10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

HB-EGF

Catalog # PVGS1135

Product Information

Primary Accession	Q99075
Species	Human
Sequence	Asp63-Leu148
Purity	> 97% as analyzed by SDS-PAGE > 97% as analyzed by HPLC
Endotoxin Level	
Biological Activity	Fully biologically active when compared to standard. The ED_{50} as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 1.0 ng/ml, corresponding to a specific activity of > 1.0×10^6 IU/mg.
Expression System	E. coli
Theoretical Molecular Weight	9.7 kDa
Formulation	Lyophilized from a 0.2 □m filtered solution in 20 mM PB, pH 7.4, 130 mM NaCl.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	1839
Other Names	Proheparin-binding EGF-like growth factor, Heparin-binding EGF-like growth factor, HB-EGF, HBEGF, Diphtheria toxin receptor, DT-R, HBEGF, DTR, DTS, HEGFL
Target Background	Proheparin-binding EGF-like growth factor (HB-EGF), also known as DTR, DTS and HEGFL, is a member of the EGF family of mitogens. It is expressed in macrophages, monocytes, endothelial cells and muscle cells. HB-EGF signals through the EGF receptor to stimulate the proliferation of smooth muscle cells, epithelial cells and keratinocytes. Compared to EGF, HB-EGF binds to the EGF receptor with a higher affinity and has been shown to bemore mitogenic, likely due to its ability to bind to heparin and heparin sulfate proteoglycans. HB-EGF has also been reported to act as a diphtheria toxin receptor,

mediating endocytosis of the bound toxin. Heparin-binding EGF-like growth factor has been shown to interact with NRD1, Zinc finger and BTB domain-containing protein 16 and BAG1.

Protein Information

Name	HBEGF
Synonyms	DTR, DTS, HEGFL
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.
Cellular Location	[Heparin-binding EGF-like growth factor]: Secreted, extracellular space. Note=Mature HB-EGF is released into the extracellular space and probably binds to a receptor

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.