

Recombinant Rat Egf protein

Cat. No. Egf-636R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Egf protein was expressed in Escherichia coli.
Species	Rat
Source	E.coli
ProteinLength	53
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. It 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 rat EGF shares 70 % a.a. sequence identity with mature human EGF.
Form	Lyophilized from a 0.2µm filtered solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a

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	cell proliferation assay using murine Balb/c 3T3 cells is less than 0.1 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^7$ IU/mg.
Molecular Mass	Approximately 6.1 kDa, a single non-glycosylated polypeptide chain containing 53 amino acids, including 3 intramolecular disulfide-bonds.
AA Sequence	NSNTGCPPSYDGYCLNGGVCMYVESVDTRYVCNCVIGYIGERCQHRDLRWWKLR
Endotoxin	Less than 1 EU/μg of rRtEGF as determined by LAL method.
Purity	>97% 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	Urogastrone, URG

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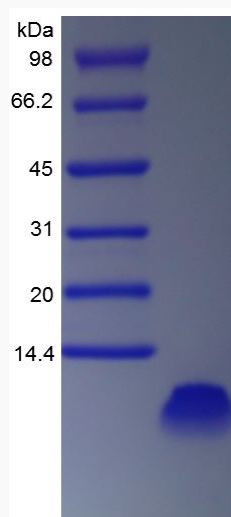
Gene ID 25313

mRNA Refseq NM_012842

Protein Refseq NP_036974

UniProt ID P07522

SDS-PAGE of Egf-636R



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