

Datasheet for ABIN1672797
HBEGF ELISA Kit



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1 Image

Overview

Quantity:	96 tests
Target:	HBEGF
Binding Specificity:	AA 63-148
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human HBEGF
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: sf21 Immunogen sequence: D63-L148
Specificity:	Expression system for standard: sf21 Immunogen sequence: D63-L148
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target:	HBEGF
Alternative Name:	HBEGF (HBEGF Products)
Background:	<p>Protein Function: 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.</p> <p>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.</p> <p>Synonyms: Proheparin-binding EGF-like growth factor,Heparin-binding EGF-like growth factor,HB-EGF,HBEGF,Diphtheria toxin receptor,DT-R,HBEGF,DTR, DTS, HEGFL,</p> <p>Full Gene Name: Proheparin-binding EGF-like growth factor</p> <p>Cellular Localisation: Heparin-binding EGF-like growth factor: Secreted, extracellular space. Mature HB-EGF is released into the extracellular space and probably binds to a receptor.</p>
Gene ID:	1839
UniProt:	Q99075
Pathways:	RTK Signaling , Fc-epsilon Receptor Signaling Pathway , EGFR Signaling Pathway , Neurotrophin Signaling Pathway

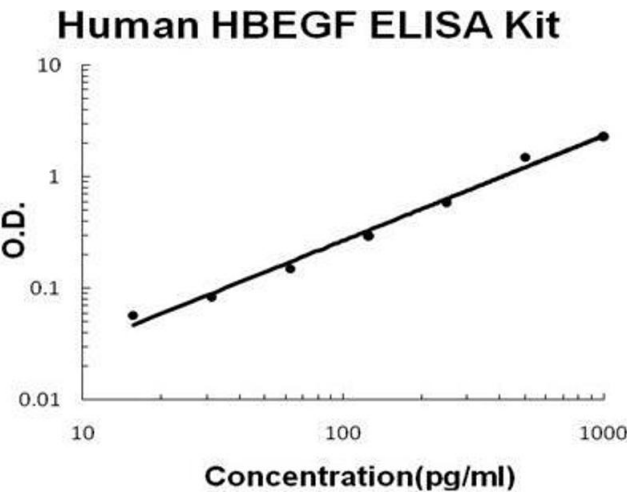
Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Contains 1 EGF-like domain.
Plate:	Pre-coated
Protocol:	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.
Assay Procedure:	Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL human HBEGF standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human HBEGF standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 92.7, Standard deviation: 5.10, CV(%): 5.5• Sample 2: n=16, Mean(pg/ml): 369, Standard deviation: 16.97, CV(%): 4.6• Sample 3: n=16, Mean(pg/ml): 621, Standard deviation: 23.6, CV(%): 3.8,• Sample 1: n=24, Mean(pg/ml): 102, Standard deviation: 8.26, CV(%): 8.1• Sample 2: n=24, Mean(pg/ml): 376, Standard deviation: 27.82, CV(%): 7.4• Sample 3: n=24, Mean(pg/ml): 618, Standard deviation: 42.02, CV(%): 6.8

Restrictions: For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Human HBEGF PicoKine ELISA Kit standard curve