

RP02844

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# Recombinant Human HB-EGF Protein

Catalog No.: RP02844

Recombinant

## Sequence Information

Species	Gene ID	Swiss Prot
Baculovirus-Insect Cells	1839	Q99075

### Tags

No tag

### Synonyms

DTR; DTS; DTSF;  
HEGFL;HBEGF;DTS;DTSF;HEGFL;HBEGF

## Product Information

Source	Purification
	> 95% by SDS-PAGE.

### Endotoxin

<1EU/μg

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize freeze-thaw cycles.

## Background

Heparin-binding EGF-like growth factor (HB-EGF) is a 12-16 kDa member of the epidermal growth factor (EGF) family. It possesses an EGF-like domain, and a heparin-binding motif. Mature HB-EGF is a soluble peptide that arises from proteolytic processing of the transmembrane form. Human HB-EGF shows 76% and 73% amino acid sequence identity with rat and mouse HB-EGF, respectively. It is required for normal cardiac valve formation and normal heart function, promotes smooth muscle cell proliferation. It may be involved in macrophage-mediated cellular proliferation; it is mitogenic for fibroblasts, but not endothelial cells. HB-EGF is classified as a group 2 ErbB ligand based on its ability to activate both the EGF/ErbB1 and ErbB4 receptors. Activity associated with ErbB4 binding appears to be limited to non-mitogenic actions, while EGFR binding induces both mitogenic and non-mitogenic activity.

## Basic Information

### Description

Recombinant Human HB-EGF Protein is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Asp63-Leu148) of human HB-EGF (Accession #NP\_001936.1) fused with no additional amino acid.

### Bio-Activity

Measured in a cell proliferation assay using Balb/C 3T3 mouse embryonic fibroblasts. The ED<sub>50</sub> for this effect is typically 0.4-2 ng/mL.

### Storage

Store the lyophilized protein at -20°C to -80°C for 12 months. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

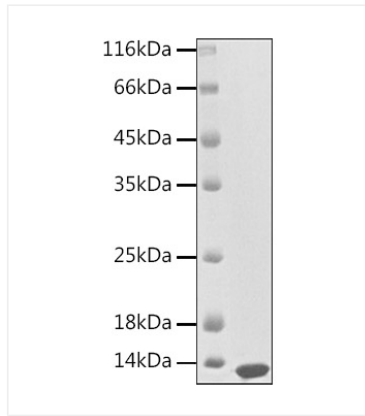
Avoid repeated freeze/thaw cycles.

## Contact

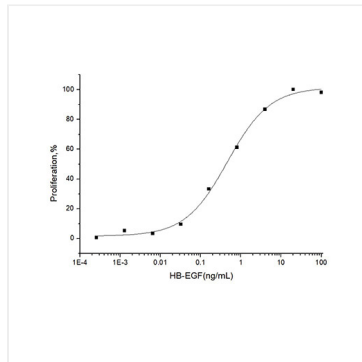


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## Validation Data



Recombinant Human HB-EGF Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 10 kDa.



Recombinant Human HB-EGF promotes the proliferation of BALB/c 3T3 mouse embryonic fibroblasts cells. The  $ED_{50}$  for this effect is typically 0.4-2 ng/mL.