

**EGF**  
Catalog # PVGS1655

## Specification

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### EGF - Product Information

Primary Accession [P07522](#)  
Species  
Rat

Sequence  
Asn974-Arg1026

Purity  
> 97% as analyzed by SDS-PAGE  
> 97% as analyzed by HPLC

Endotoxin Level  
< 1 EU/ µg of protein by LAL method

Biological Activity  
The ED<sub>50</sub> 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  $1.0 \times 10^7$  IU/mg.

Expression System  
E. coli

Theoretical Molecular Weight  
6.1 kDa

Formulation **Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4.**

Reconstitution  
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml.

Storage & Stability  
Upon receiving, this product remains stable for up to 6 months at -20°C or -70°C. Upon reconstitution, the product should be stable for up to 1 week at 2-8°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

### EGF - Additional Information

Gene ID 25313

Other Names  
Pro-epidermal growth factor, EGF, Epidermal growth factor, Egf

Target Background  
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.

## **EGF - Protein Information**

**Name** Egf

### **Function**

EGF stimulates the growth of various epidermal and epithelial tissues in vivo and in vitro and of some fibroblasts in cell culture. Magnesiotropic hormone that stimulates magnesium reabsorption in the renal distal convoluted tubule via engagement of EGFR and activation of the magnesium channel TRPM6 (By similarity).

### **Cellular Location**

Membrane; Single-pass type I membrane protein.

## **EGF - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## **EGF - Images**