

GFH180AF Recombinant Human HB-EGF (Animal-Free)

Description

Heparin-Binding Epidermal Growth Factor-like growth factor (HB-EGF) is a member of the Epidermal Growth Factor (EGF) family and is expressed by monocytes and macrophages. HB-EGF is the predominant growth factor involved in epithelialization during wound healing. HB-EGF signals through the receptor tyrosine kinase ErbB2 to maintain adult heart homeostasis and promotes cardiac valve development through binding in high affinity to the epidermal growth factor receptor (EGFR). HB-EGF binds the the ErbB4 receptor tyrosine kinase to mediate implantation of the human blastocyst. HB-EGF also functions as a potent mitogen for fibroblasts and smooth muscle cells.

This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

Length	87 aa
Molecular Weight	9.9 kDa
Source	E. coli
Accession Number	Q99075
Purity	≥95% determined by reducing and non-reducing SDS-PAGE

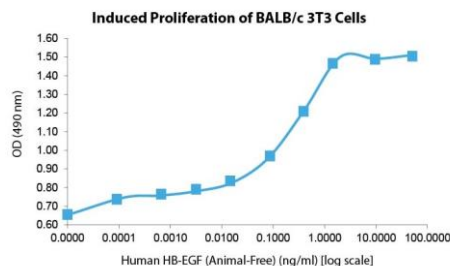
Specifications

Alternative Names	Heparin-Binding Epidermal Growth Factor-like growth factor, HBEGF, diphtheria toxin receptor, DT-R
Biological Activity	Human HB-EGF (Animal-Free) is fully biologically active when compared to standard. The activity is determined by a proliferation assay using BALB/c 3T3 cells and it is typically less than 1 ng/ml. This corresponds to an expected specific activity of 1.0×10^6 units/mg.
Endotoxin Level	≤1.00 EU/μg as measured by kinetic LAL
Formulation	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 10 mM sodium phosphate, pH 7.5
AA Sequence	MDLQEADLDL LRVTLSSKPQ ALATPNKEEH GKRKKKGKGL GKKRDPCLRK YKDFCIHGEC KYVKELRAPS CICHPGYHGE RCHGLSL

Preparation and Storage

Reconstitution	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/ml, which can be further diluted into other aqueous solutions.
Stability and Storage	12 months from date of receipt when stored at -20°C to -80°C as supplied. 1 month when stored at 4°C after reconstituting as directed. 3 months when stored at -20°C to -80°C after reconstituting as directed.

Data



Induced proliferation of BALB/c 3T3 cells assay for Human HB-EGF. Cell proliferation was measured to calculate the ED50, which is as expected less than 1 ng/ml.