

## Overview

<b>Synonyms</b>	Heparin Binding EGF-like growth factor, HBEGF, Diphtheria toxin receptor, DTR
<b>Description</b>	Heparin-binding EGF-like growth factor (HB-EGF) is a member of the EGF family of proteins. HB-EGF-like growth factor is synthesized as a membrane-anchored mitogenic and chemotactic glycoprotein. An epidermal growth factor produced by monocytes and macrophages, due to an affinity for heparin is termed HB-EGF. It has been shown to play a role in wound healing, cardiac hypertrophy and heart development and function. The transmembrane form of HB-EGF is the unique receptor for diphtheria toxin and functions in juxtacrine signaling in cells. Both forms of HB-EGF participate in normal physiological processes and in pathological processes including tumor progression and metastasis, organ hyperplasia, and atherosclerotic disease. HB-EGF can bind two locations on cell surfaces, heparan sulfate proteoglycans and EGF-receptor effecting cell to cell interactions.
<b>Species</b>	Mouse
<b>Source</b>	<i>E. coli</i>
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 1 ng/ml, corresponding to a specific activity of > 1.0 × 10 <sup>6</sup> IU/mg.
<b>Sequence</b>	DLEGTDLNLF KVAFSSKPGQ LATPSKERNG KKKKKGKGLG KKRDPCLRKY KDYCIHGECR YLQEFRTSPC KCLPGYHGHR CHGLTL

## Properties

<b>Measured Molecular Weight</b>	Approximately 9.8 kDa, a single non-glycosylated polypeptide chain containing 86 amino acids.
<b>Purity</b>	> 97 % by SDS-PAGE and HPLC analyses.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 10 mM PB, 500 mM NaCl, pH7.4.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at d -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Endotoxin Level</b>	Less than 1 EU/µg of rMuHB-EGF as determined by LAL method.
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Storage</b>	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. <b>Avoid repeated freeze/thaw cycles.</b>

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