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Datasheet for ABIN2017928 HBEGF Protein

Overview

Quantity:	50 µg
Target:	HBEGF
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Sequence:	DLQEADLDLL RVTLSKPKQA LATPNKEEHG KRKKKGKGLG KKRDPCLRKY KDFCIHGECK YVKELRAPSC ICHPGYHGER CHGLSL
Characteristics:	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 1 ng/mL, corresponding to a specific activity of $> 1.0 \times 10^6$ IU/mg.
Purity:	$> 97\%$ by SDS-PAGE and HPLC analyses.
Sterility:	0.2 µm filtered
Endotoxin Level:	< 1 EU/µg of rHuHB-EGF as determined by LAL method.

Target Details

Target:	HBEGF
Alternative Name:	HB-EGF (HBEGF Products)
Background:	Heparin-binding EGF-like growth factor (HB-EGF) is a member of the EGF family of proteins that

Target Details

in humans is encoded by the HBEGF gene. HB-EGF-like growth factor is synthesized as a membrane-anchored mitogenic and chemotactic glycoprotein. An epidermal growth factor produced by monocytes and macrophages, due to an affinity for heparin is termed HB-EGF. 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 glycoprotein 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 diphtheria 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.

Synonyms: Heparin Binding EGF-like growth factor, HBEGF, Diphtheria toxin receptor, DTR

Molecular Weight: 9.7 kDa, a single non-glycosylated polypeptide chain containing 86 amino acids.

Pathways: [RTK Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Buffer: Lyophilized from a 0.2 μ m filtered concentrated solution in 20 mM PB, pH 7.4, 130 mM NaCl.

Handling Advice: Avoid repeated freeze/thaw cycles.

Storage: 4 °C/-20 °C

Storage Comment: This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. 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 -70 °C.