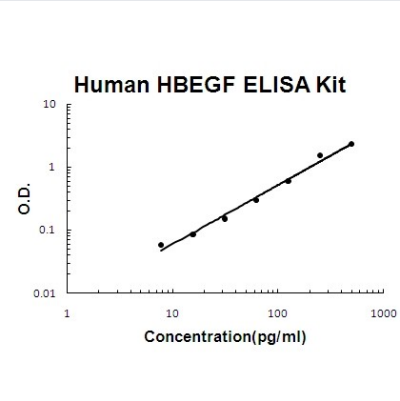
HBEGF ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	HBEGF, ELISA Kit
Full Product Name	Human HBEGF PicoKine ELISA Kit
Product Gene Name	HBEGF elisa kit
Product Synonym Names	Proheparin-binding EGF-like growth factor; heparin-binding EGF-like growth factor; Diphtheria toxin receptor; diphtheria toxin receptor (heparin-binding EGF-like growth factor); diphtheria toxin receptor (heparin-binding epidermal growth factor-like growth factor); DT R; DT-R; DTR; DTS; DTSF; HB-EGF; HBEGF; HBEGF_HUMAN; HEGFL; Heparin binding EGF like growth factor; Heparin binding epidermal growth factor; Heparin binding epidermal growth factor like growth factor; Heparin-binding EGF-like growth factor; Proheparin binding EGF like growth factor
Species Reactivity	Human
Assay Type	Sandwich
Samples	Cell culture supernates, serum and plasma (heparin, EDTA)
Detection Range	15.6pg/ml-1000pg/ml
Sensitivity	< 10pg/ml
Specificity	Natural and recombinant human HBEGF
Preparation and Storage	Store at 4 degree C for 6 months, at -20 degree C for 12 months. Avoid multiple freeze-thaw cycles (Shipped with wet ice.)
Molecular Weight	23,067 Da
OMIM	126150
3D Structure	ModBase 3D Structure for Q99075
Production Time	Due to severe delay and raw materials shortage, production time may takes between 5-8 weeks.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for HBEGF elisa kit	**Principle of the assay:** human HBEGF ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for HBEGF has been precoated onto 96-well plates. Standards(sf21,D63-L148) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for HBEGF is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human HBEGF amount of sample captured in plate. **Background:** HBEGF(Heparin-binding EGF-like growth factor), also known as HEGFL or DTR, is a member of the EGF family of proteins that in humans is encoded by the HBEGF gene. The HBEGF gene is assigned to chromosome 5, thus confirming the assignment of the gene on the basis of its role in relation to diphtheria toxin susceptibility. HB-EGF is an 87 amino acid glycoprotein which displays highly regulated gene expression. It has been shown to play a role in wound healing, cardiac hypertrophy and heart development and function. HB-EGF binding and activation of EGF receptors plays a critical role during cardiac valve tissue development and the maintenance of normal heart function in adults.
Other Notes	Small volumes of HBEGF elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for HBEGF purchase	MBS176521 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the HBEGF, ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing HBEGF. The ELISA analytical biochemical technique of the MBS176521 kit is based on HBEGF antibody-HBEGF antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect HBEGF antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, HBEGF. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of HBEGF elisa kit
Human HBEGF PicoKine ELISA Kit standard curve

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HBEGF. It may not necessarily be applicable to this product.

NCBI GI #	544477
NCBI GeneID	1839
NCBI Accession #	Q99075.1
UniProt Primary Accession #	Q99075
UniProt Secondary Accession #	B2R821
UniProt Related Accession #	Q99075
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
UniProt Protein Name	Proheparin-binding EGF-like growth factor
UniProt Synonym Protein Names	Diphtheria toxin receptor; DT-R
Protein Family	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
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 Comments for HBEGF	HBEGF: Growth factor that mediates its effects via EGFR, ERBB2 and ERBB4. Required for normal cardiac valve formation and normal heart function. Promotes smooth muscle cell proliferation. May be involved in macrophage-mediated cellular proliferation. It is mitogenic for fibroblasts, but not endothelial cells. It is able to bind EGF receptor/EGFR with higher affinity than EGF itself and is a far more potent mitogen for smooth muscle cells than EGF. Also acts as a diphtheria toxin receptor. Protein type: Membrane protein, integral; Cell surface Chromosomal Location of Human Ortholog: 5q23 Cellular Component: extracellular space; cell surface; integral to plasma membrane; plasma membrane; extracellular region Molecular Function: heparin binding; growth factor activity; epidermal growth factor receptor binding Biological Process: positive regulation of keratinocyte migration; epidermal growth factor receptor signaling pathway; muscle development; fibroblast growth factor receptor signaling pathway; phosphoinositide-mediated signaling; nerve growth factor receptor signaling pathway; negative regulation of elastin biosynthetic process; positive regulation of smooth muscle cell proliferation; pathogenesis; signal transduction; positive regulation of cell growth; regulation of heart contraction; positive regulation of protein kinase B signaling cascade; positive regulation of cell proliferation; innate immune response; wound healing, spreading of epidermal cells; positive regulation of cell migration
Research Articles on HBEGF	**1.** Autocrine HBEGF expression promotes breast cancer intravasation, metastasis and macrophage-independent invasion in vivo.
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