

## Recombinant Mouse Heparin Binding EGF-like Growth Factor (rm HB-EGF)

**Synonyms:** DTR, Diphtheria Toxin Receptor (DTR), Proheparin-Binding Epidermal Growth Factor-like Growth Factor.

**Introduction:** HB-EGF is an EGF related growth factor which signals via the EGF receptor and stimulates the proliferation of SMC (smooth muscle cells), fibroblasts, epithelial cells and keratinocytes. HB-EGF is expressed in various cell types and tissues, including vascular endothelial cells and SMC, macrophages, skeletal muscle, keratinocytes and particular tumor cells. HB-EGF's ability to explicitly bind heparin and heparin sulfate proteoglycans is dissimilar from other EGF-like molecules and might be related to the enhanced mitogenic activity, relative to EGF that HB-EGF exerts on smooth muscle cells.

**Description:** Recombinant mouse HB-EGF produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 86 amino acids (63-148 a.a.) and having a molecular mass of 9.8 kDa. The HB-EGF is purified by proprietary chromatographic techniques..

**Source:** *Escherichia Coli*.

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from a 0.2µm filtered solution in PBS, pH 7.4. The sample size of 1µg contains Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rm HB-EGF in sterile H<sub>2</sub>O not less than 100 µg/ml which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rm HB-EGF although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rm HB-EGF should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity:** Greater than 97.0% as determined by RP-HPLC and by SDS-PAGE

**Amino acid Sequence:** DLEGTDLNLF KVAFSSKPQG LATPSKERNG KKKKKGKGLG KKRDPCLRKY KDYCIHGECR YLQEFRTDPC KCLPGYHGHR CHGLTL.

**Biological Activity:** The ED50 was determined by a cell proliferation assay using balb/c 3T3 cells is < 1.0 ng/ml, corresponding to a specific activity of > 1.0×10<sup>6</sup> units/mg.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	10 µg	Cat.N°	12344983
<i>medium</i>	50 µg	Cat.N°	12344985

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Spreestraße 2; 26169 Friesoythe; Germany  
 phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, [info@immunotools.com](mailto:info@immunotools.com)  
[www.immunotools.com](http://www.immunotools.com)