

Recombinant Human Heparin-binding EGF-like Growth Factor (Human HB-EGF)

Product Information

Product Name	Cat#	Size
Recombinant Human Heparin-binding EGF-like Growth Factor (Human HB-EGF)	92702ES10	10 µg
	92702ES60	100 µg
	92702ES76	500 µg

Product Description

Human HB-EGF (Heparin-Binding EGF-like growth factor), also known as the DTR (diphtheria toxin receptor), is a 12-16 kDa member of the EGF family of peptide growth factors. It is further classified as a group 2 ErbB ligand based on its ability to activate both the EGF/ErbB1 and ErbB4 receptors. Mature HB-EGF is a soluble peptide that arises from proteolytic processing of the transmembrane form. The transmembrane form of HBEGF is a juxtacrine growth and adhesion factor and is uniquely the receptor for diphtheria toxin. Cells known to express HB-EGF include bronchial epithelium, visceral and vascular smooth muscle, CD4+ T cells, cardiac muscle, glomerular podocytes, keratinocytes and IL-10-secreting regulatory macrophages. 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.

Product Properties

Synonyms	HBEGF, DT-R
Accession	Q99075
GeneID	1839
Source	E.coli-derived Human HB-EGF, Asp63-Leu148.
Molecular Weight	Approximately 9.7 kDa.
AA Sequence	DLQEADLDLL RVTLSKPKQA LATPNKEEHG KRKKKGKGLG KKRDPCLRKY KDFCIHGECK YVKELRAPSC ICHPGYHGER CHGLSL
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE and HPLC analyses.
Biological Activity	The ED ₅₀ 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 × 10 ⁶ IU/mg. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 130 mM NaCl. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	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.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.