

Overview

Synonyms	Heparin Binding EGF-like growth factor, HBEGF, Diphtheria toxin receptor, DTR
Description	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. Recombinant Human HB-EGF produced in <i>E. coli</i> cells is a polypeptide chain containing 86 amino acids. A fully biologically active molecule, rhHB-EGF has a molecular mass of 14 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.
Accession No	Q99075
Source	<i>E. coli</i>
Biological Activity	ED ₅₀ < 0.75ng/ml, measured in a cell proliferation assay using 3T3 cells.
Sequence	Asp ⁶³ -Leu ¹⁴⁸ (Accession #:Q99075)

Properties

Measured Molecular Weight	14 kDa, observed by reducing SDS-PAGE.
Purity	> 95% as analyzed by SDS-PAGE.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 µg/ml.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant Human Proheparin-binding EGF-like Growth Factor (HB-EGF), remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, human HB-EGF should be stable up to 1 week at 4°C or up to 3 months at -20°C.
Note	For research use only

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