

DATASHEET
Version 20181206**HB-EGF, Human****Cat. No.:** Z03291-1**Size:** 1.0 mg**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 *E. coli* 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 at GenScript.

Source: *E. coli***Biological Activity:** ED₅₀ < 0.75ng/ml, measured in a cell proliferation assay using 3T3 cells.**Molecular Weight:** 14 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH₂O or PBS at 100 µg/ml.**Purity:** > 95% as analyzed by SDS-PAGE.**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.