



## Recombinant Human EGF (rhEGF)

100 µg, Catalog Number 2012

500 µg, Catalog Number 2032

### Description

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 a receptor known as c-erbB, which is a class I tyrosine kinase receptor. This receptor also binds with TGF- $\alpha$  and VGF (vaccinia virus growth factor). Recombinant human EGF is a 6.2 kDa globular protein containing 53 amino acid residues including 3 intramolecular disulfide-bonds.

### AA Sequence

NSDSECLSH DGYCLHDGVC MYIEALDKYA CNCVVG YIGE RCQYRDLKWW  
ELR

### Source

*E. Coli.*

### Purity

Greater than 98% by SDS-PAGE gel and HPLC analysis.

### Endotoxin Level

Endotoxin level is less than 0.1 ng per µg (1EU/µg).

### Reconstitution:

Centrifuge the vial prior to opening. It is recommended to reconstitute in sterile distilled H<sub>2</sub>O containing a carrier protein (example 0.1% BSA) to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* Store the working aliquots at -20°C to -80°C.

### Stability

The lyophilized protein is stable for at least 2 years from the date of receipt.

### Storage

-20°C

### Biological Activity

Assay #1: Measured by its ability to stimulate proliferation of NIH3T3 cells. The ED<sub>50</sub> of this effect is less than 0.1 ng/ml.

Assay #2: Measured by its ability to stimulate proliferation of human primary cells (HUVEC, ScienCell, cat. no. 8000). The ED<sub>50</sub> of this effect is less than 0.1 ng/ml.

**Product Use**

For research use only. It is not approved for human or animal use, or for application in *in vitro* diagnostic procedures.

**Reference**

1. GAPex-5 mediates ubiquitination, trafficking, and degradation of epidermal growth factor receptor. *J Biol Chem.* 282(29):21278-21284 (2007).
2. Variant genotypes and haplotypes of the epidermal growth factor gene promoter are associated with a decreased risk of gastric cancer in a high-risk Chinese population. *Cancer Sci.* 98(6):864-868 (2007).