

**EGF**  
Catalog # PVGS1515

## Specification

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### EGF - Product Information

Primary Accession [P01133](#)  
Species  
Human

**Sequence**  
Asn971-Arg1023, expressed with an N terminal Met

**Purity**  
> 95% as analyzed by SDS-PAGE

**Endotoxin Level**  
< 0.2 EU/ µg of protein by gel clotting method

**Biological Activity**  
ED<sub>50</sub> < 0.2 ng/ml, as determined by a cell proliferation assay using Balb/c 3T3 cells, corresponding to a specific activity of  $\geq 5.0 \times 10^6$  units/mg.

**Expression System**  
E. coli

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

**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 ddH<sub>2</sub>O or PBS up to 100 µg/ml.

**Storage & Stability**  
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

### EGF - Additional Information

Gene ID 1950

**Other Names**  
Pro-epidermal growth factor, EGF, Epidermal growth factor, Urogastrone, EGF

**Target Background**  
Epidermal Growth Factor (EGF) is a potent growth factor that stimulates the proliferation of various epidermal and epithelial cells. Additionally, EGF has been shown to inhibit gastric secretion, and to be involved in wound healing. EGF signals through the EGF receptor (EGFR) also known as erbB1, is a class I tyrosine kinase receptor. This receptor also binds with TGF-α and VGF (vaccinia virus

growth factor). EGF-receptor binding results in cellular proliferation, differentiation, and survival. EGF is a low-molecular-weight polypeptide first purified from the mouse submandibular gland, but since then found in many human tissues including submandibular gland, parotid gland. 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. The biological effects of salivary EGF include healing of oral and gastroesophageal ulcers, inhibition of gastric acid secretion, stimulation of DNA synthesis as well as mucosal protection from intraluminal injurious factors such as gastric acid, bile acids, pepsin, and trypsin and to physical, chemical and bacterial agents.

## 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. Can induce neurite outgrowth in motoneurons of the pond snail *Lymnaea stagnalis* in vitro (PubMed: <a href="http://www.uniprot.org/citations/10964941" target="\_blank">10964941</a>).

### Cellular Location

Membrane; Single-pass type I membrane protein.

### Tissue Location

Expressed in kidney, salivary gland, cerebrum and prostate.

## 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