

## EGF recombinant protein

EGF Protein, Mouse, Recombinant

CATALOG #  
**AAA257474**

HOST  
**Yeast**

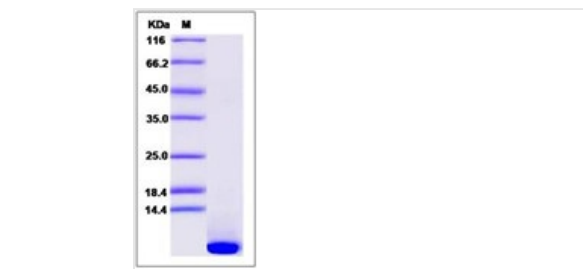
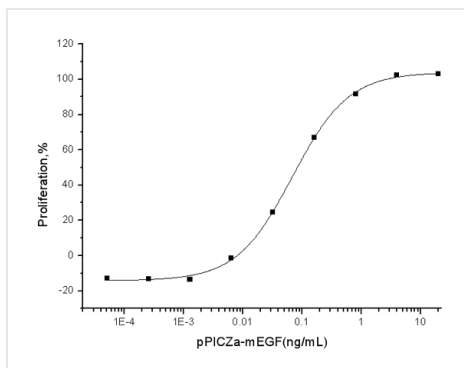
### PRODUCT SYNONYMS

EGF; EGF Protein; Mouse; Recombinant; Mouse EGF/Epidermal Growth Factor Protein; epidermal growth factor; A1790464 Protein; EGF recombinant protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | Yeast                                                                                                                                                                                                                                                                                                                            |
| Purity/Purification     | >95 % as determined by SDS-PAGE                                                                                                                                                                                                                                                                                                  |
| Form/Format             | Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.                                                                                                                                                                                        |
| Sequence Positions      | 53aa                                                                                                                                                                                                                                                                                                                             |
| Sequence                | Asn977-Arg 1029                                                                                                                                                                                                                                                                                                                  |
| Species                 | Mouse                                                                                                                                                                                                                                                                                                                            |
| Predicted N Terminal    | Asn977                                                                                                                                                                                                                                                                                                                           |
| Protein Construction    | JA DNA sequence encoding the mouse EGF (P01132) (Asn977-Arg1029) was expressed and purified                                                                                                                                                                                                                                      |
| Activity                | Measured in a cell proliferation assay using Balb/c 3T3 mouse embryonic fibroblast cells. The ED50 for this effect is typically 30-180 pg/mL.                                                                                                                                                                                    |
| Preparation and Storage | Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.<br>Shipping: They are shipped out with blue ice pack |

### IMAGES



Application Data

#### Application Data

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## ADDITIONAL INFORMATION

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|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for EGF recombinant protein</b> | EGF is the founding member of the EGF-family of proteins. Members of this protein family have highly similar structural and functional characteristics. EGF contains 9 EGF-like domains and 9 LDL-receptor class B repeats. Human EGF is a 6045-Da protein with 53 amino acid residues and three intramolecular disulfide bonds. As a low-molecular-weight polypeptide, EGF was first purified from the mouse submandibular gland, but since then it was found in many human tissues including submandibular gland, parotid gland. It can also be found in human platelets, macrophages, urine, saliva, milk, and plasma. EGF is a growth factor that stimulates the growth of various epidermal and epithelial tissues in vivo and in vitro and of some fibroblasts in cell culture. It results in cellular proliferation, differentiation, and survival. Salivary EGF, which seems also regulated by dietary inorganic iodine, also plays an important physiological role in the maintenance of oro-esophageal and gastric tissue integrity. EGF acts by binding with high affinity to epidermal growth factor receptor on the cell surface and stimulating the intrinsic protein-tyrosine kinase activity of the receptor. The tyrosine kinase activity, in turn, initiates a signal transduction cascade that results in a variety of biochemical changes within the cell-a rise in intracellular calcium levels, increased glycolysis and protein synthesis, and increases in the expression of certain genes including the gene for EGFR-that ultimately lead to DNA synthesis and cell proliferation. |
| <b>Product Categories/Family for EGF recombinant protein</b>   | <a href="#">EGFR Signaling Pathway</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>References</b>                                              | Chen JX, et al. (2011) Involvement of c-Src/STAT3 signal in EGF-induced proliferation of rat spermatogonial stem cells. Mol Cell Biochem. 358(1-2):67-73. Guo Y, et al. (2012) Correlations among ERCC1, XPB, UBE2I, EGF, TAL2 and ILF3 revealed by gene signatures of histological subtypes of patients with epithelial ovarian cancer. Oncol Rep. 27(1):286-92. Kim S, et al. (2012) Smad7 acts as a negative regulator of the epidermal growth factor (EGF) signaling pathway in breast cancer cells. Cancer Lett. 314(2):147-54. Chatterton RT Jr, et al. (2010) Breast ductal lavage for assessment of breast cancer biomarkers. Horm Cancer. 1(4):197-204.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## NCBI AND UNIPROT INFORMATION

|                                         |                                                                                                   |
|-----------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>NCBI GI #</b>                        | <a href="#">170172524</a>                                                                         |
| <b>NCBI GeneID</b>                      | <a href="#">13645</a>                                                                             |
| <b>NCBI Accession #</b>                 | <a href="#">NP_034243.2</a>                                                                       |
| <b>NCBI GenBank Nucleotide #</b>        | <a href="#">NM_010113.4</a>                                                                       |
| <b>UniProt Accession #</b>              | <a href="#">P01132</a> ; <a href="#">Q569W5</a> ; <a href="#">Q6P9J2</a> ; <a href="#">E9QNX6</a> |
| <b>Molecular Weight</b>                 | 133,072 Da                                                                                        |
| <b>NCBI Official Full Name</b>          | pro-epidermal growth factor isoform 1                                                             |
| <b>NCBI Official Synonym Full Names</b> | epidermal growth factor                                                                           |
| <b>NCBI Official Symbol</b>             | Egf                                                                                               |
| <b>NCBI Official Synonym Symbols</b>    | AI790464                                                                                          |
| <b>NCBI Protein Information</b>         | pro-epidermal growth factor                                                                       |
| <b>UniProt Protein Name</b>             | Pro-epidermal growth factor                                                                       |
| <b>UniProt Gene Name</b>                | <b>Egf</b>                                                                                        |
| <b>UniProt Synonym Gene Names</b>       | EGF                                                                                               |
| <b>UniProt Entry Name</b>               | EGF_MOUSE                                                                                         |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.