

Recombinant Human EGF protein

Cat. No. EGF-632H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human EGF protein (51 a.a.) was expressed in Yeast.
Species	Human
Source	Yeast
ProteinLength	51
Description	Epidermal Growth Factor (EGF) was originally discovered in crude preparations of nerve growth factor prepared from mouse submaxillary glands as an activity that induced early eyelid opening, incisor eruption, hair growth inhibition, and stunting of growth when injected into newborn mice. Human EGF was isolated from urine based on its inhibitory effect on gastric secretion and named urogastrone, accordingly. EGF is prototypic of a family of growth factors that are derived from membrane-anchored precursors. All members of this family are characterized by the presence of at least one EGF structural unit (defined by the presence of a conserved 6 cysteine motif that forms three disulfide bonds) in their extracellular domain. EGF is initially synthesized as a 130 kDa precursor transmembrane protein containing 9 EGF units. The mature soluble EGF sequence corresponds to the EGF unit located proximal to the transmembrane domain. The membrane EGF precursor is capable of binding to the EGF receptor and was reported to be biologically active. Mature human EGF shares 70 % a.a. sequence identity with mature mouse and rat EGF.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.

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Bio-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 $> 1.0 \times 10^6$ IU/mg.
Molecular Mass	Approximately 6.0 kDa, a single glycosylated polypeptide chain containing 51 amino acids.
AA Sequence	NSDSECLSHDGYCLHDGVCMYIEALDKYACNCVVG YIGERCQYRDLKWWE
Endotoxin	Less than 0.1 EU/μg of rHuEGF, 1-51a.a. as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	EGF
Official Symbol	EGF
Synonyms	EGF; epidermal growth factor; epidermal growth factor (beta urogastrone); pro-

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epidermal growth factor; beta-urogastrone; URG; HOMG4;

Gene ID 1950

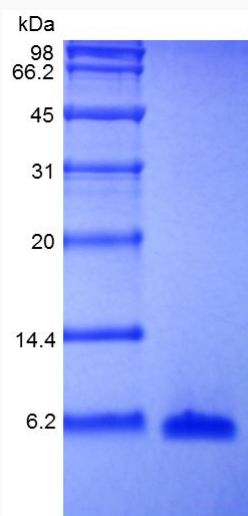
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Protein Refseq NP_001171601

MIM 131530

UniProt ID P01133

SDS-PAGE of EGF-632H



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