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

HB-EGF
Catalog # PVGS1483

Specification

HB-EGF - Product Information

Primary Accession Q99075
Species
Human

Sequence
Asp63-Leu148

Purity
> 95% as analyzed by SDS-PAGE

Endotoxin Level
< 0.2 EU/ µg of protein by gel clotting method

Biological Activity
ED₅₀ < 0.75 ng/ml, measured in a cell proliferation assay using 3T3 cells.

Expression System
E. coli

Theoretical Molecular Weight
9.7 kDa

Formulation **Lyophilized after extensive dialysis against PBS.**

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 ddH_2O or PBS up to 100 µg/ml.

Storage & Stability
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

HB-EGF - 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.

HB-EGF - 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

HB-EGF - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HB-EGF - Images