ion binding; epidermal growth factor receptor binding; growth factor activity; protein binding; transmembrane receptor protein tyrosine kinase activator activity