

HBEGF

Recombinant Human Heparin-Binding EGF-like Growth Factor

Catalog No. CS483A **Quantity**: 10 μg

CS483B 50 μg CS483C 1 mg

Alternate Names: DTR, DTS, DTSF, EGFL

Description: Heparin-binding EGF-like growth factor (HB-EGF) is a member of the EGF family of

proteins that in humans is encoded by the HBEGF gene. HB-EGF-like growth factor is synthesized as a membrane-anchored mitogenic and chemotactic glycoprotein. It has been shown to play a role in wound healing, cardiac hypertrophy and heart development and function. First identified in the conditioned media of human macrophage-like cells,

HB-EGF is an 87 amino acid gylcoprotein which displays highly regulated gene expression. Ectodomain shedding results in the soluble mature form of HB-EGF which

influences the mitogenicity and chemotactic factors for smooth muscle cells and fibroblasts. The transmembrane form of HB-EGF is the unique receptor for diptheria toxin

and functions in juxtacrine signaling in cells. Both forms of HB-EGF participate in normal physiological processes and in pathological processes including tumor progression and metastasis, organ hyperplasia, and atherosclerotic disease. HB-EGF can bind two locations on cell surfaces, heparan sulfate proteoglycans and EGF-receptor effecting cell

to cell interactions.

Recombinant Human Heparin-Binding EGF-like Growth Factor is a single non-

glycosylated polypeptide chain containing 86 amino acids.

Gene ID: 1839

Source: E. coli

Molecular Weight: Approximately 9.7 kDa

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, + 130 mM

NaCl.

Purity: >97% by SDS-PAGE and HPLC analyses.

Endotoxin Level: <1 EU/µg as determined by LAL method.

Biological Activity: Fully biologically active when compared to standard. The ED₅₀ determined by a cell

proliferation assay using mouse BALB/c 3T3 cells is less than 1 ng/ml.

Specific Activity: >1.0 x 10⁶ IU/mg.

Amino Acid Sequence: DLQEADLDLL RVTLSSKPQA LATPNKEEHG KRKKKGKGLG KKRDPCLRKY

KDFCIHGECK YVKELRAPSC ICHPGYHGER CHGLSL

Reconstitution: Centrifuge vial prior to opening. Add sterile distilled water or aqueous buffer

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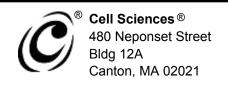
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containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. This depends upon the

particular application employed. Further dilutions should be made in appropriate buffered

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Storage & Stability:

This lyophilized preparation is stable at 2-8°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2 -8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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