

Rev03
Update: Dec,14,2021

DATASHEET

HB-EGF, Human

Cat. No.: Z02938

Product Introduction

Species	Human
Protein Construction	HB-EGF (Asp63-Leu148) Accession # Q99075
Purity	> 97% as analyzed by SDS-PAGE > 97% as analyzed by HPLC
Endotoxin Level	< 1 EU/ μ g of protein by LAL method
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 \times 10 ⁶ IU/mg.
Expression System	E. coli
Theoretical Molecular Weight	9.7 kDa
Apparent Molecular Weight	12~14 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized from a 0.2 μ 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.

Background

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 be more 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.

Synonyms : HEGFL; Heparin Binding EGF-like growth factor; HBEGF; Diphtheria toxin receptor; DTR

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