HBEGF

Recombinant Human Heparin-binding EGF-like Growth Factor / Diptheria Toxin Receptor

Catalog No.	CRH450A	**Quantity:**	50 µg
	CRH450B		100 µg
	CRH450C		1.0 mg

Alternate Names: Proheparin-binding EGF-like growth factor, Heparin-binding EGF-like growth factor, HB-EGF, HBEGF, Diphtheria toxin receptor, DT-R

Description: 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 in 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, progression of atherosclerosis and tumor formation, through the activation of signaling molecules downstream of ErbB receptors and interactions with molecules associated with HBEGF. TNF-alpha) and IL-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.

UniProt ID: Q99075

Protein Construction: A DNA sequence encoding the human HBEGF (Met 1-Leu 148) without the C-terminal propeptide (aa 149-208), was expressed and purified.

Source: Baculovirus-Insect Cells

Molecular Weight: The expressed pro form of human HBEGF consists of 148 amino acids and predicts a molecular mass of 16.4 kDa. The processed soluble HBEGF is a 9.7 kDa protein comprising 86 amino acids generated by proteolytic processing.

Formulation: Lyophilized from sterile PBS, pH 7.4
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Purity: > 95 % as determined by SDS-PAGE.

Endotoxin Level: < 1.0 EU per µg protein as determined by the LAL method.

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

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Predicted N-terminal: Asp 63

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial.
DO NOT VORTEX. Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

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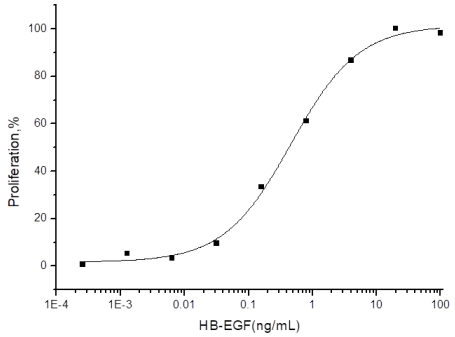

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