

HB-EGF Active Protein | HBEGF active protein

HB-EGF Protein, Human, Recombinant

CATALOG #
AAA257870

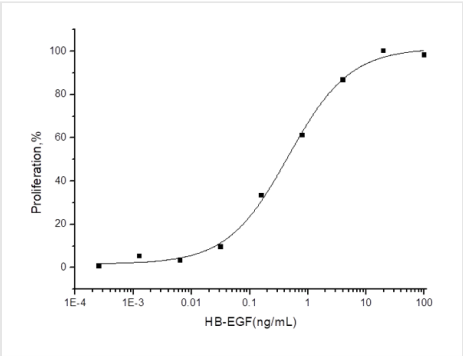
HOST
Baculovirus-Insect Cells

PRODUCT SYNONYMS

HB-EGF; HB-EGF Protein; Human; Recombinant; Human HBEGF/DTR Protein; DTR Protein; DTS Protein; DTSF Protein; HEGFL Protein; heparin-binding EGF-like growth factor; HBEGF active protein

PRODUCT SPECIFICATIONS

Host	Baculovirus-Insect Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Leu148
Species	Human
Activity	Measured in a cell proliferation assay using Balb/C 3T3 mouse embryonic fibroblasts. The ED ₅₀ for this effect is typically 0.4-2ng/mL.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Asp 63
Tag	Native
Protein Construction	A DNA sequence encoding the human HBEGF (Q99075)(Met 1-Leu 148) without the C-terminal propeptide (aa 149-208), was expressed and purified.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data
Measured in a cell proliferation assay using Balb/C 3T3 mouse embryonic fibroblasts. The ED50 for this effect is typically 0.4-2ng/mL.

ADDITIONAL INFORMATION

Related Product Information for HBEGF active protein

Background: Heparin-binding EGF-like growth factor (HBEGF), a member of the EGF family of growth factors, exerts its biological activity through activation of the EGFR and other ErbB receptors. Soluble mature HBEGF is proteolytically processed from a larger membrane-anchored precursor and is a potent mitogen and chemotactic factor for fibroblasts, smooth muscle cells but not endothelial cells. HBEGF activates two EGF receptor subtypes, HER1 and HER4, and binds to cell surface HSPG. The transmembrane form of HBEGF is a juxtacrine growth and adhesion factor and is uniquely the receptor for diphtheria toxin. Both forms of HB-EGF participate in normal physiological processes and pathological processes including tumor progression and metastasis, organ hyperplasia, and atherosclerotic disease. HBEGF participates in diverse biological processes, including heart development and maintenance, skin wound healing, eyelid formation, blastocyst implantation, the progression of atherosclerosis, and tumor formation, through the activation of signaling molecules downstream of ErbB receptors and interactions with molecules associated with HBEGF. tumor necrosis factor-alpha (TNF-alpha) and interleukin-1 beta markedly increased HB-EGF mRNA levels in HUVEC by 12- and 7-fold, respectively, and induction of the gene by TNF-alpha was both dose- and time-dependent.

References

Miyamoto S, et al. (2006) Heparin-binding epidermal growth factor-like growth factor as a novel targeting molecule for cancer therapy. *Cancer Sci.* 97(5): 341-7. Raab G, et al. (1997) Heparin-binding EGF-like growth factor. *Biochim Biophys Acta.* 1333(3): 179-99. Pathak BG, et al. (1995) Mouse chromosomal location of three EGF receptor ligands: amphiregulin (Areg), betacellulin (Btc), and heparin-binding EGF (Hegfl). *Genomics.* 28(1): 116-8.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4503413
NCBI GeneID	1839
NCBI Accession #	NP_001936.1
NCBI GenBank Nucleotide #	NM_001945.2
UniProt Accession #	Q99075; B2R821
Molecular Weight	23,067 Da
NCBI Official Full Name	proheparin-binding EGF-like growth factor
NCBI Official Synonym Full Names	heparin-binding EGF-like growth factor
NCBI Official Symbol	HBEGF
NCBI Official Synonym Symbols	DTR; DTS; DTSF; HEGFL
NCBI Protein Information	proheparin-binding EGF-like growth factor; heparin-binding epidermal growth factor; diphtheria toxin receptor (heparin-binding EGF-like growth factor); diphtheria toxin receptor (heparin-binding epidermal growth factor-like growth factor)

UniProt Protein Name	Proheparin-binding EGF-like growth factor
UniProt Gene Name	HBEGF
UniProt Synonym Gene Names	DTR; DTS; HEGFL; HB-EGF; HBEGF; DT-R
UniProt Entry Name	HBEGF_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/baculovirus-insect-cells-hbegf-active-protein/hb-egf/257870>