

Recombinant Human HB-EGF Protein

Catalog No.: RP00754 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	1839	Q99075

Tags

C-His

Synonyms

DTR; DTS; DTSF;
HEGFL;HBEGF;DTS;DTSF;HEGFL;HB-EGF

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Endotoxin

< 1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the tube 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.

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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 Human Cells expression system. The target protein is expressed with sequence (Leu20-Leu148) of human HB-EGF (Accession #Q99075) fused with a 6×His tag at the C-terminus.

Bio-Activity

Measured in a cell proliferation assay using Balb3T3 mouse fibroblast cells. The ED₅₀ for this effect is 0.15-0.60 ng/mL, corresponding to a specific activity of 1.67×10⁶~6.67×10⁶ units/mg.

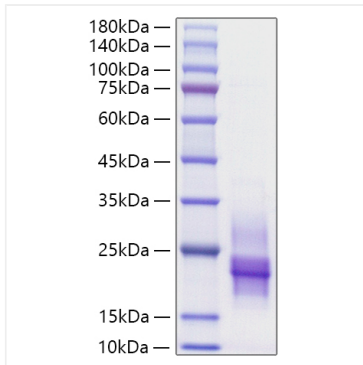
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

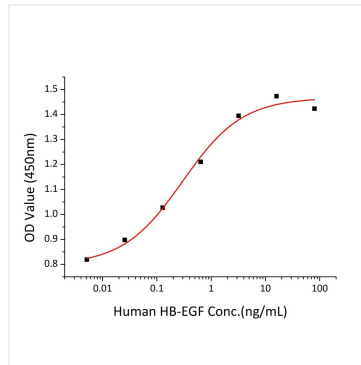
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human HB-EGF Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 15-25 kDa.



Measured in a cell proliferation assay using Balb3T3 mouse fibroblast cells. The ED₅₀ for this effect is 0.15-0.60 ng/mL, corresponding to a specific activity of 1.67×10^6 ~ 6.67×10^6 units/mg.