

# Recombinant Rat HBEGF

Catalog # FL019

## Product Specifications

|                     |   |
|---------------------|---|
| Appearance          | Sterile filtered White lyophilized (freeze-dried) powder.   |
| Purity              | > 97% by SDS-PAGE or HPLC.  |
| Endotoxin           | < 0.01 EU/ $\mu$ g of rRtHB-EGF protein as determined by LAL method.  |
| Expression System   | Expressed in E. coli.   |
| Species             | Rat   |
| Tag                 | Tag free.   |
| Activity            | Fully biologically active when compared to standard. The ED50 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 $\geq 1.0 \times 10^6$ U/mg.  |
| Formulation         | Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in 10 mM PB, with 500 mM NaCl, 5% (v/v) Trehalose, pH 7.4.  |
| Reconstitution      | Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a 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 $\leq -20^\circ\text{C}$ . Further dilutions should be made in appropriate buffered solutions. |
| Accession #         | Q06175 Asp63-Leu148   |
| Amino acid sequence | DLEGTDLDFKVAFFSSKPQALATPGKEKNGKKKRKGKGLGKKRDPCLKKYKDYCIHGECRYLKELRIPSCHCLPGYHGQRCHGLTL  |
| Molecular weight    | Approximately 9.7 kDa, a single non-glycosylated polypeptide chain containing 86 amino acids.   |
| Synonyms            | HBEGF, DT-R   |
| Stability & Storage | Shipped on wet ice. For long term storage, the product should be stored $\leq -20^\circ\text{C}$ . Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, $-20$ to $-70^\circ\text{C}$ as supplied. 1 month, 2 to $8^\circ\text{C}$ under sterile conditions after reconstitution. 3 months, $-20$ to $-70^\circ\text{C}$ under sterile conditions after reconstitution.  |
| Precautions         | Recombinant Rat HBEGF is for research use only and not for use in diagnostic or therapeutic procedures.   |

## Background

Heparin-binding epidermal growth factor (HB-EGF) -like growth factor (EGF) is found in cerebral neurons. Its expression is increased after hypoxic or ischemic injury, which also stimulates neurogenesis. HB-EGF has been implicated as a participant in a variety of normal physiological processes such as blastocyst implantation, wound healing, and in pathological processes such as tumor growth, SMC hyperplasia and atherosclerosis. HB-EGF is an 87 amino acid mitogenic and chemotactic glycoprotein containing an EGF-like domain with six conserved cysteine residues. Rat HB-EGF shares about 76% a.a. sequence identity with human HB-EGF. Recombinant rat HB-EGF is a 9.7kDa protein containing 86 amino acid residues.

